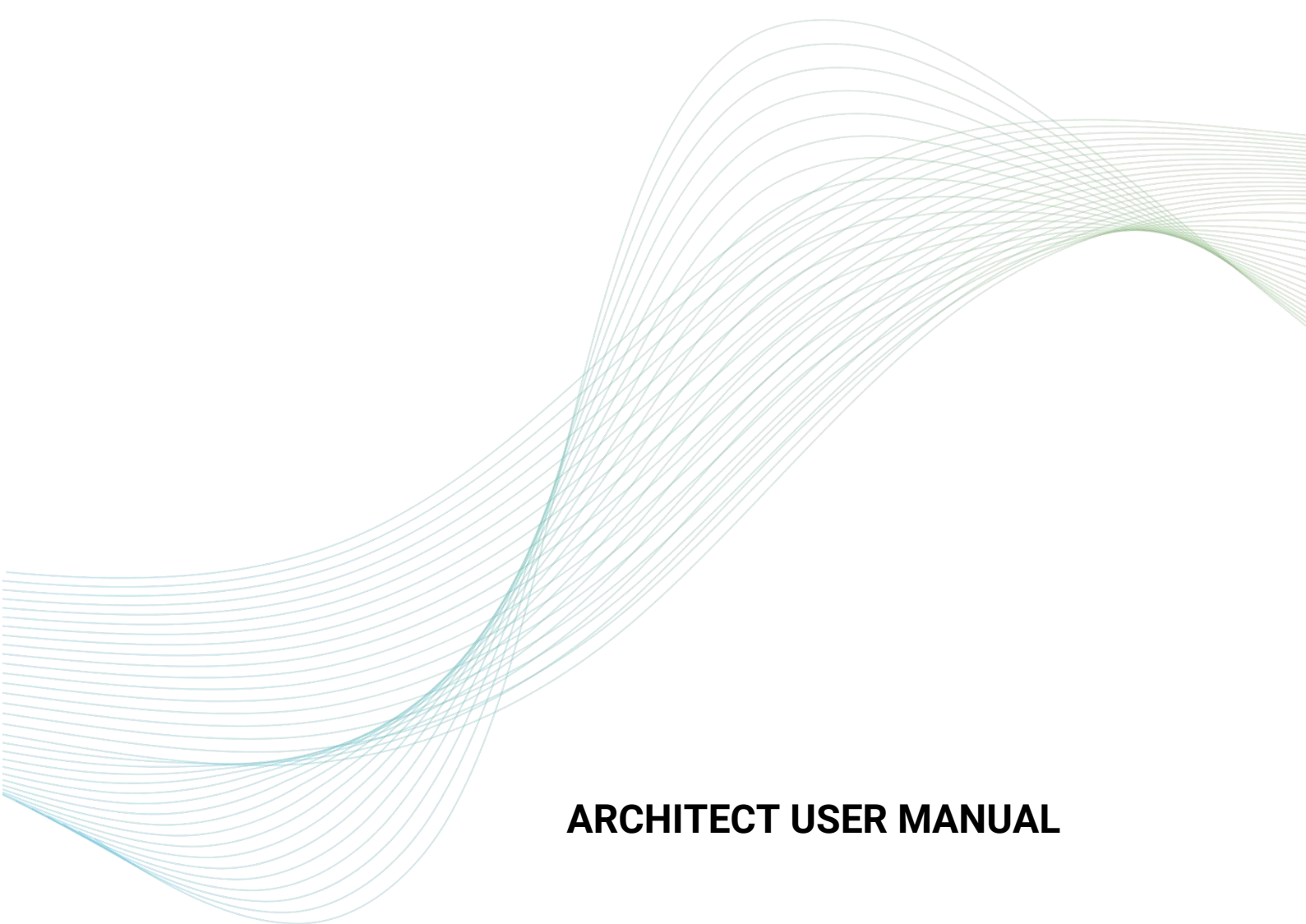


A series of thin, light green wavy lines that flow across the middle of the page, creating a sense of movement and depth. They start from the left edge and curve towards the right, with some lines overlapping others.

ARCHITECT USER MANUAL

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1 Architect User Manual

1.1 Overview

The Architect solution provides all the necessary functionality to support business enterprises in the optimization and automation of business processes. The Architect platform helps customers to create powerful applications, increase productivity, reduce risk and development time.

The Architect application consists of the following components and functional parts:

- **Security and User Access:** High-functioning security module to ensure professional grade protection, including unique security groups to filter access by similar job functions, User Access restrictions based on field level security to create sub-grouping, custom timeout variances based on user profile, multi-factor authentication login items dynamically, non-secure items via guest login features.
- **Branding Customization:** Custom logos and color scheme, various menu and icons styles.
- **Content Development:** Visual CRUD screens and reports with the Architect, working prototypes, dashboards, and applications with various group-level permissions; all without coding. Various chart types to build dashboards and KPI screens.
- **Document Management:** Document family entries to organize documents, document groups to control security to family content, annotations to PDF documents along with various security roles for retrieval, presentation, and management.
- **Process Workflow Management:** Workflows with the built-in GUI drag-and-drop tool and visual editor, incorporated notifications to SMS, Chat, Email as supplement to task traverse of workflow, assignment of custom extension functions across the routing life of the task.
- **Alias Framework:** to manage data stored in a database and make the data immediately available for reference.
- **Database Management:** Support of Oracle, MSSQL, Postgres, MySQL, and SQLite databases. Tools to manage database tables, design data relationships to establish table linking.
- **File Import:** Database tables creation from uploaded excel spreadsheets.
- **Notifications:** Various notification types (SMS/Email) to reach your customers, custom notification templates to use within functions for Email, SMS.
- **Audit Information:** Audit and Logging levels setup to capture activity.
- **Extensions Functions:** Adding server-side extension functions in your choice of five programming languages (JavaScript, Python, PHP, C#, and C++) to create enterprise-class applications.
- **Custom Queries:** Custom queries to attach to dynamic screen elements and report generation.

- **Migration Tool:** to automatically migrate between database architectures and transfer data into various databases.
- **Job Management:** Job Scheduler to allow functions, reports, and screens to be called on a regular basis.
- **Administration:** Management screens to monitor server resource and restarts. Alias reload functionality to manage data interpretation. Record locking monitoring and removal.
- **Reporting:** Custom report templates generation.
- **Internationalization and Localization:** Support of fully-internationalized content.

1.2 Documentation

This is the user documentation for the Architect application. As you see, the documentation structure mirrors the menu structure of the application:

- [Homepage](#)
- [Account Settings](#)
 - [Groups](#)
 - [Users](#)
 - [Tenant](#)
 - [Logo](#)
 - [Security Filters](#)
- [Screen Configurations](#)
 - [Menu](#)
 - [Menu Tooltip](#)
 - [Screens](#)
 - [Screen Configuration Overview](#)
 - [Screen Builder](#)
 - [Screen Master Data Settings](#)
 - [Header and Section Configuration](#)
 - [Section Type: Edit](#)
 - [Image Configuration](#)
 - [Button Configuration](#)
 - [Label Configuration](#)
 - [Field Configuration](#)
 - [Field Types and Layouts](#)
 - [Section Type: Table Type](#)
 - [Section Type: Table from API](#)
 - [Section Type: Chart Type](#)
 - [Section Type: Document Type](#)
 - [Login Screen Configuration](#)
 - [Search Screen Configuration](#)
 - [Active/Passive Screen Configuration](#)

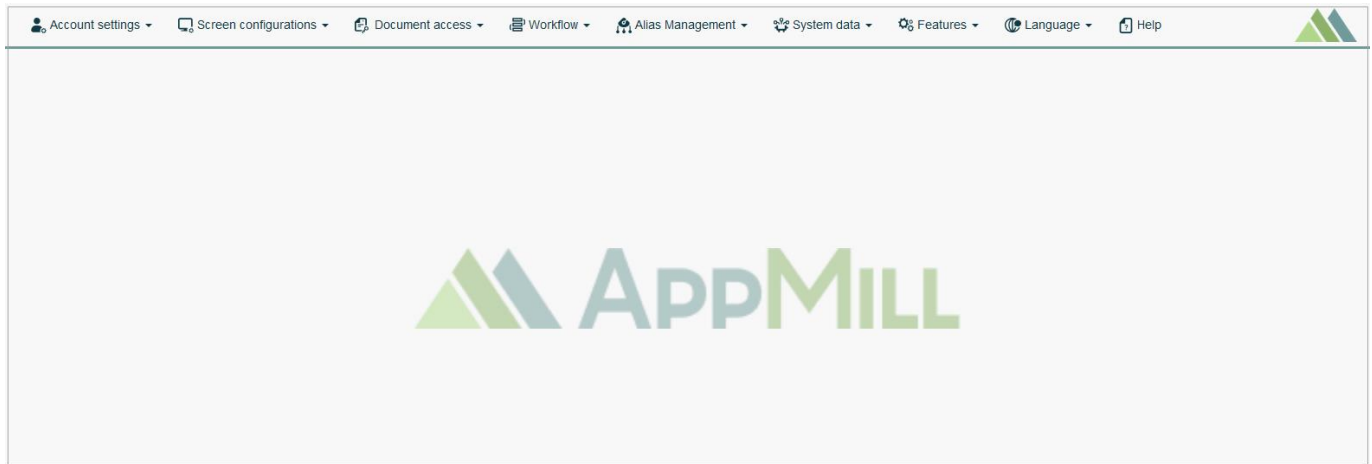
- Group Screens
- Document Access
 - Document Devices
 - Document Family
 - Document Groups
- Workflow
 - Workflow Builder
 - Tasks
 - Task History
 - Task Notes
- Alias Management
 - Alias Management Overview
 - Database Field
 - Arrays
 - Custom Generated Fields
 - Custom Multi
 - Alias Dependency
 - Alias Relationship
 - Alias Include/Exclude
- System Data
 - Alias View
 - Swap Tables
 - Activity Audit
 - Architect Screen Access
 - Auto Fill
 - Error Messages Management
 - Lists
 - Extension Functions
 - Client Verification
 - TPC Custom Endpoints
 - Servers
 - Notifications
 - Internationalization
- Features
 - Custom Query
 - Migration Tool
 - DB Schema Comparison
 - Screen Transfer
 - Screen Backup
 - Screen Rollback
 - SQL Query Window
 - Management
 - Import Files
 - Job Scheduler
 - Scheduler Builder

- [Tables](#)
 - [Simple Table Maintenance](#)
 - [Auto Sequence](#)
 - [Advanced Audit](#)
 - [Audit History](#)
 - [Locked Records](#)
 - [Report Builder](#)
 - [Column Encryption](#)
- [Language](#)
- [Help](#)
- [Glossary](#)

2 Homepage

2.1 Overview

The Architect homepage is the main entry point to the application when a user starts a session. The Architect homepage looks as follows:



The page structure remains always the same and comprises the following sections:

- **Application Menu** - the menu bar at the top of the page. It provides access to main Architect functionalities. Find out more about each menu item by following the corresponding link:
 - [Account Settings](#) - to manage user-related data.
 - [Screen Configurations](#) - to manage menu, screens and fields displayed in the Render application.
 - [Document Access](#) - to manage the documents-related data.
 - [Workflow](#) - to build workflow for managing business processes.
 - [Alias Management](#) - to manage database tables data.
 - [System Data](#) - to access the audit information, extension functions, alias views, internationalization etc.
 - [Features](#) - to access the administrative parts of application, database migration tool, report builder, job manager and other features.
 - [Language](#) - to change the language of the application.
 - [Help](#) - to access the context-sensitive Help. Click the Help option to be redirected to the corresponding User Manual page. Use the User Manual sidebar to browse for any feature description you need.
- **Logo** - the point of AppMILL identification. Click the logo in the top right corner of the page to return to the homepage at any time.
- **Content** - the application page content displayed depending on the selected functionality.

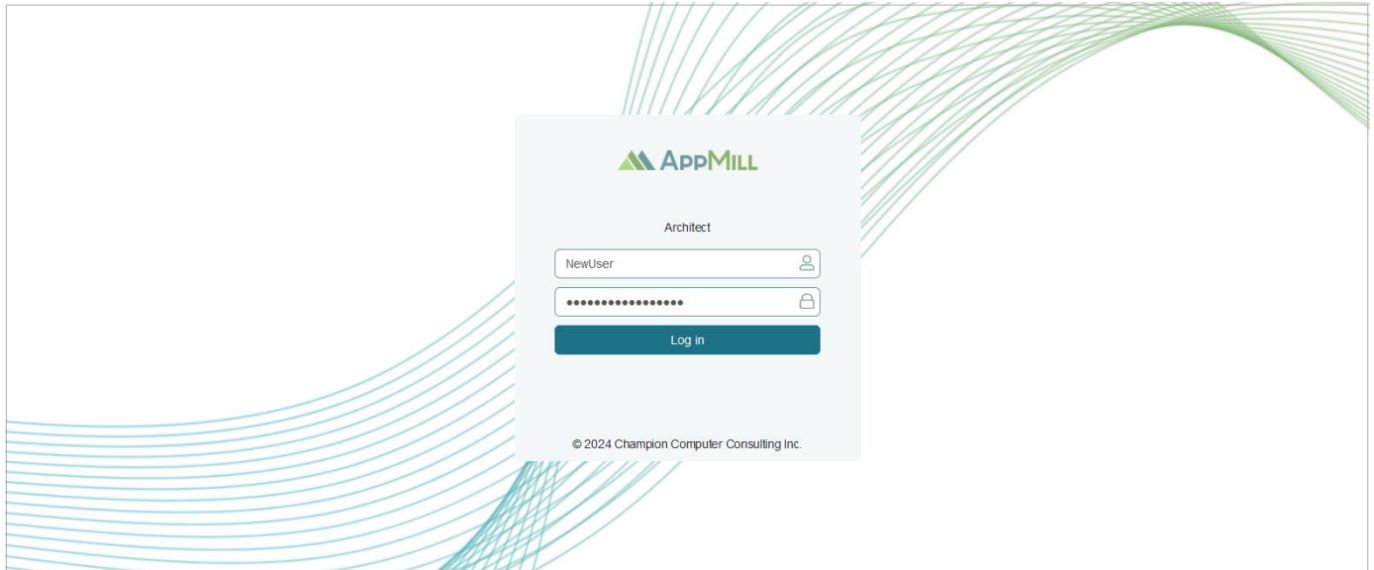
The main Architect application functions and the user manual structure are described on the [Architect User Manual](#) page.

2.2 Logout

To log out from the application, click the **Features > Log out**. You will be redirected to the Login page.

2.3 Login

On the Login page, enter **Username** and **Password** and click the **Log in** button to log back into the Architect application.



2.4 Glossary

To access the list of terms and their definitions included in the Architect User Manual, refer to the [Glossary](#) page. This can help users understand specific terminology used in the documentation. It provides clarity on the meanings of various terms and acronyms.

3 Account Settings

Account Settings are designed to manage the data related to Users such as Users' details, User groups, tenants, logos used in the application, security filters, etc. The Account Settings features provide the possibility to set up custom branding, user access restrictions etc.

For more details refer to the following pages:

- **Groups** - to have an overview of all User Groups and their attributes and manage them.
- **Users** - to have an overview of all Users existing in the system and manage their accounts.
- **Tenant** - to have an overview of all tenants and manage them.
- **Logo** - to upload, update the Logo used in the application.
- **Security Filters** - to manage the application and menu access methods and unique security filters based on the tenant, user type and user account.
- **OAuth Clients** - to manage the creation and administration of OAuth client records used to authenticate third-party (TPC) requests.

3.1 Groups

3.1.1 Access

Click **Account Settings > Groups** to manage user groups.

3.1.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Navigate](#)
- [Create Group](#)
- [Update Group](#)
- [Delete Group](#)

3.1.3 Overview

The User Groups functionality allows you to group users based on common responsibilities, tasks and other criteria. Based on the defined group, you can set up the start screen for a particular user group so that all users of the definite group can see the same application start page after their login into the Render application.

 The Admin Group gives you full control over all other user accounts. The Admin Group can be added automatically in case of selecting the Superuser option in the User account (Account Settings > Users). For more details, refer to the Create User section of the [Users](#) page of the User Manual.

3.1.4 Search

To have an overview of all user groups, to search for a group or filter search results, enter **Group name**, **Group description** and click the Enter key or on any screen place. The screen displays search results, if found.

Group name	Group description	
Standard_Group	CODIAC Standard Group	
Underwriting_Group	CODIAC Underwriting Group	
Agent_Group	CODIAC Agent Group	
Owner group	new group	
New_Group	New CODIAC Menu Description	
test	test	
JuneGroup	June Group Description	
NewGroup	testGroup	
CodiacGroup	codiac group	
DemoGroup	DemoGroup	

3.1.4.1 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

3.1.5 Create Group

Click the **Create** button on the Overview page to create a new User Group. This opens the page in creation mode.

Create group

GROUP NAME *
Standard_Group

START SCREEN
Main

GROUP DESCRIPTION *
CODIAC Standard Group

Back Submit

Fill in the following fields:

- **Group Name** – enter a group name. This field is required.
- **Start Screen** – select the screen from the drop-down list. The screen you select will be opened after the user belonging to this user group logs in to the Render application. For more details about the screens' configuration refer to the [Screen Configurations](#) page and its sub-pages of the User Manual.
- **Group Description** - enter a clear group description. This field is required.

3.1.6 Update Group

To update a User Group, click the Edit (pencil) icon for the selected group entry in the search results table. The Update Group page opens for editing:

The screenshot shows a web form titled "Update group - Agent_Group". It contains three input fields: "GROUP NAME" (text input with "Agent_Group"), "START SCREEN" (dropdown menu with "Main"), and "GROUP DESCRIPTION" (text area with "CODIAC Agent Group"). At the bottom right, there are two buttons: "Back" and "Submit".

After making the necessary changes, click the **Submit** button. To return to the Groups Overview page without saving the changes, click the **Back** link.

3.1.7 Delete Group

To delete a User Group, click the **Delete** icon on the Overview page for the selected group entry on the search result page. The confirmation pop-up appears, confirm or cancel your delete action.

3.2 Users

3.2.1 Access

Click **Account Settings > Users** to have an overview of all users' accounts existing in the system and manage them.

3.2.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Navigate](#)
- [Create User](#)
 - [Personal tab](#)
 - [Regional tab](#)
 - [Styles tab](#)
 - [Main Format](#)
 - [Menu](#)
 - [Body](#)
 - [Section for Login Screen](#)
 - [Section](#)
 - [Header](#)
 - [Search Field](#)
 - [Fields](#)
 - [Tab](#)
 - [Message Line](#)
 - [Chart Color](#)
- [Update User](#)
- [Copy User](#)
- [Delete User](#)

3.2.3 Overview

User Management provides an ability to create and manage Users' accounts in the system. This allows you to control the application and data access level for every user in the system.

The Users Overview page looks as follows:

Users

User name	Group area	Email	Tenant code	Account type	User type	Active account	Account name	
Admin	Standard_Group, NewGroup, Admin_Group	billneiderhiser@yahoo.com	1	UserType.Internal_User	U	Active	Codiac Admin Account	
uuuu	Standard_Group, Admin_Group	BBBB@fjf.kc	1	UserType.Internal_User	U	Active	Codiac User1 Account	
User2	Standard_Group, Agent_Group	USER2@CHAMPIONCONSULTANTS.COM	1	UserType.Internal_User	U	Active	Codiac User2 Account	
Andrey	Standard_Group, Admin_Group	USER1@CHAMPIONCONSULTANTS.COM	223	UserType.Internal_User	I	Active	Codiac Andrey Account	
hello	Agent_Group, Owner_group	hello@inbox.com	(not set)	UserType.Internal_User	U	Active	Name	
external	Owner group, Agent_Group	external@mail.com	(not set)	UserType.External_User	U	Active	Ex	
owner	Owner group, Admin_Group	owner@mail.com	(not set)	UserType.External_User	U	Active	Owner	
New User	Agent_Group, Standard_Group	kokoko@123.com	2	UserType.Internal_User	U	Active	CODIAC New User	
dev5	Agent_Group	dev5@dev5.dev5	(not set)	UserType.Unknown_User	(not set)	Active	dev5	
Denis	Standard_Group, Underwriting_Group, Agent_Group, Owner_group, New_Group	test@test.com	1	UserType.Internal_User	U	Active	xsicx updated	

« 1 2 3 4 5 6 7 8 9 10 »

Show All

Create

For every user, you can set up the data and time format based on the used locale. You can also specify the UI style and theme according to customer brand style or individual preferences. All settings will be applied across the Render application User Interface and will help you to create a feel of home in the application for every application user.

3.2.4 Search

The Overview or Search Results page can be used to view and manage the existing user accounts. To search for a user or filter the search results, use the following search filter fields:

- **User Name**
- **Group Area**
- **Email**
- **Tenant Code**
- **Account Type**
- **User Type**
- **Active Account**
- **Account Name**

After filling in the search filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching as well.

3.2.4.1 Navigate

Use the navigation bar at the bottom of the Search Result page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

3.2.5 Create User

Click the **Create** button at the bottom of the Search Result page to start a User creation process. This opens the Create User editor page on the **Personal** tab:

Create user

Personal

Regional

Styles

USER NAME *

John Smith

PASSWORD

.....

☐

63%

Strong

☒ FORCE CHANGE

☒ ACTIVE ACCOUNT

☒ SUPERUSER

☐ CAN PERFORM IMPERSONATION

☐ THIS ACCOUNT CAN BE IMPERSONATED ⓘ

Example: User1 - This account can be impersonated. User2 - Can perform impersonation. In the render, you can use the username "User2+++User1" and the password for the user User2. User2 will be logged in with all the settings of User1.

ACCOUNT TYPE *

Internal_User

TENANT CODE

1: test

USER TYPE

I: Internal user

FILTER 1: RSDNUMBER

param1,param2,...,paramN

FILTER 2: SECURITY FILTER 2

param1,param2,...,paramN

FILTER 3: SECURITY FILTER 3

param1,param2,...,paramN

LAST LOGIN

PRIMARY GROUP *

NewGroup

GROUP AREA ⓘ

Admin_Group, Agent_Group, NewGroup, New_Group, test

DOCUMENT GROUP

admin_import, document_policy_admin, test

PHONE *

+123456789

EMAIL *

test@test.com

ACCOUNT NAME *

JohnSmith

Back

Submit

3.2.5.1 Personal tab

Fill in the following fields:

- **User Name** – enter a user name. User name is a Login name, a string (sequence of characters) that uniquely identifies a User. Login name (or User name) can be the same as or related to the real name of User, or it can be completely arbitrary. This field is required.
- **Password** - enter a password for the login. It is used to determine that a user requesting access to a system is exactly the particular user registered in the system. A password is a sequence of characters without spaces known only to the User. Password must contain at least 8 characters, at least one upper case character and one numeric/digit character.
 - You can select the check box on the left of the Password input field to show the password and check that what you are entering is correct. Deselect the check box to hide the password.
 - There is an indicator of password complexity and system protection. It helps you to check how strong the password is.

 In the case of a Guest User, the login and password are not checked when logging in to the Render application. A Guest User can use the Guest Login option on the Render Login page and access only the predefined screens.

- **Force Change** - select the check box to force the User to change password for the next login. When the Force Change is enabled, the access to all functionality except the Change Password page and Logout option is blocked when entering the Render application.

After the password is changed, a Logout countdown timer will appear for the user to log in using the new password.

- **Active Account** – select the check box to set the user account as active. Otherwise, it will be indicated as inactive. Inactive accounts are not allowed to login into the Render application.
- **Superuser** – select the check box to define the user as a super user. The user with the superuser rights will be able to remove any user without the superuser rights. Also, the superuser can assign or remove a superuser assignment.



The selection of the Superuser option controls whether the User is added to the Admin Group.

If you select the Superuser option, the Admin Group will be automatically added to the Group Area field. If you deselect the Superuser option, the Admin Group will also be automatically deleted from the Group Area field.

But it does not work the other way: the selection/deselection of the Admin Group does not activate/deactivate the Superuser option.

- **Can Perform Impersonation** - select the check box to specify that this user can perform the impersonation. That means that the user can log in to other user's account (that is allowed to be impersonated) in the Render application to perform required operations. This will be a special mode login. In the Render, a special indicator will be displayed informing that the user is logged in the application in the Impersonation mode. In order to log in to other user's account, use a special combination as Login Name: <Login Name of other user>+++<Your Login Name>

- **This account can be impersonated** - select the check box to specify that this account can be

 Let's have a look at an example:

User1: This account can be impersonated. User2: Can perform impersonation.

In the Render, User2 can use the username "User2+++User1" and the password for the user User2. User2 will be logged in with all the settings of User1.

logged in by another user.

- **Account Type** – select an Account Type from the drop-down list.
- **Tenant Code** - enter a Tenant Code (Tenant ID). For more information about Tenants refer to the [Tenant](#) page of the User Manual.
- **User Type** - select a user type from the drop-down list. The user types can be created and managed in the Lists editor. For more information about Lists refer to the [Lists](#) page (System Data > Lists) the User Manual.

 Please note that it is not allowed to impersonate a user with the Superuser or Admin_Group privileges.

- **Filters** - in the Filter 1, Filter 2, Filter 3 fields, you can define the values that will be saved into the filters configured on the Security Filters page (Account Settings > Security Filters). To get more information about Security Filters, refer to the [Security Filters](#) page of the User Manual. If the filters fields are empty, that means that the filters are not used. If the filters contain a value, that means that the security filter will limit the results to only those that match the filter values here (e.g. for SQL, it could be something similar to <query without filter>+"IN ['param1', 'param2']"). Several commas separated values are possible, the placeholder contains a hint. Note that multiple values in the filter fields should be separated with "," characters without any spaces. For example, "param1,param2,param3".
- **Last Login** - indicates the date and time of the last login. The value is available in the Update User mode.
- **Primary Group** - select a user group from the drop-down list to set it as primary. The screen of this group will be shown as the start screen in the Render application. Only one value can be selected as a Primary Group. For more information on how to define the start screen for the user group see the Create Group section on the [Groups](#) page (Account Settings > Groups) of the User Manual. This field is required.
- **Group Area** - select the groups from the drop-down list. The selected groups define the screens that will be available for the user in the Render application. Clicking on the **Group Area** field will open a drop-down list with groups. Here, users can search for a specific group by typing a group name in the search area at the top of the drop-down list. Also, users can select multiple groups in the drop-down list. The selected groups will be marked with the check mark. For more information about group screens refer to the [Group Screens](#) page (Screen Configurations > Group Screens). This field is required.

i The group selected in the Primary Group field, will automatically be added to the Group Area field as well.

If the user main group is Admin_Group or the user is a Superuser, then the Admin_Group value will be added to the Group Area field automatically when saving. Even if the Admin_Group is not selected in the Group Area field.

- **Admin Group Rights** - this field is shown only in case the Admin Group is selected in the Group Area field. In the Admin Group Rights drop-down list, the rules created on the Architect Screen Access page (System Data > Architect Screen Access) are displayed. Here, the screen access rule can be selected and assigned to the users. For more details about the screen access rules, refer to the Create Architect Screen Access Rule section on the [Architect Screen Access](#) page of the User Manual.
- **Document Group** - define the group of documents that will be available for the user. Clicking on the **Document Group** field will open a drop-down list with document groups. Here, users can search for a specific document group by typing a document group name in the search area at the top of the drop-down list. Also, users can select multiple document groups in the drop-down list. The selected document groups will be marked with the check mark to the right from the document group name. For more information about the Document Groups refer to the Create Document Group section on the [Document Groups](#) page (Document Access > Document Groups) of the User Manual.
- **Phone** - enter a contact phone number of the user.
- **Email** - enter an email address. It will be used for notifications.
- **Account Name** - enter a user name. This name will be displayed in the user menu in the Render application.

3.2.5.2 Regional tab

On the Regional tab you can set up the parameters and settings according to the user's locale.

Create user

Personal Regional Styles

Language

Language
en-us: English (United States) ▼

Currency

Currency format *
C1: ##,###,### ▼

Currency type *
US Dollar (Same day): US\$ ▼

Date/Time

Timezone *
U.S. Mountain Standard Time: (GMT-07:00) A ▼

Time format *
DEFAULT_VALUE: hh:mm:ss ▼

Date format *
D10: dd-MM-yyyy ▼

Back Submit

This tab consists of 3 sections where you can enter the following information:

- **Language:**
 - **Language** - select the language that will be used in the application.
When you select the language, ensure that the translations for this language exist in the system.

 In case there are no translations for the selected language, the default language will be used. Currently, the default language is English.

 Please note that the selected language will not be applied to the email notifications. They are configured separately.

- **Currency:**
 - **Currency Format** - select the format, in which the currency will be displayed in the Render application.
 - **Currency Type** - select the currency type from the drop-down list.
- **Date/Time:**
 - **Timezone** - select the time zone to apply user's local time.
In the Render application, the Timezone parameter will be applied to fields with Date and Date/Time format type. The time in these fields will be recalculated based on the user's timezone after saving the record. I.e., each user will see the time for their timezone, and the database will store the time in GMT.
The system supports two timezone standards:
 - **static** - the time difference is always the same, regardless of winter or summer time. For this type, the time should have the following form: (GMT< + or - ><number_of_hours >:00). For example, (GMT-05:00:00) Eastern Time (US and Canada).
 - **dynamic (php standard)** - the change to summer and winter time is automatic, depending on the date. For example, the time description can be as follows: America/New_York.
For example, there are the following records stored in the database: "2024-01-22 17:55:12" and "2024-04-22 17:55:12".
For the user that uses the "(GMT-05:00:00) Eastern Time (US and Canada)" static time standard, the time will be displayed as follows: "22.01.2024 12:55:12" and "22.04.2024 12:55:12".
For the user that uses the "America/New_York" dynamic time standard, the time will be displayed as follows: "22.01.2024 12:55:12" and "22.04.2024 13:55:12".
 - **Time Format** - select the format, in which the time will be displayed in the Render application.

- **Date Format** - select the format, in which the date will be displayed in the Render application.

 The values of Language, Currency and Date/Time are available for the selection from the drop-down lists.

You can manage (create, update, delete) Language, Currency and Date/Time in the Lists functionality (System Data > Lists). For more information on how to manage the above-mentioned parameters, refer to the Create List section on the [Lists](#) page of the User Manual.

3.2.5.3 Styles tab

On the Styles tab, you can specify how the UI “look and feel” will look like in the Render application.

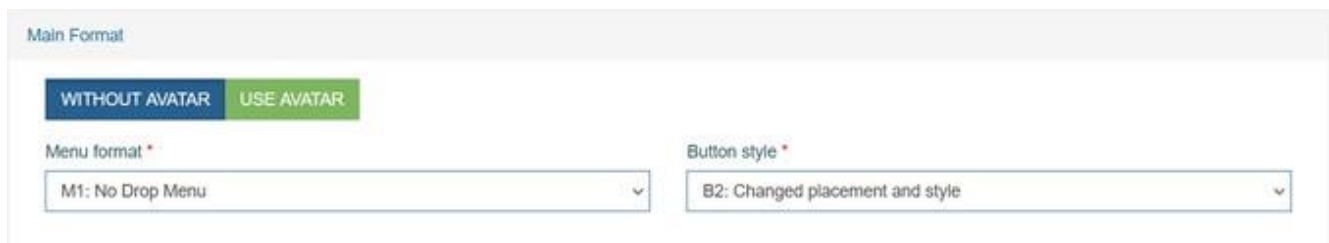
You can customize the application UI to apply the branding and styles according to your requirements and preferences.

You can add your logos, avatar, customize colors, font size for menu, actions, buttons, sections and other UI properties that will help you to create your custom style and feel of home in the Render application.

 The common Styles are set up in the Tenant settings as well. But they will be overridden by the user-specific parameters.

Please specify the following parameters to customize the look and feel for the user’s UI:

Main Format



- Avatar:
 - Note that the Avatar can be used only in the **M5: Menu with left navigation bar** menu format.
 - **Without Avatar**
 - **Use Avatar**
- Menu format
 - **M1: No Drop Menu** – all menu items and sub-items are displayed as equals sections at the top of the page, except the **My Account** section. The **My Account** section will be displayed as a drop-down menu with sub-items.
 - **M2: One Level Drop Menu** – all menu items are displayed as drop-down menu with one level of sub-items at the top of the page.
 - **M3: Two Level Drop Menu** – all menu items are displayed as drop-down menu with two level of sub-items at the top of the page.
 - **M4: One level main menu, two level tab menu** – all menu items are displayed as drop-down menu with one main sub-item and two levels of sub-items at the top of the page.
 - **M5: Menu with left navigation bar** – all menu items are displayed as the list with drop-down menu on the left of the page, except the **My Account** section. The **My Account**

section will be placed at the top of the menu list. In this section the Username will appear.

The sub-items such as Settings, Change Password and Logout will be shown as the , ,  icons, correspondingly.

- **M6: No Menu** – all menu items will not be displayed on the screen in the Render.
- **M7: No Menu – keep account button** – all menu items will be disabled on the screen in the Render, except the **My Account** section. The **My Account** section will be displayed as its sub-items such as Settings, Change Password and Logout and will be placed at the top left corner of the page.



At the moment, the functionality for **M3: Two Level Drop Menu** and **M4: One level main menu, two level tab menu** is not released. In the Render application, these menu formats will be displayed as the **M2: One Level Drop Menu** menu format.

- Button style

Menu

Menu

USE STYLES

USE IMAGES

Menu background color



Menu text color



#000000

Highlight Color selection



#ffe599

Use background linear gradient

Use gradient

Gradient rotation

30

First color



#d9ead3

Second color



#b6d7a8

- Menu background color
- Menu text color
- Highlight Color selection
- Use background linear gradient
- Gradient rotation
- First color
- Second color

Body

Body

USE STYLES

USE IMAGES

Border size

1px

Border color

#ddd

Background color

#ffffff

Link color

#0000ff

Text color

#000

Info color

#8a6d3b

Use background linear gradient

Without gradient

Gradient rotation

First color

Second color

- Border size
- Border color
- Background color
- Link color
- Text color
- Info color
- Use background linear gradient
- Gradient rotation
- First color
- Second color

Section for Login Screen

Section for Login Screen

Section Border Size

0px

Border color

Section header color

Section header background

USE STYLES

USE IMAGES

Section background color

Use background linear gradient

Without gradient

Gradient rotation

First color

Second color

- Section Border size
- Border color

- Section header color
- Section header background
- Section background color
- Use background linear gradient
- Gradient rotation
- First color
- Second color

Section

Section

Section Border Size

0px

Border color

Section header color

Section header background

Section background color

Use background linear gradient

Without gradient

Gradient rotation

First color

Second color

- Section Border size
- Border color
- Section header color
- Section header background
- Section background color
- Use background linear gradient
- Gradient rotation
- First color
- Second color

Header

Header

Header border size

0px

Header color

Header border color

- Header border size
- Header color
- Header border color

Search Field

Search Field

Search border color



Highlight of selected search



- Search border color
- Highlight of selected search

Fields

Fields

Field borders color



Highlight of selected field



- Field borders color
- Highlight of selected search

Tab

Tab

Tab selected color



Tab unselected color



- Tab selected color
- Tab unselected color

Message Line

Message line

Message line color

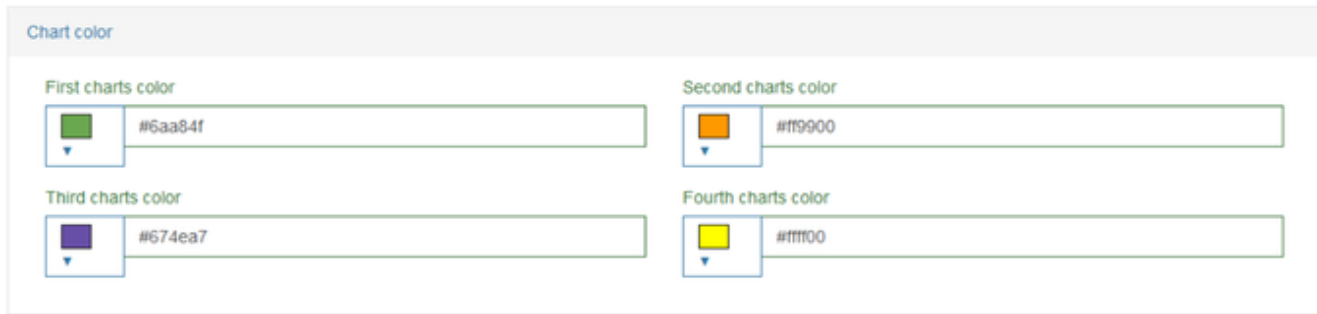


Message line background



- Message line color
- Message line background

Chart Color



The screenshot shows a configuration panel titled "Chart color". It contains four color selection fields arranged in a 2x2 grid. Each field has a small color swatch icon, a text input box with a hex color code, and a dropdown arrow. The fields are labeled "First charts color", "Second charts color", "Third charts color", and "Fourth charts color".

Field Label	Color Swatch	Hex Code
First charts color	Green	#6aa84f
Second charts color	Orange	#f19900
Third charts color	Purple	#674ea7
Fourth charts color	Yellow	#ffff00

- First charts color
- Second charts color
- Third charts color
- Fourth charts color

3.2.6 Update User

To edit a User, click the Edit (pencil) icon for the selected User entry in the search results table. The Update User - <User name> page opens for editing.

After making the necessary changes, click the **Submit** button. To return to the Users search page, click the **Back** link.

3.2.7 Copy User

To make a copy of existing user account details and create a new User based on the copied fields, click the **Copy User** icon for the selected User entry in the search results table. The Create User page is opened, all fields except User Name, Password and Account Name are copied from the selected user.

Edit the data, enter the missing information and click the **Submit** button to save the changes.

3.2.8 Delete User

To delete a User from the list of users and from the system, click the **Delete** icon on the Overview page for the selected User. The confirmation pop-up will appear where you can confirm or cancel the action.

3.3 Tenant

3.3.1 Access

Click **Account Settings > Tenant** to access the functionality for managing tenants.

3.3.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Navigate](#)
- [Create Tenant](#)
 - [Personal tab](#)
 - [Regional tab](#)
 - [Styles tab](#)
 - [Email Server tab](#)
 - [SMS Server tab](#)
 - [LDAP Setting tab](#)
 - [SAML Setting tab](#)
 - [File Setting tab](#)
- [Update Tenant](#)
- [Delete Tenant](#)

3.3.3 Overview

The Architect functionality provides the possibility to manage tenants, departments, divisions in the organization so that the whole business structure can be completely included in all business processes set up for the Render. Based on the tenants and their location, you can specify different branding styles, regional settings, email and SMS servers, SAML and SSO, etc. The unique security filters are defined taking the tenant code into account to filter access be similar tasks and functions.

3.3.4 Search

On the Tenants page, you can have an overview of all tenants created in the application.

Tenants					
Tenant code	Name	Email	Phone	Country	City
1	test	test@test.com	phone	NO	NY
11	test	test@test.com	phone	NO	NY
2	some	some@some.com	+321987654	AD	mi
223	Minsk	an.teterev@gmail.com	375296134502	AD	Minsk
224	TestSecuritySpec	sepec@codiac.com	123456789	AD	Minsk
333	appmill.com	sepec@codiac.com	222222222222	AD	Minsk
389	LDAP_tenant	sepec@codiac.com	222222222222	AD	Minsk
7	sami_test	test@test.com	phone	NO	NY
777	Test tenant	test@test.ry	234534	US	New York

Create

To search for a specific tenant or to filter search results, enter the following parameters in the search filters section, if known, and click the Enter key or on any screen place:

- Tenant Code
- Name
- Email
- Phone
- Country
- City

The screen displays search results if found.

3.3.4.1 Navigate

Use the navigation bar at the bottom of the Search Result page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

3.3.5 Create Tenant

Click the **Create** button on the Overview page to create a new Tenant. This opens the page in creation mode.

Create tenant

TENANT CODE *

1

NAME *

test

☐ SYSTEM UNAVAILABLE ⓘ

Personal Regional Styles Email server SMS server LDAP setting SAML setting File setting

CUSTOM SQL SECURITY LEVEL

High: Custom SQL High Security Checking

EXPIRATION TIME OF PASSWORD RESET TOKEN (MINUTES)

2

FILE REPORT PATH

C:\CodiAc\ReportTemp\

CONTACT *

test

EMAIL *

test@test.com

PHONE *

(+1)-890-000-0001

Logo

HEADER

Appmill3: Appmill3

BROWSER ICON

-- Default --

MAIN

Appmill: Appmill_main

Address

Address 1 *

Home name

Address 2

Street

Address 3

Other

City *

NY

State/Region

CA: California

Country *

US: United States

Postal code

07008

Postal extend

Admin

COMMENTS

Back Submit

First of all, fill in the general information:

- **Tenant Code** – enter a tenant code. The entered value must be an integer. The maximum allowed length of Tenant Code is 3 characters. This field is required.
- **Name** – enter a tenant name. This field is required.

These two values will be displayed and used to identify the tenant in other application features, e.g. when creating users and defining security filters.

- **System Unavailable** - select the check box to specify that the Render should not be allowed to log

in for users of this tenant.

When the System Unavailable check box is enabled, the authorization behavior will be the same as for an inactive user.



Note that a user with the superuser rights can log in into the Render even in case the System Unavailable check box is selected for their tenant.

For users with the “Login” and “Guest” types, the access will be allowed as well.

If the tenant has settings for SAML, then it is redirected to the SAML authorization page.

After defining these fields, you can specify the Tenant data on the following tabs:

3.3.5.1 Personal tab

On the Personal tab, you can define personal data for the tenant, contact and address information, logo images etc. Fill in the following fields:

- **Custom SQL security level** - select the level of security checking for the access to the database for the current Tenant:
 - High Security Checking
 - Low Security Checking
- **Expiration time of password reset token (minutes)** - set the time (in minutes) to expire the password token that is sent to confirm the password reset. When the specified time is over, the password token will be reset a user will need to repeat the password reset procedure again.
- **File Report Path** - enter the path to the storage where the generated reports should be stored.
- **Contact** - enter the contact name of a tenant. This field is required.
- **Email** - enter a valid email address for the contact information. This field is required.
- **Phone** - enter a phone number. This field is required.
- **Logo** - select the images that will be displayed as logo in the Render application. You can select the image for the following types of logo depending their display in the Render:
 - Header logo - will be displayed on the header in the main menu.
 - Main logo - will be displayed on the start page if the other screen is not defined for the start page.
 - Browser icon - will be displayed as a favicon.



Logo images that are available for selection can be uploaded on the Logo page (Account Settings > Logo). For more detail on how to upload the logo images, refer to the Create Logo section on the [Logo](#) page of the User Manual.

- **Address:**
 - **Address 1** - enter a valid address that will be used as a main address. This field is required. You can specify additional alternative addresses in the Address 1 and Address 2 fields, if needed.
 - **Address 2** - enter an additional email address, if needed. The field is optional.
 - **Address 3** - enter an additional email address, if needed. The field is optional.
 - **City** - enter a city. This field is required.
 - **State/Region** - enter the State or Region.

- **Country** - Enter the country. This field is required.
- **Postal Code** - define the postal code.
- **Postal Extension** - define the postal extension.
- **Comments** - add the commentary and remarks, if needed.

3.3.5.2 Regional tab

On this tab, you can add information related to the tenant's location. The entered information will be pre-populated to the details of a new user belonging to the current tenant. User always can change these settings in the Render settings.

Fill in the following fields:

- **Language** - select the language from the list of available languages. This language will be used in the Render for the users of the current tenant.
- **Currency** - define the currency related information.
 - **Currency** - select the currency and the currency format.
 - **Currency Type** - select the currency type.
- **Date/Time** - define the format of date and time that will be taken for users in the Render into account:
 - Time zone
 - Time format
 - Date format

3.3.5.3 Styles tab

On the Styles tab, you can customize buttons, menu styles, change colors, sizes and other UI properties. The entered information on the Styles tab will be pre-populated to the details of a new user belonging to the current tenant. User always can change these parameters in the Render settings.

You can create a custom theme for the tenant and customize the following properties:

- **Buttons** - define the style of buttons:
 - Default Button Style
- **Menu** - define the style for the menu, placement, horizontal or vertical, colors, etc:
 - Default Menu Type
 - **M1: No Drop Menu** – all menu items and sub-items are displayed as equals sections at the top of the page, except the **My Account** section. The **My Account** section will be displayed as a drop-down menu with sub-items.
 - **M2: One Level Drop Menu** – all menu items are displayed as drop-down menu with one level of sub-items at the top of the page.
 - **M3: Two Level Drop Menu** – all menu items are displayed as drop-down menu with two levels of sub-items at the top of the page.
 - **M4: One level main menu, two level tab menu** – all menu items are displayed as drop-down menus with one main sub-item and two levels of sub-items at the top of the page.
 - **M5: Menu with left navigation bar** – all menu items are displayed as the list with drop-down menu on the left of the page, except the **My Account** section. The **My Account** section will be placed at the top of the menu list. In this section the Username will appear. The sub-items such as Settings, Change Password and Logout will be shown as the , ,  icons, correspondingly.
 - **M6: No Menu** – all menu items will not be displayed on the screen in the Render.
 - **M7: No Menu – keep account button** – all menu items will be disabled on the screen in the Render, except the **My Account** section. The **My Account** section will be displayed as its sub-items such as Settings, Change Password and Logout and will be placed at the top left corner of the page.
 - Menu background color
 - Menu text color
 - Highlight Color selection
 - Use background linear gradient
 - Gradient rotation
 - First color
 - Second color
- **Body** - define the style of the Render working area where the search results are displayed:
 - Border size
 - Border color
 - Background color
 - Link color
 - Text color
 - Info color
 - Use background linear gradient
 - Gradient rotation
 - First color
 - Second color
- **Sections** - select the styles for the tab sections:
 - Section Border Size

- Border color
 - Section header color
 - Section header background
 - Section background color
 - Use background linear gradient
 - Gradient rotation
 - First color
 - Second color
- **Header** - define the styles for the headers of the screen:
 - Header border size
 - Header color
 - Header border color
- **Search Field** - define the styles of the search input field:
 - Search border color
 - Highlight of selected search
- **Fields** - specify the styles of the fields:
 - Field borders color
 - Highlight of selected field
- **Tab** - define the styles of tabs:
 - Tab selected color
 - Tab unselected color
- **Message line** - define the styles of message line:
 - Message line color
 - Message line background
- **Chart color** - specify the styles of the diagrams and charts:
 - First charts color
 - Second charts color
 - Third charts color
 - Fourth charts color

3.3.5.4 Email Server tab

On this tab, you can set up the Email server settings.

The Email server is used to receive and send email to users. The main point of using the Email server is delivering the notifications in the right direction and ensuring the security of data transmission.

The Email server is commonly used to organize the internal communications for the users in one company.



Please note that the most fields are hidden on UI in the Tenant Update mode. To view and check these fields, you need to click the **Show hidden fields** button and enter your account password in the opened pop-up window.

Personal Regional Styles **Email server** SMS server LDAP setting SAML setting File setting

EMAIL SERVER

smtps://smtp.mail.us-east-1.awsapps.com:465

EMAIL ATTACHMENTS MAX SIZE(MiB)

25

Show hidden fields

Fill in the following fields:

Create tenant

TENANT CODE *

1

NAME *

test

☐ SYSTEM UNAVAILABLE ⓘ

Personal Regional Styles **Email server** SMS server LDAP setting SAML setting File setting

EMAIL SERVER

smtps://smtp.mail.us-east-1.awsapps.com:465

EMAIL ATTACHMENTS MAX SIZE(MiB)

25

EMAIL ACCOUNT

NoReply@Appmill.com

EMAIL PASSWORD

.....

Back Submit

Fill in the following fields:

- **Email server** - enter a mail transfer agent used for receiving incoming and forwarding outgoing email messages. The email server is used to automatically send notifications in email format.
- **Email Attachments Max Size (MiB)** - specify the maximum size of files allowed to be attached to emails. The default value is 25 MiB.
- **Email account** - enter the registered email address from which notifications will be sent by the AppMill service.
- **Email password** - enter the password used to secure the email account.

3.3.5.5 SMS Server tab

You can configure SMS Server settings in order to send or receive text messages in the form of Short Message Service (SMS) transmissions between local and/or international telecommunications networks.

i Please note that the most fields are hidden on UI in the Tenant Update mode.

To view and check these fields, you need to click the **Show hidden fields** button and enter your account password in the opened pop-up window.

Fill in the following fields:

- **Twilio SID** - enter a unique ID for messages created by Twilio's API. It is a 34 character string that starts with "SM..." for text messages and "MM..." for media messages.
- **Twilio Auth Token** - enter a security Auth token created by Twilio.

The SID and Auth Token values are used to authenticate API requests.

- **Twilio Phone** - enter a phone number.

3.3.5.6 LDAP Setting tab

You can configure LDAP authentication in the LDAP Settings tab.

LDAP is used as the process of verifying usernames and passwords in the Render application. According to the LDAP authentication, the AppMill Clients connects to the AppMill Service, which creates an API request to a special LDAP server. After that, the LDAP server responds to the AppMill service if the user credentials are valid or not.



Please note that the LDAP Super User DN and LDAP Password fields are hidden on UI in the Tenant Update mode.

To view and check these fields, you need to click the **Show hidden fields** button and enter your account password in the opened pop-up window.

Fill in the following fields:

- **LDAP Server** - enter the LDAP server URL address. The LDAP server provides the possibility to store data in the LDAP database.

- **LDAP Super User DN** - enter a username in the username@domain format. For example, testuser@example.example.
- **LDAP Password** - enter a password.
- **LDAP SSO Passthru** - select the check box to enable the single sign-on functionality. I.e., if users log in to one of the AppMILL applications, they do not have to log in to other applications. For example, logging in to the Architect application will access the Render application without any logins for users.

3.3.5.7 SAML Setting tab

You can configure SAML authenticating method on the SAML Settings tab.

SAML is an XML-based standard for web browser single sign-on functionality. Using SAML allows users authenticate once with their credentials to access multiple services. For example, logging in to the Render application will access the Architect application without any logins for users.

All SAML settings have been moved to the Architect application UI and have a higher priority than the same parameters specified in the <render_app_directory>/config/saml.php file. Fields such as SAML SP Assertion Consumer Service URL and SAML SP Single Logout URL now need to be filled manually. Previously, these paths were automatically populated by the Render application.



Please note that the most fields are hidden on UI in the Tenant Update mode.

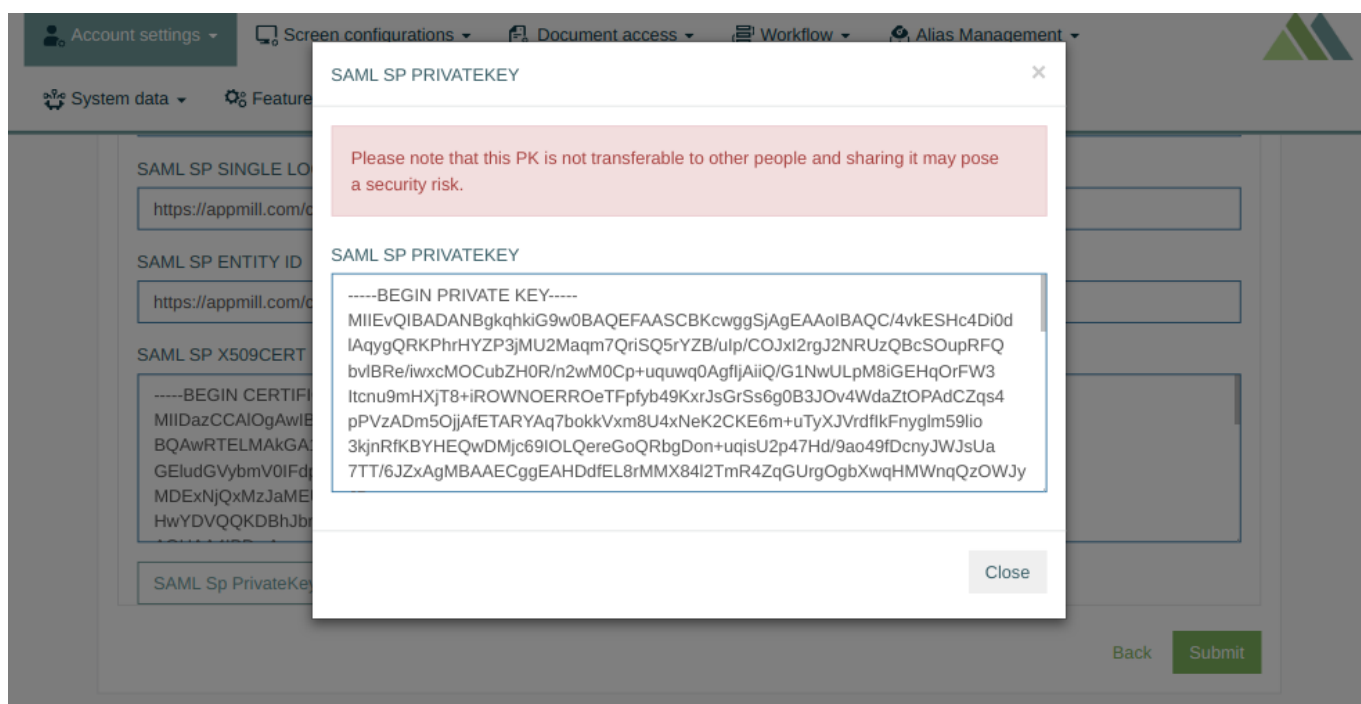
To view and check these fields, you need to click the **Show hidden fields** button and enter your account password in the opened pop-up window.

Fill in the following fields:

- **SAML IDP Sign On Service** – enter a specific endpoint or URL address that will be used for

signing on. This specific endpoint or URL address is provided by an Identity Provider (IdP) in a SAML authentication process.

- **SAML IDP Logout Service** – enter a specific endpoint or URL address that will be used for logout. This specific endpoint or URL address is provided by an Identity Provider (IdP) in a SAML authentication process.
- **Perform SLO Logout** – select this checkbox to log out the user from the IdP before redirecting them to the logout page. Deselect the check box to redirect the user to the logout page without logging out from the IdP.
- **SAML IDP Entity ID** – enter the unique identifier for the Identity Provider (IdP) used in SAML authentication. This value is required for establishing trust between the IdP and the Service Provider (SP).
- **SAML IDP X509cert Signing** – enter a SAML signing certificate that is used in SAML responses to verify the authenticity of a SAML response.
- **SAML IDP X509cert Encryption** - enter a SAML encryption certificate that is used in SAML responses to verify the authenticity of a SAML response.
- **SAML SP Assertion Consumer Service URL** – enter the assertion consumer service URL. This is the URL where the SAML authentication response will be sent after a user successfully logs in. Users must manually input this URL.
- **SAML SP Single Logout URL** – enter the single logout service URL. This parameter is auxiliary and is not passed to the IdP during login or logout of the Render application. It is only used in the Render UI for configuring the IdP redirection URL.
When configuring the IdP, you need to specify the URL to which the redirection will be performed. You can specify the URL you need or use the static Logout page provided in the Render application like <render_url>/web/saml/sls.
- **SAML SP Entity ID** – enter the unique identifier for the Service Provider (SP). This value ensures that the IdP recognizes the SP as a valid entity.
- **SAML SP X509cert** – enter a SAML certificate that is used in SAML responses to allow the Service Provider (SP) to verify the authenticity of a SAML response.
- **SAML SP PrivateKey** – enter a cryptographic private key used by the Service Provider (SP) in a SAML authentication process.



This private key is used in conjunction with the SP's X.509 certificate to perform several security functions, including decryption and digital signing.



Please note that the SAML SP Private Key is not transferable to other people and sharing it may pose a security risk.



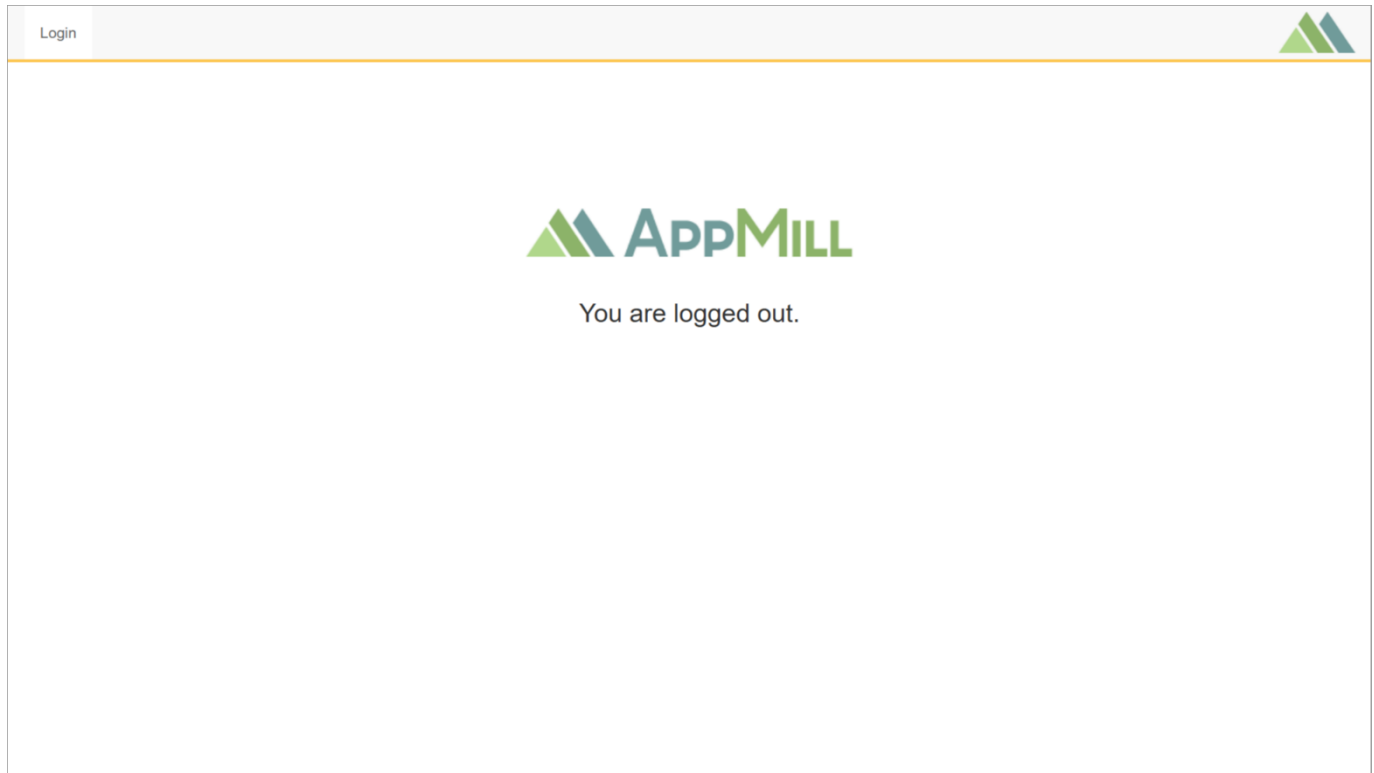
All the parameters and settings described above can be specified in the `<render_app_directory>/config/saml.php` file. But the parameters set up on this SAML Settings tab of the Tenant have a higher priority than the same parameters specified in the `<render_app_directory>/config/saml.php` file.

SAML Logout Page

You can modify images and styles for the Logout page by updating the parameters within the `loginConfig` block in the `params-local.php` file under the following path: `<render_app_directory>/config/params-local.php`:

```
'loginConfig' => [  
    'body_background_color' => '#fff',  
    'logo' => 'img/favicon.png',  
    'header_background_color' => '#f8f8f8',  
    'header_menu_color' => '#5ff',  
    'header_menu_highlight_color' => '#709B9A',  
    'header_menu_hover_color' => '#709B9A',  
    'header_menu_bottom_border_color' => '#709B9A',  
    'btn_primary_highlight_color' => '#7eb55f',  
    'default_menu_image' => 'img/logo.png',  
    'login1_background_image' => 'img/login-logo.png',  
]
```

The Logo specified in the Header settings of the Styles tab of the Tenant has a higher priority than `default_menu_image` parameter. The layout of the current Logout page looks as follows:



The text "You are logged out." displayed on the Logout page cannot be changed.

3.3.5.8 File Setting tab

On the **File Setting** tab, you can specify the size of the files to be downloaded using the TPC Custom Endpoint functionality.

A screenshot of the 'File Setting' tab in the AppMILL settings interface. The tab is selected among several other tabs: Personal, Regional, Styles, Email server, SMS server, LDAP setting, SAML setting, and File setting. Below the tabs, there is a section titled 'COMPLETE FILE DOWNLOAD MAX SIZE (MIB)' with a text input field containing the value '10'.

Fill in the following field:

- **Complete File Download Max Size** - enter the value (in MiB) of the file size that is allowed to be downloaded.

If the file size exceeds the specified value, the downloading will not be allowed.

3.3.6 Update Tenant

To edit a Tenant, click the Edit (pencil) icon for the selected tenant entry in the search results table. The Update tenant page opens for editing.

After making the necessary changes, click the **Submit** button. To return to the Tenants Overview page, click the **Back** link.

3.3.7 Delete Tenant

To delete a Tenant, click the **Delete** icon on the Overview page for the selected tenant. The confirmation pop-up will appear where you can confirm or cancel the action.

3.4 OAuth Clients

3.4.1 Access

Click Account Settings > OAuth Clients to access the functionality for creating and managing OAuth clients.

3.4.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Results](#)
 - [Navigate](#)
- [Create OAuth Client](#)
- [Steps to Configure OAuth Token](#)
 - [Create OAuth Client](#)
 - [User Authorization](#)
 - [Get Access Token](#)
- [Update OAuth Client](#)
- [Delete OAuth Client](#)

3.4.3 Overview

The OAuth Client Management functionality allows the creation and management of OAuth client records used for authentication in third-party (TPC) calls. The system implements the OAuth 2.0 Authorization Code grant type, enabling external clients to obtain access tokens for secure API authentication.

3.4.4 Search

To search for a menu or filter the search results, use the following search filters and enter any or all the search criteria:

- **Client ID**
- **Code created at**
- **Token created at**
- **Expires in**
- **Passthru user**
- **Active**

After filling in the filters, click the Enter key or on any screen place. The screen displays search results if found.

Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching as well.

3.4.4.1 Sort Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

3.4.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous page of the search results list accordingly.

Click the Show All button to display all the results on one page.

3.4.5 Create OAuth Client

Click the **Create** button on the Overview page to create an OAuth Client. This opens the Create OAuth Client page.



Create OAuth client

CLIENT ID *
OktaClient

CLIENT SECRET *
OktaSecret

EXPIRES IN *
3600

☒ ACTIVE

Back Submit

Fill in the following fields:

- Client ID - specify a unique identifier for the OAuth client. This field is required.
- Client Secret - provide the client's secret key used for authentication. This field is required.
- Expires In - define the duration in seconds for which the access token will be valid. The default value is 3600 seconds, i.e. 1 hour.
- Active - select this checkbox to activate the client. Only active clients can participate in the OAuth flow and obtain access tokens.

The following fields are read-only and will be populated automatically during the OAuth flow:

- Redirect URI - displays the redirect URI provided by the client when calling the authorized endpoint.
- Authorization Code - shows the code issued by the authorization endpoint, which can be redeemed for a token via the token endpoint.
- Code Created At - displays the Unix timestamp indicating when the authorization code was created.
- Access Token - shows the token issued by the token endpoint.

- Token Created At - displays the Unix timestamp indicating when the token was created.
- Passthru User - shows the user used to log in during the authorization phase.

After filling in all mandatory fields click the Submit button to save the created OAuth Client. Click the Back button to go back to the Overview page without saving the data.

3.4.6 Steps to Configure OAuth Token

To set up secure token-based authentication for accessing protected endpoints, follow these steps:

3.4.6.1 Create OAuth Client

First, create an OAuth Client record using the Create OAuth Client functionality described above. Save your client_id and client_secret.

3.4.6.2 User Authorization

Direct users to the authorization URL:

`https://<host>:<port>/osoc/api/oauthcontroller/authorize`

Required parameters:

- response_type=code
- client_id (your client ID)
- redirect_url (your callback URL)
- state (security token)

After a successful login, users will be redirected to your callback URL with an authorization code.

3.4.6.3 Get Access Token

Exchange the authorization code for an access token by sending a POST request to:

`https://<host>:<port>/osoc/api/oauthcontroller/token`

Required parameters:

- grant_type=authorization_code
- code (the authorization code)
- client_id
- redirect_uri

For authentication include client credentials either as Basic Auth header or in HTTP POST body. Users will receive an access_token to use for any custom API endpoints.

3.4.7 Update OAuth Client

To edit an OAuth Client, click the Edit (pencil) icon for the selected entry in the search results table. The Update OAuth Client page opens for editing.

Note that read-only fields cannot be modified through the update interface, as they are managed

automatically by the OAuth flow.

After making the necessary changes, click the Submit button. To return to the Overview page, click the Back link.

3.4.8 Delete OAuth Client

To delete an OAuth Client, click the Delete icon on the Overview page for the selected entry. The confirmation pop-up window will appear where users can confirm or cancel the action.

Deleting an OAuth Client will invalidate all associated tokens and prevent the client from accessing the system until a new client record is created.



Deleting an OAuth Client will invalidate all associated tokens and prevent the client from accessing the system until a new client record is created.

3.5 Logo

3.5.1 Access

Click **Account Settings > Logos** to manage logo images.

3.5.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Navigate](#)
- [Create Logo](#)
 - [Logo Types](#)
 - [Header Logo](#)
 - [Main Logo](#)
 - [Browser Icon](#)
- [Edit Logo](#)
- [Delete Logo](#)

3.5.3 Overview

It is possible to manage existing logos or create a new logo that will be used in the Render application.

List name	Entry name	Type	Description	
a	main	LOGO_MAIN	A logo	 
Appmill	Appmill_main	LOGO_MAIN	Appmill_main	 
Appmill2	Appmill2	LOGO_HEADER	Appmill Main	 
Appmill3	Appmill3	LOGO_HEADER	Appmill3	 
CanyonView	CanyonView	LOGO_MAIN	CanyonView	 
ddd	derevo	LOGO_MAIN	(not set)	 
EvergreenHill	EvergreenHill	LOGO_HEADER	(not set)	 
HotSpring	HotSpring	LOGO_MAIN	Hot Spring	 
Main logo	Main logo	LOGO_HEADER	(not set)	 
MountainLake	MountainLake	LOGO_MAIN	Mountain Lake	 

« 1 2 »

Create

3.5.4 Search

To have an overview of all logos or search for a group or filter search results, enter **List name**, **Entry name**, **Type**, **Description** and click the Enter key or on any screen place. The screen displays search results if found.

3.5.4.1 Navigate

Use the navigation bar at the bottom of the Search Result page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

3.5.5 Create Logo

Click the **Create** button on the Search Result page to create a new Logo. This opens the page in creation mode.

Fill in the following fields:

- **List Name** – enter a list name. This field is required.
- **Entry Name** – enter an entry name. This field is required.
- **Description** - enter a description.
- **Type** - activate a radio-button to select a type of logo from the list of available types:
 - **Header logo** - to use the image as a header logo.
 - **Main logo** - to use the image as a main logo that will be displayed on the start page if the other screen is not defined for the start page.
 - **Browser icon** - to use the image as a favicon for the browser tab.
- **Image** - to select the image from your local storage, click the **File select** button.

Create logo

LIST NAME *

ENTRY NAME *

DESCRIPTION

TYPE *
☒ HEADER LOGO ☐ MAIN LOGO ☐ BROWSER ICON

IMAGE
 logo.png



3.5.5.1 Logo Types

There are three types of logos that can be displayed in the Render:

- **Header Logo**
- **Main Logo**
- **Browser Icon**

3.5.5.1.1 Header Logo

The Header Logo is displayed at the top of the page.

To define the image as a Header logo, perform the following steps:

- Upload the image and select it as a header logo on the Logo page. For more details on how to define the header logo, see the Create Logo section on the [Logo](#) page of the User Manual.
- Select the uploaded image from the HEADER drop-down in the Logo section on the Tenant page (Account Settings > Tenant). For more details on how to define the header logo refer to the Logo section on the [Tenant](#) page of the User Manual.

3.5.5.1.2 Main Logo

The Main Logo can be displayed on the start page for users who have been assigned to the group with no start screen.

To display the Main logo on the start page, perform the following steps:

- Upload the image and select it as a main logo on the Logo page. For more details on how to define the main logo, see the Create Logo section on the [Logo](#) page of the User Manual.
- Select the uploaded image from the MAIN drop-down in the Logo section on the Tenant page (Account Settings > Tenant). For more details on how to define the main logo refer to the Logo section on the [Tenant](#) page of the User Manual.
- Create the group with no start screen on the Groups page (Account Settings > Groups). For more details about the group creation, refer to the Create Group section on the [Groups](#) page of the User Manual.
- Add the group with no start screen to the user's primary group. For more information on how to define the primary group for the user, see the Create User section on the [Users](#) page (Account Settings > Users) page of the User Manual.

In case the user has predefined screen on the start page, the main logo will be hidden.

3.5.5.1.3 Browser Icon

The Browser Icon is displayed as a favicon on the browser tab.

To define the image as a Browser icon, perform the following steps:

- Upload the image and select it as a browser icon on the Logo page. For more details on how to define the browser icon, see the Create Logo section on the [Logo](#) page of the User Manual.
- Select the uploaded image from the BROWSER ICON drop-down in the Logo section on the Tenant page (Account Settings > Tenant). For more details on how to define the main logo refer to the Logo section on the [Tenant](#) page of the User Manual.

3.5.6 Edit Logo

To edit a Logo, click the **Edit** (pencil) icon for the selected group entry in the search results table. The Update logo page opens for editing. After making the necessary changes, click the **Submit** button. To return to the Logos Overview page, click the Back link.

3.5.7 Delete Logo

To delete a Logo, click the **Delete** icon on the Search Result page for the selected group. The confirmation pop-up will appear where you can confirm or cancel the action.

3.6 Security Filters

3.6.1 Access

Click **Account Settings > Security Filters** to access the Security Filter functionality.

3.6.2 Table of Contents

- [Access](#)
- [Overview](#)
- [Search](#)
 - [Navigate](#)
- [Create Security Filter](#)
- [Update Security Filter](#)
- [Delete Security Filter](#)

3.6.3 Overview

The Security Filters functionality provides the possibility to manage security levels for users. I.e., using security filters users can restrict the data accessibility and search results based on the predefined parameters and set the authentication methods based on their security level in both the Architect and Render applications.

In the Architect application, users can see the filtered results, for example, when downloading a table from the Tables page (Features > Tables), or using the SQL query on the SQL Query Window page (Features > SQL Query Window).

In the Render application, users can see the filtered results on the screen.

3.6.4 Search

To have an overview of all security filters existing in the system, search for a particular filter or filter the search results, enter **Tenant**, **Account Type**, **User Type** and **Description** and click the Enter key or click on any screen place. The screen displays search results if found.

Security filters

Tenant	Account type	User type	Description	
1: test	UserType.External_User	G: Guest User Account	Guest Account	 
1: test	UserType.External_User	I: Internal user	test	 
1: test	UserType.External_User	L: Login Account - Forced	test	 
1: test	UserType.Internal_User	B: BLAZE TEST	BLAZE TEST	 
1: test	UserType.Internal_User	G: Guest User Account	Guest User Internal	 
1: test	UserType.Internal_User	I: Internal user	Internal	 
1: test	UserType.Internal_User	U: Basic User	Basic User Internal	 
1: test	UserType.Unknown_User	U: Basic User	Basic User Unknown	 
11: test	UserType.Internal_User	U: Basic User	Basic	 
2: some	UserType.External_User	L: Login Account - Forced	Login Forced	 

«
1
2
3
»

Create

3.6.4.1 Navigate

Use the navigation bar at the bottom of the Search Result page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

3.6.5 Create Security Filter

Click the **Create** button on the Search Result page to create a new Security Filter. This opens the page in creation mode.

The Security Filter is created based on three required parameters:

- **Tenant**
- **Account Type**
- **User Type**

The combination of these 3 parameters is set on user level as well. The combination of these parameters on user level and security filter specifies the security level and restriction for a particular user in the Render.

Create security filter

TENANT *

1: test

ACCOUNT TYPE *

External_User: 120000

USER TYPE *

B: BLAZE TEST

DESCRIPTION

SESSION LIFETIME(SECONDS)

FILTER 1 LABEL

FILTER 1 MATCH

+ADD RULE

FILTER 2 LABEL

FILTER 2 MATCH

+ADD RULE

FILTER 3 LABEL

FILTER 3 MATCH

+ADD RULE

☐ ALLOW CHANGE PASSWORD

☐ ALLOW CHANGE SETTINGS

AUTHORIZATION TYPE

E: Email Authentication
 L: Login Authentication
 LD: LDAP Authentication
 S: SMS Authentication

SECRET QUESTIONS

Q1: What is your favorite number ?
 Q2: What is your favorite pet name ?
 Q3: What is your birthday ?
 Q4: What is your first school number ?

Back

Submit

To create the security filters, fill in the following required fields:

- **Tenant** - select a Tenant from the drop-down list.
- **Account Type** - select an Account Type from the drop-down list.
- **User Type** - select a User Type from the drop-down list.

Specify other parameters:

- **Description** - enter a clear description for a created Security Filter.
- **Session Lifetime (seconds)** - specify the session lifetime time in seconds. That means that the system will retain a login session the defined time.



The default value of the session Lifetime is 1200 seconds (20 minutes). After 20 minutes of inactivity, an open session expires automatically and you have to log in again. After the session expiration, any changes you have made will be lost.

- **Filters** - specify the 3 filters to restrict the data that will be available for the users within this security filter. Define the following parameters:
 - **Filter Label** - enter a text that will be displayed for the filter on the user account page. In

case you leave the field empty, the corresponding Security Filter label will be displayed.

- **Filter Match** - enter a field name that will be used for filtering. By default, the search filter is applied to all tables until you add a rule and select a particular table.

Let's take a look at an example:

User enters the value "ID" in the Filter Match field without adding any Filter Rule. During the search, the system will check the value that is specified for the Security Filter in the user account.

In case the specified value is not found, no search results will be displayed in the Architect or Render applications.

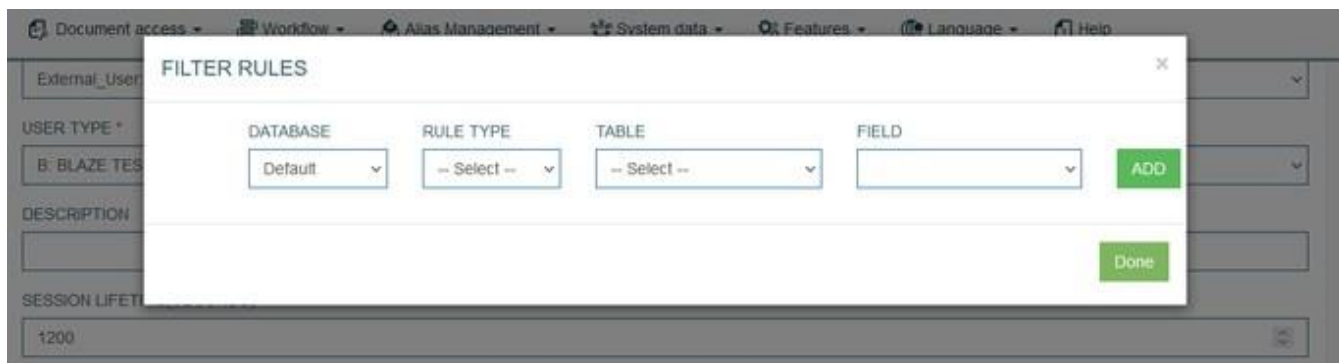
In this case, the result can be as follows:

- in the Render application, the search will be performed based on the ID field in all tables.
- in the Architect application, users can also get search results based on the ID field in all tables:
 - performing the SQL query (Features > SQL Query Window),
 - or
 - when downloading a table by clicking the Download data to csv button on the Update Table page (Features > Tables).

i Users can create 3 Filters only and define 3 pairs of Filter Label and Match accordingly.

- **Add Rule** - click this button for a particular Filter entry to add specific rule and restriction to the filter. The rule will be applied to the selected table.

The Filter Rules pop-up window opens:



You can define the following parameters:

- **Database** - select the database from the list of available databases. By default, the current database is selected.
- **Rule Type** - select the rule type that will be applied to the filter. Currently, we support the following rule types:
 - **Exclusion** - defines that the table selected in the rule will be excluded from the search filter.
 - **Inclusion** - defines that the field specified in the rule will be handled by the system in the same way as a field specified on the Filter level. The value specified in the user account

will be searched taking this inclusion into account.

- **Table** - select a database table to restrict the search filter to this particular table. In case the table is not selected, the search filter will be applied to all existing tables.
- **Field** - select the field from the drop-down list. The selection list is filtered by the selected table.

Click the **Add** button to apply the changes. Click the **Done** button to save the data and close the pop-up window.

On the Security Filter page, proceed with specifying the details:

- **Allow change password** - select the check box to display the corresponding menu item in the user menu in the Render. In case the check box is unselected, users will not have the possibility to change the password from the Render.
- **Allow change settings** -select the check box to display the Settings menu item in the user menu in the Render. In case the check box is unselected, users will not have the possibility to customize the style from the Render.
- **Authorization type** - defines the method of authentication. This is reasonable for users of different security levels. Currently we support the following types of authorization:
 - **E: Email Authentication** - can be used as additional parameter to the Login Authentication. An authorization code will be sent to the email address defined in the user account.
 - **L: Login Authentication** - is a standard authentication via Login Name and Password.
 - **LD: LDAP Authentication** - is used as the authentication protocol utilized by SSO system that enables access to a number of systems with a single login. In this case the user will see the standard login page with login data (Login name and Password) to fill in. The user login data will be sent to LDAP server for checking.
 - **S: SMS Authentication** - is used as an additional security parameter to send an authorization code when a user logs in into the system. It will be sent to the phone number defined in the user account.
 - **SAML: SAML** - in case of SAML Authentication, the login page will be retrieved by a special secured server where you enter the login data (Email and Password) to log in into the system.
 - **SQ: Secret Question Authentication** - is used for the Self-Registration feature. On the Login page, when user clicks the Need an Account button, the Self-Registration screen appears. The Secret Questions are displayed in the Account Protection section. To define what questions to be displayed, select the secret questions from the list displayed on the right from the Authorization type.

3.6.6 Update Security Filter

To edit a Security Filter, click the **Edit** (pencil) icon for the selected group entry in the search results table. The Update Security Filter opens for editing.

After making the necessary changes, click the **Submit** button. To return to the Security Filter Overview page, click the **Back** link.

3.6.7 Delete Security Filter

To delete a Security Filter, click the **Delete** icon on the Overview page for the selected Security Filter. The confirmation pop-up will appear where you can confirm or cancel the action.

4 Screen Configurations

Screen Configurations are designed to manage the menu, screens and fields appearing for users in Render UI. Here, you can define CRUD (create, read, update, delete) screens within point-and-click menus, set up the custom extension functions to extend platform, dynamically create search content to display in the Render, select screen styles via screen-builder, etc.

For more details on the screens and tabs configurations refer to the corresponding pages. Open the following pages:

- **Menu** - to create custom menu and organize screens, manage menu items and icons for them displayed on the Render page.
- **Menu Tooltip** - to manage text boxes with the information about UI elements, menu icons when hovering over a screen element or menu icon.
- **Screens** - to manage screens and tabs that are displayed on the Render.
- **Group screens** - to allow screen access to user groups and to attach screens to the menu items in the Render, manage the visibility and accessibility of the main actions on the screens.

4.1 Menu

4.1.1 Access

Click **Screen Configurations > Menu** to have an overview of existing menu items, create new and manage existing menu items and icons displayed on the Render page.

4.1.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Results](#)
 - [Navigate](#)
- [Create Menu](#)
- [Edit Menu](#)
- [Delete Menu](#)

4.1.3 Overview

The Menu functionality provides the possibility to manage the menu items of the highest level displayed as the Main menu items in the Render application. You can set the icons and adjust the order in which menu items are displayed.

The multiple menu items can be created with the same value in the Menu Text field for different user groups. As in the menu item creation step, the Menu Text value is used for the Menu Name, the created menu items will have the same Menu Name for different user groups. In this case, users that belong to several user groups with the same Menu Name will see in the Render application the menu item with the lower weight, or the first menu item sorted by default from the menu list.

Group name	Description	Menu name	Menu text	Weight	
Commission_Guest	Agent Inquiry	Agent_Inquiry	Agent Inquiry	0	
Commission_Guest	Agent Inquiry	Agent_Inquiry	Agent Inquiry	0	
Commission_Basic	Agent Onboard	Agent_Onboard	Agent Onboard	0	
AnotherAttempt	AnotherAttempt	AnotherAttempt	AnotherAttempt	0	
Standard_Group	CrunchD	Crunch	Crunch	0	
Standard_Group	Evergreen	Evergreen	Evergreen	0	
FILTER2	NEW TEST	FILTER2	FILTER2	0	
JuneGroup	Search	June_Search	June Search	0	
Standard_Group	menu de pruebas	Menu1_0_1	Menu1.0.1	0	
External group	special	New_external	New external	0	

« 1 2 3 4 5 6 7 »
Show All
Create

4.1.4 Search

To search for a menu or filter the search results, use the following search filters and enter any or all the search criteria:

- Group name
- Description
- Menu name
- Menu text
- Weight

After filling in the filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be considered while searching as well.

4.1.4.1 Sort Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

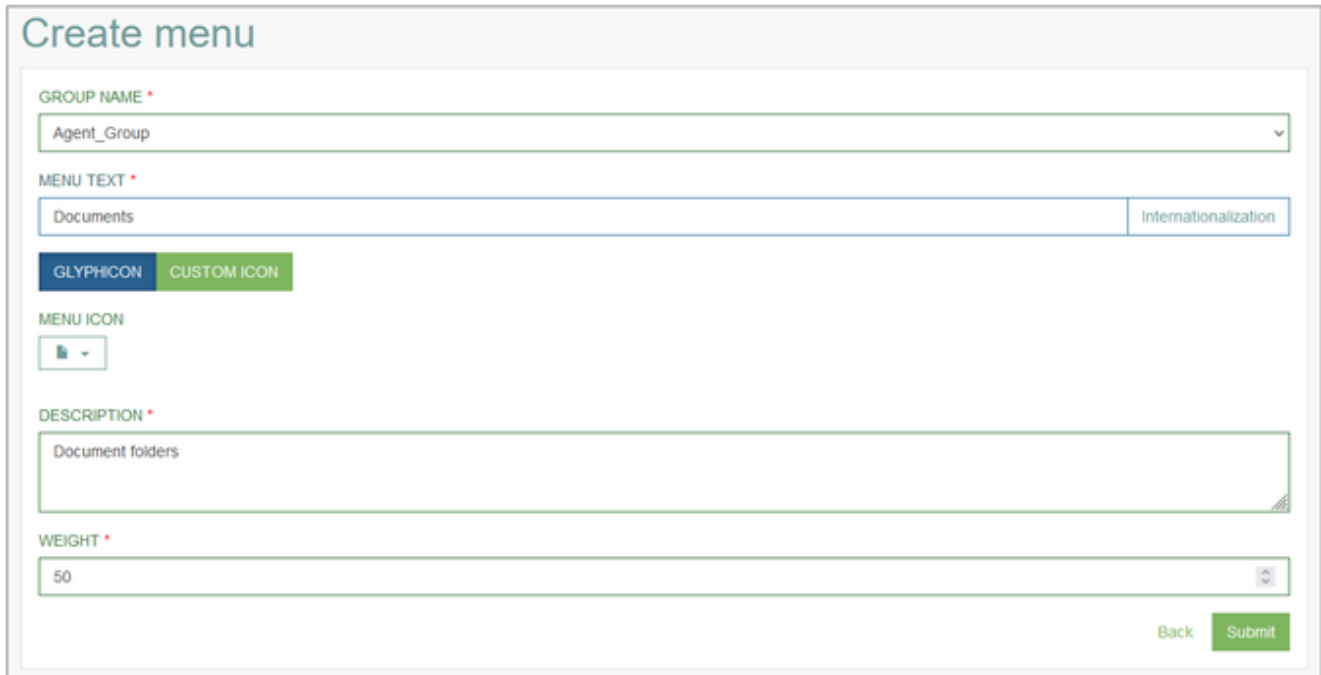
4.1.4.2 Navigate

Use the navigation bar at the bottom of the Menu Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

4.1.5 Create Menu

Click the **Create** button on the Overview page to create a new Menu item. This opens the Create Menu page.



Fill in the following fields:

- **Group Name** – select a User Group Name that the Menu belongs to from the drop-down list. The field is required.
- **Menu Text** - enter a text of a menu item that will be displayed on the Render page.
In the menu creation step, the value in the Menu Text field will also be used as a **Menu Name**. In cases where the Menu Text contains more than one word, all spaces in the Menu Name will be replaced with the “_” character. For example, if the Menu Text is “ABC 123”, the Menu Name will be “ABC_123”.
 - **Internationalization** - add the translations into other languages for the displayed Menu Text. For that follow the steps:
 - Click the **Internationalization** button next to the input field.
 - In the opened Internationalization pop-up window, select the Language and click the **Add** button.
 - A new field for entering the translation value will appear. Enter the text into the input field and click the **Apply** button.
- **Menu Icon** - define which icon, image to display next to the menu item in the Render application:
 - Glyphicon - click the **Glyphicon** button to select the icon from the provided drop-down Menu Icon list.
 - Custom Icon - click the **Custom Icon** button to add your own image. Click the **File Select** button to browse for and select the desired file. The info on the file uploaded will be displayed.

 The allowed formats are gif, png, jpg, jpeg. The maximum allowed file size is 150 KiB.

- **Description** - provide an informative description for a new menu. This field is required.
- **Weight** - enter the number, the so-called global key, which controls the place and the order in which this menu item is displayed in the Render application. The larger number is, the lower the menu item is displayed. This field is required.

 In case the Menu items have the same weight, they will be ordered alphabetically.

After filling in all mandatory and optional fields click the **Submit** button to save the created Menu. Click the **Back** button to go back to the Menu overview page without saving the data.

4.1.6 Edit Menu

To edit a Menu, click the **Edit** (pencil) icon for the selected Menu entry in the search results table. The Update Menu page opens for editing.

When updating the Menu Text, the Menu Name will not be changed. For example, if the Menu Text is updated from “ABC 123” to “DEF 456”, the Menu Name will not be changed and still have the “ABC_123” value. This Menu Name will be used in the Group Screen creation. For more details about Group Screen creation, refer to the Create Group Screen section on the [Group Screens](#) page of the User Manual.

After making the necessary changes, click the **Submit** button. To return to the Menu Overview page, click the **Back** link.

4.1.7 Delete Menu

To delete a Menu, click the **Delete** icon on the Menu Overview page for the selected Menu entry. The confirmation pop-up will appear where you can confirm or cancel the action.

4.2 Menu Tooltip

4.2.1 Access

Click **Screen Configurations > Menu Tooltip** to manage tooltips for menu icons and buttons displayed on the Render page.

4.2.2 Table of Contents

- [Overview](#)
- [Update Menu Icons](#)
- [Edit Tooltip](#)
 - [Internationalization](#)
- [Delete Tooltip](#)

4.2.3 Overview

Menu tooltips identify UI elements and appear when the user hovers the mouse above them. They provide a short information message about the function of menu icons and help users to interact with the application more easily.

4.2.4 Update Menu Icons

On the Update Menu Icons page, you can edit the text messages for the icons displayed in the Tools and Activity menus in the Render application.

The screenshot shows the 'Update Menu Icon' page. It has two main sections: 'Tools Menu' and 'Activity Menu'. Each section contains a list of menu items with icons and text fields for editing.

Tools Menu	Activity Menu
Settings	Tasks
Change Password	Insert
Logout	Load
	Previous
	Next
	Edit
	Copy
	Delete
	Execute
	Save
	Cancel

Submit

The page consists of two sections:

- **Tools Menu**
- **Activity Menu**

Let us have a look at details:

- **Tools Menu**

You can specify the tooltips for the Menu Items displayed on the left side of the screen under the Account image:

- Settings
- Change Password
- Logout

-  The visibility of icons from the Tools Menu is configured on the Security Filters page (Account Settings > Security Filters). For more details about the icons' visibility configuration from the Tools Menu, refer to the Create Security Filter section on the [Security Filters](#) page of the User Manual.

- **Activity Menu**

You can specify the tooltips for the buttons and icons displayed in the Activity Menu.

-  The visibility of the icons from the Activity Menu is configured on the Group Screens page (Screen Configurations > Group Screens). For more details about the icons' visibility configuration from the Activity Menu, refer to the Create Group Screen section on the [Group Screens](#) page of the User Manual.

4.2.5 Edit Tooltip

Edit the text in the corresponding input fields to update the tooltips. Click the **Submit** button to save the changes. The changes will be applied and displayed in the Render.

4.2.5.1 Internationalization

To add translations into other languages, click the **Internationalization** button. In the opened Internationalization pop-up window, do the following:

Select the Language and click the **Add** button.

A new field for entering the translation value will appear. Enter the text into the input field.

Click the **Apply** button.

4.2.6 Delete Tooltip

It is not possible to delete the tooltip values. If an empty string is used, the default tooltip value will be used.

4.3 Screens

4.3.1 Access

Click **Screen Configurations > Screens** to have an overview of all screens existing in the system, manage them and create new screens.

The Screen functionality provides an ability to create and manage screens, tabs, content displayed for users in Render UI. You can configure all possible operations and actions, set up data that build and cover the required business processes in the Render application, define CRUD (create, read, update, delete) editors within point-and-click menus, set up the custom extension functions to extend platform, select screen styles via screen-builder, etc.

4.3.2 Overview

For more details on the screens and tabs configurations refer to the corresponding pages:

- [Screen Configuration Overview](#) - to have an overview of all screens existing in the system, manage them and create new screens. The page includes the description of screen creation based on the JSON template and the basic description of screen creation using the screen builder.
- [Screen Builder](#) - to have a comprehensive overview of the screen builder tools for screen configurations. It includes:
 - [Screen Master Data Settings](#)
 - [Header and Section Configuration](#)
 - [Section Type: Edit](#)
 - [Image Configuration](#)
 - [Button Configuration](#)
 - [Label Configuration](#)
 - [Field Configuration](#)
 - [Field Types and Layouts](#)
 - [Section Type: Table Type](#)
 - [Section Type: Table from API](#)
 - [Section Type: Chart Type](#)
 - [Section Type: Document Type](#)
- [Login Screen Configuration](#) - provides the information and instructions on how to create and configure the Login screen.
- [Search Screen Configuration](#) - provides the information and instructions on how to create and configure the Search screen.
- [Active/Passive Screen Configuration](#) - provides the information and instructions on how to create and configure the Active/Passive screen.

4.3.3 Screen Configuration Overview

4.3.3.1 Access

Click **Screen Configurations > Screens** to have an overview of all screens existing in the system, manage them and create new screens.

4.3.3.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Results](#)
 - [Navigate](#)
- [Create Screen](#)
 - [Create screen \(using JSON template\)](#)
 - [Create screen with builder](#)
- [Update Screen](#)
- [Delete Screen](#)

4.3.3.3 Overview

The Screen functionality provides an ability to create and manage screens, tabs, content displayed there. You can configure all possible operations and actions and set up data that build and cover the required business processes in the Render application.

Screens					
Select Existing Screen	Screen Description	Tab text	Tab Description	Primary Table	Tab weight
AF_Examples_2	(not set)	Polic1673953103	C#, JS and PHP	Portfolio	0
AF_Examples_2	(not set)	Polic1678436745	C#, JS and PHP	Portfolio	0
AF_Examples_2	(not set)	Policy	C#, JS and PHP	Portfolio	0
AF_Ext_Cpp_Native_SQL	AF Ext C++ Native SQL	DB	DB	Crunch	0
AF_Ext_Cpp_Report	(not set)	C++	C++ report	Crunch	0
AF_Ext-Cs_Native_SQL	AF Ext C# Native SQL	DB	DB	Crunch	0
AF_Ext-Cs_Report	C# report	C#	C# report	Crunch	0
AF_Ext_Email_SMS	(not set)	Email SMS	email and sms	EmailSendTests	0
AF_Ext_External	(not set)	External	external module	Crunch	0
AF_Ext_External	(not set)	Service	codiac service	Crunch	0

« 1 2 3 4 5 6 7 8 9 10 »

Show All Create with builder Create



By screens created in the Architect we mean the tabs assigned to the menu item in the Render application. Several screens can be assigned to one menu item and consequently in the Render they will be represented by several tabs assigned to one screen.

4.3.3.4 Search

To search for a user or filter the search results, use the following search filters:

- Select Existing Screen
- Screen Description
- Tab Text
- Tab Description
- Primary Table
- Tab Weight

After filling in the filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be considered while searching as well.

4.3.3.4.1 Sort Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

4.3.3.4.2 Navigate

Use the navigation bar at the bottom of the Search Result page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

4.3.3.5 Create Screen

There are two possibilities in creating a screen:

1. **Create screen (using JSON template)** - this is another way to create a screen. This way could be simpler in case you know the structure of the template very well and can adjust JSON template. All necessary details are filled in on a single page. This option may be useful, but not in most cases.
2. **Create screen with builder** - this is an advanced version of a screen creation process. The process includes several steps and guides the user through several pages to configure required settings. This is a preferred approach as it provides more possibilities for a screen configuration.

Let's review these two ways and methods of the screen creation in detail further.

4.3.3.5.1 Create screen (using JSON template)

Click the **Create** button on the Screens Overview page to create a new screen. The screen creation editor page will open where you have the option to fill in the screen template as JSON.



Please note that in order to create a new screen using this option, you need to know the structure of the template very well.

Create screen

TAB DEVICES *

☒ DESKTOP ☒ MOBILE ☒ WEB ☒ PASS_THRU

PASS THRU GUEST USER

☐ -- Select --

SELECT EXISTING SCREEN

-- Select --

-- Or --

ADD NEW SCREEN

Menu

SCREEN DESCRIPTION

Menu

PRIMARY TABLE ⓘ

aa

TAB WEIGHT ⓘ

20

TAB TEXT *

Menu

Internationalization

TAB DESCRIPTION

Menu

☒ ACTIVE/PASSIVE

☐ SEARCH SCREEN

☐ LOGIN SCREEN ⓘ

☒ WORKFLOW TRACKER VIEWABLE

TEMPLATE

```

1 {
2   "layout_type": 5,
3   "screen_step": null,
4   "search_configuration": null,
5   "search_custom_query": null,
6   "template_layout": null,
7   "refresh_screen": null,
8   "refresh_screen_time": null,
9   "template layout section depth count": null,

```

Ln:1 Col:1

Back Submit

You can fill in the following fields:

- **Tab Devices** - specifies which applications should receive data for this screen. As this feature is still in progress and has not been not completed yet, it cannot work as expected. Please wait for a feature completion to fully benefit from it.
 - **Screen Name** - you can select an existing screen OR add a new screen:
 - For creation a screen (shown as a screen tab in the Render) on the existing screen:
 - **Select existing screen** - select the name of an existing screen from the drop-down list.
- Please note that a new screen will be created with the same already existing screen name. When you select the existing screen, please ensure that:
- the selected screen must have a weight of 0 or 99
 - the search should be configured, so the search field options will be applied to the new screen (its weight is not 0 or 99).

- You can use an alternative option and create a completely new screen:
 - **Add new screen** - enter the name for a new screen.
- **Screen description** - provide a short informative description for a screen.
- **Primary Table** - this field specifies the database table that will be used as a primary table. The data from this table will be used and displayed on the screens in the render.
The list of all tables can be found on the Table page (Features > Tables). For more details about tables, refer to the [Tables](#) page of the User Manual.



Be careful, this value takes precedence over the value in the TEMPLATE field (alias_framework.request_primary_table) and will override it on save.

- **Tab Weight** - enter the number, the so-called global key, which controls the place of a tab on the screen in the Render application.



The “0” value allows you to fully customize the screen (search field, audit fields, select extensions). The “99” value - for the screen in the popup, otherwise this screen will not be displayed.

The screens with the 0 or 99 weight contain their own search field. For the screens with other weight value, the search of the main screen is used.

- **Hide Tabs** - select the check box to define that this tab should be hidden on UI by default. This can be useful for the tabs that should be displayed only under certain conditions, e.g. during Workflow etc.
The Hide Tabs check box is displayed in case the Tab Weight value equals to “0”.
- **Hide Search Bar** - select the check box to define that the search bar should be hidden on UI by default.
- **Tab text** - enter the text for the tab that will be displayed as a tab title in the Render.
- **Tab Description** - provide a short informative description for a tab.
- **Active/Passive** – select the checkbox to configure the screen for displaying and editing data from related third-level tables. This option restricts layout selection to 1x1 and requires the screen state to be "view." More information about the Active/Passive Screen can be found on the [Active/Passive Screen Configuration](#) page of the User Manual.
- **Search Screen** – select the checkbox to create a screen for searching data using key fields. Works with the "inquire" or "search submit" actions and limits layout selection to 1x1. The screen state must be "view." More information about the Search Screen Configuration can be found on the [Search Screen Configuration](#) page of the User Manual.
- **Login Screen** – select the checkbox to define this screen as a login page. Activating this option restricts layout selection to 1x1. Please refer to the Configure Login Screen section on the [Login Screen Configuration](#) page of the User Manual for more details.
- **Workflow Tracker Viewable** - select the checkbox to define that the Workflow Tracker will be displayed on UI. If this option is disabled, the Workflow Tracker will be hidden for that screen. For more details about Workflow, refer to the [Workflow](#) page of the User Manual.
- **Template** - this is a screen template in JSON format. It contains all the options (screen display type, aliases, field types, styles, search options, etc.).
In case of the Screen Builder, this template is filled in graphically.

4.3.3.5.2 Create screen with builder

Click the **Create with Builder** button on the Screens Overview page to create a new screen.

This opens the Create Screen editor page where you get an advanced functionality for the screen creation.

The main parts of the screen builder first page:

- General Information (screen/tab name and description, tab order, fields that should be tracked)

Create screen

TAB DEVICES *

☒ DESKTOP ☒ MOBILE ☒ WEB ☒ PASS_THRU

PASS THRU GUEST USER

☐ -- Select --

SELECT EXISTING SCREEN

June_Menu_One

-- Or --

ADD NEW SCREEN

SCREEN DESCRIPTION

Menu Description

PRIMARY TABLE

JuneTableM1

TAB WEIGHT ⓘ

0

☐ HIDE TABS

AUDIT FIELDS

Alias.JuneTableM1.name

Alias.JuneTableM1.name2

Alias.JuneTableM1.policy

Alias.JuneTableM1.subpolicy

- Search fields settings
- Tab label and description
- Screen state
- Screen types
- Extension functions
- Header and Sections layout

SIMPLE SEARCH

☒

⚙️

Search_JuneTest1: Universal DLL : Search_JuneTest1

▼

MULTI-SEARCH WITH CUSTOM QUERY

☐

⚙️

-- Select --

▼

TAB TEXT

June Test 1

Internationalization

TAB DESCRIPTION

June Test 1

SCREEN STATE

View

▼

☐ ACTIVE/PASSIVE
 ☐ SEARCH SCREEN
 ☒ WORKFLOW TRACKER VIEWABLE
 ☐ LOGIN SCREEN ⓘ
 ☐ REFRESH SCREEN

ACTION

EXTENSION FUNCTION - PRE

EXTENSION FUNCTION - POST

ADD	⚙️ Extensions OFF	⚙️ Extensions OFF
DELETE	⚙️ Extensions ON	⚙️ Extensions ON
EDIT	⚙️ Extensions OFF	⚙️ Extensions OFF
INQUIRE	⚙️ Extensions OFF	⚙️ Extensions OFF
RELEASE	⚙️ Extensions OFF	⚙️ Extensions OFF

EXECUTE

⚙️ Extensions

ON

⚙️ Function

⚙️ Extensions

ON

Left Nav

Header

1x1

1x2

2x1

2x2

Right Nav(Tabs)

○ HEADER 2X2

Left Nav

Header

1x1

1x2

2x1

2x2

3x1

3x2

Right Nav(Tabs)

○ HEADER 2X3

Left Nav

1x1

1x2

2x1

2x2

Right Nav(Tabs)

○ 2X2

Left Nav

1x1

1x2

2x1

2x2

3x1

3x2

Right Nav(Tabs)

○ 2X3

Left Nav

1x1

Right Nav(Tabs)

○ 1X1

Left Nav

Header

1x1

Right Nav(Tabs)

○ HEADER 1X1

Left Nav

Header

1x1

1x2

Right Nav(Tabs)

○ HEADER 1X2

Left Nav

1x1

1x2

Right Nav(Tabs)

○ 1X2

Left Nav

Header

1x1

2x1

Right Nav(Tabs)

● HEADER 2X1

Left Nav

1x1

2x1

Right Nav(Tabs)

○ 2X1

Back

Next

For the detailed explanations and instructions about the screen configuration, open the [Screen Builder](#) page of the User Manual.

4.3.3.6 Update Screen

Similarly to the Create Screen options, you have 2 options for editing the Screen:

1. **Update screen with builder** - this is an advanced version of a screen update. To update screen with builder, click the **Gear wheel** icon for the selected Screen entry in the search results table. The Screen editor page will be opened.
2. **Update screen (using JSON template)** - this is another way to update a screen. This way could be simpler in case you know the structure of the template very well and can adjust JSON template. To update screen using the JSON template, click the **Edit** (pencil) icon for the selected Screen

entry in the search results table. The Update Screen page opens for editing.

After making the necessary changes, click the **Submit** button. To return to the Screen Overview page, click the **Back** link.

4.3.3.7 Delete Screen

To delete a Screen, click the **Delete** icon on the Overview page for the selected Screen entry. The confirmation pop-up will appear where you can confirm or cancel the action.

4.3.4 Screen Builder

4.3.4.1 Access

Click **Screen Configurations > Screens** to access the Screen Overview page.

On the Screen Overview page, click the **Create with Builder** button at the bottom of page for a Screen Creation or the **Gear wheel** icon for the selected Screen entry in the search results table for a **Screen Update** mode accordingly.

4.3.4.2 Table of Contents

- [Overview](#)
- [Screen Basic Data](#)
- [Screen Header and Sections](#)

4.3.4.3 Overview

The Screen Builder functionality provides an ability to create and manage screens, tabs and create content displayed there. You can configure all possible operations and actions and set up data that build and cover the required business processes in the Render application using various advanced options of the Screen Builder. You can use the features of Screen Builder to manage the content in the Render:

- create content for web, desktop, mobile,
- use screen builder to rapidly create and deploy desired material,
- create CRUD screens within point-and-click menus,
- call custom extension functions to extend the Render application,
- dynamically create search content to display in the Render application,
- weight tabs to determine placement of screens within menu,
- select screen styles with the builder tool,
- provide direct access to database layer using alias framework,
- create sections for field edits, tables, and various charts,
- internationalize field text and tooltips,
- add custom client-side JavaScript via menu-driven tool-set,
- add buttons and custom graphics,
- use different field types: text, numeric, list, text area, multi-select list, check boxes, radio buttons, document uploads, inline searches, label, button, datalist, relational datalist, dependent fields, linked list, tooltips.

The process of screen creation/update with builder consists of 2 steps and includes:

- Basic Data configuration
- Header and Section configuration

4.3.4.4 Screen Basic Data

The Basic Data configuration includes the following parts:

- **Screen Details**

- **Extension Functions**
- **Screen Layout**

More information and instructions on how to set up the Screen Basic Data, open the correspondent [Screen Master Data Settings](#) page of the User Manual.

After all the changes are made at the first stage, click the Next button at the bottom of the page to proceed to the next stage and configure the Screen Header and Sections.

4.3.4.5 Screen Header and Sections

After filling in all the necessary data on the first page of the Screen Builder click the **Next** button. You will be redirected to the next page to proceed with building the screen data.

On the second step of setting up your screen, you have the possibility to build the layout of the screen, to define how the **Header** and the **Sections** will look on the screen.

You can determine, which data, labels and actions will be available, what fields, images, labels and buttons will be displayed on the screen and used by users in the Render.

The instructions on how to configure the Header level section is very similar to the Section level configuration, however, there are some differences in the settings and purpose of the Header and Section usage. There are different types of sections. Thus, we will go through each of the configurations in detail.

i Note that the functionality may work incorrectly in case the browser window width is less than 769 pixels. For example, if a user opens the Settings pop-up window on the second page of the Screen Builder (Header and Section configuration) to configure an image, a button, a label, or a field, as a result the Settings pop-up window with parameters from another image, button, label, or field can be opened instead.

For more information about Header and Section Configuration, refer to the sections named Screen Header and Screen Sections on the [Header and Section Configuration](#) of the User Manual, correspondingly.

Related pages:

- [Screen Master Data Settings](#)
- [Header and Section Configuration](#)
- [Login Screen Configuration](#)
- [Search Screen Configuration](#)
- [Active/Passive Screen Configuration](#)

4.3.4.6 Screen Master Data Settings

4.3.4.6.1 Access

Click **Screen Configurations > Screens** to have an overview of all screens existing in the system, manage them and create new screens.

4.3.4.6.2 Table of Contents

- [Overview](#)
- [Configure Screen Details](#)
- [Search Configuration](#)
- [Screen State](#)
- [Screen Type](#)
 - [Active/Passive](#)
 - [Search Screen](#)
 - [Login Screen](#)
- [Configure Extension Functions](#)
 - [Add Extension Function](#)
 - [Delete Extension Function](#)
- [Configure Screen Layout](#)

4.3.4.6.3 Overview

The Master or Basic Data configuration includes the following parts:

- **Screen Details**
- **Extension Functions**
- **Screen Layout**

4.3.4.6.4 Configure Screen Details

Specify the data describing the screen and configure the screen-related properties:

Create screen

TAB DEVICES *

☒ DESKTOP
 ☒ MOBILE
 ☒ WEB
 ☐ PASS_THRU

SELECT EXISTING SCREEN

June_Menu_One

-- Or --

ADD NEW SCREEN

SCREEN DESCRIPTION

My Desc

PRIMARY TABLE

JuneTest1

TAB WEIGHT ⓘ

0

☐ HIDE TABS

AUDIT FIELDS

Alias.JuneTest1.Boolean1
 Alias.JuneTest1.Boolean2
 Alias.JuneTest1.Comments
 Alias.JuneTest1.CSV

SIMPLE SEARCH

☒
☐
 Search_JuneTest1: Universal DLL : Search_JuneTest1

MULTI-SEARCH WITH CUSTOM QUERY

☐
☐
 -- Select --

TAB TEXT *

June Test 1

Internationalization

TAB DESCRIPTION

June Test 1

SCREEN STATE

View

☐ ACTIVE/PASSIVE
☐ SEARCH SCREEN
☒ WORKFLOW TRACKER VIEWABLE
☐ LOGIN SCREEN
☐ REFRESH SCREEN

You can fill in the following fields:

Tab Devices - specifies which applications should receive data for this screen. As this feature is still in progress and has not been completed yet, it cannot work as expected. Please wait for a feature completion to fully benefit from it.

TAB DEVICES *

☒ DESKTOP
 ☒ MOBILE
 ☒ WEB
 ☒ PASS_THRU

PASS THRU GUEST USER

☒
☐
 -- Select --

- **Desktop** - select the check box to allow users to show this screen and use the data on the desktop version of the application.
- **Mobile** - select the check box to allow users to show this screen and use the data on the mobile version of the application.
- **WEB** - select the check box to allow users to show this screen and use the data on the WEB version of the application.
- **Pass_Thru** - select the check box to allow users to show this screen and use the data on an external application.

- **Pass Thru Guest User** - this check box with the guest user list will appear in case the **Pass_Thru** check box is selected. Selecting the **Pass Thru Guest User** check box will activate the guest user list. If you are creating a screen to be used by a guest user, then you can select a guest user profile from the drop-down list for which pass thru will be allowed. By default, the parameter transfer is limited for guest users.

Screen Name

Select the screen on which the tab should be displayed. You can select an existing screen OR create a new screen:

SELECT EXISTING SCREEN	-- Or --	ADD NEW SCREEN	SCREEN DESCRIPTION
AF_Examples_2			

- **Select existing screen** - select the name of an existing screen from the drop-down list. Please note that a new screen will be created with the same already existing screen name. Use an alternative option to create a new screen:
 - **Add new screen** - enter a name for the new screen.
 - **Screen description** - provide a short informative description for the screen.

Primary Table

This field specifies the database table that will be used as a primary table. The data from this table will be used and displayed on the screens in the render. The list of all tables can be found on the Tables (Features > Tables) page. For more details about Tables, refer to the [Tables](#) page of the User Manual.

Note that to display the tables' list at first screen creation, the aliases should be updated. The aliases can be updated on the Management page (Features > Management) by clicking the **Reload aliases** button. For more details about alias updates, refer to the Reload Aliases section on the [Management](#) page of the User Manual.

Tab Weight

Enter the number to determine the placement of the screen within menu in the Render application.

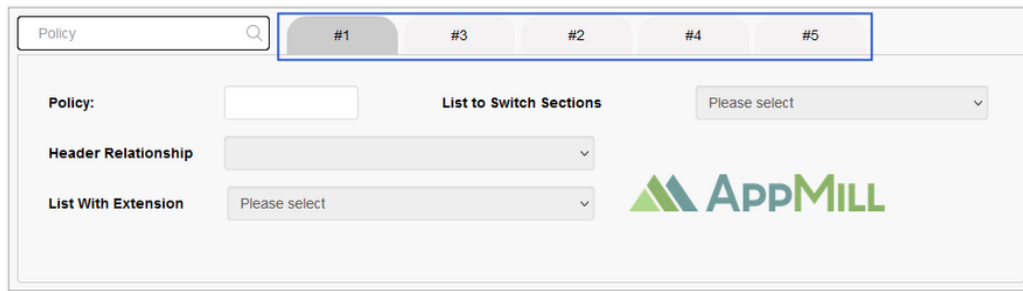
The "0" value allows you to fully customize the screen (search field, audit fields, select extensions).
The "99" value - for the screen in the pop-up, otherwise this screen will not be displayed.

The screens with the 0 or 99 weight contain their own search field. For the screens with other weight value, the search of the main screen is used.

In the Render application, according to the tab weight all screens are sorted and placed from the left to the right. The tab with the lowest tab weight will be considered as the first tab in the list of tabs and will be placed from the left to the right on the Render screen. The less tab weight is, the closer to the beginning of the screen list it will be placed.

For example, the screen #1 tab weight is equal to "0", the screen #2 tab weight is equal to "10", the screen #3 tab weight is equal to "4". As a result, the screen #1 will be placed first, then the screen #3, and the final is the screen #2.

In the Render application it can be displayed as follows:

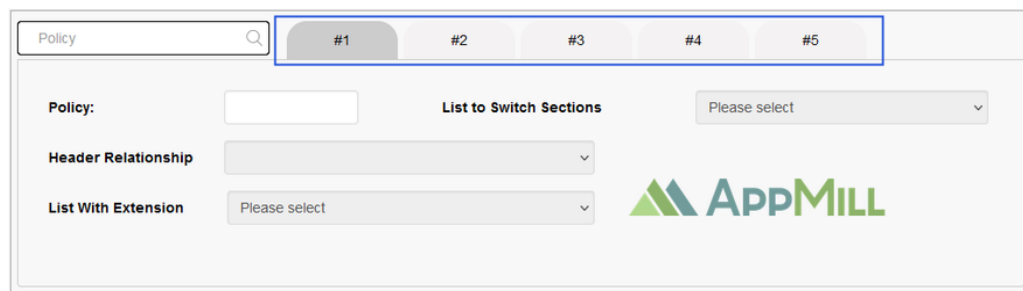


Hide Tabs

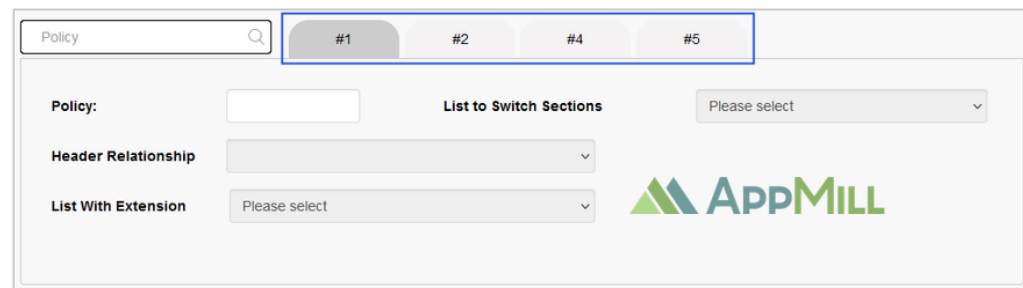
Select the check box to define that this tab should be hidden on UI by default. This can be useful for the tabs that should be displayed only under certain conditions, e.g. during Workflow etc. The Hide Tabs check box is displayed in case the Tab Weight value equals to “0”.

i Please note that the Hide Tabs function will hide only the Tab title buttons for activating the corresponding tab and showing the tab content on the screen. If there is only one tab on the screen, the tab title button will be hidden and the content will be displayed by default.

In the Render application, the screen with all tabs can be displayed as follows:



In the Render application, the screen with the hidden tab can be displayed as follows:

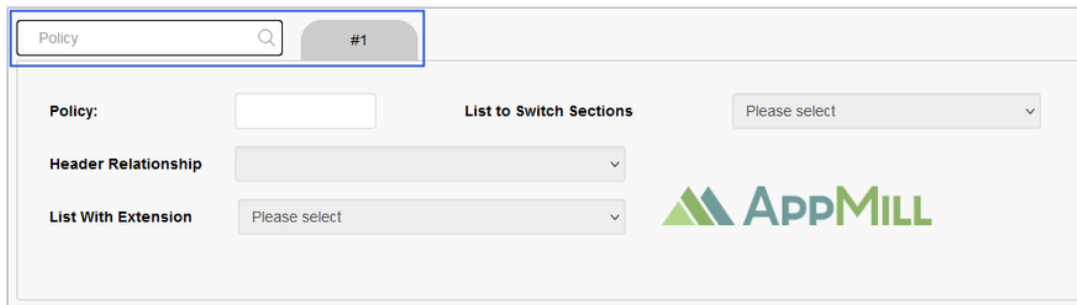


Hide Search Bar

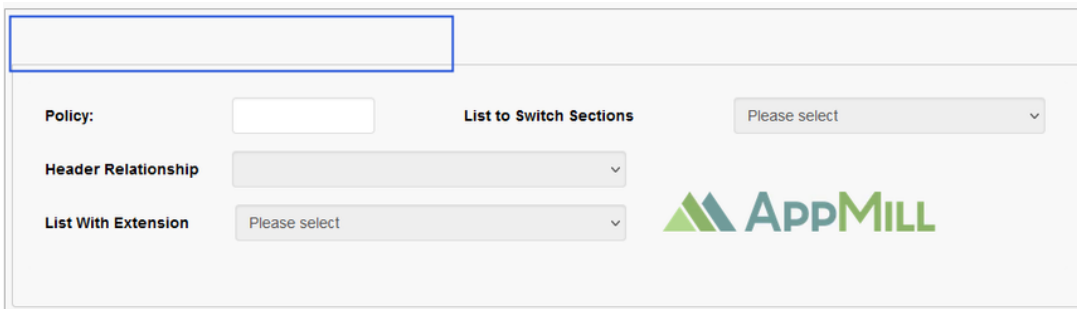
Select the check box to define that the search bar should be hidden on UI by default. The Hide Tabs check box is displayed in case the Tab Weight value equals to “99”.

In case the Tab Weight value equals to “99”, the tab name will not be shown in the Render.

In the Render application, the screen with the displayed search bar and tab name can be displayed as follows:



In the Render application, the screen with the hidden search bar and tab name can be displayed as follows:



Audit Fields

The list of values is provided automatically based on the aliases created via Alias Framework. Select the values the changes of which must be tracked and saved in the Audit History (Features > Audit History). For more details about the field change history, refer to the [Audit History](#) page of the User Manual.

4.3.4.6.5 Search Configuration

There are 2 options to configure the search:

- **Simple Search**
- **Multi-search with custom query**

The main difference between simple search and multi-search with custom query is that simple search contains the list of queries created automatically based on the Primary Key. The multi-search with custom query is based on custom query that are managed on the Custom Query page (Features > Custom Query). For more details on how to manage (create, update, or delete) custom queries, refer to the [Custom Query](#) page of the User Manual.

To start search configuration, first select an appropriate check box to activate the wished option - simple search or multi-search with custom query. One option only can be enabled at the same time.

Select a search query from the drop-down list. The query should be selected for the database table defined in the Primary Table field.

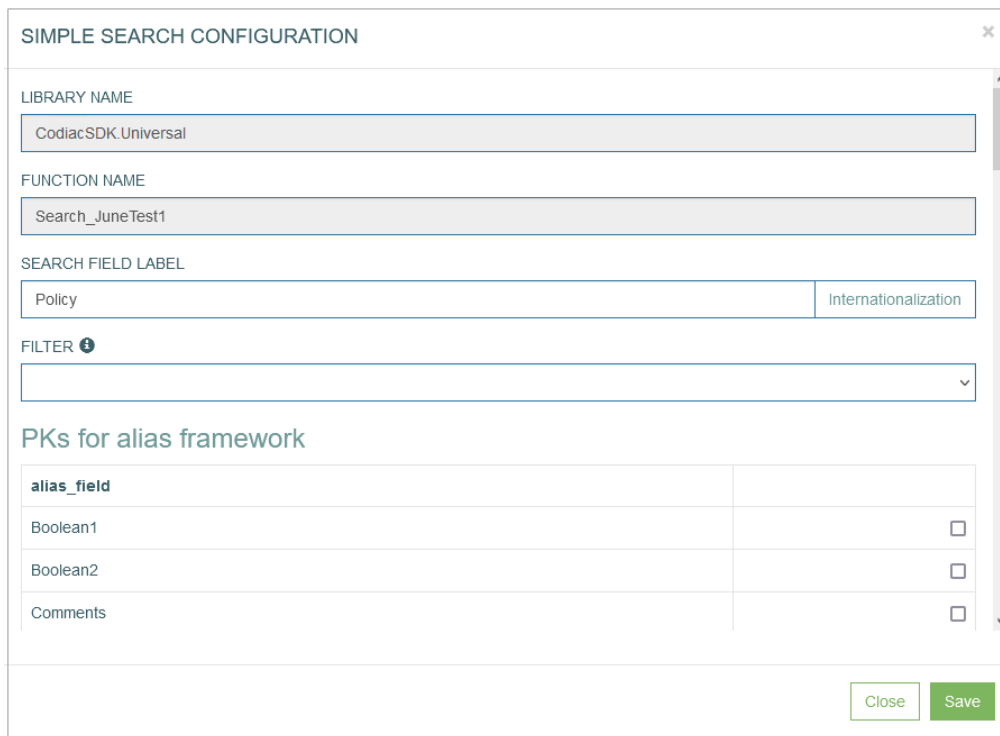
 In case the simple search has no options, you have to re-save the table structure on the Tables page (Features > Tables). After that, the simple search queries appear. For more details about how to re-save the table structure, refer to the Update Table section on the [Tables](#) page of the User Manual.

Then click the gear wheel icon to configure the selected search query.

Depending on the selected option, the pop-up window opens for configuration.

Simple Search

In the **Simple search configuration** pop-up window, fill in the following data:



The image shows a 'SIMPLE SEARCH CONFIGURATION' dialog box. It contains the following fields and controls:

- LIBRARY NAME:** A text field containing 'CodiacSDK.Universal'.
- FUNCTION NAME:** A text field containing 'Search_JuneTest1'.
- SEARCH FIELD LABEL:** A text field containing 'Policy' and a button labeled 'Internationalization'.
- FILTER:** A dropdown menu with a downward arrow.
- PKs for alias framework:** A table with three rows: 'Boolean1', 'Boolean2', and 'Comments'. Each row has a checkbox on the right.
- Buttons:** 'Close' and 'Save' buttons at the bottom right.

- The **Library Name** and **Function Name** values are predefined and not editable.
- **Search Field Label** - enter the text that will be displayed as a placeholder in a search field on the screen in the Render.

To add the translations for the label, click the **Internationalization** button. In the opened pop-up window, select and add the language, enter the translation for the selected language. Click the **Apply** button to save the changes.

i Multiple values should be separated by a semicolon (e.g., policy; agent).

- **PKs for alias framework** - select the check box(es) for the Primary Key(s) of the selected database table.
- **Parameter for Search** - select check boxes for the fields that will be used and shown as search fields on the created screen in the Render.

To save the configuration and close the window, click the **Save** button at the bottom of the pop-up window.

Simple Search Usage Example

In case the simple search is configured, in the Render application entering the search criteria to the search field provides a possibility to filter the search results or to search for an appropriate result in the database.

For example, the user enters the word “work” into the search field, as a result first 15 found items that contain this word will be shown.

In the Render application, it can be displayed as follows:

Pass Logged User

The **Pass Logged User** option provides the possibility to automatically show in the Render application the search results based on the current user's parameters, such as ID and user name.

This option will be available only if the parameters below are set as follows:

- In the **Primary Table** field, the *c_user_accounts* table should be selected.
- In the **Simple Search** section, the *Search_c_user_accounts* search query should be selected from the drop-down list.
- In the **Simple search configuration** pop-up window, define the *ID* and *user_name* for the **PKs for alias framework** and **Parameter for Search** parameters, correspondingly.



To avoid the situation when the current user accesses other users' data, it is recommended to hide the search bar in the Render, when using the **Pass Logged User** option. For this, define the Tab Weight value as "99" and select the Hide Search Bar check box.

Multi-search with custom query

In the **Multi-search with custom query** pop-up window, fill in the following data:

MULTI-SEARCH WITH CUSTOM QUERY
×

PKs for alias framework

PK	
Address.Tenant	☐
Address.ClientNumber	☐
Address.AddressType	☐

Param	Label
:City	Internationalization
:ClientNumber	Internationalization
:AddressType	Internationalization

Close
Save

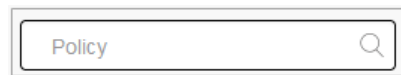
- **PKs for alias framework** - select the check box(es) for the Primary Key(s) of the selected database table.
- **Param** - parameters that will be used and shown as search fields on the created screen in the Render.

In the Render application, in case the label is not defined the Param name will be displayed as a placeholder in a search field:



- **Label** - enter the text that will be displayed as a placeholder in a search field and a header of the search results list in the search results list on the screen in the Render.

In the Render application, the label can be displayed as a placeholder as follows:



and as a header of the search results list as follows:



To add the translations for the label, click the **Internationalization** button. In the opened pop-up window, select and add the language, enter the translation for the selected language. Click the **Apply** button to save the changes.

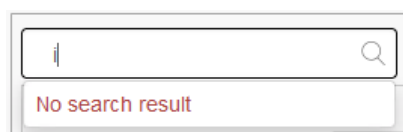
To save the configuration and close the window, click the **Save** button at the bottom of the pop-up window.

Multi-search with custom query Usage Example

In case the multi-search with custom query is configured, the search will be restricted by custom query that is managed on the Custom Query page (Features > Custom Query). For more details on how to manage (create, update, or delete) custom queries, refer to the [Custom Query](#) page of the User Manual.

For example, the value in custom query is defined to show only search results that contain two letters “ll” and/or “LL”.

In case the user enters a little letter “i” into the search field and if the search results contain the little letter “i” and two letters “ll” and/or “LL” defined values of the custom query, the results will be shown. Otherwise, no results will be displayed.



In case the user enters a capital letter “I” into the search field and the search results contain the capital letter “I” and two letters “ll” and/or “LL” defined values of the custom query, the results will be shown in the Render application as follows:

i Note that the maximal number of search parameters that can be defined for the search field is 3.

In the Render application, the search field with 3 search parameters is displayed as follows:

i Note that the Search functionality must be configured on the first page of the Screen Builder to make the buttons with extension functions work correctly. The work for such buttons is based on the data found from the database.

In case the Search functionality was not configured and the Inquire functionality is used instead of it, the buttons with extension functions will not work correctly.

Please consider this information and use the buttons with extension functions with the set Search functionality only.

Tab Text

Enter the text for the tab that will be displayed as a tab title in the Render.

To add the translations for the tab text, perform the following operations:

- Click the **Internationalization** button next to the **Tab Text** field. The Internationalization pop-up window will be opened.

- In the opened pop-up window, select the language from the drop-down list and click the **Add** button. The field with added language will be displayed.
- Enter the translation for the selected language.

- Click the **Apply** button to save the changes.
- Click the **Reset** button to delete all changes without closing the pop-up window.

Click the **Close** button to return to the *Create Screen* page without saving changes.

In case there is the translation for the tab text, move the cursor over a field and the translation will be displayed.

In the Render application, the tab text can be displayed as follows:

Tab Description

Provide a short informative tab description that displays when hovering over it on the screen in the Render.

In the Render application, the tab description can be displayed as follows:

4.3.4.6.6 Screen State

Select the state of the screen. This parameter defines the operation state applied to the screen data when the screen is loaded and opened.

Currently, one of the following values can be selected:

- **View** - This state is applied to all screens by default. Normally, in the View mode, fields are blocked from being changed.
Such screens can be accessed from the menu or via a link from other screens.
- **Insert** - Selecting this screen state will enable the creation of new data and the Paste operation. The user will have the possibility to fill in the fields on the screen.
The records are not locked and the user will be able to leave the screen without saving or canceling the “Insert” operation (this is equivalent to canceling the data saving).
Such screens are usually accessed via the menu.
- **Edit** - Enabling this option allows you to create the screen that can be edited. This Screen state is possible for the screen containing the search form. That means that the "Edit" operation will be active. Thus, the user will be able to fill in the fields on the screen.
The records with the current primary key will be locked for editing and deletion, and the user will not be able to leave the screen without saving or canceling the Edit operation.
Typically, such screens are accessed via a link from other screens (the link will pass the primary key to look up the screen data).

The Insert or Edit states are frequently used in workflows. E.g., creating an entry (via Insert state), filling in the entry with the value (via Edit state), etc.

4.3.4.6.7 Screen Type

4.3.4.6.7.1 Active/Passive

This is a specific type of screen that does not have a basic template, but contains some limitations. This option is used to display and edit data in related third-level tables.

For example:

- On the *first* level, there is a table used to set up the search field;
- On the *second* level, there is a table of related data obtained as a search result;
- After selecting a value in the header, the section displays the data from the *third* linked table. And this data will be displayed in the body of the section and can be edited.

The screen will be represented with data from the database table of the second level in the header section and data from the table of the third level in the screen content section.

This option restricts the possibility to select any screen layout from the available screen layouts. In case the Active/Passive option is activated, only the 1x1 layout is available.

For the correct work of this screen, the screen state must be selected to “View”.

More information about the Active/Passive Screen can be found on the [Active/Passive Screen Configuration](#) page of the User Manual.

4.3.4.6.7.2 Search Screen

This is also a specific screen that does not have a basic template, but contains some limitations. For the correct work of this screen, the screen state must be selected to “View” as well.

The header must contain fields with the “KEY FIELD” attribute (this field will be active for editing). This option is used in conjunction with the “Inquire” action, or adding a button with the “Search Submit” action.

This option restricts the possibility to select any screen layout from the available screen layouts. In case the Search Screen option is activated, only the 1x1 layout is available.

More information about the Search Screen Configuration can be found on the [Search Screen Configuration](#) page of the User Manual.

4.3.4.6.7.3 Login Screen

This option defines that the created screen will be used as a Login screen. Pay attention that the activation of this check box restricts the possibility to select the screen layouts. In case the Login Screen option is activated, only the 1x1 (Header x Section) layout is available.

As the configuration of the Login screen and its variations is very specific, it is described on a separate page. Please refer to the Configure Login Screen section on the [Login Screen Configuration](#) page of the User Manual for more details.

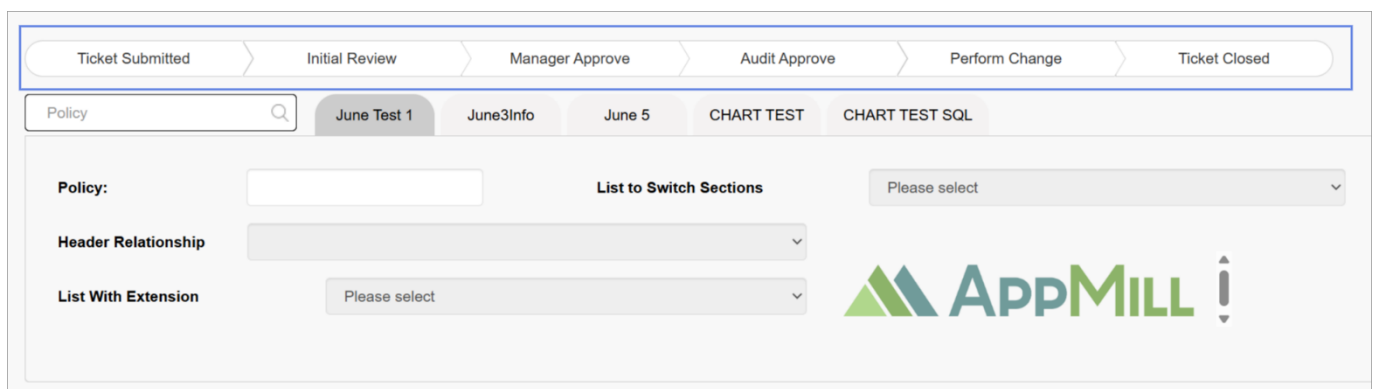
Note that the **Active/Passive**, **Search** and **Login** page options are mutually exclusive and cannot be selected at the same time.

Workflow Tracker Viewable

The Workflow Tracker Viewable checkbox in the Screen Builder controls whether the Workflow Tracker is displayed for a given screen.

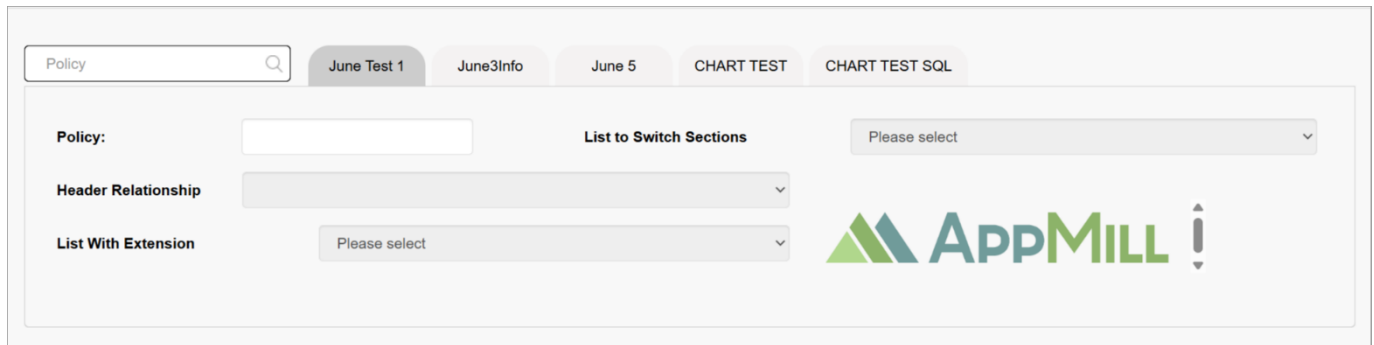
When this option is enabled, users will see the Workflow Tracker, allowing them to monitor progress and status updates within the workflow. If this option is disabled, the Workflow Tracker will be hidden for that screen.

In the Render application, the screen with the Workflow Tracker Viewable checked can be displayed as follows:



The screenshot displays the AppMill Render application interface. At the top, there is a horizontal navigation bar with six steps: "Ticket Submitted", "Initial Review", "Manager Approve", "Audit Approve", "Perform Change", and "Ticket Closed". Below this bar is a search bar labeled "Policy" with a magnifying glass icon. To the right of the search bar are several tabs: "June Test 1", "June3Info", "June 5", "CHART TEST", and "CHART TEST SQL". The main content area contains a form with three sections: "Policy:" with a text input field, "Header Relationship" with a dropdown menu, and "List With Extension" with a dropdown menu. To the right of these sections is a "List to Switch Sections" label and a "Please select" dropdown menu. The AppMill logo is visible in the bottom right corner of the interface.

In the Render application, the screen with the Workflow Tracker Viewable unchecked can be displayed as follows:



For more details about Workflow, refer to the [Workflow](#) page of the User Manual.

Refresh Screen

This function is designed to systematically update the screen in the Render. After enabling the check box, you can specify the screen reload interval from 15 to 60 seconds. This function can be useful when displaying graphs, charts or for tracking updates.

4.3.4.6.8 Configure Extension Functions

Extension Functions feature allows you to extent the actions available on the created screen in Render.

As a rule, the extension functions are assigned to a particular primary table. That means that the list of available extension functions will be restricted by the Primary Table selected earlier in the Screen Builder.

The creation of extension functions is supported in different programming languages:

- C#
- C++
- COBOL
- JavaScript
- PHP
- Python

More information on how to manage and assign the extension functions to database table can be found in the Create Extension Function section on the [Extension Functions](#) page (System data > Extension Functions) of the User Manual.

ACTION	EXTENSION FUNCTION - PRE	EXTENSION FUNCTION - POST
ADD	Extensions	Extensions
DELETE	Extensions	Extensions
EDIT	Extensions	Extensions
INQUIRE	Extensions	Extensions
RELEASE	Extensions	Extensions
EXECUTE	Extensions	Function

There are 3 function states of the action execution:

1. **Pre** - is executed at first.
2. **Main** - goes after execution of the Pre function.
3. **Post** - is executed as the last step.

Let's have a look at some examples.

Imagine that you need to delete some outdated analysis result entry from the results table. The result entry that needs to be deleted is connected to some other outdated data entries. So, the deletion of the analysis result entry alone will not be enough as the connected unnecessary data remain in the tables. This data should be deleted as well. In this case, you need to extend the Delete action with the Pre - extension function "first delete the data connected to the outdated analysis result entry". And then the main Delete function should be executed.

Or you need to add a new analysis result entry to the results table. And together with this action you also need to enter some data of this analysis result entry as separate values in the table. In this case, you need to use the Post - extension function "create a data entry for the result entry ID". Then the main function will create a new entry with a unique ID, the post function will add data of the created entry using its ID.

The Pre and Post functions are optional and can be switched on/off. The Pre and Post functions are supported for the following actions:

- **Execute** - in the Render application, in case the value with the extension function is selected, the specified function will be executed when the user clicks the **Execute** button. The **Execute** button is displayed in the main actions' menu on the screen in the Render application as follows:



The Execute action, additionally to the Pre and Post functions, supports the Main function. The Pre and Post functions are optional, while the Main function is mandatory. That means that if you use the Execute action, you must always define the Main function.

- **Add** - in the Render application, clicking this button provides a possibility to add new record to the database. The **Add** button is displayed in the main actions' menu on the screen in the Render application as follows:



- **Edit** - in the Render application, clicking this button provides a possibility to open the record in the editing mode and update it in the database. The **Edit** button is displayed in the main actions' menu on the screen in the Render application as follows:



- **Delete** - in the Render application, clicking this button deletes the record from the database. The confirmation pop-up will appear where you can confirm or cancel the Delete action.
The **Delete** button is displayed in the main actions' menu on the screen in the Render application is displayed as follows:



- **Inquire** - is designed to sequentially view multiple sets of data on the screen. The Inquire functionality is similarly to the search functionality, but in case of the Inquire option, the first found item is displayed on the screen. The User can navigate through other found items using the Previous item and Next item buttons. The Inquire function does not use the entire set of search matches (just like a regular search). Only 15 first found options can be accessed and navigated through, even if there are more than 15 search result items.
The Inquire function can be also used without the search fields.
The **Inquire** button is displayed in the main actions' menu on the screen in the Render application as follows:



The **Previous item** button is displayed in the main actions' menu on the screen in the Render application as follows:



The **Next item** button is displayed in the main actions' menu on the screen in the Render application as follows:



In the actions' menu, the Inquire functionality adds three buttons: Load, Previous item and Next item. If there is no field with the "KEY FIELD" attribute in the screen title, then the Load control button will be hidden in the menu on the screen.

4.3.4.6.8.1 Add Extension Function

To add an extension function:

1. Turn on the function using the toggle switch on the right side of the function input field.
2. Click the **Extensions** field in the Extension Function - Pre or Extension Function - Post columns correspondingly.
3. In the opened **Extensions Settings** pop-up window, select the required extension function.
4. Click the **Add** button. The function will be added and displayed in the list of functions below the Extensions field.

- Click the **Save** button to apply the changes. Click the **Close** button to close the pop-up window without saving.

4.3.4.6.8.2 Delete Extension Function

To delete a previously added extension function:

- Click the **Extensions** field in the Extension Function - Pre or Extension Function - Post columns correspondingly.
- In the opened Extensions Settings pop-up window, you will see the list of the extension functions previously added to the action.
- Click the **Delete** icon to delete the entry.

4.3.4.6.9 Configure Screen Layout

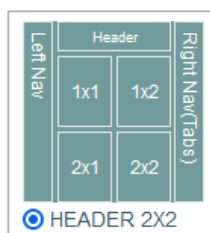
You can select the screen layout and define the arranging of screen header and sections. Select the radio button below for the desired layout.

The screenshot displays a configuration window for screen layouts. It contains ten radio button options arranged in two rows. Each option is accompanied by a small diagram illustrating the layout structure, which typically includes a 'Header' at the top, a 'Left Nav' on the left, and a 'Right Nav(Tabs)' on the right. The main content area is divided into sections of various sizes, labeled with 'x' values (e.g., 1x1, 1x2, 2x1, 2x2, 2x3, 3x1, 3x2). The 'HEADER 2X1' option in the second row is currently selected, indicated by a blue dot. At the bottom right of the window, there are 'Back' and 'Next' buttons.

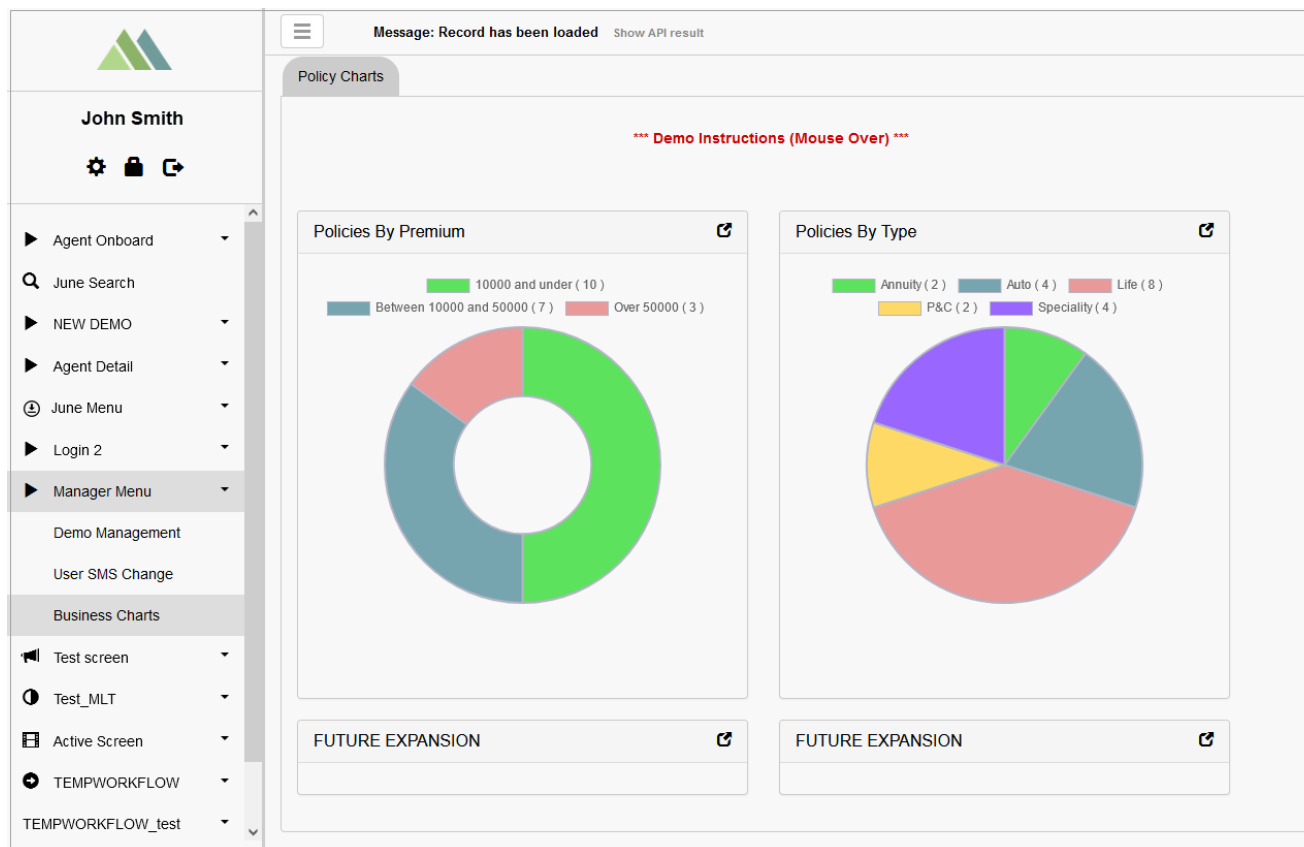
- ☐ HEADER 2X2
- ☐ HEADER 2X3
- ☐ 2X2
- ☐ 2X3
- ☐ 1X1
- ☐ HEADER 1X1
- ☐ HEADER 1X2
- ☐ 1X2
- ☒ HEADER 2X1
- ☐ 2X1

Here are several examples of screen layouts in the Render application:

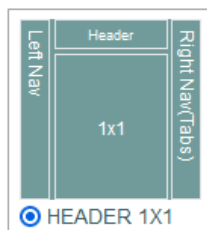
In case the Header 2x2 is selected:



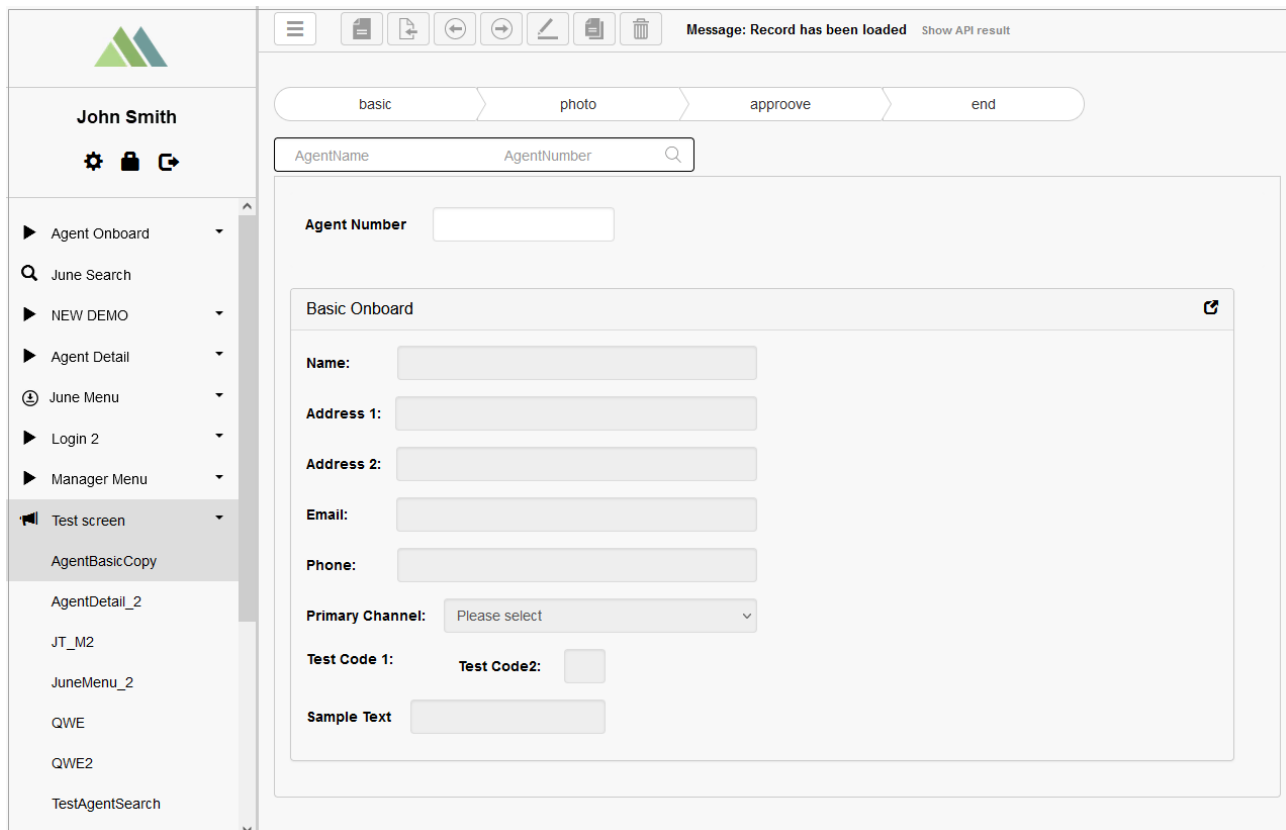
The screen in the Render will be displayed as follows:



In case the Header 1x1 is selected:

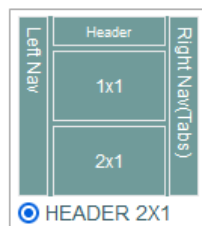


The screen in the Render will be displayed as follows:



The screenshot displays the AppMill Architect interface. On the left is a sidebar with the user profile 'John Smith' and a list of components including 'Agent Onboard', 'June Search', 'NEW DEMO', 'Agent Detail', 'June Menu', 'Login 2', 'Manager Menu', 'Test screen', and several other test components. The main area shows a form titled 'Agent Onboard' with a 'Basic Onboard' section. The form includes fields for 'Agent Number', 'Name', 'Address 1', 'Address 2', 'Email', 'Phone', 'Primary Channel' (a dropdown menu), 'Test Code 1', 'Test Code 2', and 'Sample Text'. At the top of the main area, there are tabs for 'basic', 'photo', 'approve', and 'end', and a search bar for 'AgentName' and 'AgentNumber'.

In case the Header 2x1 is selected:



The screen in the Render will be displayed as follows:

John Smith

- Agent Onboard
- June Search
- NEW DEMO
- Agent Detail
- June Menu
- Login 2
- Manager Menu
- Test screen
- AgentBasicCopy
- AgentDetail_2
- JT_M2
- Main Menu
- QWE
- QWE2
- TestAgentSearch
- TestTotals
- License_Info_T
- Test_MLT
- Active Screen
- TEMPWORKFLOW
- TEMPWORKFLOW_test

ABC1234

Message: Record has been loaded

Policy: ABC1234 List to Switch Sections 2 - Capstone

Header Relationship Please select

List With Extension SAMPLE PRE

Link Section 2

TEXT SECTION

Text1A Text

Text30 Text

CALCULATION

Comments Section

Comments: PLEASE ADD MORE DETAILS Relational Datalist ABC1234

Image

Decimal Zero

DateTime Depends 02/03/2024 17:49:21

Test Email

Formatted Phone

Date 01/22/2021

Decimal 2 0.00

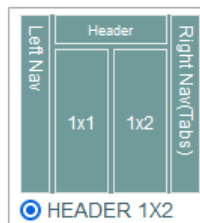
Inline Search

Query in Field abc [MARTY/DEDED]

Textarea Query

Execute

In case the Header 1x2 is selected:



The screen in the Render will be displayed as follows:

John Smith

Settings, Lock, Refresh

- Agent Onboard
- June Search
- NEW DEMO
- Agent Detail
- June Menu
- Login 2
- Manager Menu
- Test screen**
 - AgentBasicCopy
 - AgentDetail_2**
 - JT_M2
 - JuneMenu_2
 - QWE
 - QWE2
 - TestAgentSearch
 - TestTotals
 - License_Info_T
 - Test_MLT
 - Active Screen
 - TEMPWORKFLOW
 - TEMPWORKFLOW_test

Message: Record has been loaded [Show API Result](#)

Agent General Info

Agent Name

Start Date

Term Date

Status

Please select
Bank
Brokerage
Captive
Independent

Vesting Status

Reward Level

Broker

Pay Level ☐ **No Pay** ☐

Comments

RSD

Finance

YTD Comm

XJUA

YTD Trail

XJUA

YTD Persist Credits

Unearned Comm

XJUA

Agent Balance

XJUA

Channel

***** Info (Mouse Over) *****

Cell Phone Number

Email

***** Info (Mouse Over) *****

Agent Welcome

Pending Commissions

Sample Field

newField

After all the changes are made at the first stage, click the **Next** button at the bottom of the page to proceed to the next stage and set up Header and Sections and connected UI elements of the screen.

4.3.4.7 Header and Section Configuration

4.3.4.7.1 Access

To configure the Header and Section of the screen, first you have to perform several steps and define the basic screen data. The configuration of the Screen Header and Section will be available on the second page of the Screen Builder.

Thus, click **Screen Configurations > Screens** to access the Screens Overview page. Then, you can:

- Click the **Create with Builder** button at the bottom of page to create a new screen from scratch.
- Click the **Gear wheel (Update with builder)** icon for the selected Screen entry from the search results table to edit the existing screen.

Fill in the required fields on the first page of the Screen Builder and, when the basic information is specified, click the **Next** button. You will be navigated to the next page of the Screen Builder -the Screen Header and Section Configuration.

4.3.4.7.2 Table of Contents

- [Access](#)
- [Overview](#)
- [Screen Header](#)
- [Screen Sections](#)
 - [Section Type](#)

4.3.4.7.3 Overview

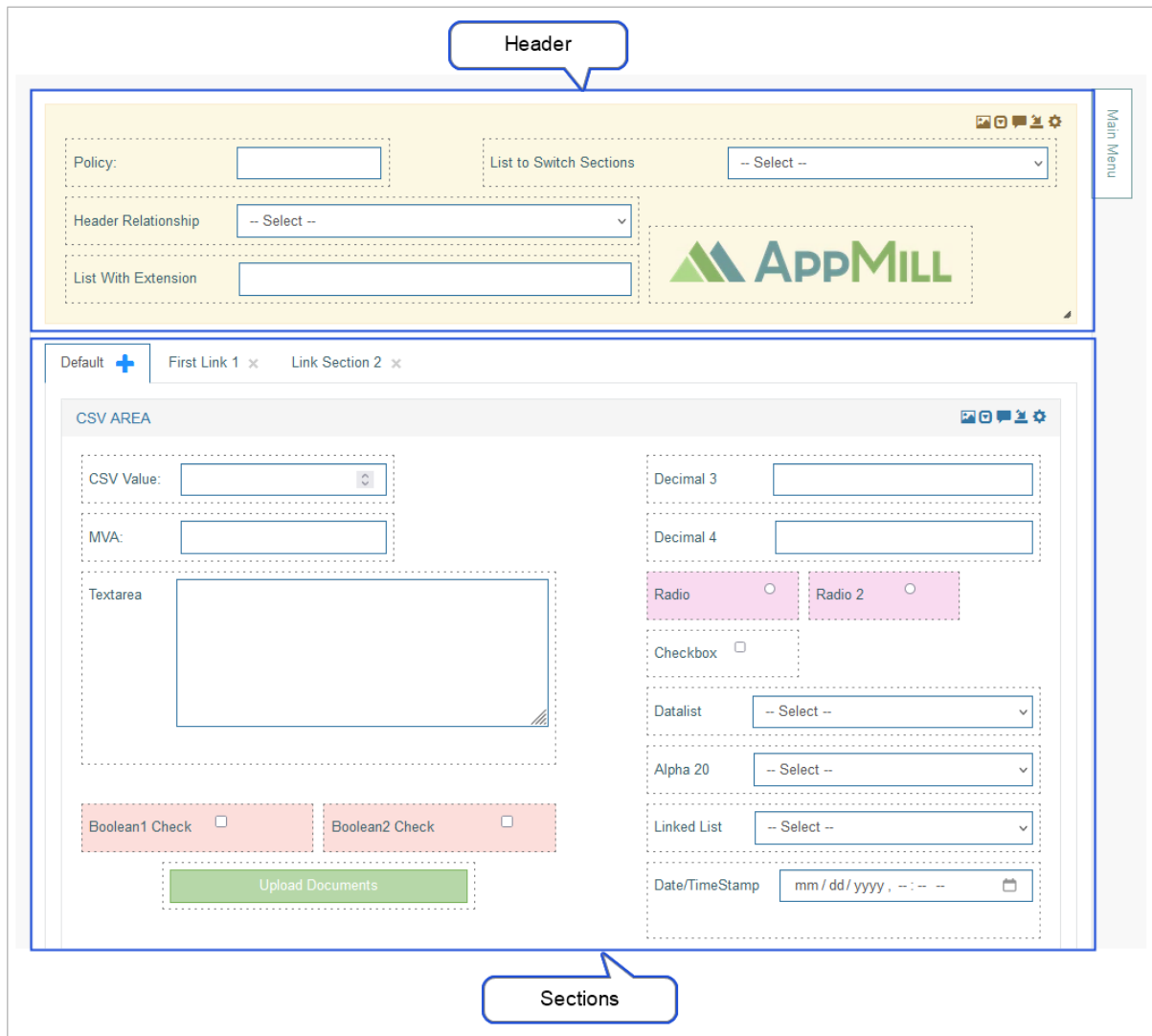
After filling in all the necessary data on the first page of the Screen Builder and clicking the **Next** button, you will be redirected to the second page where you can proceed with building the screen.



On the second step of setting up your screen, there is a possibility to build the layout of the screen, to define how the **header** and the **section(s)** below the header are displayed on the screen, what fields, images, labels and buttons will be available, which actions will be used on the screen in the Render etc.

The examples of how the **Screen Header** and **Screen Section(s)** can be displayed in the Architect and Render are provided below:

- Configured in the Architect:



The screenshot displays the AppMill Architect interface for configuring a screen. The interface is divided into a **Header** section and a **Sections** section. The **Header** section includes a **Policy** dropdown, a **List to Switch Sections** dropdown, a **Header Relationship** dropdown, and a **List With Extension** text field. The **Sections** section contains a **CSV AREA** with a **CSV Value** dropdown, an **MVA** text field, a **Textarea**, and a **Boolean1 Check** checkbox. It also includes a **Decimal 3** text field, a **Decimal 4** text field, **Radio** and **Radio 2** buttons, a **Checkbox**, a **Datalist** dropdown, an **Alpha 20** dropdown, a **Linked List** dropdown, and a **Date/TimeStamp** field with a date picker. An **Upload Documents** button is located at the bottom of the **Sections** area. A **Main Menu** is visible on the right side of the interface.

- Displayed in the Render:

The instructions on how to configure both Header and Section levels are very similar, however, they have some differences in the settings and the purpose of usage.

4.3.4.7.4 Screen Header

To configure the **Screen Header** section, click the **Settings** (gear wheel) icon in the right corner of the header section. The **Section Settings** pop-up window will be opened.

In the opened Section Settings window, select the Section Type. It will define the set of available settings. Fine more information about Section Types in the corresponding section below.

4.3.4.7.5 Screen Sections

To configure the **Screen Section(s)**, click the **Settings** (gear wheel) icon in the right corner of the section that should be set up.

The Section Settings pop-up window will be opened.

SECTION SETTINGS

LAYOUT LABEL
DEFAULT VALUE

Part of Form 1
Internationalization

HIDE SECTION HEADER
☐

HIDE SECTION POP-OUT
☐

USE AS PART OF FORM
☐

LINKED FIELD

Alias..JuneTest1.Text25

ACTIVE VALUE

SECTION TYPE

Edit type

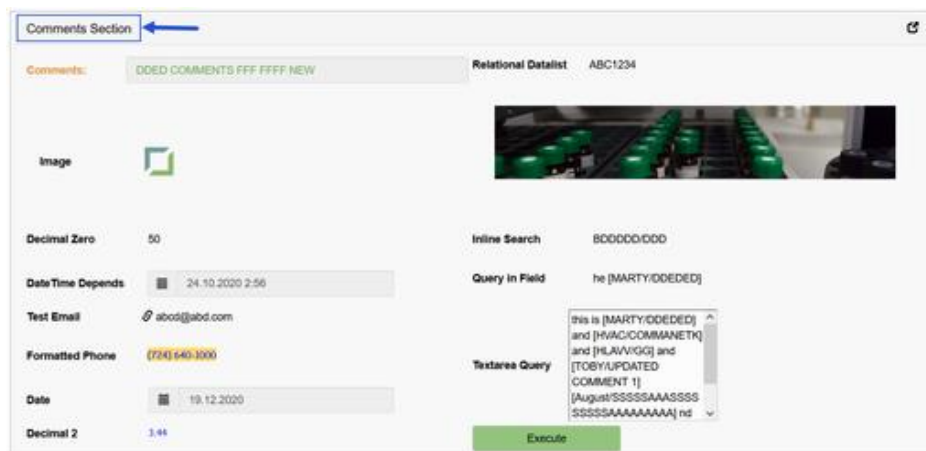
Close

Formatting section fields

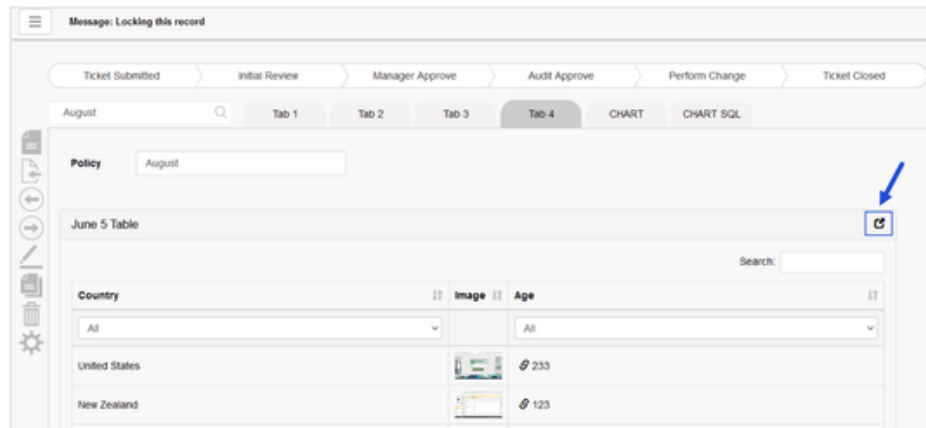
Save

In the opened Section Settings window, you can configure the following parameters:

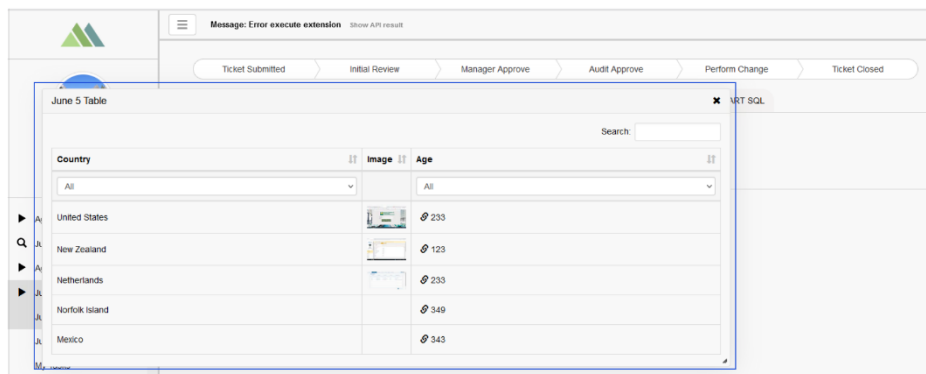
- Layout Label** - enter a title for the section. This title will be displayed on the screen in the Render as follows:



- Hide section header** - you can decide whether to display the Header section on the screen in the Render or not. Select the check box to hide the Header section on the screen.
- Hide section pop-out** - the header section can be opened as a pop-up window. That can be helpful when you a user needs to retain the Header info or actions when scrolling the other sections. Select the check box to deactivate the possibility of opening the section in a pop-up window. In the case of this option being deactivated, the icon to open pop-up windows will be displayed in the right upper corner of the section.



Clicking this icon opens the section in the view of pop-up.



- **Use as part of form** – for the Edit type of section, it is possible to set up a screen section as a modal pop-up window. The opening this modal window can be set up for the Button action only. And it is valid for the Edit section type. The main difference with the usual pop-up window that can be configured is that this modal window is a part on the existing screen in comparison to the usual modal window set up as a separate screen (with separate data and action menu).

SECTION SETTINGS

LAYOUT LABEL

DEFAULT VALUE

Part of Form 1

Internationalization

HIDE SECTION HEADER

☐

HIDE SECTION POP-OUT

☒

USE AS PART OF FORM

☒

SECTION IDENTIFIER

part_of_form_1

Close

Formatting section fields

Save

Enter the Section Identifier into the corresponding field. This ID will be used to link the section and the button to open the section as a modal window.

- **Linked Field** - there is a possibility to link the specific section body state to a field value from the

header.

Then in the Render, when the user selects the value of the linked field and set it to the active value defined in the settings, the correspondent linked section will be retrieved and displayed on the screen.

To link header field value and the section, follow the steps below:

1. In the header section, add a new field. Define a field value (specified via alias). This field value will influence the section display and will be used to switch depth tabs on the screen in the Render.
2. Save the screen.
3. Then, in the section, you can find the field in the Linked Field list and define the value.

For predictable behavior, please remember, that

- the field, which you use to switch depth tabs, should be in the header.
- the Refresh Section check box must be selected
- the desired section from the Section to Refresh drop-down list should be selected.
- **Active Value** - specify the value that will be linked with the section.
- **Section Type** - select the Section Type from the drop-down list.

4.3.4.7.5.1 Section Type

You can define the type of the section by selecting the type from the drop-down list. The Section Type defines the possible layout of the section, available UI elements displayed, actions and operations that can be used further on the screen in the Render. In the Section Type drop-down, you can select the following currently supported types:

- **Edit type** - find more details about Edit type on the [Section Type: Edit](#) page.
- **Table type** - find more details about Table type on the [Section Type: Table Type](#) page.
- **Table from API** - find more details about Table from API on the [Section Type: Table from API](#) page.
- **Chart type** - find more details about Chart type on the [Section Type: Chart Type](#) page.
 - Pie chart type
 - Line chart type
 - Time series chart type
 - Scatter chart type with linear regression
 - Horizontal bar chart type
 - Vertical bar chart type
 - Doughnut chart type
- **Document type** - find more details about Document type on the [Section Type: Document Type](#) page.

To find more details about every Section Type, refer to the following pages:

- [Section Type: Edit](#)
 - [Image Configuration](#)
 - [Button Configuration](#)

- [Label Configuration](#)
- [Field Configuration](#)
- [Section Type: Table Type](#)
- [Section Type: Table from API](#)
- [Section Type: Chart Type](#)
- [Section Type: Document Type](#)

4.3.4.7.6 Section Type: Edit

4.3.4.7.6.1 Overview

The **Edit type** provides the possibility to configure layout, add and rearrange images, buttons, labels and fields to set up the content of the section. With the Edit type you can create any form with the whole range of actions available on the screen in the Render.

The actions to configure images, buttons, labels and fields are displayed next to the **Settings** icon in the upper right corner of the section.

For example, the Header section configured, as displayed on the screenshot above, will look in the Render as follows:

For more details on the images, buttons, labels, and fields configuration refer to the corresponding pages. Open the following pages:

- [Image Configuration](#)
- [Button Configuration](#)
- [Label Configuration](#)
- [Field Configuration](#)

4.3.4.7.6.2 Image Configuration

4.3.4.7.6.2.1 Table of Contents

- [Overview](#)
- [Primary](#)
 - [Value](#)
 - [Custom #ID](#)
 - [Upload area](#)
 - [Allow full size modal pop-up](#)
 - [Use Image Map](#)
 - [Static Image Action](#)
 - [Default](#)
 - [Link](#)
 - [Insert](#)
 - [Inquire](#)
 - [Previous search result](#)
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 - [Edit](#)
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 - [Execute](#)
 - [Execute \(possible document return\)](#)
 - [Generate report](#)
 - [Document](#)
- [Notifications](#)
- [Tab Order](#)
- [Common Operations](#)
 - [Add](#)
 - [Update](#)
 - [Access Rights](#)
 - [Close](#)

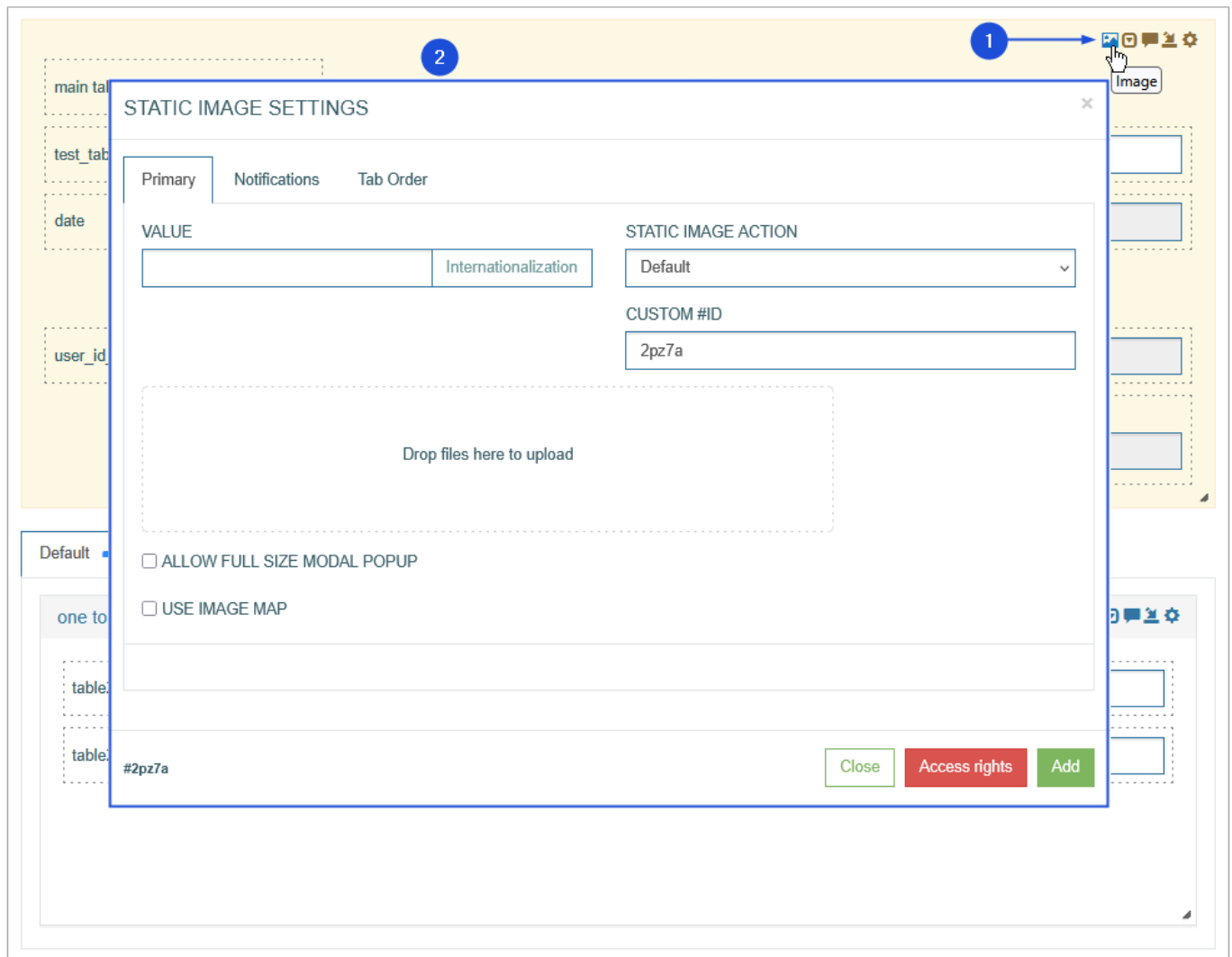
4.3.4.7.6.2.2 Overview

The **Edit type** of the Section provides the possibility to add and manage images to be displayed and used on the screen in the Render application.

The actions to configure images as well as buttons, labels and fields are displayed next to the **Settings** icon in the upper right corner of the section.

To upload an image and configure its displaying on the screen in the Render application, click the **Image** icon in the right corner of the Header section.

The **Static Image Settings** pop-up opens for configuring an image.



Configure and edit the parameters of Static Image Settings by switching across the following available tabs:

- **Primary**
- **Notifications**
- **Tab Order**

See the **Common Operations** section for the description of the buttons available at the bottom of the pop-up window.

4.3.4.7.6.2.3 Primary

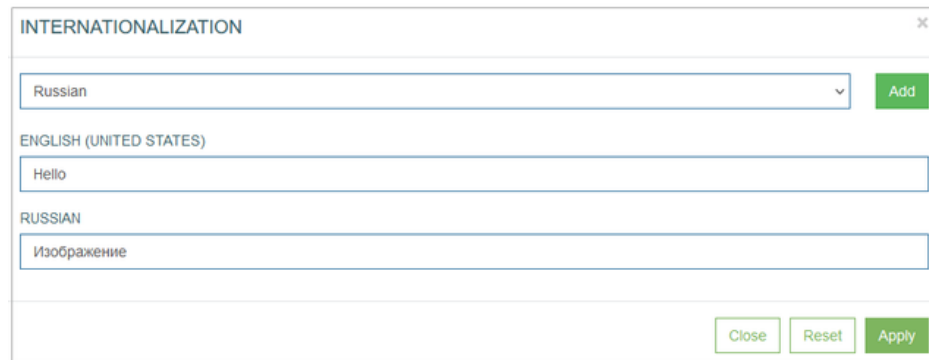
On the **Primary** tab, configure the main parameters. The description of the parameters is provided below.

Value

Enter the values that will be used as the title of the image and will be shown on hover.

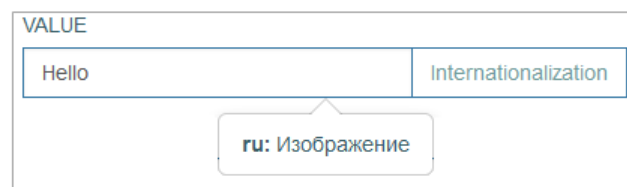
To add the translations for a new label, perform the following operations:

- Click the **Internationalization** button next to the Value field. The Internationalization pop-up window will be opened.



- In the opened pop-up window, select the language from the drop-down list and click the **Add** button. The field with added language will be displayed.
- Enter the translation for the selected language.
- Click the **Apply** button to save the changes.
- Click the **Reset** button to delete all changes without closing the pop-up window.
- Click the **Close** button to return to the Image Settings pop-up window without saving changes.

In case there is the translation for the value, move the cursor over a field and the translation will be displayed.



In case the user changes the display language in the Render application, the translated image title will be shown. For more details about language changing, refer to the [Language](#) page of the User Manual.

In the Render application, the image title can be displayed on hover as follows:



Custom #ID

This is ID of UI element. It can be used in the scripts, to adjust UI element style. The value is generated automatically when you open the image configuration pop-up.



Upload area

Click the area to open your local file manager and select an image to be uploaded. Or using drag and drop action, add the selected image to this Upload area. The image preview will be displayed to the right side

of the upload area.

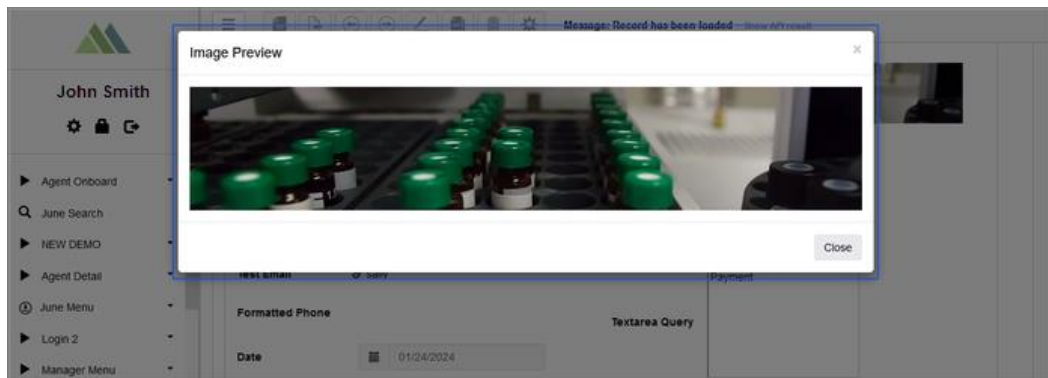


Allow full size modal pop-up

You can define whether the image can be opened as a pop-up window on the screen in the Render.



In the Render application, the opened in pop-up window image can be displayed as follows:



Use Image Map

The Use Image Map option provides a possibility to use the image as a map with clickable sectors. In the Render, users can perform different actions depending on which image sector they clicked.

The image map functionality is available only for static images in header and section(s) with the **Edit type** section type and a **Default** static image action.

☒ USE IMAGE MAP

Area parameters

Shape

Rect

Coords

0,99,168,145

Target

Modal

Title

First floor

Href

/codiac/web/screen/Tests/ImageMap?isFrame=1

OnClick

alert('First floor');

+

Area parameters

Shape

Poly

Coords

8,85,51,73,153,82,153,102

Target

Self

Title

Second floor

Href

javascript:void(0);

OnClick

alert('Second floor (without link)');

-

Area parameters

Shape

Poly

Coords

6,83,25,42,58,46,84,35,91,

Target

Blank

Title

Attic floor

Href

Href

OnClick

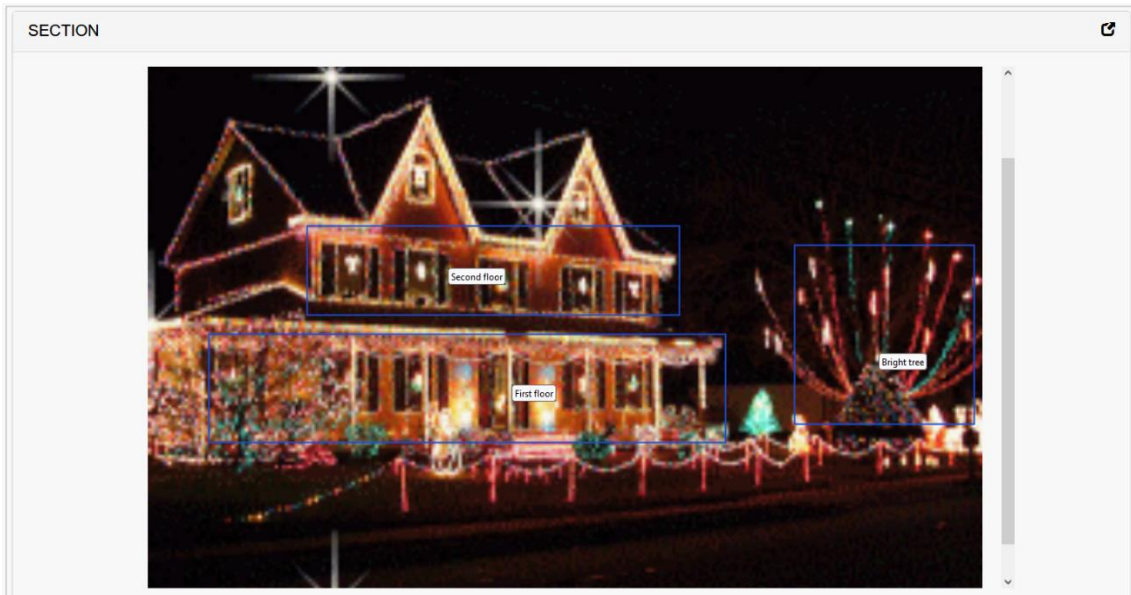
if(!confirm("Do you want to open this tab?")) return false;

-

In the Render application, the image map and sectors are invisible elements and can be displayed as a regular image as follows:



But hovering over image map sectors with the mouse will display sector titles as follows:



The main differences between the regular image and the image map are:

- Clicking the regular image you can perform just one action. For example, clicking any place of the regular image can open the image in a modal window, open a link or perform the insert action, etc. For more details about image actions, refer to the **Static Image Action** section.
- While, the image map is a map with sectors. Each image sector can perform an action. For example, clicking the image right top corner opens an internal data in a modal window, clicking the image center can lead to the external data opened in a new tab, etc. For more details on how to define image map parameters, see the descriptions below.

Select the **Use Image Map** check box to activate this option. The additional fields to set up are displayed in an **Area parameters** section:

- **Shape** - select the shape of the clickable sector from the drop-down list:
 - **Rect** - a rectangular region.
 - **Poly** - a polygonal region.
 - **Circle** - a circular region.
- **Coords** - enter the sector coordinates on the image map.
Note that the coordinates for map sectors must be entered based on the original image size. In case the original image size is different from the image size on the screen, the sector size will be recalculated.
- **Target** - select the display mode for the sector linked page from the drop-down list:
 - **Blank** - to open a linked page in a new tab.
 - **Self** - to open a linked page in the current tab.
 - **Modal** - to open a linked page in a modal window.
- **Title** - enter the sector name. In case there is a sector name, in the Render application move the cursor over a sector and the sector name will be shown as follows:



- **Href** - enter the link to the internal or external data to be opened by clicking the sector in the Render.
Note that in case this parameter is empty, in the Render application by clicking this sector the current page will be opened in a new tab. To cancel this, enter the `javascript:void(0);` to the **Href** parameter as the link and select the **Self** mode of the **Target** parameter.
- **OnClick** - enter the JavaScript that will be performed by clicking the sector.
Note that in case this parameter is empty, in the Render application by clicking this sector, the link will be opened without any additional action or confirmation.
For example, the parameter should be set as described below, to display:
 - The ordinary **warning message** should have the following format: `alert('text');`
 - The **confirmation** pop-up window with actions should have the following format:
`if(!confirm('text')) return false;`
- Click the **plus** icon to add a new row to define new criteria for the image section.
- Click the **minus** icon to delete the row with the added criteria of the image section.

Static Image Action

Click the **Static Image Action** drop-down list to apply the corresponding actions to the screen when the image is activated (clicked on). Depending on the selected action type, you need to fill in the additional parameters related to the selected action.

Currently, the following actions are available:

Default

Select the **Default** value to leave the image just as an image without any linked action. No action will be applied in case the Default value is selected.

Link

Select the **Link** value to add a link to the image. In this case, clicking the image on the screen will redirect user to another tab, screen or modal window on the same screen.

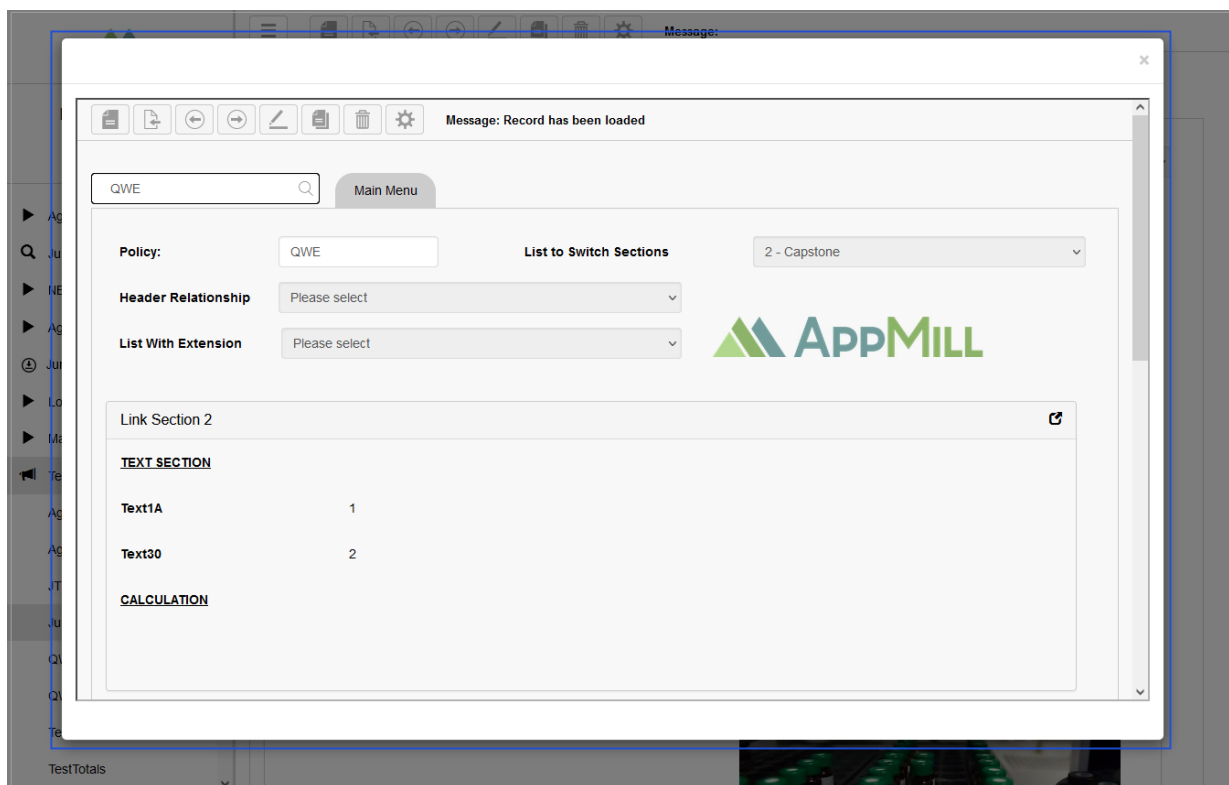
When you select the **Link** action for the image, the additional parameters appear in the Static Image Settings pop-up window:

Define the following parameters for the link:

- **Type link**

- Blank - to open link in a new browser tab.
- Self - to open link in the current tab.
- Modal - to open link in a modal window.
- Blank Bypass - to open link in a new tab and to pass the additional parameter specified in the Pass Through Parameter field.
- Modal Bypass - to open link in a modal window and to pass the additional parameter specified in the Pass Through Parameter field.
- **Menu** - to select the menu that the required screen assigned to.
- **Group screen** - to select the group screen that the required screen assigned to.
- **Screen** - to select the required screen that will be opened by link.
- **Parameter** - to specify the required parameter that will be used for searching on the screen.
- **Pass Through Parameter** - this parameter will be passed by link to the defined screen.

Clicking the image on the screen in the Render application will redirect user to another tab, screen or modal window on the same screen. For example, clicking the image with modal link type opens the link in a modal window, and it is displayed as follows:



Insert

The **Insert** action replicates the Insert action that is available in the main menu actions in the Render. When you select the **Insert** action for the static image, the additional parameters appear in the Static

☐ FULL WIDTH FOR AUXILIARY BUTTONS

☒ USE AUXILIARY BUTTONS WITH TEXT

VALUE FOR SAVE BUTTON

VALUE FOR CANCEL BUTTON

Image Settings pop-up window:

You can select the following options:

- **Full width for auxiliary buttons** - select this option to display the Save and Cancel buttons in full width.
- **Use auxiliary buttons with text** - select this option to add specific text instead of the standard Save and Cancel labels.
 - **Value for Save button** - enter the text that will be displayed as Save button label.
 - **Value for Cancel button** - enter the text that will be displayed as Cancel button label.

To add the translations for new labels, click the **Internationalization** button. In the opened pop-up window, select and add the language, enter the translation for the selected language. Click the **Apply** button to save the changes.

Inquire

The **Inquire** action serves as a Search action.

Clicking the UI element representing the Inquire action will initiate the search on the screen.

In this case the search will be performed exactly according to the entered search parameter without taking the autocomplete option into account.

The Inquire functionality can work without the Search functionality configured on the first page of the Screen Builder. For more details about the Search functionality, refer to the Search Configuration section on the [Screen Master Data Settings](#) page of the User Manual.

Previous search result

The Previous search result action will show the previous search result if any available.

Next search result

The **Next search result** action will show the next search result if any available.

Edit

The **Edit** action gives the possibility to update the parameters and values on the screen. When you select the **Edit** action for the static image, the additional parameters appear in the Static Image Settings pop-up window:

☐ FULL WIDTH FOR AUXILIARY BUTTONS

☒ USE AUXILIARY BUTTONS WITH TEXT

VALUE FOR SAVE BUTTON

VALUE FOR CANCEL BUTTON

You can select the following options:

- **Full width for auxiliary buttons** - select this option to display the Save and Cancel buttons in full width.
- **Use auxiliary buttons with text** - select this option to add specific text instead of the standard Save and Cancel labels.
 - **Value for Save button** - enter the text that will be displayed as Save button label.
 - **Value for Cancel button** - enter the text that will be displayed as Cancel button label.

To add the translations for new labels, click the **Internationalization** button. In the opened pop-up window, select and add the language, enter the translation for the selected language. Click the **Apply** button to save the changes.

Copy

The **Copy** action will copy all the content from the current screen except the Primary key field.

Delete

The **Delete** action will delete all the content on the current screen. In other words, the database table row will be deleted with the primary key and the whole information.

Execute

In contrast to the extension function configured in the previous step using the basic or master data, this extension function is performed only for the screen (tab) on which it is located.

When the button is pressed, only the function configured for the button will be executed, the functions from the first setting step will not be executed.

The functions configured in the first step will be executed when you click the Execute button in the action menu.

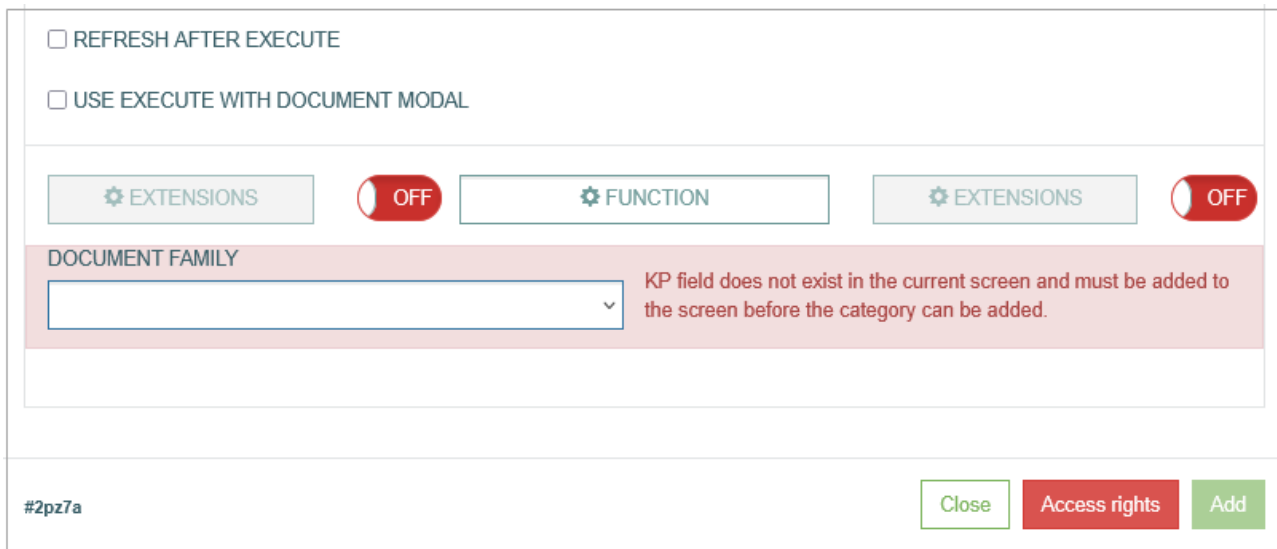
- **Refresh after execute** - When the check box is selected, that means that in case the extension function has been successfully executed, the whole screen will be refreshed to display the actual data.
- Use the **Pre** and **Post Functions** to configure the Extension function for the needed fields and values. They are optional and can be switched **on/off**.

i Note that the extension function is available only if the Search functionality was set up on the first page of the Screen Builder. In case the Search functionality was not configured and the Inquire functionality is used instead of it, the Execute action will not work correctly as for the buttons with extension functions the work is based on the data found from the database.

Please consider this information and use the buttons with extension functions with the set Search functionality only.

Execute (possible document return)

The **Execute (possible document return)** action represents the combination of the previous Execute functionality and the additional possibility for the case when a special command is used in the function for creating or copying the files/documents.



In this case after successful function execution, the modal window with the list of documents available for download will appear.

- **Refresh after execute** - When the check box is selected, that means that in case the extension function has been successfully executed, the whole screen will be refreshed to display the actual data.
- **Use execute with document modal** - select the check box to open the list of files/documents in a modal window where you can select the files and download them. In case the check box is not activated, the files/documents will be downloaded automatically.
- **Document Family** - used when copying or creating files in the plugin when processing the Execute (possible document return) action, as well as when processing the Document action.

 In case the Key Part field does not exist on the current screen, it must be added to the screen before the Document category can be added.

Generate report

The **Generate report** action provides the possibility to build the report based on the selected Report Template. The templates are configured to use the linked aliases. When executing the Generate Report action, the template is filled in by the values, and the report is available for download. Fill in the following fields:

- **Report Template** - select the Template of the report that should be used.
 - **Passthru - No Input** - select this check box to use the search data from the Render screen to generate a report. In this case, the search data will be passed onto the Reports functionality to be evaluated in the report.
 - **Passthrou Batch - No Input** - select this check box to use the search data from the Render screen to generate a report. In this case, the batch of data will be passed onto the Reports functionality to be evaluated in the report.

- **CSV File** - select the check box to download the report file in the CSV format.

i For the correct work of the **Passthru - No Input** and **Passthrou Batch - No Input** report options, the search on the screen must be configured correctly.

Document

The **Document** action allows users to open the pop-up window with the list of available documents.

- **Multiple upload file** - select the check box to allow the upload of several files at the same time.
- **Document Family** - select the Document Family, to which the uploaded documents will be added.
- **Document Category** - select the Document Category, to which the uploaded documents will be assigned.

4.3.4.7.6.2.4 Notifications

On the Notifications tab, configure the conditions when the notification messages should be sent to users.

To create a new notification, click the **Add Notification** button.

After clicking the Add Notification button, an entry for configuring the notification conditions appears. Fill in the required fields:

- **Notification** - select the notification template from the drop-down list of the templates existing in the system. To create a new template or manage existing ones, open the Notifications page (System Data > Notifications). For more details about notification creation and managing, refer to the Create Notification section on the [Notifications](#) page of the User Manual.

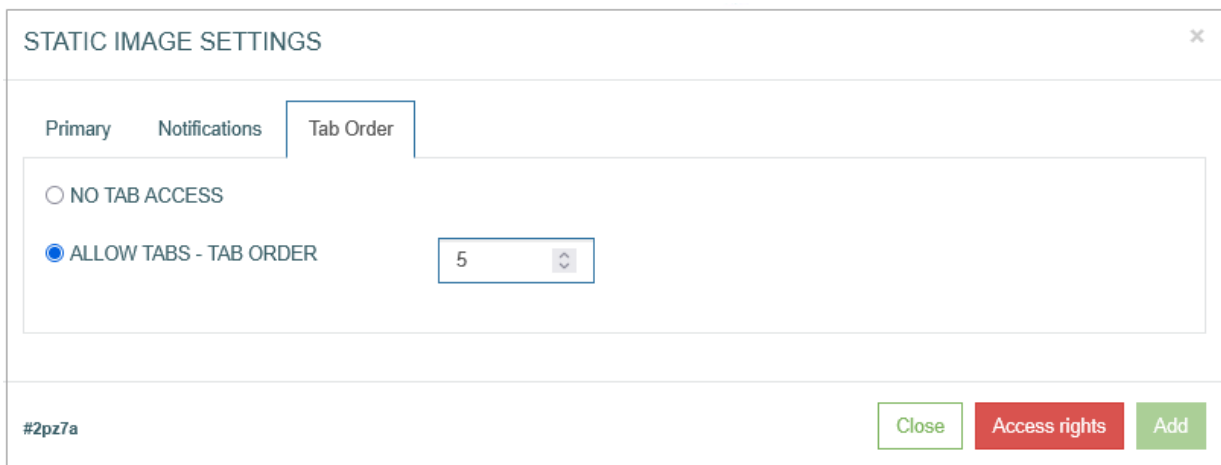
i Currently you can set up Email and SMS notifications. The email address and the phone number for notifications can be set on the Users page. For more details on how to add the email address and the phone number for notifications, refer to the Create User section on the [Users](#) page of User Manual.

- **Action** - select the action that specifies the state of UI element (button) when notification should be sent. There are 2 states of UI elements:
 - Update - the field value is edited.
 - Insert - the value is added.
- **Recipient field ID** - add an ID of the field with an Email field format type. The notification will be sent to the email address entered in such a field in the Render application. The field ID can be found at the bottom left corner of the **Field Settings** pop-up window. The **Recipient field ID** field is available only for the notification templates with Custom recipient type. For more details about the recipient type, refer to the Create Notification section on the [Notifications](#) page (System Data > Notifications) of the User Manual.
- In case the notification template contains the variable parameters, the value of these variables can be defined here in the input fields.

To delete the Notification entry, click the **Remove** button for the corresponding entry.

4.3.4.7.6.2.5 Tab Order

On the **Tab Order** tab, you can set whether the Tab key can be used to move the cursor on the current UI element. Additionally, you can define the order in which the UI element is selected and allocated with the cursor when using the Tab key.



The following options are available:

- **No Tab access** - select this radio button to restrict the possibility use the Tab key on the keyboard for the current UI element.
- **Allow Tabs - Tab Order** - select this radio button to allow the usage of the Tab key to navigate to the current UI element. Define the Tab order by filling in the input field next to the Tab Order option.

4.3.4.7.6.2.6 Common Operations

At the bottom of the Button Settings pop-up window, there is a block with common operations displayed and available on any tab of the pop-up window.

STATIC IMAGE SETTINGS

Primary

Notifications

Tab Order

VALUE

Internationalization

STATIC IMAGE ACTION

Default

CUSTOM #ID

2pz7a

Drop files here to upload

☐ ALLOW FULL SIZE MODAL POPUP

☐ USE IMAGE MAP

#2pz7a

Close

Access rights

Add

The following operations can be performed while updating information in the pop-up window on the tabs mentioned above:

Add

Click the **Add** button to confirm and add an image to the screen.

Note that in case of the Edit mode, the **Add** button is changed to the **Update** button.

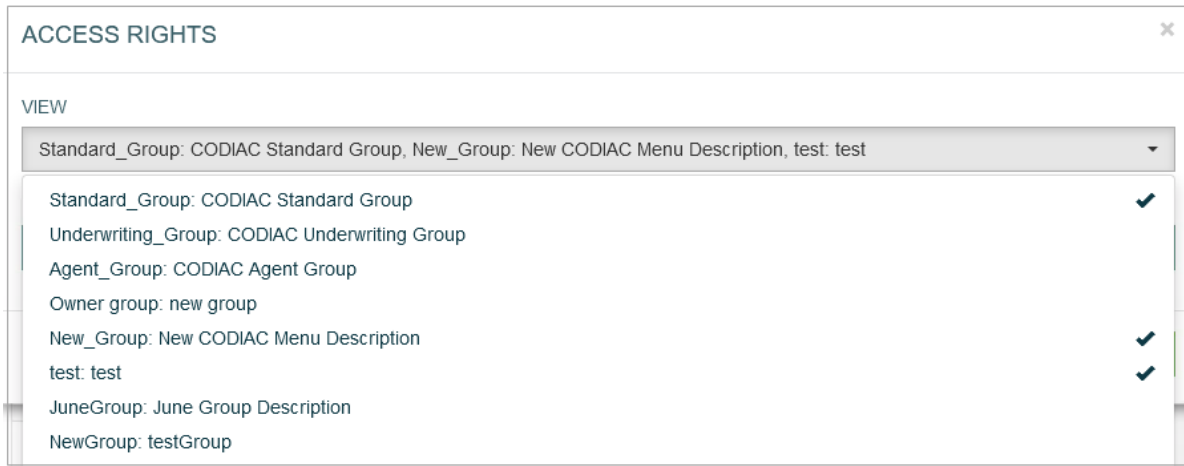
Update

Click the **Update** button to confirm and save the changes made for the image.

Access Rights

Click the **Access Rights** button to open the corresponding pop-up window. Here, users can select user groups to set the access right for the View and Update actions for the selected groups:

- **View** - select one or multiple user groups from the drop-down list to provide them with View access rights. The selected user groups will be marked with the check mark to the right from the user group name. In the Render application, the users from the selected user groups can view the image display.
- **Update** - as the images cannot be updated in the Render application, the selected user groups will not be able to update the images there.



Close

Click the **Close** button at the bottom of the Static Image Settings pop-up window to close the pop-up.

4.3.4.7.6.3 Button Configuration

4.3.4.7.6.3.1 Table of Contents

- [Overview](#)
- [Primary](#)
 - [Value](#)
 - [Custom #ID](#)
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 - [Registration](#)
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 - [Registration Submit](#)
 - [Password Reset Submit](#)
 - [Insert](#)
 - [Inquire](#)
 - [Previous search result](#)
 - [Next search result](#)
 - [Edit](#)
 - [Copy](#)
 - [Delete](#)
 - [Execute](#)
 - [Execute \(possible document return\)](#)
 - [Generate report](#)
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 - [Add](#)
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 - [Access Rights](#)
 - [Formatting](#)
 - [Close](#)

4.3.4.7.6.3.2 Overview

The **Edit type** of the Section provides the possibility to add and manage buttons to be displayed and used on the screen in the Render application. The actions to configure buttons as well as images, labels and fields are displayed next to the **Settings** icon in the upper right corner of the section.

To add a button and configure its displaying on the screen in the Render application, click the **Button** icon in the right corner of the Header section. The **Button Settings** pop-up opens for configuring a button:

Find and edit the required parameters by switching across the following available tabs:

- **Primary**
- **Notifications**
- **Tab Order**

See the **Common Operations** section for the description of the buttons available at the bottom of the pop-up window.

4.3.4.7.6.3.3 Primary

On the **Primary** tab, configure the main parameters, such as:

Value

Enter a value that will be used as a button name label.

To add the translations for new buttons, perform the following operations:

- Click the **Internationalization** button next to the Value field. The Internationalization pop-up window will be opened.

- In the opened pop-up window, select the language from the drop-down list and click the **Add** button. The field with added language will be displayed.
- Enter the translation for the selected language.
- Click the **Apply** button to save the changes.
- Click the **Reset** button to delete all changes without closing the pop-up window.
- Click the **Close** button to return to the Image Settings pop-up window without saving changes.

In case there is the translation for the value, move the cursor over a field and the translation will be displayed.

In case the user changes the display language in the Render application, the translated image title will be shown. For more details about language changing, refer to the [Language](#) page of the User Manual.

In the Render application, the button name can be displayed as follows:

Custom #ID

This is ID of UI element. It can be used in the scripts, to adjust UI element style. The value is generated automatically when you open the button configuration pop-up.

Button Action

Click the **Button Action** drop-down list to apply the corresponding actions to the screen when the button is activated (clicked on). Depending on the selected action type, you need to fill in the additional parameters related to the selected action.

Currently, the following actions are available:

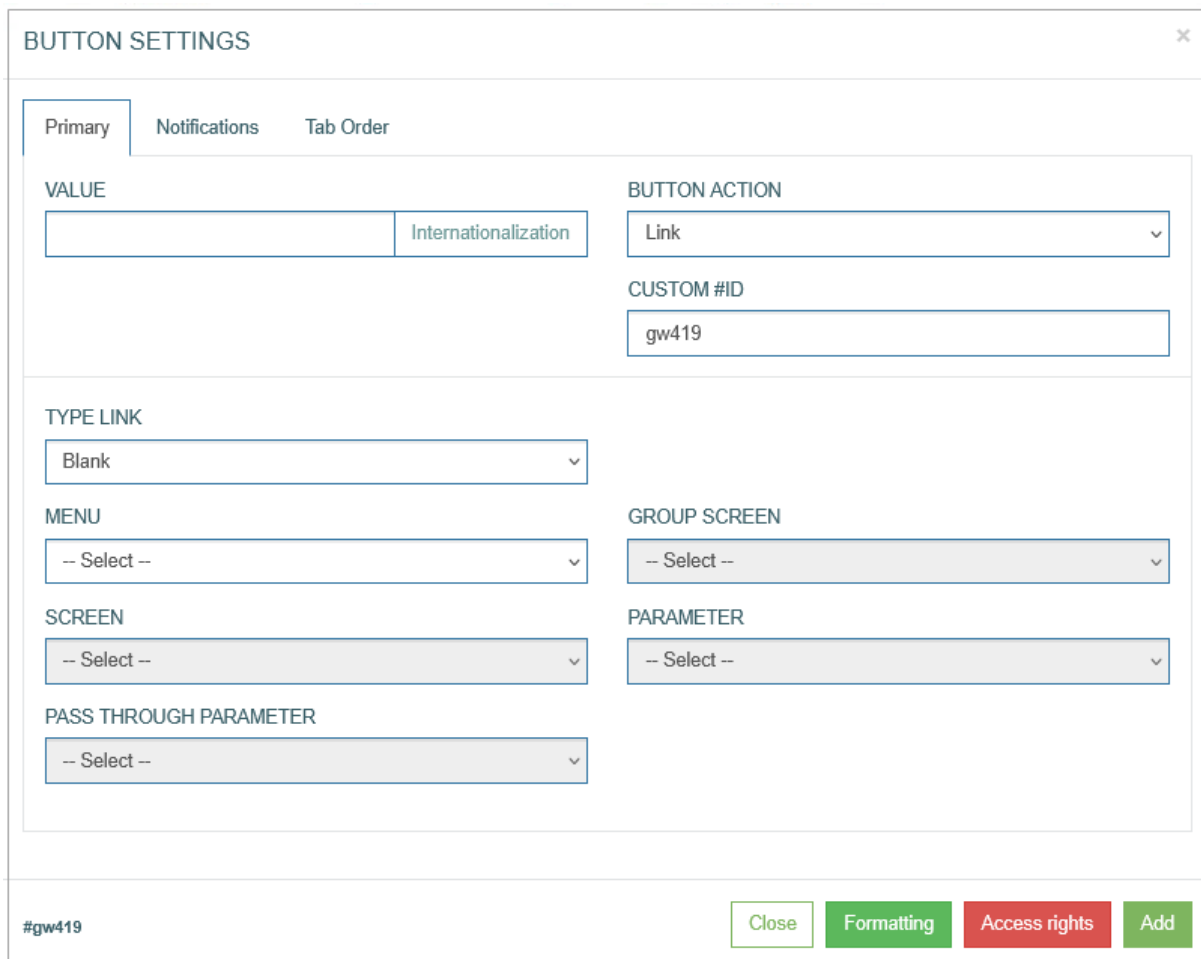
Default

Select the **Default** value to leave the button just as a button without any linked action. No action will be applied in case the Default value is selected.

Link

Select the **Link** value to add a link to the button. In this case, clicking the button on the screen will redirect user to a new tab, screen or a modal window on the same screen.

When you select the **Link** action for the button, the additional parameters appear in the Button Settings pop-up window:

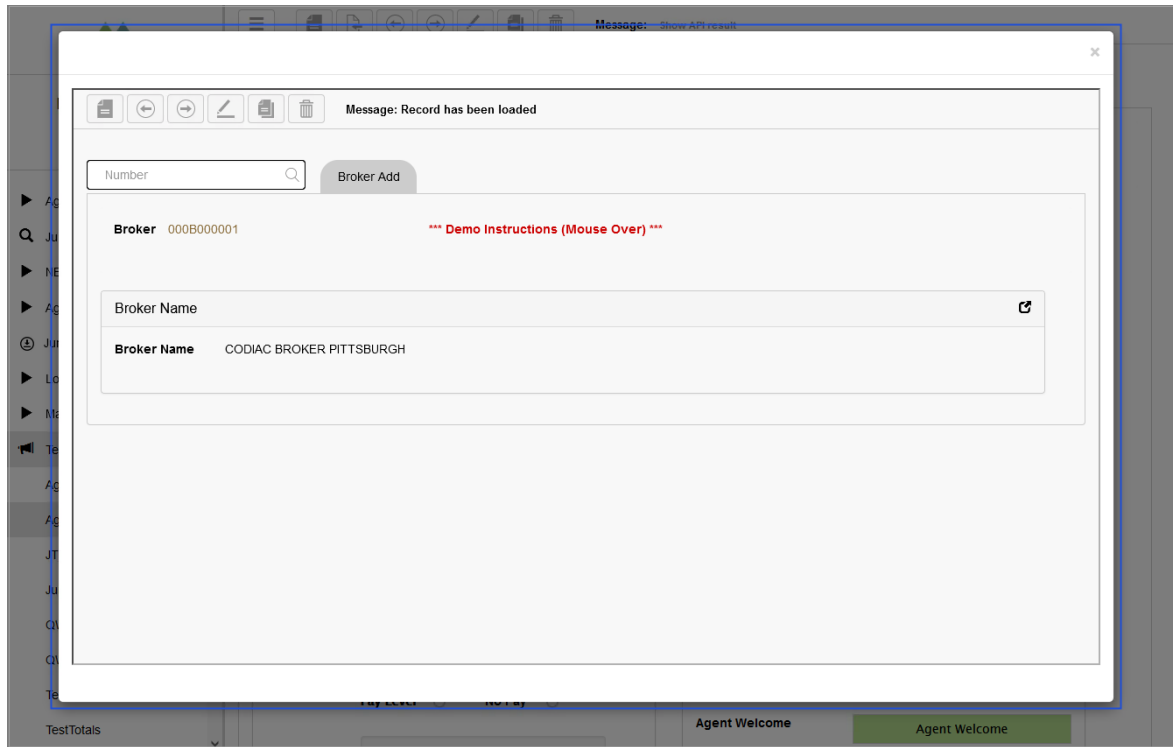


Define the following parameters for the link:

- **Type link**
 - Blank - to open link in a new browser tab.
 - Self - to open link in the current tab.
 - Modal - to open link in a modal window.
 - Blank Bypass - to open link in a new tab and to pass the additional parameter specified in the Pass Through Parameter field.
 - Modal Bypass - to open link in a modal window and to pass the additional parameter specified in the Pass Through Parameter field.
- **Menu** - to select the menu that the required screen assigned to.

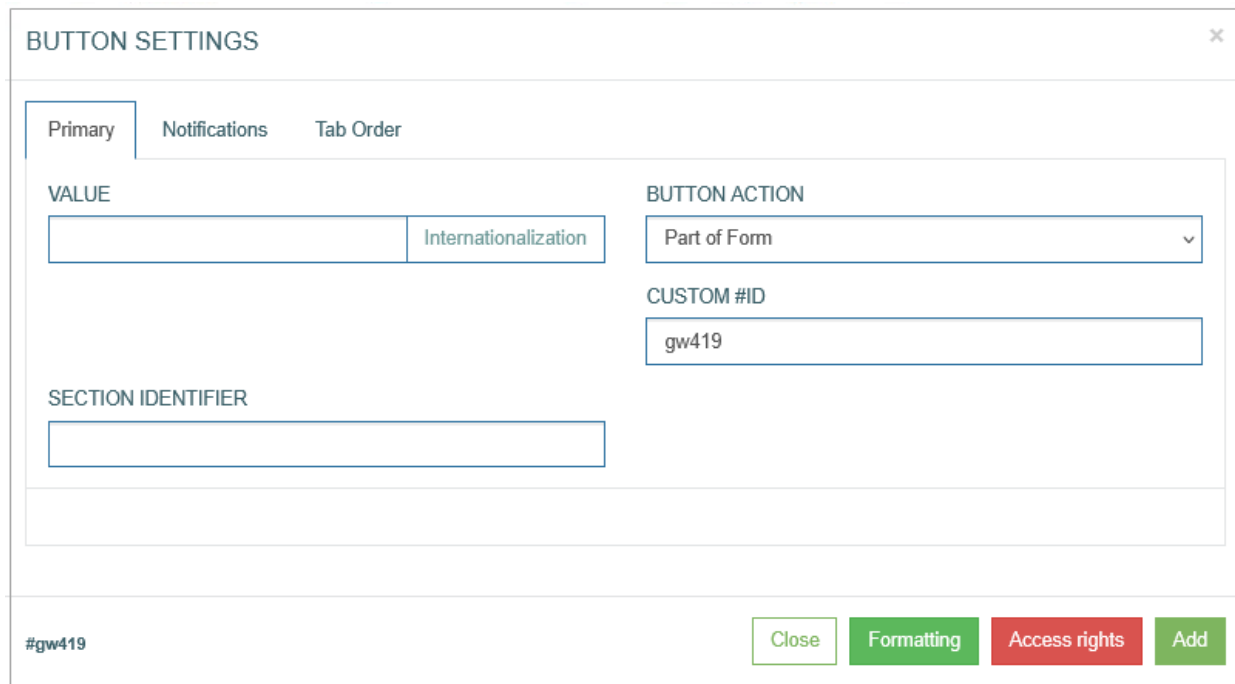
- **Group screen** - to select the group screen that the required screen assigned to.
- **Screen** - to select the required screen that will be opened by link.
- **Parameter** - to specify the required parameter that will be used for searching on the screen.
- **Pass Through Parameter** - this parameter will be passed by link to the defined screen.

Clicking the button on the screen in the Render application will redirect user to another tab, screen or modal window on the same screen. For example, clicking the button with modal link type opens the link in a modal window, and it is displayed as follows:



Part of Form

The **Part of Form** action is used for opening a section of the screen as a modal pop-up window.



BUTTON SETTINGS

Primary Notifications Tab Order

VALUE

Internationalization

BUTTON ACTION

Part of Form

CUSTOM #ID

gw419

SECTION IDENTIFIER

#gw419

Close Formatting Access rights Add

To define what section should be opened upon clicking the button, enter the **Section Identifier** into the corresponding field. Note that the section to be opened is a part of the existing screen. The feature will be valid for the Edit section type of the Screen only.

Login

The **Registration** action is used for the Login action on the Login screen. Clicking this button validates the entered login data (user name and password).

Registration

The **Registration** action is used for opening the Self-Registration form with the possibility for users to self-register.

Password Reset

The **Password Reset** action is used for opening the Password Reset form, where user can enter login name and email address. A new password will be sent to the email address entered on the form.

Registration Submit

The **Registration Submit** action is used to submit the Self-Registration form and complete the registration process.

Password Reset Submit

The **Password Reset Submit** action is used to submit the Reset Password form and complete the reset password process.

 The **Login, Registration, Password Reset, Registration Submit, Password Reset Submit** button actions are valid for the **Login** screen and Login screen variations: SMS Verification, Email Verification, Secret Question Authorization, Registration, Password Reset. Open the [Login Screen Configuration](#) page of the User Manual for more details and explanations. They have the special logic that is already set up on the background.

Please use the actions mentioned above on the Login screen only.

Insert

The **Insert** action replicates the Insert action that is available in the main menu actions in the Render. When you select the **Insert** action for the button, the additional parameters appear in the Button Settings pop-up window:



You can select the following options:

- **Full width for auxiliary buttons** - select this option to display the Save and Cancel buttons in full width.
- **Use auxiliary buttons with text** - select this option to add specific text instead of the standard Save and Cancel labels.
 - **Value for Save button** - enter the text that will be displayed as Save button label.
 - **Value for Cancel button** - enter the text that will be displayed as Cancel button label.

To add the translations for new labels, click the **Internationalization** button. In the opened pop-up window, select and add the language, enter the translation for the selected language. Click the **Apply** button to save the changes.

Inquire

The **Inquire** action serves as a Search action. Clicking the UI element representing the Inquire action will initiate the search on the screen. In this case the search will be performed exactly according to the entered search parameter without taking the autocomplete option into account.

The Inquire functionality can work without the Search functionality configured on the first page of the Screen Builder. For more details about the Search functionality, refer to the Search Configuration section on the [Screen Master Data Settings](#) page of the User Manual.

Previous search result

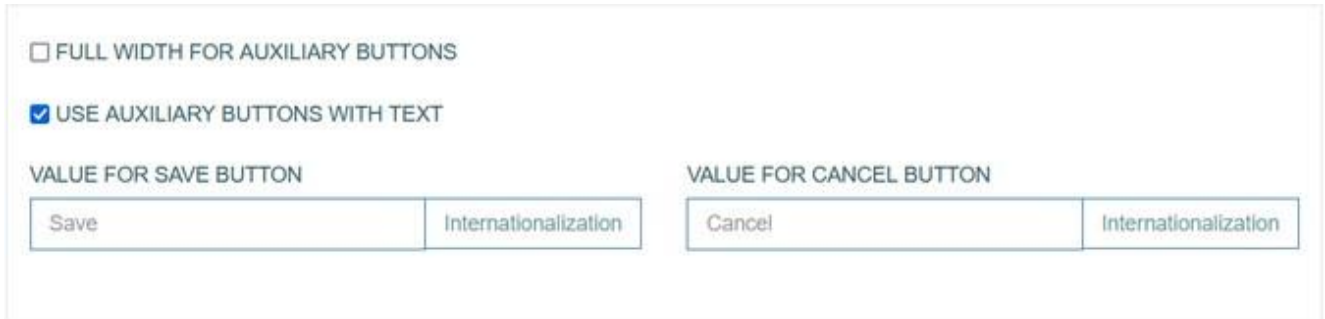
The **Previous search result** action will show the previous search result if any available.

Next search result

The **Next search result** action will show the next search result if any available.

Edit

The **Edit** action gives the possibility to update the parameters and values on the screen. When you select the **Edit** action for the button, the additional parameters appear in the Button Settings pop-up window:



You can select the following options:

- **Full width for auxiliary buttons** - select this option to display the Save and Cancel buttons in full width.
- **Use auxiliary buttons with text** - select this option to add specific text instead of the standard Save and Cancel labels.
 - **Value for Save button** - enter the text that will be displayed as Save button label.
 - **Value for Cancel button** - enter the text that will be displayed as Cancel button label.

To add the translations for new labels, click the **Internationalization** button.

In the opened pop-up window, select and add the language, enter the translation for the selected language.

Click the **Apply** button to save the changes.

Copy

The **Copy** action will copy all the content from the current screen except the Primary key field.

Delete

The **Delete** action will delete all the content on the current screen.

In other words, the database table row will be deleted with the primary key and the whole information.

Execute

The **Execute** action allows you to apply the extension function to the screen field.

☐ REFRESH AFTER EXECUTE

 EXTENSIONS

 OFF

 FUNCTION

 EXTENSIONS

 OFF

#gw419

Close

Formatting

Access rights

Add

In contrast to the Extension function configured on the previous step with Basic Data, this extension function operates with the definite parameter and apply to the specific value on the screen.

- **Refresh after execute** - When the check box is selected, that means that in case the extension function has been successfully executed, the whole screen will be refreshed to display the actual data.
- Use the **Pre and Post Functions** to configure the Extension function for the needed fields and values. They are optional and can be switched **on/off**.

Note that the extension function is available only if the Search functionality was set up on the first page of the Screen Builder. In case the Search functionality was not configured and the Inquire functionality is used instead of it, the Execute action will not work correctly as for the buttons with extension functions the work is based on the data found from the database.

Please consider this information and use the buttons with extension functions with the set Search functionality only.

Execute (possible document return)

The **Execute (possible document return)** action represents the combination of the previous Execute functionality and the additional possibility for the case when the special command is used in the function for creating or copying the files/documents.

☐ REFRESH AFTER EXECUTE

☐ USE EXECUTE WITH DOCUMENT MODAL

 EXTENSIONS

 OFF

 FUNCTION

 EXTENSIONS

 OFF

DOCUMENT FAMILY

KP field does not exist in the current screen and must be added to the screen before the category can be added.

In this case after successful function execution, the modal window with the list of documents available for download will appear:

- **Refresh after execute** - When the check box is selected, that means that in case the extension function has been successfully executed, the whole screen will be refreshed to display the actual data.
- **Use execute with document modal** - select the check box to open the list of files/documents in a

modal window where you can select the files and download them. In case the check box is not activated, the files/documents will be downloaded automatically.

- **Extension Function** - select the extension function that should be executed for the action.
- **Document Family** - select the **Document Family** and the **Document Category**.

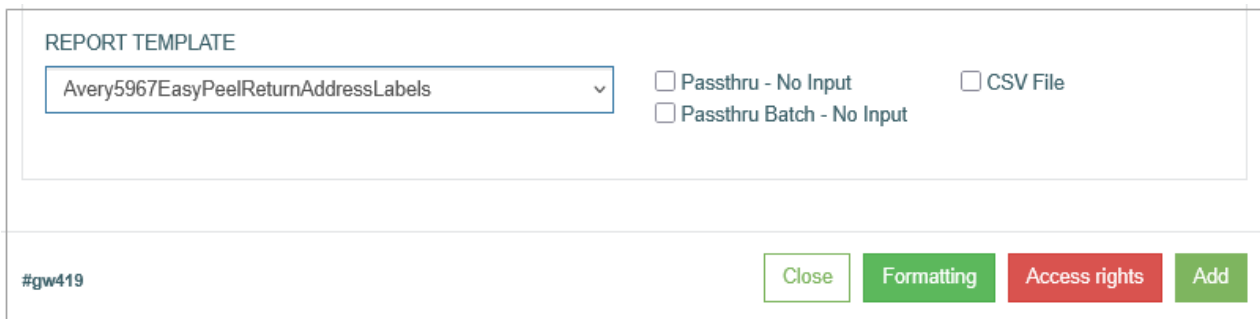
Make sure that the Primary Key is added to the Document Category.

In other case the feature will not work properly.

Generate report

The **Generate report** action provides the possibility to build the report based on the Report Template and the report data. The templates are configured to use the linked aliases.

When executing the Generate Report action in the Render, the data is evaluated, the report is filled in by the values, and the report will be available for download.



The screenshot shows a dialog box titled "REPORT TEMPLATE". Inside, there is a dropdown menu with the selected value "Avery5967EasyPeelReturnAddressLabels". To the right of the dropdown are three checkboxes: "Passthru - No Input", "Passthrou Batch - No Input", and "CSV File". At the bottom left of the dialog is the text "#gw419". At the bottom right are four buttons: "Close", "Formatting", "Access rights", and "Add".

Fill in the following fields:

- **Report Template** - select the Template of the report that should be used.
- **Passthru - No Input** - select this check box to use the search data from the Render screen to generate a report. In this case, the search data will be passed onto the Reports functionality to be evaluated in the report.
- **Passthrou Batch - No Input** - select this check box to use the search data from the Render screen to generate a report. In this case, the batch of data will be passed onto the Reports functionality to be evaluated in the report.

i For the correct work of the **Passthru - No Input** and **Passthrou Batch - No Input** report options, the search on the screen must be configured correctly.

- **CSV File** - select the check box to allow users downloading the report file in the CSV format.

Document

The **Document** action allows users to open the pop-up window with the list of available documents.

- **Multiple upload file** - select the check box to allow the upload of several files at the same time.
- **Document Family** - select the Document Family, to which the uploaded documents will be added.
- **Document Category** - select the Document Category, to which the uploaded documents will be assigned.

Clicking the button with the Document action type on the screen in the Render application opens the **View Document** pop-up window.

In the Render application in the opened **View Document** pop-up window, users can view the list with previously uploaded documents and add a new one. The following operations can be performed in the opened pop-up window:

- **View** - to view the document details click the file name. The document will be opened in a pop-up window.
- **Add** - to add a new document, click the **Add** button. The **Edit Documents** pop-up will be opened and displayed as follows:

Here users can:

- Click the **Add Documents** button to add a new row and upload a new document from the local computer.
- Click the close icon next to the file name to delete the added document. Confirm the deletion or click the **Cancel** button.
- Select the document category from the **Category** drop-down list and enter the document description to the **Description** field.
- Click the **Submit** button to finish the document uploading.

Search Submit

The **Search Submit** action allows users to submit the search process in the Render application.

The **Search Submit** button action type can be activated and selected for the Header section only if the **Search Screen** check box is selected on the first page of the Screen Builder. For more details on how to set up the Search Screen, refer to the Search Screen section on the [Screen Master Data Settings](#) page and to the [Search Screen Configuration](#) page of the User Manual.

In case the **Search Submit** is activated, the rest button action types in the list will be disabled.

Previous step

Select the **Previous step** option to allow users to return to the previous workflow step.

4.3.4.7.6.3.4 Notifications

On the Notifications tab, configure the conditions when users should be notified.

BUTTON SETTINGS

Primary

Notifications

Tab Order

Add notification

NOTIFICATION

NewAccountPasswordEmail

ACTION

Update

RECIPIENT FIELD ID

#

:ProcessMessage

Text

Remove

#gw419

Close

Formatting

Access rights

Add

To create a new notification action, click the **Add Notification** button.

After clicking the Add Notification button, an entry for configuring the notification conditions appears.

Fill in the required fields:

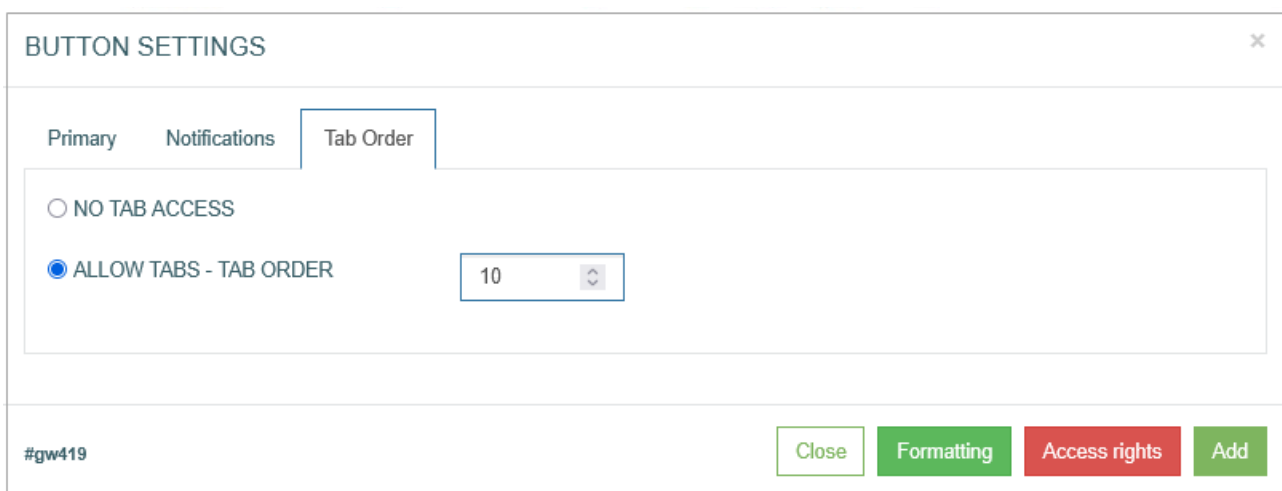
- **Notification** - select the notification template from the drop-down list of the templates existing in the system. To create a new template or manage existing ones, open the Notifications page (System Data > Notifications). For more details about notification creation and managing, refer to the Create Notification section on the [Notifications](#) page of the User Manual.

i Currently you can set up the Email and SMS notifications. The email address and the phone number for notifications can be set on the Users page. For more details on how to add the email address and the phone number for notifications, refer to the Create User section on the [Users](#) page of User Manual.

- **Action** - select the action that specifies the state of UI element (button) when notification should be sent. There are 2 states of UI elements:
 - Update - the field value is edited.
 - Insert - the value is added.
- **Recipient field ID** - add an ID of the field with an Email field format type. The notification will be sent to the email address entered in such a field in the Render application. The field ID can be found at the bottom left corner of the **Field Settings** pop-up window. The **Recipient field ID** field is available only for the notification templates with Custom recipient type. For more details about the recipient type, refer to the Create Notification section on the [Notifications](#) page (System Data > Notifications) of the User Manual.
- In case the notification template contains the variable parameters, the value of these variables can be defined here in the input fields.

4.3.4.7.6.3.5 Tab Order

On the **Tab Order** tab, you can set whether the Tab key can be used to move the cursor on the current UI element. Additionally, you can define the order in which the UI element is selected and allocated with the cursor when using the Tab key.



BUTTON SETTINGS

Primary Notifications **Tab Order**

☐ NO TAB ACCESS

☒ ALLOW TABS - TAB ORDER 10

#gw419

Close Formatting Access rights Add

The following options are available:

- **No Tab access** - select this radio button to restrict the possibility use the Tab key on the keyboard

for the current UI element.

- **Allow Tabs - Tab Order** - select this radio button to allow the usage of the Tab key to navigate to the current UI element. Define the Tab order by filling in the input field next to the Tab Order option.

4.3.4.7.6.3.6 Common Operations

At the bottom of the Button Settings pop-up window, there is a block with common operations displayed and available on any tab of the pop-up window.

The following operations can be performed while updating information in the pop-up window on the tabs mentioned above:

Add

Click the **Add** button to confirm and add a button to the screen.

Note that in case of the Edit mode, the **Add** button is changed to the **Update** button.

Update

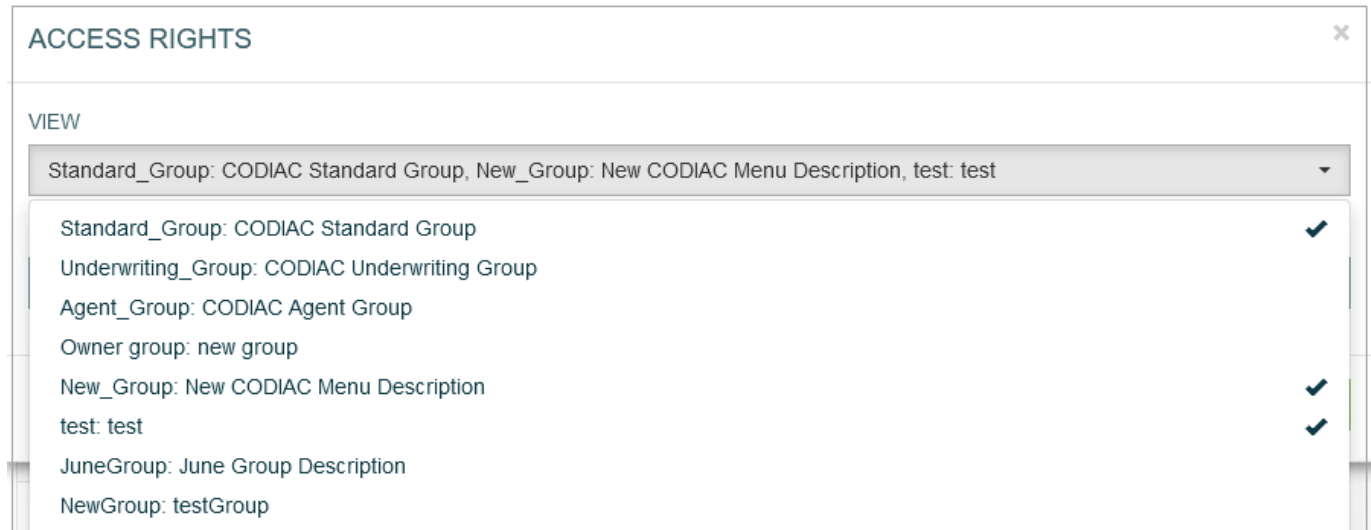
Click the **Update** button to confirm and save the changes made for the button.

Access Rights

Click the **Access Rights** button to open the corresponding pop-up window. Here, users can select user groups to set the access right for the View and Update actions for the selected groups:

- **View** - select one or multiple user groups from the drop-down list to provide them with View access rights. The selected user groups will be marked with the check mark to the right from the user group name. In the Render application, the users from the selected user groups can view the button display.
- **Update** - as the buttons cannot be updated in the Render application, the selected user groups will

not be able to update the buttons there.



Formatting

The **Formatting** functionality is available only for the button, label and field configurations.

Click **Formatting** to customize the “look and feel” of the button.

In the opened **Formatting** pop-up window users can define the following format parameters for the button:

- Font style:
 - bold
 - italic
 - crossed out
 - underlined
- Text color
- Text background color
- Font family
- Font size
- Use background linear gradient
- Gradient rotation
- Custom element styles
- First color
- Second color

FORMATTING

B **I** **S** **U**

TEXT COLOR
Choose text color...

TEXT BACKGROUND COLOR
Choose text background color...

FONT FAMILY
-- Empty --

FONT SIZE

☒ **USE BACKGROUND LINEAR GRADIENT**

GRADIENT ROTATION
90

FIRST COLOR
#8cb369

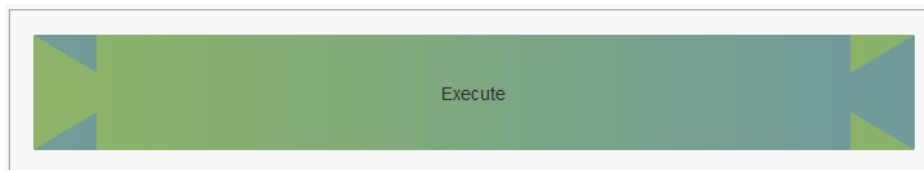
SECOND COLOR
#709b9a

CUSTOM ELEMENT STYLES

```
border-radius: 2px;  
height: 90px;  
border: 30px solid transparent;  
border-right: 50px solid #709b9a;  
border-left: 50px solid #8cb369;
```

Close Reset Save

For example, in the Render application, the formatted button can be displayed as follows:



Click the **Save** button to confirm button formatting changes.

Click the **Reset** button to clear the button parameters.

Click the **Close** button to cancel the button formatting changes without saving and return to the **Button Settings** pop-up window.

Close

Click the **Close** button at the bottom of the Button Settings pop-up window to close the pop-up window.

4.3.4.7.6.4 Label Configuration

4.3.4.7.6.4.1 Table of Contents

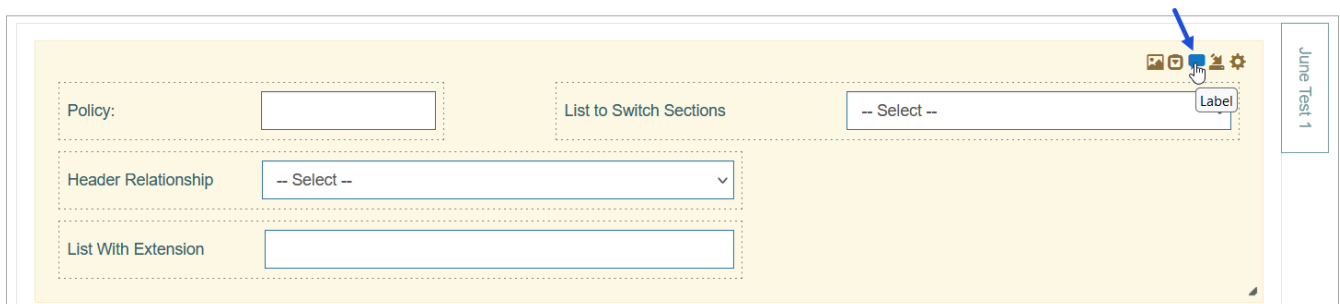
- [Overview](#)
- [Primary](#)
 - [Label \(default value\)](#)
 - [Tooltip \(default value\)](#)
 - [Link Type](#)
- [Notifications](#)
- [Tab Order](#)
- [Common Operations](#)
 - [Add](#)
 - [Update](#)
 - [Access Rights](#)
 - [Formatting](#)
 - [Close](#)

4.3.4.7.6.4.2 Overview

The **Edit type** of the Section provides the possibility to add and manage labels to be displayed and used on the screen in the Render application.

The actions to configure labels as well as buttons, images and fields are displayed next to the **Settings** icon in the upper right corner of the section.

To add a label and configure its displaying on the screen in the Render application, click the **Label** icon in the right corner of the Header section.



The **Label Settings** pop-up opens for configuring a label:

LABEL SETTINGS

Primary

Notifications

Tab Order

LABEL

DEFAULT VALUE

main table data (for test_table1)

Internationalization

TOOLTIP

DEFAULT VALUE

Internationalization

☒ LINK TYPE

URL

TYPE LINK

Blank

#

Close

Formatting

Access rights

Update

Find and edit the required parameters by switching across the following available tabs:

- **Primary**
- **Notifications**
- **Tab Order**

See the **Common Operations** section for the description of the buttons available at the bottom of the pop-up window.

4.3.4.7.6.4.3 Primary

On the **Primary** tab, configure the main parameters, such as:

Label (default value)

Enter the text that will be displayed on UI as a label.

To add the translations for a new label, perform the following operations:

- Click the **Internationalization** button next to the Label field. The Internationalization pop-up window will be opened.

INTERNATIONALIZATION

Russian

Add

ENGLISH (UNITED STATES)

Comments:

RUSSIAN

Комментарии:

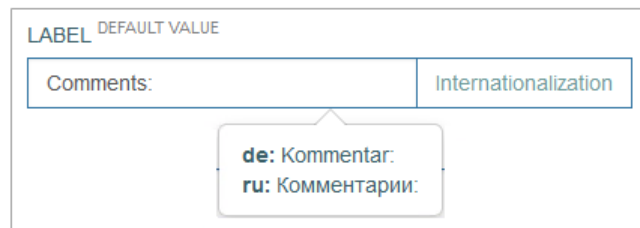
Close

Reset

Apply

- In the opened pop-up window, select the language from the drop-down list and click the **Add** button. The field with added language will be displayed.
- Enter the translation for the selected language.
- Click the **Apply** button to save the changes.
- Click the **Reset** button to delete all changes without closing the pop-up window.
- Click the **Close** button to return to the Field Settings without saving changes.

In case there is the translation for the label, move the cursor over a field and the translation will be displayed.



In case the user changes the display language in the Render application, the translated label will be shown. For more details about language changing, refer to the [Language](#) page of the User Manual.

In the Render application, the label can be displayed as follows:

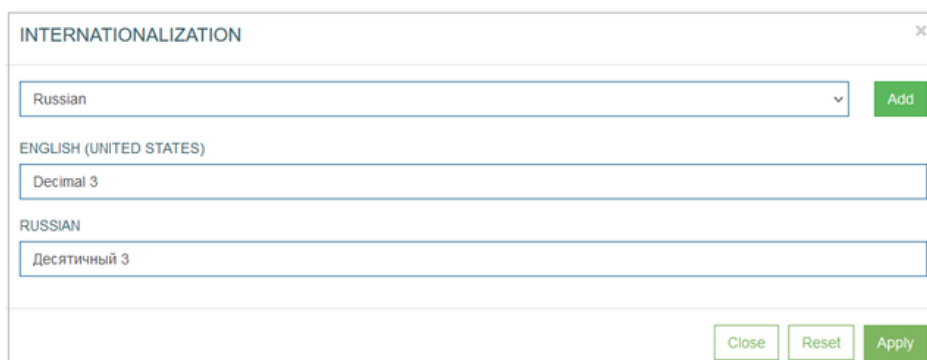


Tooltip (default value)

Enter the text that is displayed as a tooltip for the label.

To add the translations for new tooltip, perform the following operations:

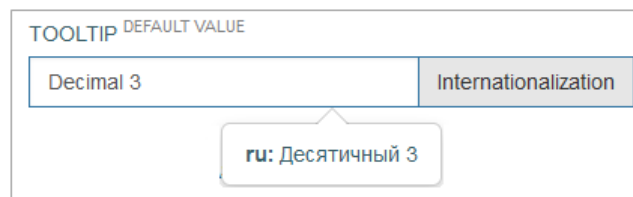
- Click the **Internationalization** button next to the Tooltip field. The Internationalization pop-up window will be opened.



- In the opened pop-up window, select the language from the drop-down list and click the **Add** button. The field with added language will be displayed.
- Enter the translation for the selected language.
- Click the **Apply** button to save the changes.

- Click the **Reset** button to delete all changes without closing the pop-up window.
- Click the **Close** button to return to the Field Settings without saving changes.

In case there is the translation for the tooltip, move the cursor over a field and the translation will be displayed.



In case the user changes the display language in the Render application, the translated tooltip will be shown. For more details about language changing, refer to the [Language](#) page of the User Manual.

In the Render application, the label tooltip can be displayed as follows:



Link Type

Select the Link Type check box to be able to assign a link to the label. When the check box is selected, new fields to set up the link appear in the pop-up window.

- **URL**

Enter the URL to the page that will be opened when user clicks the label. Note that URL address can be absolute leading to an external webpage and relative leading to the screen tab.

- **Type Link** - Select the value from the drop-down list:

- **Blank** - to open a linked page in a new tab.
- **Self** - to open a linked page in the current tab.

Note that in case the screen in the Render is opened in View mode, the link will be opened in the current tab. In case the screen in the Render is opened in Edit mode, the link will be opened in a new tab like for the Blank type.

- **Iframe** - to add a widget to the current screen.

You can personalize your start screen by configuring a diverse array of widgets to cater to your specific preferences and needs. Set up a variety of widgets to create a customized and efficient dashboard that aligns with your workflow and enhances your overall user experience.

The widgets can contain the information from internal and external sources. For example, in case the link is leading to the internal application page, the widget will

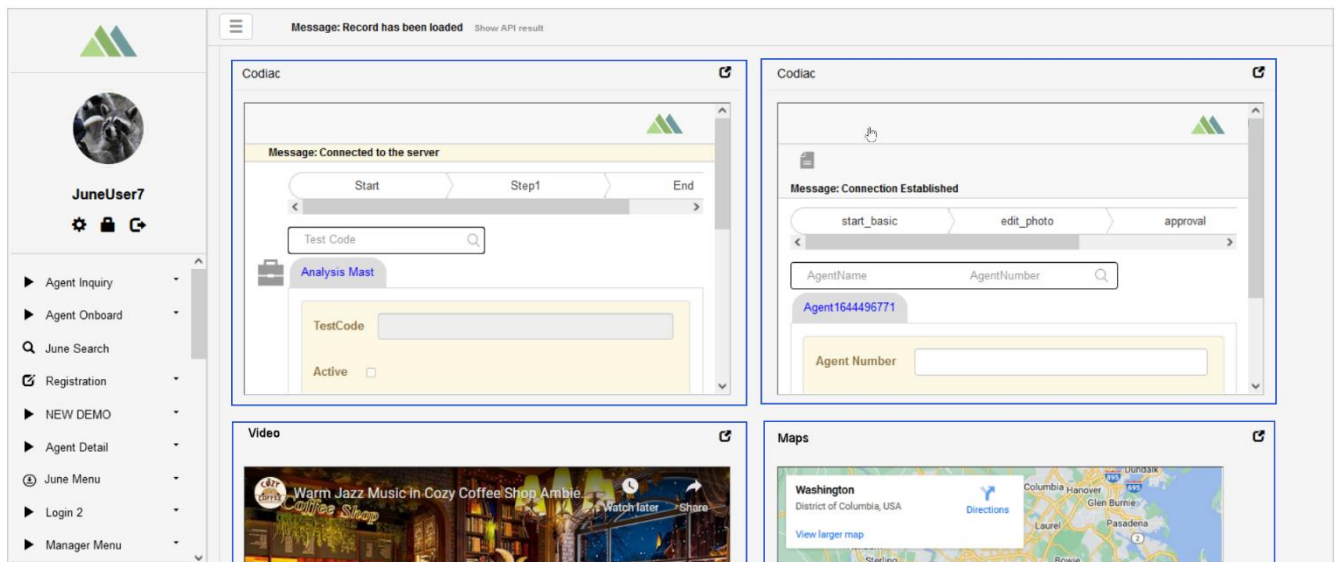
 Note that the data in widgets will not be updated automatically, in case of working on the different devices using the same user account. In this situation, the user should update the information in widgets manually by refreshing the page.

display the data from such page. In case the link is leading to the external webpage, the information from such webpage will be displayed in the widget.

The asynchronous updates of widgets enable rapid access to current information without requiring a full-page refresh, thereby enhancing operational efficiency and elevating the overall user experience within the system.

To properly configure the widget on the screen, the screen type should be View. Pay attention that you need to set up the height manually in the screen builder moving section border. The width will be automatically defined based on the display setting.

In the Render, the set iframe will be displayed as follows:



In the Render application, the link type label will be underlined when hovering over it on the screen and can be displayed as follows:

Information (Mouse Over)

4.3.4.7.6.4.4 Notifications

On the Notifications tab, configure the conditions when users should be notified.

LABEL SETTINGS [X]

Primary | **Notifications** | Tab Order

[Add notification](#)

NOTIFICATION	ACTION	RECIPIENT FIELD ID
Notify Email Simple	Update	#

[Remove](#)

[Close](#) [Formatting](#) [Access rights](#) [Update](#)

To create a notification action, click the **Add Notification** button.

After clicking the Add Notification button, an entry for configuring the notification conditions appears. Fill in the required fields:

- **Notification** - select the notification template from the drop-down list of the templates existing in the system. To create a new template or manage existing ones, open the Notifications page (System Data > Notifications). For more details about notification creation and managing, refer to the Create Notification section on the [Notifications](#) page (System Data > Notifications) of the User Manual.

i Currently you can set up Email and SMS notifications. The email address and the phone number for notifications can be set on the Users page. For more details on how to add the email address and the phone number for notifications, refer to the Create User section on the [Users](#) page of the User Manual.

- **Action** - select the action that specifies the state of UI element (label) when notification should be sent. There are 2 states of UI elements:
 - Update - the field value is edited.
 - Insert - the value is added.
- **Recipient field ID** – here users can add an ID of the image, button or field only as the label does not have ID. For more details about the Recipient field ID, refer to the Notifications section on the [Image Configuration](#), [Button Configuration](#), or [Field Configuration](#) pages of the User Manual accordingly.
- In case the notification template contains the variable parameters, the value of these variables can be defined here in the input fields.

4.3.4.7.6.4.5 Tab Order

On the **Tab Order** tab, you can set whether the Tab key can be used to move the cursor on the current UI element. Additionally, you can define the order in which the UI element is selected and allocated with the cursor when using the Tab key.

The screenshot shows a dialog box titled "LABEL SETTINGS" with a close button (X) in the top right corner. It has three tabs: "Primary", "Notifications", and "Tab Order", with "Tab Order" being the active tab. Inside the "Tab Order" tab, there are two radio button options: "NO TAB ACCESS" (which is selected) and "ALLOW TABS - TAB ORDER". At the bottom of the dialog, there is a row of four buttons: "Close" (light green), "Formatting" (green), "Access rights" (red), and "Update" (green). A small "#" symbol is visible in the bottom left corner of the dialog area.

The following options are available:

- **No Tab access** - select this radio button to restrict the possibility use the Tab key on the keyboard for the current UI element.
- **Allow Tabs - Tab Order** - select this radio button to allow the usage of the Tab key to navigate to the current UI element. Define the Tab order by filling in the input field next to the Tab Order option.

4.3.4.7.6.4.6 Common Operations

At the bottom of the Button Settings pop-up window, there is a block with common operations displayed and available on any tab of the pop-up window.

The following operations can be performed while updating information in the pop-up window on the tabs mentioned above:

Add

Click the **Add** button to confirm and add a label to the screen.

i Note that in case of the Edit mode, the **Add** button is changed to the **Update** button.

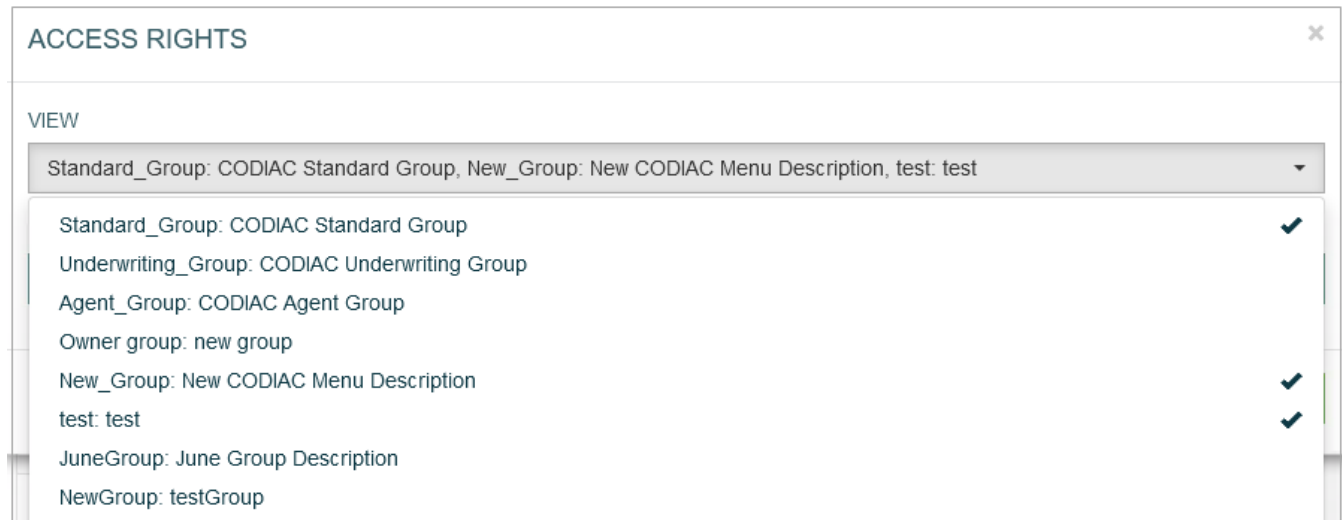
Update

Click the **Update** button to confirm and save the changes made for the label.

Access Rights

Click the **Access Rights** button to open the corresponding pop-up window. Here, users can select user groups to set the access right for the View and Update actions for the selected groups:

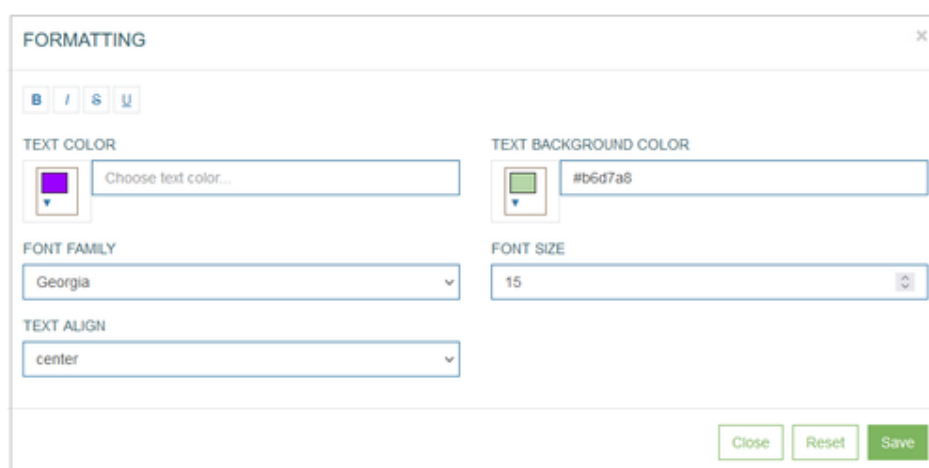
- **View** - select one or multiple user groups from the drop-down list to provide them with View access rights. The selected user groups will be marked with the check mark to the right from the user group name. In the Render application, the users from the selected user groups can view the label display.
- **Update** - as the labels cannot be updated in the Render application, the selected user groups will not be able to update the labels there.



Formatting

The **Formatting** functionality is available only for the button, label and field configurations.

Click **Formatting** to customize the “look and feel” of the label.



In the opened **Formatting** pop-up window users can define the label format parameters such as:

- Font style:
 - bold
 - italic

- crossed out
 - underlined
- Text color
- Text background color
- Font family
- Font size
- Text alignment:
 - left
 - right
 - center
 - justify

For example, the formatted label can be displayed as follows:



In the Render application, the formatted label can be displayed as follows:



Click the **Save** button to confirm label formatting changes.

Click the **Reset** button to clear the label parameters.

Click the **Close** button to cancel the label formatting changes without saving and return to the **Label Settings** pop-up window.

Close

Click the **Close** button at the bottom of the Label Settings pop-up window to close the pop-up window.

4.3.4.7.6.5 Field Configuration

4.3.4.7.6.5.1 Table of Contents

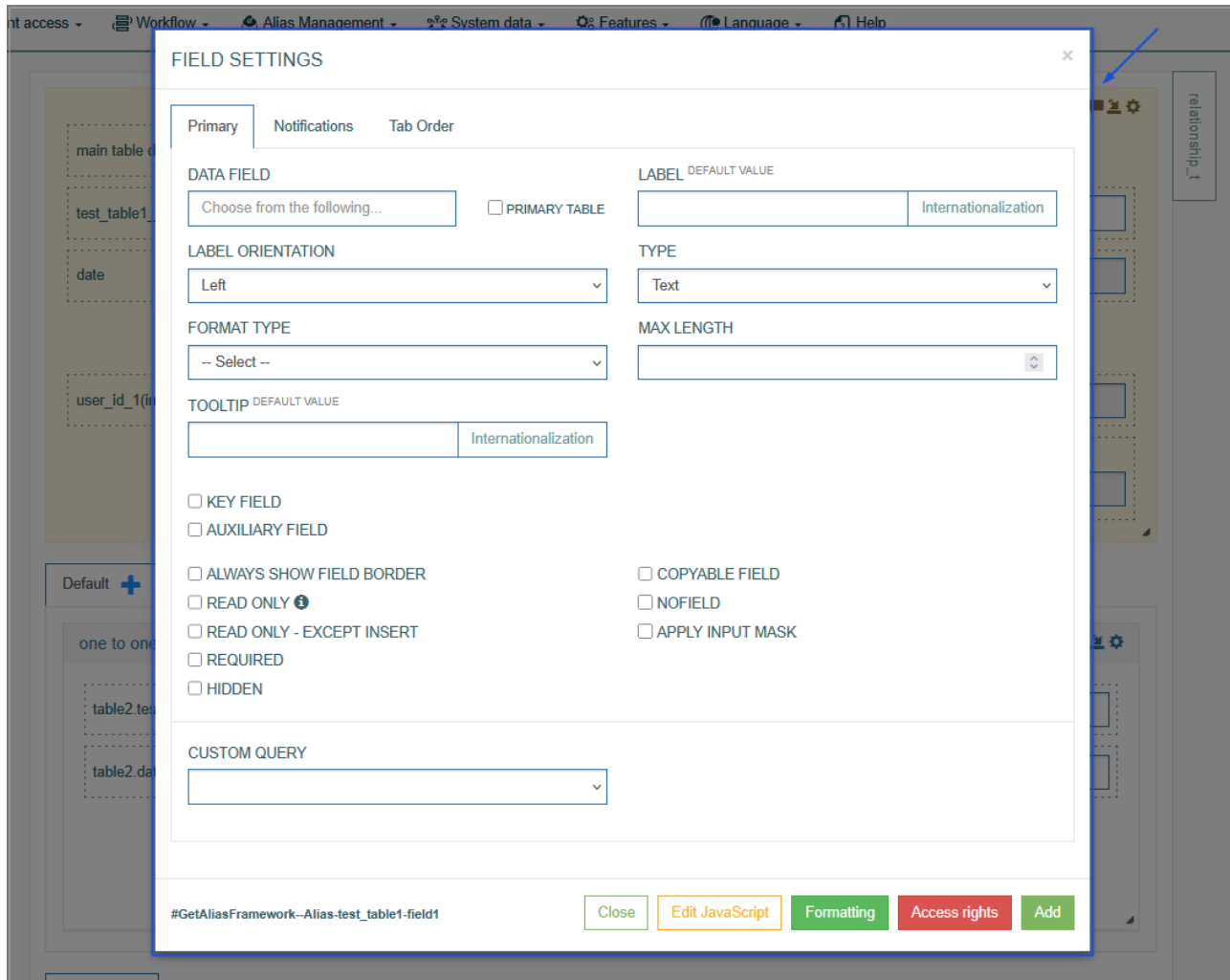
- [Overview](#)
- [Primary](#)
 - [Data Field](#)
 - [Label](#)
 - [Label Orientation](#)
 - [Field Type](#)
 - [Format Type](#)
 - [Max Length](#)
 - [Num Rows](#)
 - [Tooltip](#)
 - [Default Field Value](#)
 - [Default Checkbox Value](#)
 - [Additional Options](#)
 - [Linked List](#)
- [Notifications](#)
- [Tab Order](#)
- [Common Operations](#)
 - [Add](#)
 - [Update](#)
 - [Access Rights](#)
 - [Formatting](#)
 - [Edit JavaScript](#)
 - [Close](#)

4.3.4.7.6.5.2 Overview

The **Edit type** of the Section provides the possibility to add and manage fields to be displayed and used on the screen in the Render application.

The actions to configure fields as well as images, labels and buttons are displayed next to the **Settings** icon in the upper right corner of the section.

To add a field and configure its displaying on the screen in the Render application, click the **Field** icon in the right corner of the Header section. The Field Settings pop-up window opens to configure the field:



The **Field Settings** pop-up window opens for configuring a field.

In the Field Settings pop-up window, you can edit the related parameters by switching across the following available tabs:

- **Primary**
- **Notifications**
- **Tab Order**

See the **Common Operations** section for the description of the buttons available at the bottom of the pop-up window.

4.3.4.7.6.5.3 Primary

On the **Primary** tab, configure the main parameters. The parameters currently supported are described below.

Data Field

In the Data Field, you can define the Alias field that will be used on the screen. Start typing in the Data Field input field to display the list of existing aliases. Select the required alias to link the data from the database table with the current field. More details about Aliases can be found on the [Alias Management Overview](#) page of the User Manual.

DATA FIELD

Alias: JuneTest1.Text30

☐ PRIMARY TABLE



It is not recommended to use fields with the same alias on the screen several times, even if fields are placed on different depth tabs. This may lead to incorrect work of the field or the field value from another tab can be used instead of the needed one.

Select the **Primary Table** check box to open the list of data fields of the Primary table that you have selected on the first Screen Builder Configuration step.

Label

Enter the label text that will be displayed as a field name on UI screen in the Render.

To add the translations a for new label, perform the following operations:

- Click the **Internationalization** button next to the Label field. The Internationalization pop-up window will be opened.

INTERNATIONALIZATION

Russian

Add

ENGLISH (UNITED STATES)

Comments:

RUSSIAN

Комментарии:

Close

Reset

Apply

- In the opened pop-up window, select the language from the drop-down list and click the Add button. The field with added language will be displayed.
- Enter the translation for the selected language.
- Click the **Apply** button to save the changes.
- Click the **Reset** button to delete all changes without closing the pop-up window.
- Click the **Close** button to return to the Field Settings without saving changes.

In case there is the translation for the label, move the cursor over a field and the translation will be displayed.

LABEL DEFAULT VALUE

Comments: Internationalization

de: Kommentar:

ru: Комментарии:

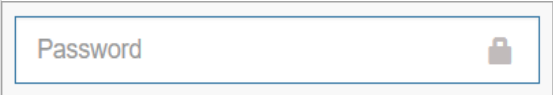
In case the user changes the display language in the Render application, the translated label will be shown. For more details about language changing, refer to the [Language](#) page of the User Manual.

In the Render application the label can be placed different. It depends on the label orientation. For more details, see the **Label Orientation** section.

Label Orientation

Select the label orientation that defines the direction of label display relative to the input field.

Depending on the selected orientation, the label can be displayed as follows:

Label Orientation	Example
Left	
Top	
Inside	

Field Type

The **Field Type** specifies the data allowed for the field. The layout of the field in the Render application, validation of the entered data, supported data format will differ depending on the selected **Field Type**. When you select a field type value, additional field type-specific parameters appear. For more details about field types, their format types and specific parameters refer to the [Field Types and Layouts](#) page of the User Manual.

The description of the supported Field types, related Format types as well their additional specific parameters is provided below:

- **Text** - allows users to enter a single line of text on the screen in the Render application. Depending on the **Format Type** the visual display of data in the Render application will be different. For more details refer to the **Format Type** section. In the Render application, the Text type field can be displayed as follows:



- **Numeric** - allows users to enter numeric values in the fields. Depending on the **Format Type** the visual display of data in the Render application will be different. For more details refer to the **Format Type** section. In the Render application, the Numeric type field can be displayed as follows:

MVA:

2.33

- List** - allows users to select values containing the extension functions from the drop-down list. In the Render application the drop-down list can be displayed as follows:

Vesting Status

Partial

Please select

Vested

Partial

Not

New Agent

- List With Extension Function** - allows users to select values containing the extension functions from the drop-down list. The list with extension function in the Render application can be displayed as follows:

List With Extension

Please select

Please select

SAMPLE PRE

SAMPLE EXEC

SAMPLE POST

- Textarea** - allows users to enter multiple lines of text on the screen in the Render application. In the Render application, the textarea field can be displayed as follows:

Textarea

- Multi-select list** - allows users to select multiple values from a drop-down list of field options in the Render application. In the Render application, the multi-select list can be displayed as follows:

Status

Please select

Bank

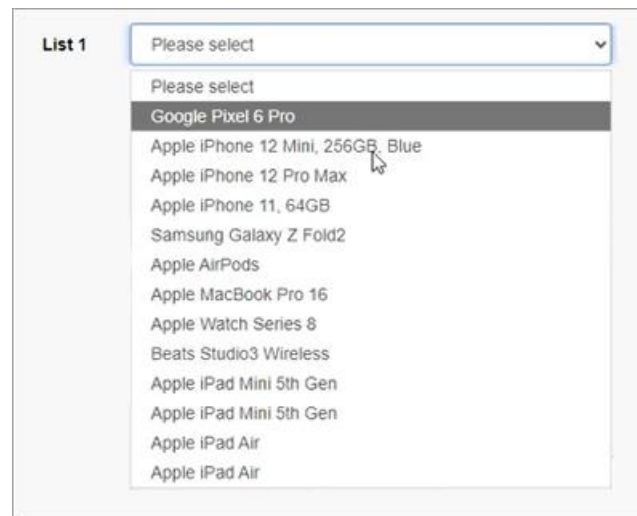
Brokerage

Captive

Independent

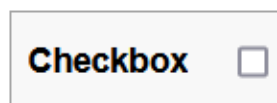
- **List from API** - allows users to display the list of values (options) received from an external application.

In the Render application, the List from API can be displayed as follows:

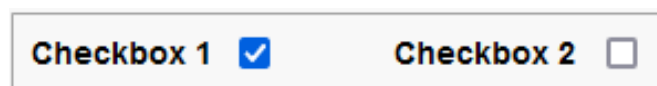


- **Checkbox** - allows users to select any option by clicking the check box or to select one option from the group by clicking the check box from the check box group on the screen in the Render application.

In the Render application, the Checkbox can be displayed as follows:



In the Render application, the Checkbox Group can be displayed as follows:



- **Radio** - allows users to select one option by clicking the radio button or to select one option from the group by clicking the radio button from the radio group. This field type is often used for absolute simple yes or no answers.

In the Render application, the Radio button can be displayed as follows:



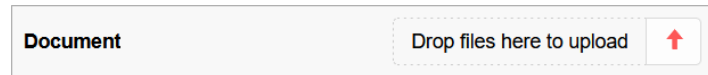
In the Render application, the Radio Group can be displayed as follows:



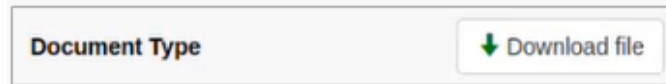
- **Document** - allows users to upload and download documents on the screen in the Render application.

In the Render application, the field with the possibility to upload documents can be displayed as

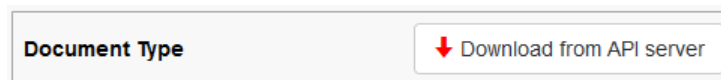
follows:



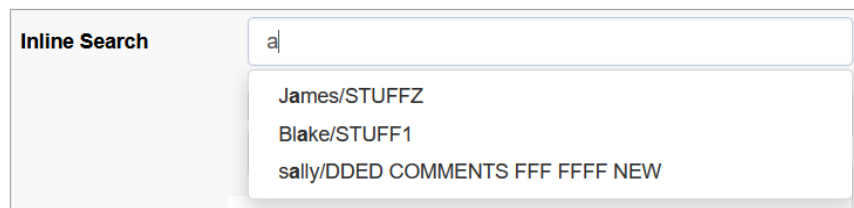
In the Render application, the field with the possibility to download documents can be displayed as follows:



In case there is no uploaded document, the **Download from API server** button will be shown. If the user clicks this button the default document will be downloaded from the server.



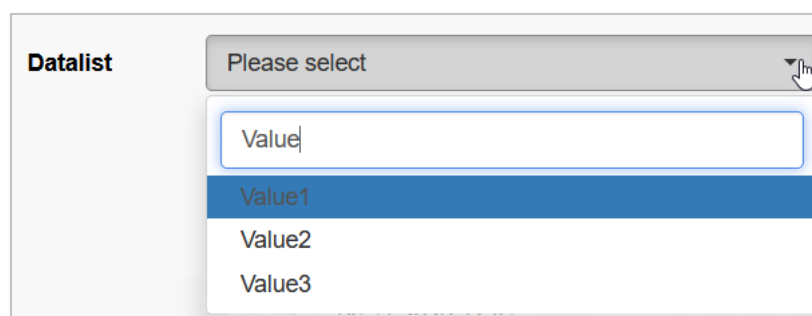
- **Inline Search** - allows users to see search results without redirecting to a search results page. In the Render application, the field with the inline search option can be displayed as follows:



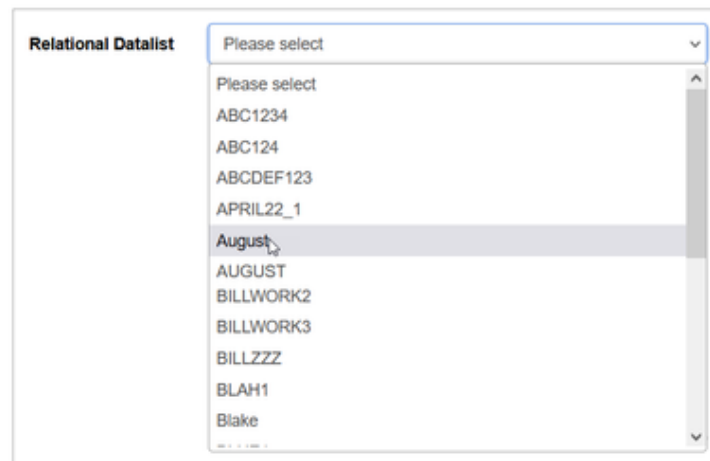
- **DImage (Dynamic Image)** - allows users to upload any image file. In the Render application, the dynamic image field can be displayed as follows:



- **Datalist** - allows users to select options from the list of values on the screen in the Render application. In the Render application, the datalist field can be displayed as follows:



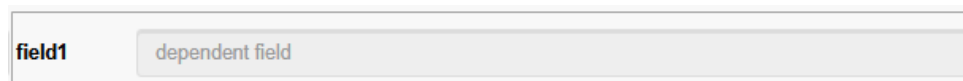
- **Relation Datalist** - allows users to select options that are defined with custom query.
In the Render application, the fields with the relation datalist can be displayed as follows:



- **With dependent field** - allows users to define the conditions for the case when value of one date field should be calculated based on the values of other fields (dependent fields). The dependent fields can be a date field or other field types values. E.g. in this manner, the system will calculate the Due Date value based on other specific date value on the screen in the Render application. In the Render application, the visual display of the fields with the **With dependent field** type may vary depending on the Time format and Date format defined on the Regional tab of the Create User page (Account Settings > Users).

For example, the Time format and Date format parameters for users are defined “T1: hh:mm:ss” and “D1: dd.MM.yyyy”, accordingly. In the Render application, for such users the fields with the **With dependent field** type will have the following visual display: 21.05.2023 13:26:41.

- **Set value from source field** - allows automatic value assignment based on another field, referred to as the **source field**.
The field can be configured to reference any other field, either within the same section, in the header, or even hidden fields, as its source.
On **insert** or **update** operations, the field's value will be automatically set to match the current value of the specified source field.
This behavior applies both during initial record creation and when records are updated.
In the Render application, the dependent field can be displayed as follows:



This functionality also extends to fields inside **tables**. If configured within a table, the source field's value will be populated to all entries (rows) in the table for the corresponding field.

In the Render application, the dependent field in tables can be displayed as follows:

Please note that it is not recommended to use fields with the same type on the screen in different depth tabs. This may lead to incorrect work of the field on all screens on different depth tabs, except for the first screen. For example, the field will only work on the first tab for the following field types without any additional conditions:

- **Inline Search**
- **DImage**
- **Checkbox**
- **Radio**
- **With dependent field**

The following field types will work incorrectly, in case of additional conditions described below:

- **Text** - in case of using custom query parameters, also the field with a Data/Time format type will work only on the first tab.
- **List** - in case the Linked List parameter is selected.
- **Textarea** - in case the custom query parameter is used.
- **Document** - in case the upload button is used.
- **Datalist** - in case the Linked List parameter is selected.
- **Relation Datalist** - in case the Linked List parameter is selected.

For more details about field types, their format types and specific parameters refer to the [Field Types and Layouts](#) page of the User Manual.

Format Type

The Format type depends on the selected Field type. It defines what type of data can be specified in the field.

The Format type can be defined only for the field with the following types:

- **Text**
- **Number**
- **With dependent field**

The relation between Field and Format types is represented in the table on the [Field Types and Layouts](#) page of the User Manual.

Currently, the following format types are supported:

- **Email** - email address that must conform to the pattern, e.g., name@domain.com.
In the Render application, the field with email format can be displayed as follows:

Test Email

- **Date** - Date format is set up in the User Account (Account Settings > Users > Regional). In the Render application, the field with data format can be displayed as follows:

Decimal Zero
DateTime Depends
Test Email
Formatted Phone
Date

«
December 2023
»

Su	Mo	Tu	We	Th	Fr	Sa
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

- **Date/Time** - the format of Date and Time is set up in the User Account (Account Settings > Users > Regional). In the Render application, the field with data/time format can be displayed as follows:

Date/Time

- **Phone** - used for phone number. In the Render application, the field with phone format can be displayed as follows:

Phone:

- **Custom** – the custom data that must conform to the format template, which was set in the Architect, using the **x**, **n**, **-**, **+** characters, where:
 - **x** – any English text and numeric character can be added,
 - **n** – numeric character input only,
 - **- / +** – separator types. The separators will be added automatically on the screen in the Render.

For example:

- in case of the **xxx--nnn++xn-n** template, the entered data might be **abc--123++q2-1**, or
- in case of the **nn-xx+xn-nx** template, the entered data might be **35-pt+a3-4t**, etc.

The field format will be shown as a placeholder of the field on the screen in the Render application. In case users enter the data in the format that does not meet the format template set,

the warning tip will appear.

In the Render application, such field can be displayed as follows:

textfield	xxx-yyy+zz
-----------	------------

- **Decimal** - represents a number that consists of a whole and a fractional part.

In the Render application, the fields with the decimal static or dynamic numeric format types can be displayed as follows:

MVA:	2.33
------	------

- **Currency** - used for the currency.

In the Render application, the fields with the currency static or dynamic numeric format types can be displayed as follows:

YTD Comm	\$ 74.98
----------	----------

Max Length

The maximal allowed field length. The length depends on the values stored in the database. You can specify specific field length limitation here, if you need to set specific restriction for the value.

The **Max Length** parameter can be configured only for the following field types:

- **Text** - limits the number of characters that users can enter.
- **Numeric** - restricts the number of digits allowed.
- **Textarea** - controls the total number of characters across all lines.
- **List from API** - defines the character limit for the external API value.
- **Inline search** - limits the number of characters that users can type in the search field.
- **With dependent field** - limits the value of the current field, regardless of the dependency logic applied from another field.
- **Set value from source field** - restricts the copied from another field value length.

MAX LENGTH	9
------------	---

In the Render application, the field length can be displayed as follows:

Decimal 3	123,456.789
-----------	-------------

Note that for fields of the **Numeric** type and the **Decimal** format type, the required parameter is **Precision** (number of decimal characters). For the Currency format type, it is not editable and the value “2” is used by default.

Num Rows

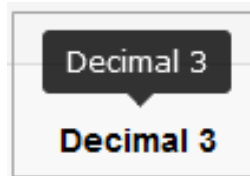
You can specify the quantity of rows displayed for the field.

Although this parameter is displayed for most of the format types, it is relevant for the **Textarea** and **Multi-select list** types.

Tooltip

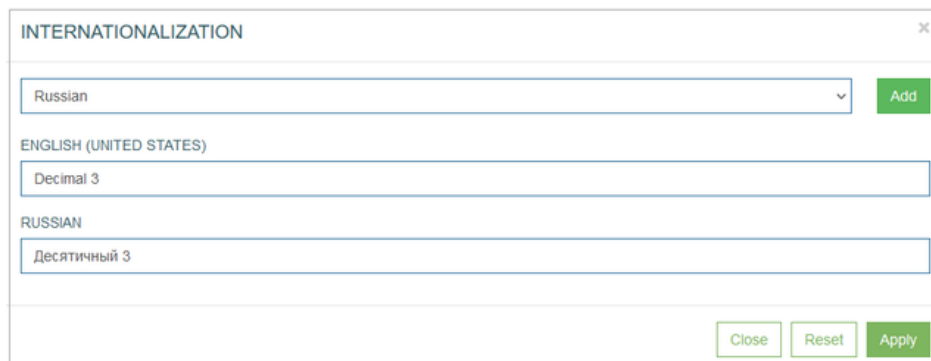
You can enter the text here that displays information about field when hovering over it on the screen in the Render.

In the Render application, the Tooltip can be displayed as follows:



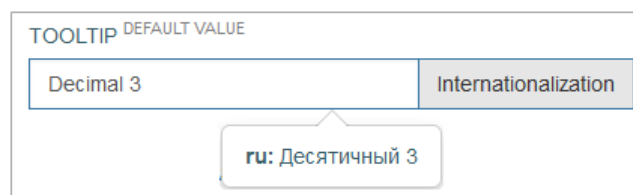
To add the translations for a new tooltip, perform the following operations:

- Click the **Internationalization** button next to the Tooltip field. The Internationalization pop-up window will be opened.



- In the opened pop-up window, select the language from the drop-down list and click the **Add** button. The field with added language will be displayed.
- Enter the translation for the selected language.
- Click the **Apply** button to save the changes.
- Click the **Reset** button to delete all changes without closing the pop-up window.
- Click the **Close** button to return to the Field Settings without saving changes.

In case there is the translation for the tooltip, move the cursor over a field and the translation will be displayed.



In case the user changes the display language in the Render application, the translated tooltip will be

shown. For more details about language changing, refer to the [Language](#) page of the User Manual.

Default Field Value

The **Default Field Value** parameter allows pre-filling a field with a defined value when the screen is loaded in the Render application.

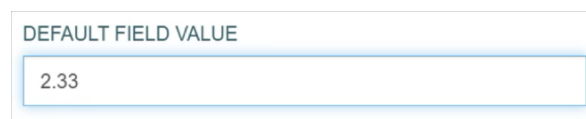
The default value is applied based on the Field Type, ensuring that the assigned value aligns with the data format of the field.

To set a Default Field Value, select a Field Type while configuring the field. If the selected field type supports default values, the Default Field Value option will be displayed.

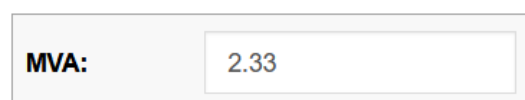
The **Default Field Value** parameter is available for the following static field types:

- **Text** – defines a predefined text string.
- **Numeric** – defines a default numeric value.
- **List & List with Extension Function** (fields only) – preselects an option from a drop-down list.
- **Datalist** – populates the field with a preset list value.
- **Textarea** – defines default multi-line text content.
- **Multiselect List** – allows multiple default selections, separated by a semicolon (";").
 - Example: Option1;Option2;Option3
- **Checkbox** – determines whether the checkbox is checked by default.

If Numeric is selected as the Field Type, the Default Field Value field will be displayed as follow:



In the Render application, the Numeric type field whose Default Field Value set as 2.33 can be displayed as follows:




Default Field Values do not apply to dynamically populated fields like Relation Datalist, List from API, Inline Search or certain UI elements like Images, Radio with dependent fields.

Default Checkbox Value

The **Default Checkbox Value** parameter defines whether the checkbox is selected (checked) by default when the screen is loaded in the Render application. Available only for fields with the **Checkbox** field type.

- **Checked:** The checkbox will appear selected by default.
- **Unchecked:** The checkbox will appear unselected by default.

This setting is typically used to guide users toward a recommended or commonly chosen option but can still be modified by the user before submission.

Additional Options

☐ KEY FIELD
☐ AUXILIARY FIELD
☐ ALWAYS SHOW FIELD BORDER
☐ COPYABLE FIELD
☐ READ ONLY ⓘ
☐ NOFIELD
☐ READ ONLY - EXCEPT INSERT
☐ APPLY INPUT MASK
☐ REQUIRED
☐ HIDDEN

- **Key field** - specifies that the field can be editable in read-only mode (for the Header section only) and the request to the service to receive the value is sent.

In the Render application, the key field can be displayed as follows:

Policy:

Header Relationship

- **Auxiliary field** - specifies that the field can be editable in read-only mode (for the Header section only).

In the Render application, the auxiliary field can be displayed as follows:

Agent Number

- **Always show field border** - specifies that the field borders are displayed both in edit and read-only modes. Pay attention that it should not be used together with the Link type check box.

In the Render application, the field with this option can be displayed as follows:

Header Relationship

Please select

- **Read only** - specifies that the field is not editable. In case the alias contains the “~” character, the field is read-only as well.

Note: If the **Read only** parameter is selected, the **Read only - Except Insert** parameter will be unavailable for selection.

In the Render application, the field with this option can be displayed as follows:

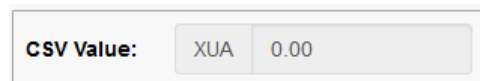
Formatted Phone

- **Read only - Except Insert** - the field editing is available in the Insert mode only.

Note: If the **Read only - Except Insert** parameter is selected, the **Read only** parameter will be

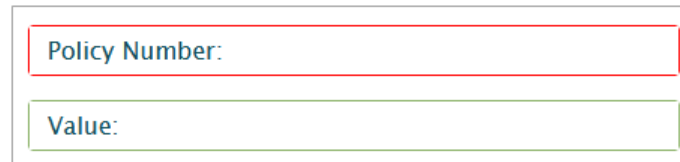
unavailable for selection.

In the Render application, the field with this option can be displayed as follows:



- **Required** - specifies that the field must be filled in.

In the Render application, the blank required field can be displayed as follows:

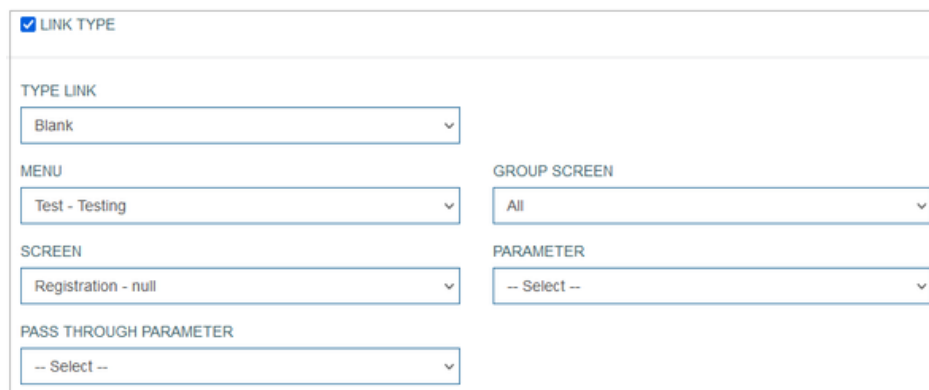


- **Apply input mask** - used to hide the value of the field on UI. As a rule, it is used for the password field. Available only for fields of the **Text** and **Numeric** types with an empty format type.

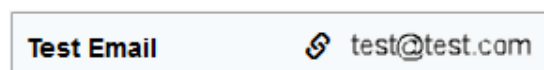
In the Render application, the field with this option can be displayed as follows:



- **Link Type** - used to assign a link to the field. When the check box is selected, new fields to set up the link appear:



In the Render application, the field with link type can be displayed as follows:



Define the following parameters for the linked page:

- **Type Link** - select the display mode for the linked page from the drop-down list:
 - **Blank** - to open a linked page in a new tab.
 - **Self** - to open a linked page in the current tab.
 - **Modal** - to open a linked page in a modal (pop-up) window.
 - **Blank - Bypass** - to open linked page in a new tab and to pass the additional

parameter specified in the Pass Through Parameter field.

- **Modal - Bypass** - to open linked page in a modal (pop-up) window and to pass the additional parameter specified in the Pass Through Parameter field.
- **Menu** - to select the menu that the required screen assigned to.
- **Group Screen** - to select the group screen that the required screen assigned to.
- **Screen** - to select the required screen that will be opened by link.
- **Parameter** - to specify the required parameter that will be used for searching on the screen.
- **Pass Through Parameter** - this parameter will be passed by link to the defined screen.
- **Copyable field** - specifies that in case the screen is copied in the Render, the value of the field should be copied too. And in the Render application, it can be displayed as follows:

CSV Value:	XUA	0.00
-------------------	-----	------

- **Allow empty Date/DateTime** - specifies that the values of the date and date/time fields can be empty. Available only for fields of the **Text** type, and **Date** or **Date/Time** format types. Note that in insert action mode in the Render application, the field will be empty. In the Render application, it can be displayed as follows:

Term Date		
------------------	--	--

- **Use Current Date/Time on Insert Mode** - specifies that when user opens the screen/field in the **Insert** mode, the current Date and Time will be always taken to save the value (even in case user filled in the field with another value). Available only for fields of the **Text** type, and **Date** or **Date/Time** format types. In the Render application, it can be displayed as follows:

Date		05/12/2023
-------------	---	------------

- **Use Current Date/Time on Edit Mode** - specifies that when user opens the screen/field in the **Edit** mode, the current Date and Time will be always taken to save the value (even in case user filled in the field with another value). Available only for fields of the **Text** type, and **Date** or **Date/Time** format types. In the Render application, it can be displayed as follows:

datetime		12.07.2025 13:48:30
-----------------	---	---------------------

- **Use the Current User ID on Insert Mode** - automatically sets the field value to the ID of the currently selected user when a new record is created. Available only for the **Set value from source field** type. In the Render application, it can be displayed as follows:

user_id_1(insert)	23
-------------------	----

- **Use the Current User ID on Edit Mode** - automatically updates the field value to the ID of the currently logged-in user when an existing record is modified. Available only for the **Set value from source field** type.

In the Render application, it can be displayed as follows:

user_id_3(insert and edit)	23
----------------------------	----

- **Hidden** - specifies that the field will be hidden on the screen in the Render.
- **NOFIELD** - specifies the fields that are used in the extension functions.

Linked List

The Linked List option allows to set the relation between different fields/values.

When selecting this option, you define that this field will define the values of another field. So, depending on the selected value of the current field (with the activated Linked List option), the list of values of the related field will be displayed.

☒ LINKED LIST	FIELD IDENTIFIER 1704797915889
FIELD ID TO MONITOR -- Select --	QUERY TO EXECUTE -- Select --
ADDITIONAL FIELD TO SEND -- Select -- Alias.JuneTest1.Policy Alias.JuneTest1.Text25 Alias.JuneTest1.Text20Head	

Select the checkbox to activate this option. The additional fields to set up are displayed:

- **Field ID to monitor** - select the field that will be dependent on the current field.
- **Query to execute** - select the query that will be executed on the field defined in the Field ID to monitor field.
- **Additional field to send** - select the parameters that will additionally be sent to execute query and receive the correct values. Multiple parameters can be selected. Pay attention that these parameters should be equal to the parameters specified in the Custom Query (Features > Custom Query). For more details about custom query creation and editing, refer to the [Custom Query](#) page of the User Manual.

In the Render application, the linked list can be displayed as follows:

4.3.4.7.6.5.4 Notifications

On the Notifications tab, configure the conditions when users should be notified.

To create a notification action, click the **Add Notification** button.

After clicking the Add Notification button, an entry for configuring the notification conditions appears. Fill in the required fields:

- **Notification** - select the notification template from the drop-down list of the templates existing

i Currently you can set up Email and SMS notifications. The email address and the phone number for notifications can be set on the Users page. For more details on how to add the email address and the phone number for notifications, refer to the Create User section on the [Users](#) page of the user Manual.

in the system. To create a new template or manage existing ones, open the Notifications page (System Data > Notifications). For more details about notification creation and managing, refer to the Create Notification section on the [Notifications](#) page of the User Manual.

- **Action** - select the action that specifies the state of UI element (field) when notification should be sent. There are 2 states of UI elements:
 - Update - the field value is edited.
 - Insert - the value is added.
- **Recipient field ID** - add an ID of the field with an Email field format type. The notification will be sent to the email address entered in such a field in the Render application. The field ID can be found at the bottom left corner of the **Field Settings** pop-up window. The **Recipient field ID** field is available only for the notification templates with Custom recipient type. For more details about the recipient type, refer to the Create Notification section on the [Notifications](#) page (System Data > Notifications) of the User Manual.
- In case the notification template contains the variable parameters, the value of these variables

can be defined here in the input fields.

4.3.4.7.6.5.5 Tab Order

On the **Tab Order** tab, you can set whether the Tab key can be used to move the cursor on the current UI element.

The screenshot shows a 'FIELD SETTINGS' dialog box with a close button (X) in the top right corner. It has three tabs: 'Primary', 'Notifications', and 'Tab Order', with 'Tab Order' being the active tab. Inside the 'Tab Order' tab, there are two radio button options: 'NO TAB ACCESS' and 'ALLOW TABS - TAB ORDER'. The 'ALLOW TABS - TAB ORDER' option is selected. To the right of this option is a numeric input field containing the value '5'. At the bottom of the dialog, there is a text label '#GetAliasFramework--Alias-JuneTest1-Policy' and five buttons: 'Close', 'Edit JavaScript', 'Formatting', 'Access rights', and 'Update'.

Additionally, you can define the order in which the UI element is selected and allocated with the cursor when using the Tab key.

The following options are available:

- **No Tab access** - select this radio button to restrict the possibility use the Tab key on the keyboard for the current UI element.
- **Allow Tabs - Tab Order** - select this radio button to allow the usage of the Tab key to navigate to the current UI element. Define the Tab order by filling in the input field next to the Tab Order option.

4.3.4.7.6.5.6 Common Operations

At the bottom of the Button Settings pop-up window, there is a block with common operations displayed and available on any tab of the pop-up window.

FIELD SETTINGS

Primary
Notifications
Tab Order

DATA FIELD

Choose from the following...

☐ PRIMARY TABLE

LABEL

DEFAULT VALUE

Internationalization

LABEL ORIENTATION

Left

TYPE

Text

FORMAT TYPE

-- Select --

MAX LENGTH

TOOLTIP

DEFAULT VALUE

Internationalization

DEFAULT FIELD VALUE

☐ KEY FIELD
☐ AUXILIARY FIELD
☐ ALWAYS SHOW FIELD BORDER
☐ COPYABLE FIELD
☐ READ ONLY ⓘ
☐ NOFIELD
☐ READ ONLY - EXCEPT INSERT
☐ APPLY INPUT MASK
☐ REQUIRED
☐ HIDDEN

CUSTOM QUERY

#--
Close
Edit JavaScript
Formatting
Access rights
Add

The following operations can be performed while updating information in the pop-up window on the tabs mentioned above:

Add

Click the **Add** button to confirm and add a field to the screen.

Note that in case of the Edit mode, the **Add** button is changed to the **Update** button.

Update

Click the **Update** button to confirm and save the changes made for the field.

Access Rights

Click the **Access Rights** button to open the corresponding pop-up window. Here, users can select user groups to set the access right for the View and Update actions for the selected groups:

- View** - select one or multiple user groups from the drop-down list to provide them with View access rights. The selected user groups will be marked with the check mark to the right from the user group name. In the Render application, the users from the selected user groups can view the field display but cannot update the field value.
- Update** - select one or multiple user groups from the drop-down list to provide them with Update access rights. The selected user groups will be marked with the check mark to the right

from the user group name. In the Render application, the users from the selected user groups can update the field value.

Note that to update the field value in the Render application, the user group should also have the View access rights. I.e., the same user group should be selected in both View and Update drop-down lists.

ACCESS RIGHTS

VIEW

Standard_Group: CODIAC Standard Group, Agent_Group: CODIAC Agent Group, test: test, NewGroup: testGroup

UPDATE

Standard_Group: CODIAC Standard Group, Underwriting_Group: CODIAC Underwriting Group, test: test

Standard_Group: CODIAC Standard Group ✓

Underwriting_Group: CODIAC Underwriting Group ✓

Agent_Group: CODIAC Agent Group

Owner group: new group

New_Group: New CODIAC Menu Description

test: test ✓

JuneGroup: June Group Description

NewGroup: testGroup

CodiacGroup: codiac group

DemoGroup: DemoGroup

Formatting

The **Formatting** functionality is available only for the button, label and field configurations.



In sections with **Edit Type**, the formatting functionality will work for fields regardless of whether the field is displayed or not.

Click **Formatting** to customize the “look and feel” of the field.

FORMATTING

Label

B

/

S

U

TEXT COLOR

#741b47

TEXT BACKGROUND COLOR

#b6d7a8

FONT FAMILY

Comic Sans MS

FONT SIZE

13

TEXT ALIGN

left

Field

B

/

S

U

TEXT COLOR

#cc0000

TEXT BACKGROUND COLOR

#d5a6bd

FONT FAMILY

Times New Roman

FONT SIZE

9

Close

Reset

Save

In the opened **Formatting** pop-up window users can define the Label and Field style and format parameters such as:

- Font style:
 - bold
 - italic
 - crossed out
 - underlined
- Text color
- Text background color
- Font family
- Font size
- Text align (for Label only):
 - left
 - right
 - center
 - justify

For example, the formatted field can be displayed as follows:

Name

In the Render application, the formatted field can be displayed as follows:

165



Name

June

Click the **Save** button to confirm field formatting changes.

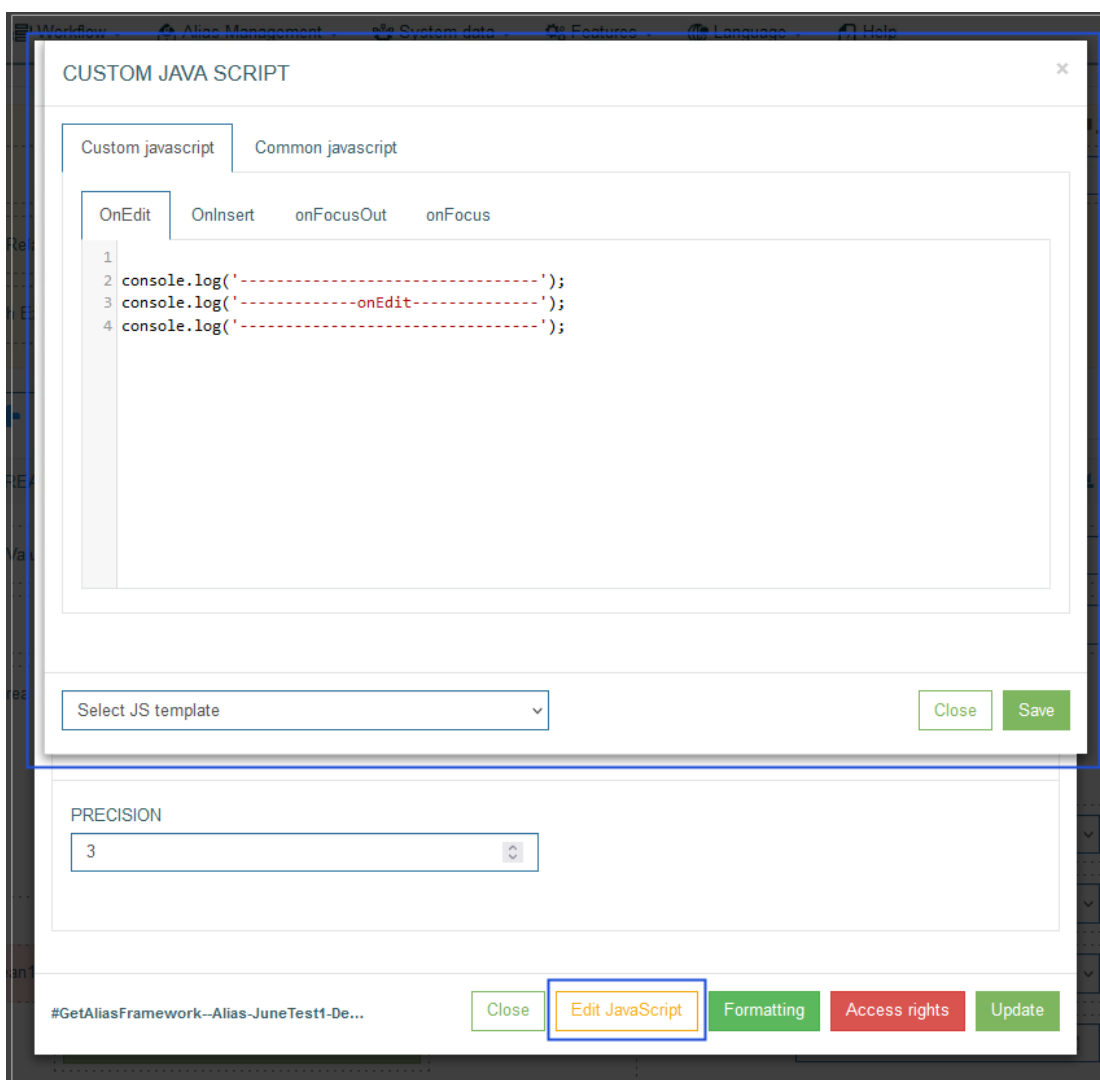
Click the **Reset** button to clear the field parameters.

Click the **Close** button to cancel the field formatting changes without saving and return to the **Field Settings** pop-up window.

Edit JavaScript

Click Edit JavaScript to open the editor and set up the behavior and CSS styles for UI elements on the screen.

Note that the **Edit JavaScript** functionality is available only for the field configuration.



Custom JavaScript tab - on the Custom JavaScript tab, you can set up and customize the behavior and CSS styles for UI elements on the screen.

You can set up the OnEdit, OnInsert, onFocusOut and onFocus actions on the correspondent tabs.

To simplify the code writing on the Custom JavaScript tab, the **jQuery** library can be used. The jQuery

library provides the possibility to use less symbols to write the Custom JavaScript. For more information about the jQuery library, visit the jQuery website.

It is recommended to define additional checks when the Custom JavaScript performs validation successfully and when the validation is failed.

- For the positive case, when the check is passed, it is necessary to remove the class "not-valid-data" from the element: `$(this).removeClass('not-valid-data');`.
- For the negative case, when check is not passed, an error with auxiliary text: "throw new Error('error message');" should be displayed.

For example:

- the Custom JavaScript validation of the field is set up for the onFocusOut action.
- the Custom JavaScript of the field restricts the maximal numeric value entered in the field to 100.

In this scenario, if the user entered a value greater than 100 in the field within the Render application, the following outcome would occur:

- the further execution of the script should be stopped;
- the error message is displayed;
- and the Save action should not be allowed.

Common JavaScript tab - on the Common JavaScript tab, you can set up and define as common the behavior and CSS styles for UI elements on the screen.

You can set up the OnEdit, OnInsert, onFocusOut actions on the correspondent tabs.

Select JS template - click on the drop-down list to add the existing JavaScript template to the editor. The following templates are available:

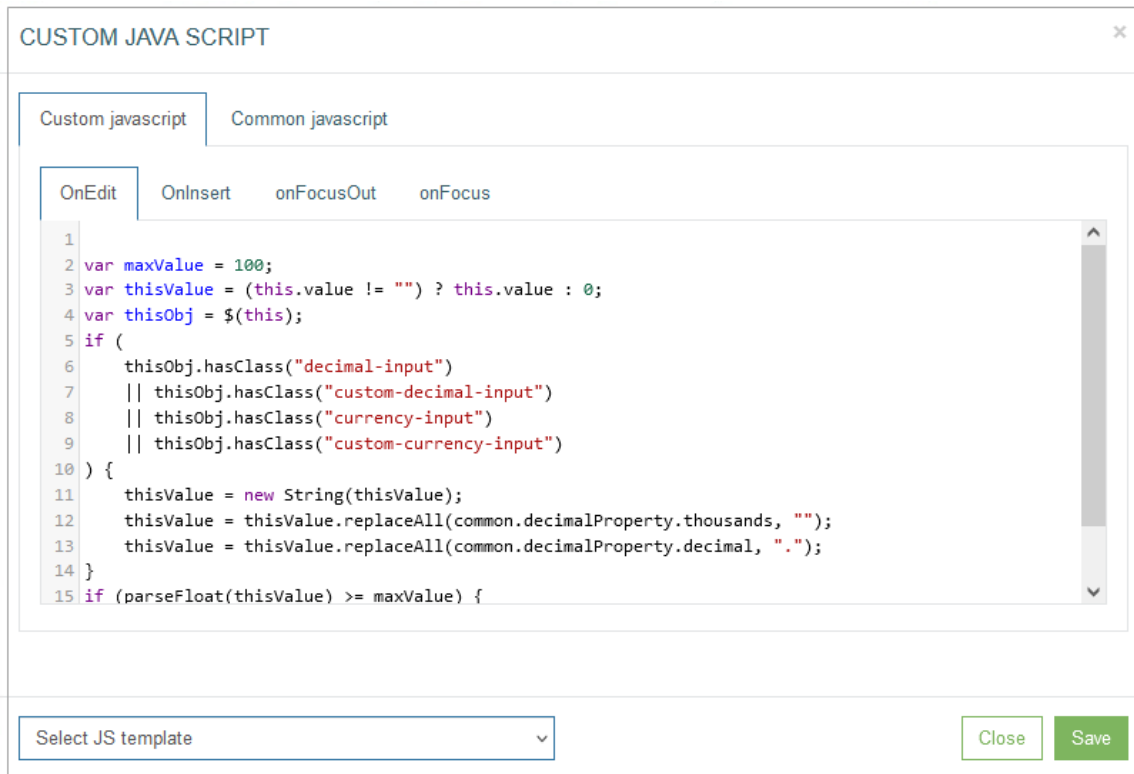
- **Check max value**
- **Compare fields**
- **To upper case**
- **Check min value**
- **To lower case**

The JavaScript templates with examples are described below:

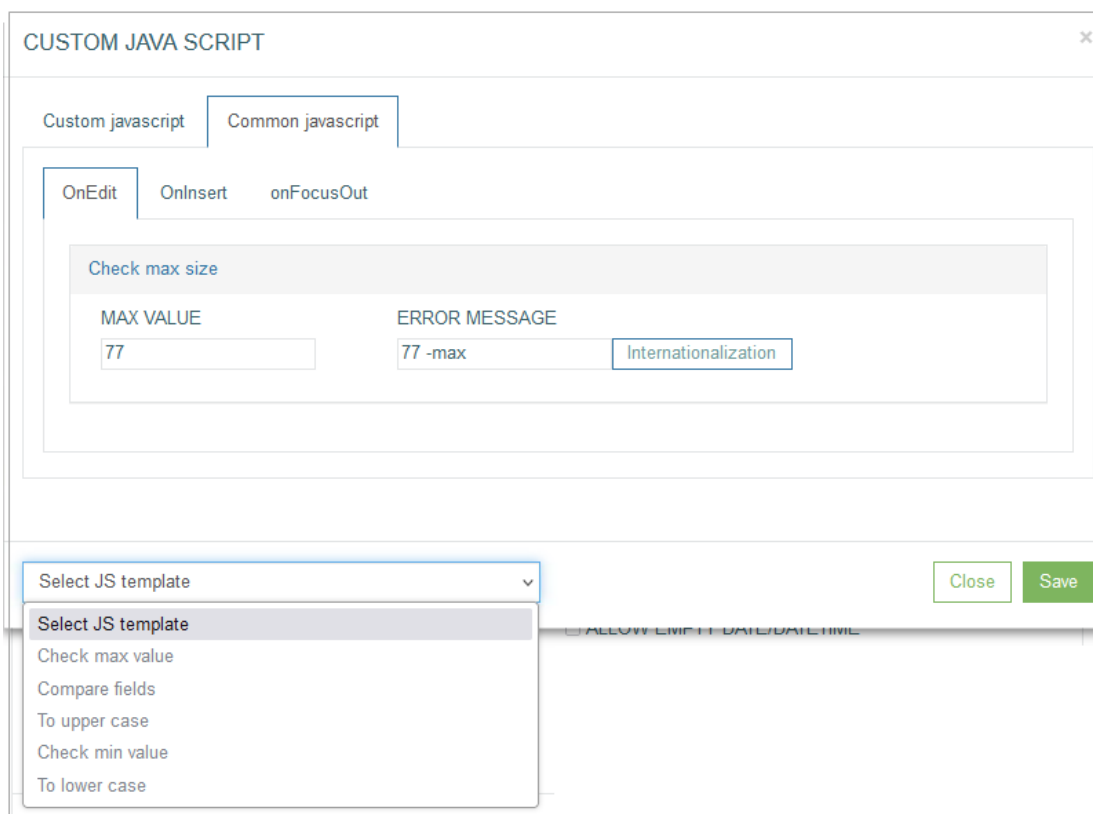
Check max value

This template provides the possibility to restrict the maximal numeric value entered in the field.

On the Custom JavaScript tab, the template can be displayed as follows:



On the Common JavaScript tab, the settings are displayed as follows:



Enter the maximal value to the **Max value** field and the text that will be shown as a warning message to the **Error Message** field. The warning message will appear and can be displayed in the Render application as:

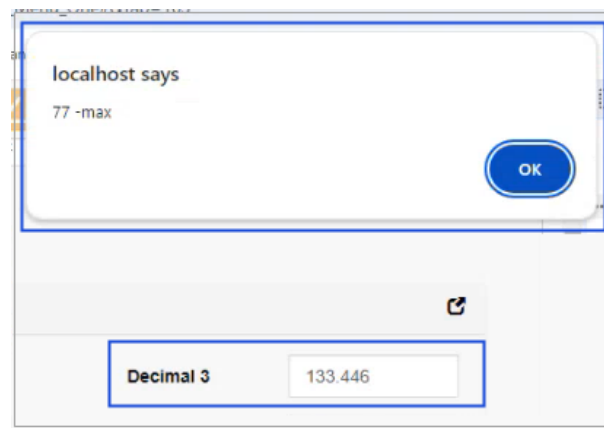
- a pop-up window,

- a **tooltip**,
or
- a **confirmation pop-up window with actions**. This warning message type will appear in case of selecting the **Use confirm modal** check box.
Note that the warning message in the confirmation pop-up window is available only for the onFocusOut action.

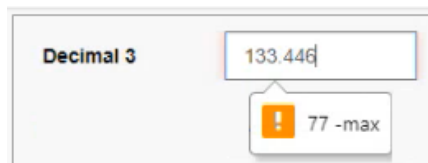
For example, on the Common JavaScript tab, the Check max value operation was set up and defined as “77” as the common behavior for the OnEdit action for the “Decimal 3” field.

In case the entered data in the Render application does not match the defined parameters, the warning message will appear and can be displayed as a pop-up window or a tooltip.

In the Render application, the warning message can be displayed as a pop-up as follows:



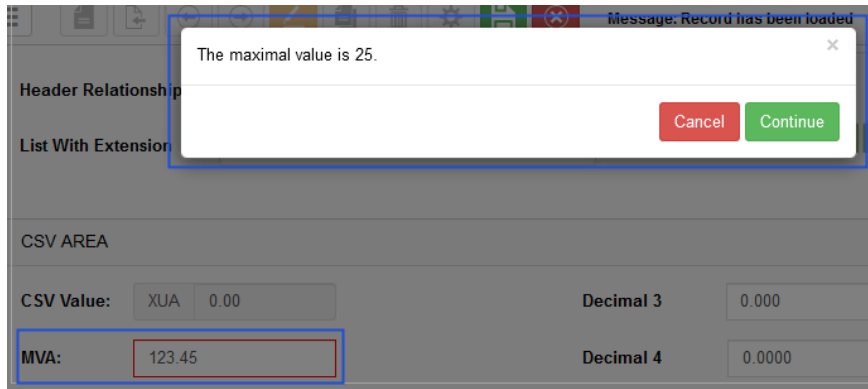
Or as a tooltip as follows:



In case the Check max value operation was set up as the common behavior for the onFocusOut action for the field, the additional confirmation will be available. Select the **Use confirm modal** check box, to display the warning message as a confirmation pop-up window with actions in the Render application.

For example, the entered value to the MVA field is more than the defined maximal value. The warning message will appear as a confirmation pop-up window.

In the Render application, it can be displayed as follows:



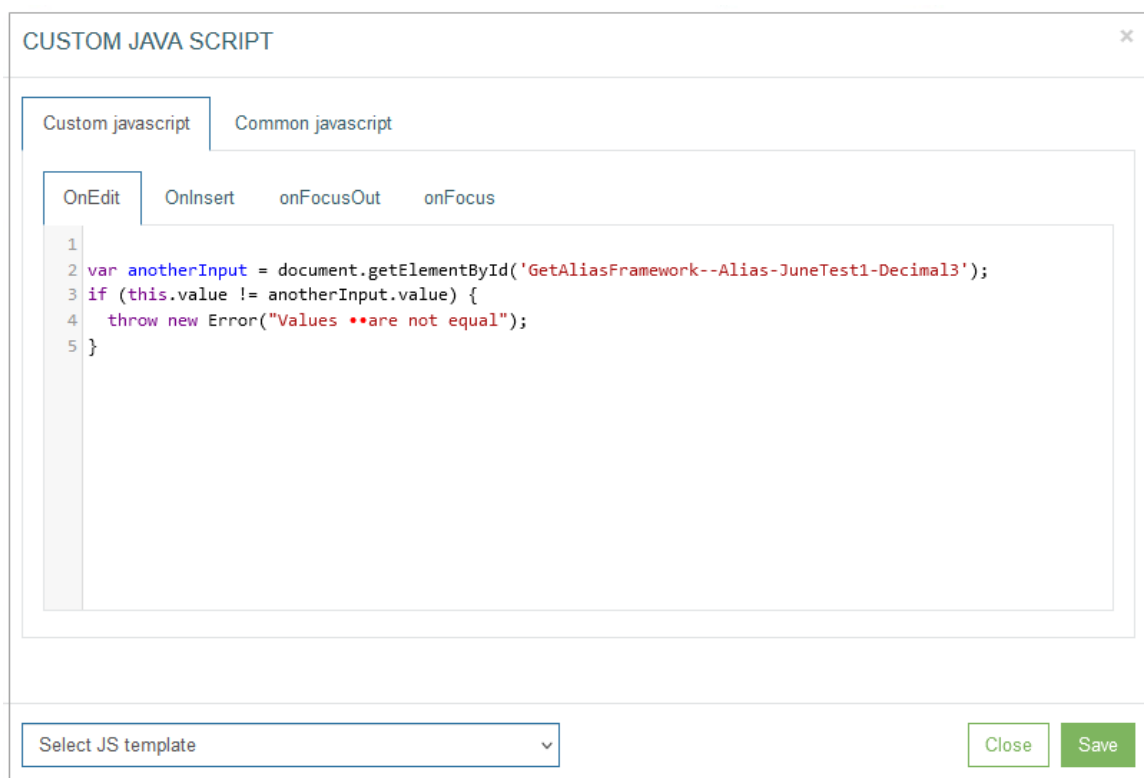
Click the **Continue** button, to confirm the entered value is correct.

Click the **Cancel** button, to deny the confirmation and return to the field value editing.

Compare fields

This template provides the possibility to set the field value comparison. The entered data in this field must match the entered data of the field defined in the template.

On the Custom JavaScript tab, the template can be displayed as follows:



On the Common JavaScript tab, the settings are displayed as follows:

Enter the field ID with value of which the entered value will be compared to the **Another input (ID)** field.

The field ID can be found at the bottom left corner of the **Field Settings** pop-up window.

Enter the text that will be shown as a warning message to the **Error Message** field. The warning message will appear and can be displayed in the Render application as:

- a **pop-up window**,
- a **tooltip**,
- or
- a **confirmation pop-up window with actions**. This warning message type will appear in case of selecting the **Use confirm modal** check box.

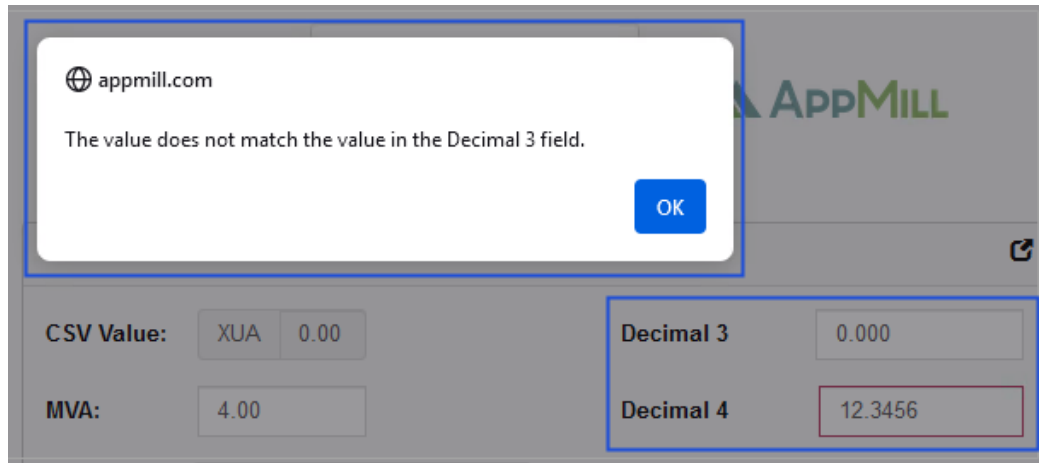
Note that the warning message in the confirmation pop-up window is available only for the onFocusOut action.

For example, on the Common JavaScript tab, the Compare fields operation was set up as the common behavior to the onFocusOut action for the “Decimal 4” field. I.e. the entered value of the “Decimal 4” field will be compared with the value of the “Decimal 3” field defined in the Another input (ID) field.

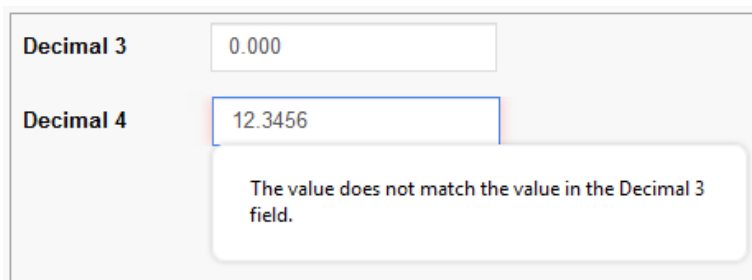
In case the entered data in the “Decimal 4” field in the Render application does not match the value of the “Decimal 3” field, the warning message will appear and can be displayed as a pop-up, a tooltip or a confirmation pop-up window with actions.

In the Render application, the warning message can be displayed as follows:

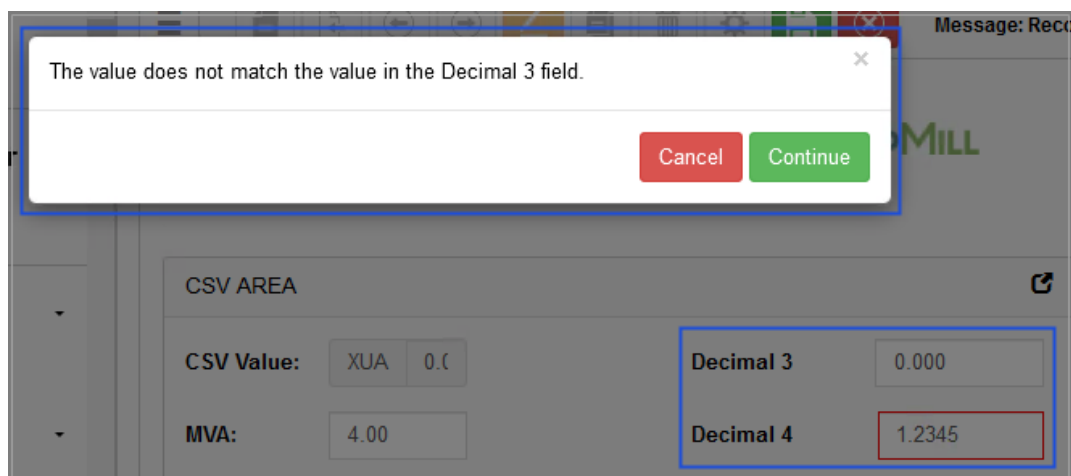
- a pop-up window



- a tooltip



- or a confirmation pop-up window



Click the **Continue** button, to confirm the entered value is correct.

Click the **Cancel** button, to deny the confirmation and return to the field value editing.

To upper case

This template provides the possibility to define that the entered data in the field must be written in capital letters.

On the Custom JavaScript tab, the template can be displayed as follows:

CUSTOM JAVA SCRIPT

Custom javascript

Common javascript

OnEdit

OnInsert

onFocusOut

onFocus

1

2 `this.value = this.value.toUpperCase();`

Select JS template

Close

Save

On the Common JavaScript tab, the settings are displayed as follows:

CUSTOM JAVA SCRIPT

Custom javascript

Common javascript

OnEdit

OnInsert

onFocusOut

To Upper case

Select JS template

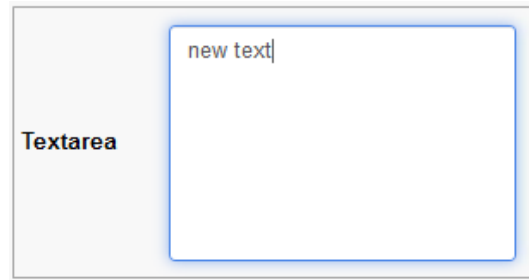
Close

Save

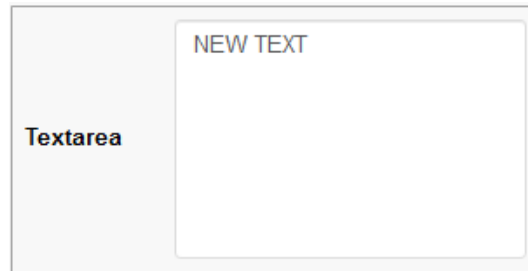
For example, on the Common JavaScript tab, the To Upper case operation was set up as the common behavior for the onFocusOut action for the “Textarea” field.

In case the entered data in the Render application is written in small letters, such letters will be replaced with capital letters and can be displayed as follows:

- The entered text written in small letters, when the field is on focus.



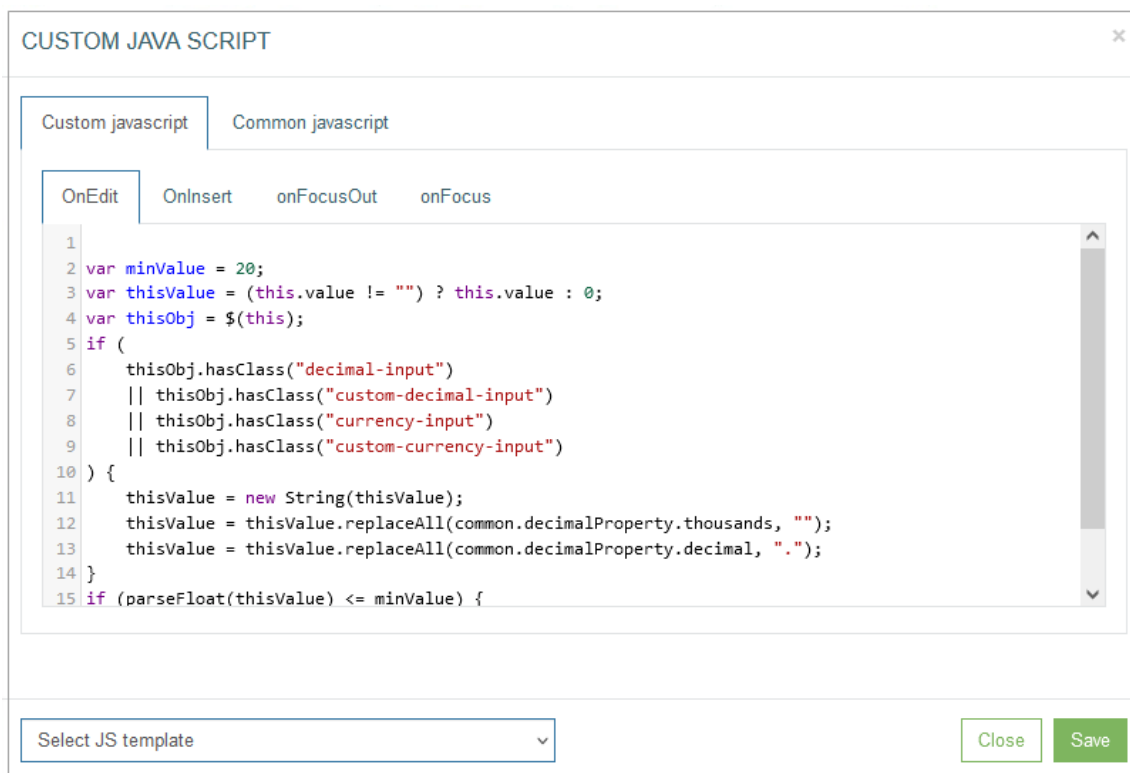
- The entered text replaced with capital letters, when the field is not on focus.



Check min value

This template provides the possibility to restrict the minimal numeric value entered in the field.

On the Custom JavaScript tab, the template can be displayed as follows:



On the Common JavaScript tab, the settings are displayed as follows:

Enter the minimal value to the **Min value** field and the text that will be shown as a warning message to the **Error Message** field.

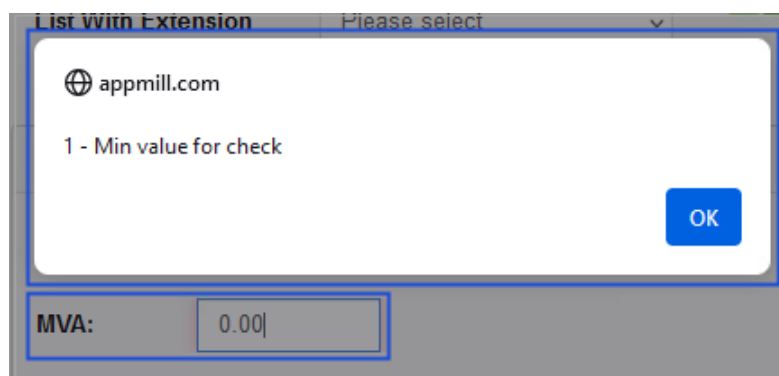
The warning message will appear and can be displayed in the Render application as:

- a **pop-up window**,
 - a **tooltip**,
 - or
 - a **confirmation pop-up window with actions**. This warning message type will appear in case of selecting the **Use confirm modal** check box.
- Note that the warning message in the confirmation pop-up window is available only for the onFocusOut action.

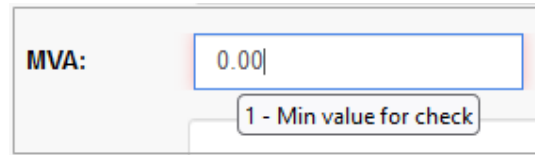
For example, on the Common JavaScript tab, the Check min value operation was set up and defined as “1” as the common behavior for the OnInsert action for the “MVA” field.

In case the entered data in the Render application is less than the defined value, the warning message will appear and can be displayed as a pop-up or a tooltip.

In the Render application, the warning message can be displayed as a pop-up window as follows:



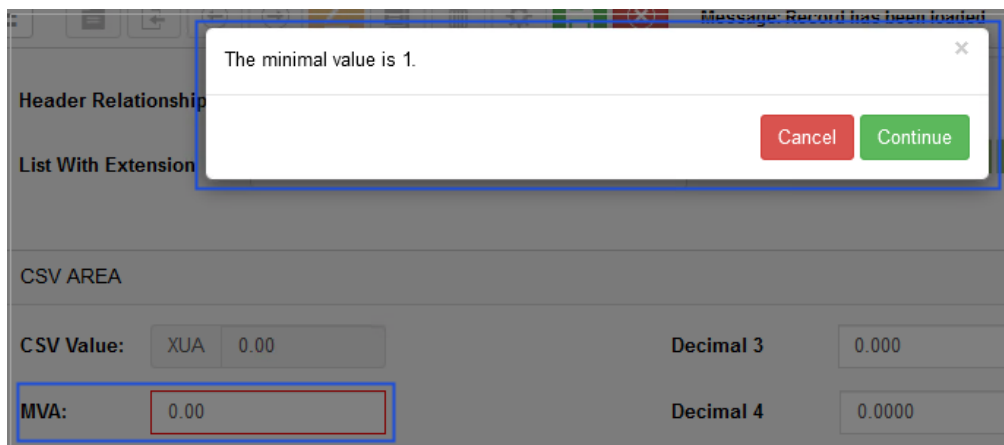
Or as a tooltip as follows:



In case the Check min value operation was set up as the common behavior for the onFocusOut action for the field, the additional confirmation will be available. Select the **Use confirm modal** check box, to display the warning message as a confirmation pop-up window with actions in the Render application.

For example, the entered value to the MVA field is less than the defined minimal value. The warning message will appear as a confirmation pop-up window.

In the Render application, it can be displayed as follows:



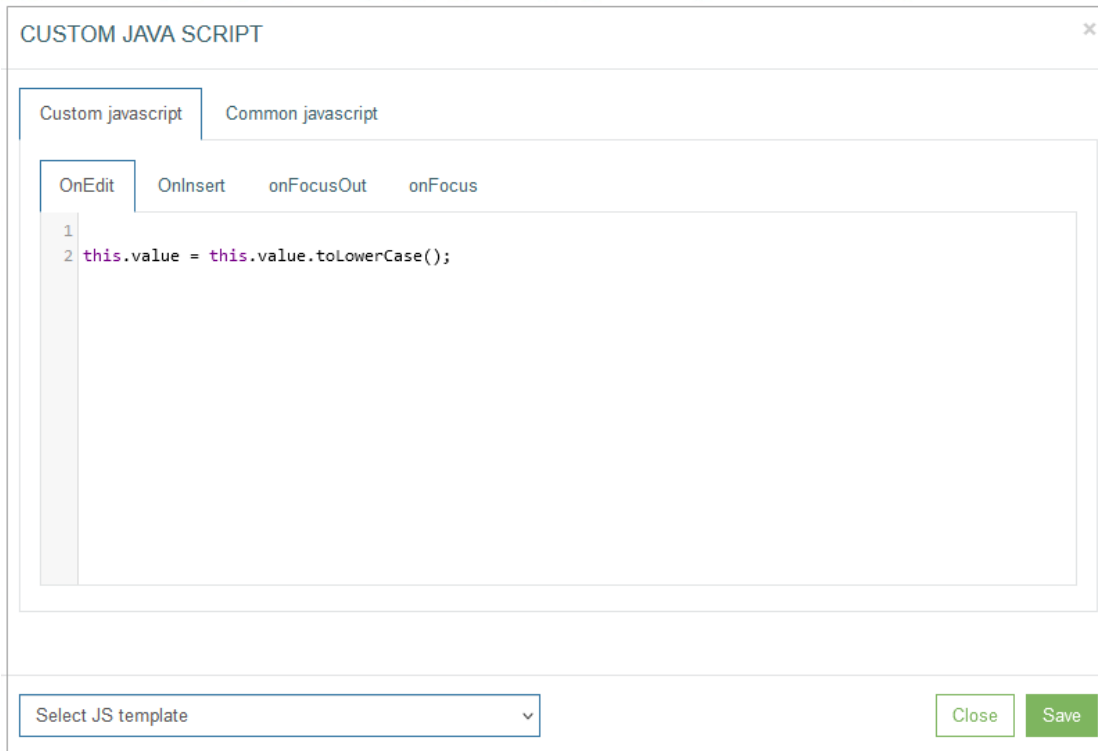
Click the **Continue** button, to confirm the entered value is correct.

Click the **Cancel** button, to deny the confirmation and return to the field value editing.

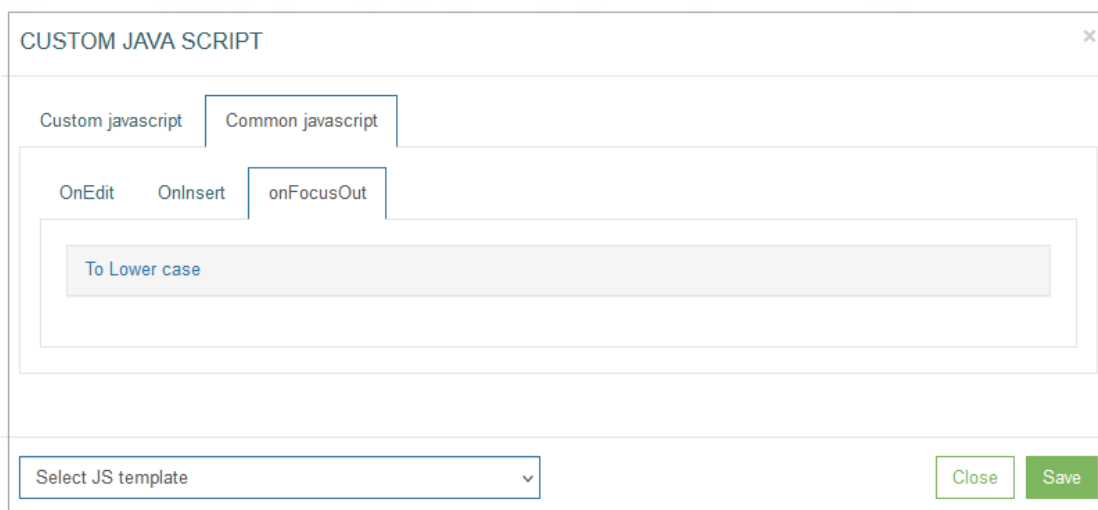
To lower case

This template provides the possibility to define that the entered data in the field must be written in small letters.

On the Custom JavaScript tab, the template can be displayed as follows:



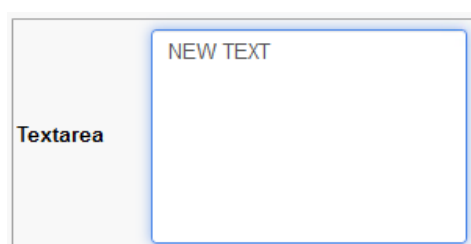
On the Common JavaScript tab, the settings are displayed as follows:



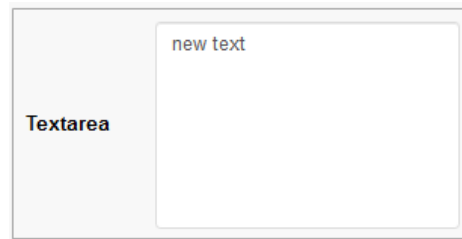
For example, on the Common JavaScript tab, the To Lower case operation was set up as the common behavior for the onFocusOut action for the “Textarea” field.

In case the entered data in the Render application is written in capital letters, such letters will be replaced with small letters and can be displayed as follows:

- The entered text written in small letters, when the field is on focus.



- The entered text replaced with capital letters, when the field is not on focus.



For the **Check max value**, **Compare fields**, and **Check min value** templates users can define the translation for the **Error Message**.

To add the translations for the **Error Message**, click the **Internationalization** button. In the opened pop-up window, select and add the language, enter the translation for the selected language. Click the **Apply** button to save the changes. In case the user changes the display language in the Render application, the translated **Error Message** will be shown. For more details about language changing, refer to the [Language](#) page of the User Manual.

Close

Click the **Close** button at the bottom of the Field Settings pop-up window to close the pop-up.

4.3.4.7.6.5.7 Field Types and Layouts

4.3.4.7.6.5.7.1 Table of Contents

- [Field Type](#)
 - [Text](#)
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 - [With dependent field](#)
 - [Set value from source field](#)
- [Field Type and Depth tabs](#)
- [Field Layout in Render application](#)

4.3.4.7.6.5.7.2 Field Type

The **Field Type** specifies the data allowed for the field. The layout of the field in the Render application, validation of the entered data, supported data format will differ depending on the selected **Field Type**. When you select a field type value, additional field type-specific parameters appear.

The description of the supported Field types, related Format types as well their additional specific parameters is provided below:

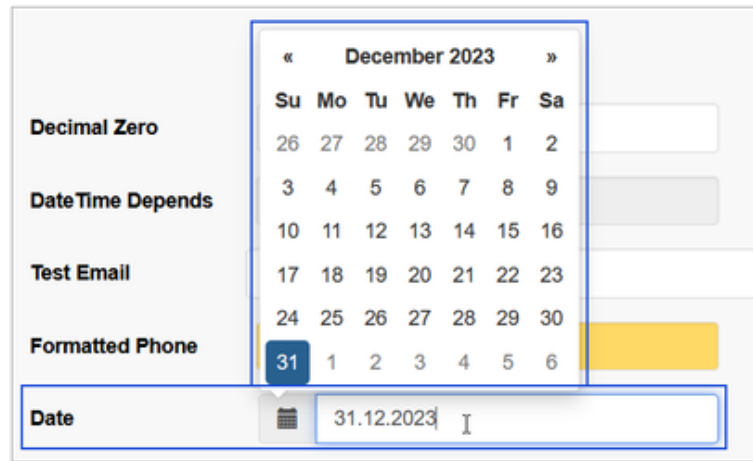
Text

Allows users to enter a single line of text on the screen in the Render.

- Format type:
 - **Email** – to add the email address, e.g., name@domain.com.
In the Render application, the field with email format can be displayed as follows:



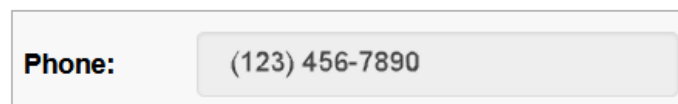
- **Date** – to add the information about date in the Date format.
In the Render application, the field with data format can be displayed as follows:



- **Date/Time** – to add the information about date and time in the format of Date and Time. In the Render application, the field with data/time format can be displayed as follows:



- **Phone** – to add the phone number. In the Render application, the field with phone format can be displayed as follows:



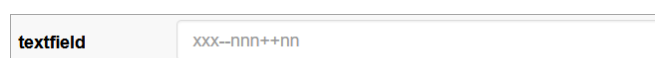
- **Custom** – to add the information in the custom format. In case of selecting the custom format field type, the additional **Format Template** field will appear. Set the custom field format in the appeared **Format Template** field, using the **x**, **n**, **-**, **+** characters, where:
 - **x** – any English text and numeric character can be added,
 - **n** – numeric character input only,
 - **- / +** – separator types. The separators will be added automatically on the screen in the Render.

For example:

 - in case of the **xxx--nnn++xn-n** template, the entered data might be **abc--123++q2-1**, or
 - in case of the **nn-xx+xn-nx** template, the entered data might be **35-pt+a3-4t**, etc.

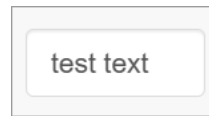
The field format will be shown as a placeholder of the field on the screen in the Render application. In case users enter the data in the format that does not meet the format template set, the warning tip will appear.

In the Render application, such field can be displayed as follows:



- Specific parameters:

- **Default Field Value** - a predefined text string can be set as the default input when the screen loads in Render.
In the Render application, the Text type field whose Default Field Value set as “test text” can be displayed as follows:



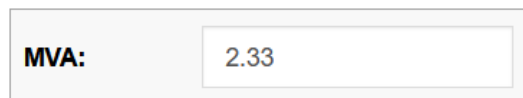
- **Custom Query** - select the query from the drop-down list. This feature helps users to get the values from the database table. As a rule, the custom query is used in the main search field, but it can be additionally used for other fields on the screens. For more details about the Custom Query functionality, refer to the [Custom Query](#) page (Features > Custom Query) of the User Manual.

Numeric

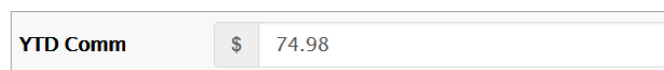
Allows users to enter numeric values in the fields.

- Format type:
 - **Decimal - Static**
 - **Decimal - Dynamic**

In the Render application, the fields with the decimal static or dynamic numeric format types can be displayed as follows:



- **Currency - Static**
 - **Currency - Dynamic**
- In the Render application, the fields with the currency static or dynamic numeric format types can be displayed as follows:



Static fields do not allow fractional symbols. For the entered number, the fractional part is always filled in. For example, for currency you need to type “150” to get “1.50” in the field.

Dynamic fields allow you to use fractional symbols. If the fractional part is missing, it will be automatically filled with zeros. For example, for currency you need to type “1.5” to get “1.50” in the field.

- Specific parameters:
 - **Default Field Value** - if configured, the field will be pre-filled with the defined numeric value upon screen load in Render.
In the Render application, the Numeric type field whose Default Field Value set as 2.33 can be displayed as follows:

MVA:	2.33
-------------	------

- **Allow Negative** - select the check box to use negative numbers in formatted fields.
In the Render application, it can be displayed as follows:

Decimal 3	-0.011
------------------	--------

- **Use to calculate totals** - this option is available for the Numeric field type that is selected for Tables.

In the table settings, you can choose whether the amount will be calculated by columns or by rows, or by both. When calculating the amount, the number of decimal places will be taken as the largest value of the summed ones (for currencies - 2 decimal places). In the Render application, the amount, that was calculated by columns, can be displayed as follows:

June 3 Table							
Activity	Date/Time	Num1	Num2	User	Execute	Static Image	Total
					Extensions		+
		5	74		Extensions		79
01/01/2022		6	2005	25	Extensions		2.011
		11	2.079				2.090

In the Render application, the amount, that was calculated by rows, can be displayed as follows:

June 3 Table							
Activity	Date/Time	Num1	Num2	User	Execute	Static Image	Total
					Extensions		+
		5	74		Extensions		79
01/01/2022		6	2005	25	Extensions		2.011
		11	2.079				2.090

- **Precision** - for the Decimal format type, this parameter is required and means the number of decimal characters. For the Currency format type, it is not editable and the value “2” is used by default.
In the Render application, it can be displayed as follows:

Decimal 3	1.100
------------------	-------

By default, when the Format type is not selected, the whole number (Integer, not a fractional number) is used.

Note that the currency format defined in the User Account settings will be used all over the Render application for a particular user.

List

Allows users to select values from a drop-down list.

The values used for this type are defined via the Lists functionality (System Data > Lists).

- Specific parameters:
 - **Pull up** - click the button to open the list of available lists for selection.

TYPE	
List	Pull up

In the opened List Params pop-up select the list name by clicking the radio button. Click the **Save** button, to save changes, or click the **Close** button, to close the pop-up and return to the Field Settings.

LIST PARAMS	
	List Name
☒	123
☐	AuthType
☐	AuthType new1
☐	Bill_Sample
☐	ButtonType
☐	carrier_list
☐	CityList
☐	COMMPANS
☐	CountryList
☐	Currency
☐	CurrencyType
☐	Date

- **Default Field Value** - a specific option can be preselected upon screen load.
In the Render application, the List type field whose Default Field Value set as “L” (value of option) can be displayed as follows:

List

Login Authentication

- **Field Identifier** - the automatically generated ID of a UI element. It is used further in the formatting scripts.

FIELD IDENTIFIER

1704797915889

- **Linked List** - allows to set the relation between field options and other fields. The activated Linked List option specifies that the values of the current List field will trigger the filling in the related field. E.g., after selection of the user category, the predefined list of options will be retrieved and displayed in the related field options.

☒ LINKED LIST

FIELD IDENTIFIER

1704797915889

FIELD ID TO MONITOR

-- Select --

QUERY TO EXECUTE

ADDITIONAL FIELD TO SEND

-- Select --
Alias.JuneTest1.Policy
Alias.JuneTest1.Text25
Alias.JuneTest1.Text20Head

In the Render application, the linked list can be displayed as follows:

Alpha 20

SMS Authentication

Linked List

-- Please select --
-- Please select --
S
S

When the Linked List option is activated, the additional parameters to set up are displayed:

- **Field ID to monitor** - this is the field, the value of which will be taken into account and be changed depending on the Data field value.
 - **Query to execute** - select the query that will be taken in prior when executing the query on the screen.
 - **Additional field to send** - define additional field that can be sent together with the main data field value.
- **Section Refresh** - selecting this check box in the Architect application provides the possibility to switch the section display in the Render application when selecting the section name from the list. After selecting the check box, the **Section to Refresh** field appears. Select the section from the **Section to Refresh** drop-down list to be refreshed in the Render application.

Note that if there are more than two sections in the **Section to Refresh** list, the **Section Refresh** check box must be selected to switch among sections from the list. If the **Section Refresh** check box was not selected, the sections switching in the Render application will be disabled and the default section will be displayed.

- **Multi select** - activating the check box allows users to select multiple values from the field options in the Render.
In the Render application, the list with the activated **Multi select** check box can be displayed as follows:

- **Default Field Value** - multiple values can be preselected using a semicolon (;) separator. In the Render application, the List type with Multi select check box enabled field whose Default Field Value set as “L;S” can be displayed as follows:

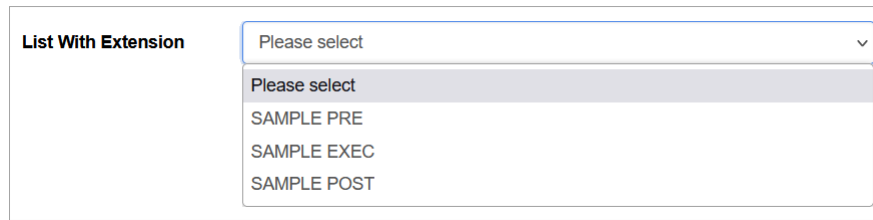
In the Render application, the drop-down list can be displayed as follows:

List With Extension Function

Allows users to select values containing the extension functions from the drop-down list. In case the value with the extension function is selected, the specified function will be executed when the user clicks on the **Execute** button in the main actions' menu on the screen in the Render.

Note that the multi-selection is not allowed for the list with extension function.

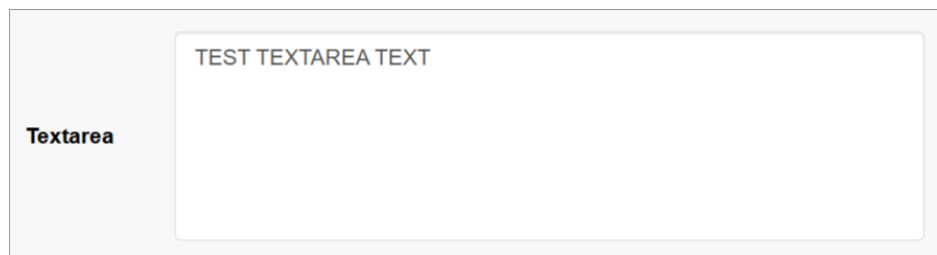
The list with extension function in the Render application can be displayed as follows:



Textarea

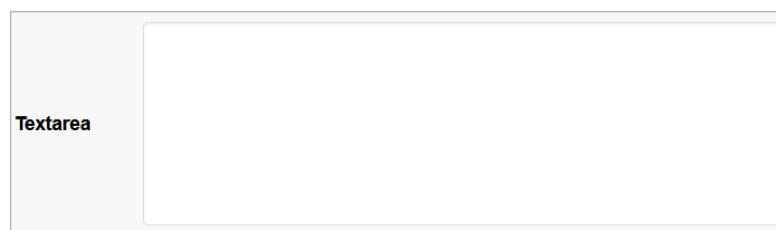
Allows users to enter multiple lines of text on the screen in the Render application.

- Specific parameters:
 - **Default Field Value** - a predefined block of text can be set as the default input when the screen loads in Render.
In the Render application, the Text type field whose Default Field Value set as “test textarea text” can be displayed as follows:



- **Custom Query** - select the query from the drop-down list. This feature helps users to get the values from the database table. As a rule, the custom query is used in the main search field, but it can be additionally used for other fields on the screens. For more details about the Custom Query functionality, refer to the [Custom Query](#) page (Features > Custom Query) of the User Manual.

In the Render application, the textarea field can be displayed as follows:



Multi-select list

Allows users to select multiple values from a drop-down list of field options in the Render. Use the Ctrl + Click combination to select values.

- Specific parameters:
 - **Pull up** - click the button to open the list of available lists for selection.

TYPE

Multi-select list

▼

Pull up

In the opened List Params pop-up select the list name by clicking the radio button. Click the **Save** button, to save changes, or click the **Close** button, to close the pop-up and return to the Field Settings.

LIST PARAMS

	List Name
☒	123
☐	AuthType
☐	AuthType new1
☐	Bill_Sample
☐	ButtonType
☐	carrier_list
☐	CityList
☐	COMMPANS
☐	CountryList
☐	Currency
☐	CurrencyType
☐	Date

Close

Save

- **Field Identifier** - the automatically generated ID of a UI element. It is used further in the formatting scripts.

FIELD IDENTIFIER

1704797915889

- **Linked List** - allows to set the relation between field options and other fields. The activated Linked List option specifies that the values of the current List field will trigger the filling in the related field. E.g. After selection of the user category, the predefined list of options will be retrieved and displayed in the related field options.

☒ LINKED LIST

FIELD IDENTIFIER

1704797915889

FIELD ID TO MONITOR

-- Select --

QUERY TO EXECUTE

ADDITIONAL FIELD TO SEND

-- Select --
Alias.JuneTest1.Policy
Alias.JuneTest1.Text25
Alias.JuneTest1.Text20Head

In the Render application, the linked list can be displayed as follows:

The screenshot shows a form with two fields. The first field, labeled 'Alpha 20', is a dropdown menu with 'SMS Authentication' selected. The second field, labeled 'Linked List', is a dropdown menu with '-- Please select --' selected. Below the 'Linked List' dropdown, a list of options is visible, including 'S' and 'S'.

When the Linked List option is activated, the additional parameters to set up are displayed:

- **Field ID to monitor** - this is the field, the value of which will be taken into account and be changed depending on the Data field value.
- **Query to execute** - select the query that will be taken in prior when executing the query on the screen.
- **Additional field to send** - define additional field that can be sent together with the main data field value.
- **Default Field Value** - multiple values can be preselected using a semicolon (;) separator. In the Render application, the List type with Multi select check box enabled field whose Default Field Value set as “L;S“ can be displayed as follows:

The screenshot shows a form with a field labeled 'Multiselect'. The dropdown menu is open, displaying a list of options: 'Email Authentication', 'Login Authentication', 'LDAP Authentication', 'SMS Authentication', and 'SAML'. The 'Login Authentication' option is highlighted.

In the Render application, the multi-select list can be displayed as follows:

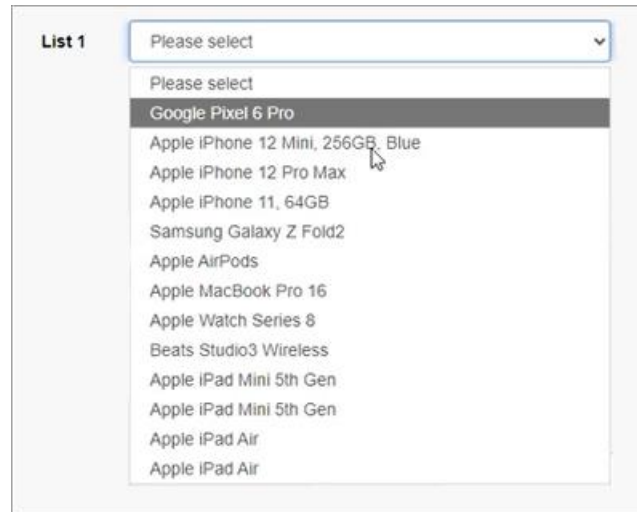
The screenshot shows a form with a field labeled 'Status'. The dropdown menu is open, displaying a list of options: 'Please select', 'Bank', 'Brokerage', 'Captive', and 'Independent'. The 'Bank' and 'Captive' options are highlighted.

List from API

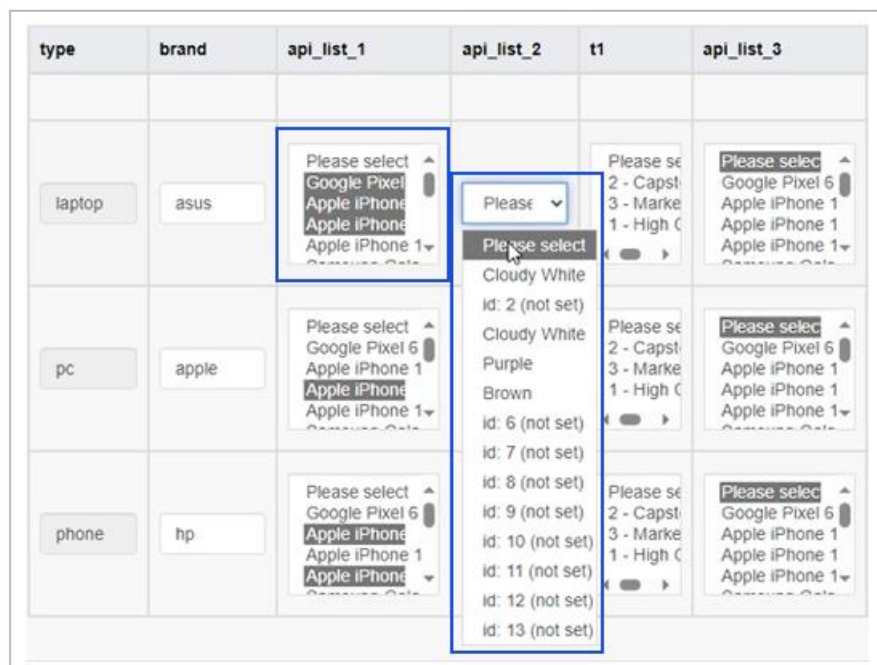
Allows users to display the list of values (options) received from an external application.

In the Render application, the List from API can be displayed as follows:

- for the Edit type section



- for the Table type section



Specific parameters:

- Type – select the type of API connection that will be set up:
 - Current Service – used for internal service (currently used for the clients).
 - AppMill API – used for internal AppMill service.
 - REST API – this only option can be used for the external resources.

See the detail description of every type below.

Current Service

Current Service is a subtype of the AppMill API. It always refers to the same service as the Render application.

Define the following parameters:

- **Username for Service** – enter the Username that is defined for the Service.
- **Password for Service** – enter the Password that is defined for the Service.

In case the **Pass Thru Guest User** is specified on the first Screen Builder page, the **Username for Service** and **Password for Service** fields can be empty.

- **Screen Name** – enter the value of the **Select existing screen** or **Add new screen** fields from the first Screen Builder page.
- **Screen Tab Name** – enter here the value of the **Tab Name** field from the first Screen Builder page.
- **Parameter Name** – define here the Primary Key field from the table currently used.
- **Parameter Field ID** – define the ID of the field configured for the Primary Key on the screen. You can check and copy Field ID value displayed in the corresponding Field Settings modal window in the Screen Builder.
Pay attention that for the correct work of the Primary Key field, the **Always show field border** parameter must be selected.
- **Result Block** – define which block of data will be used in the Response.
- **Alias for Value** – enter here the alias for the field value to be used in the response.
- **Alias for Description** – enter here the alias for the field description that will be displayed in the response.

AppMill API

Define the following parameters:

- **Service IP** – define the API of the AppMill service that you will use to request the data.
- **Username for Service** – enter the Username that is defined for the Service.
- **Password for Service** – enter the Password that is defined for the Service.

In case the **Pass Thru Guest User** is specified on the first Screen Builder page, the **Username for Service** and **Password for Service** fields can be empty.

- **Screen Name** – enter the value of the **Select existing screen** or **Add new screen** fields from the first Screen Builder page.
- **Screen Tab Name** – enter here the value of the **Tab Name** field from the first Screen Builder page.
- **Parameter Name** – define here the Primary Key field from the table currently used.
- **Parameter Field ID** – define the ID of the field configured for the Primary Key on the screen. You can check and copy Field ID value displayed in the corresponding Field Settings modal window in the Screen Builder.
Pay attention that for the correct work of the Primary Key field, the **Always show field border** parameter must be selected.
- **Result Block** – define which block of data will be used in the Response.
- **Alias for Value** – enter here the alias for the field value to be used in the response.
- **Alias for Description** – enter here the alias for the field description that will be displayed in the response.

REST API Type

For the REST API type, you should define the following parameters:

- **URL to REST List** – enter the URL address to the list to be used.
- **Parameter Field ID** – for the REST API type, it can be empty. The final link will be built according to the template:
url_to_rest_list?option_value=parameter_1&option_value=parameter_2
- **Use for Option Value** – define the parameter that will be used as an option value in the Parameter Field ID field value.
- **Use for Option Description** – define which objects from REST API list should be received as well. The data received can consider the nesting levels and to receive the nested data, you can use the “->” symbol as a level depth separator. E.g.: data->color

URL to REST List and **Parameter Field ID** fields are related to the API REQUEST that is transferred.

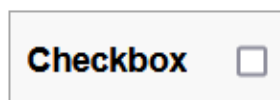
Use for Option Value and **Use for Option Description** fields are related to the API RESPONSE that is received.

Checkbox

Allows users to select any number of options by clicking check boxes on the screen in the Render. To cancel the option selection, clear the check box.

- Specific parameters:
 - **Default Checkbox Value** - defines whether the checkbox is selected by default when the screen is edited in the Render application.
 - **Checked** - the checkbox is selected by default.
 - **Unchecked** - the checkbox is unselected by default.
 - **Group Name** - used to group several check boxes into one Checkbox Group. A set of check boxes build one check box group in case they have the same Group Name specified. Note that for the check box group, the selection is restricted to one option only.

In the Render application, the Checkbox can be displayed as follows:



In the Render application, the Checkbox Group can be displayed as follows:



In the Render application, the Checkbox type field whose Default Checkbox Value selected as “checked” can be displayed as follows:



Radio

Allows users to select one option. This field type is often used for absolute simple yes or no answers.

- Specific parameters:
 - **Group Name** - used to group several Radio buttons into one Radio Group. A set of radio buttons build one radio group in case they have the same Group Name specified. Note that for the radio group, the selection is restricted to one option only.

In the Render application, the Radio button can be displayed as follows:



In the Render application, the Radio Group can be displayed as follows:



Document

Allows users to upload and download documents on the screen in the Render application.

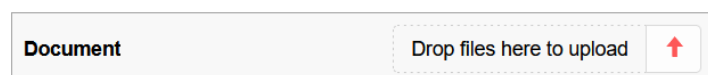
- Allowed file format: text, txt, pdf, xbm, tif, jfif, webp, pjp, apng, pjpeg, avif, ico, tiff, jpg, svgz, bmp, jpeg, gif, svg, xlsx, xls, doc, docx, ppt, pptx.
There is a possibility to display the document details directly in the section with the Document type in the Render application. But only documents with the .txt and .pdf formats can be displayed. For more details, refer to the [Section Type: Document Type](#) page.
- Specific parameters:
 - **Document Family** - select the document family from the drop-down list.
 - **Document Category** - after selection of the document family, the list of related categories will be available.

Specified Document Family and Category values will be saved for the uploaded document and stored in the database.

You can additionally select the Key Parts, if they are set up on the document category level.

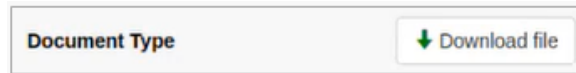
In the Render application, perform the following actions to:

- **Upload the document** (the screen in the Render application should be in the editing mode):

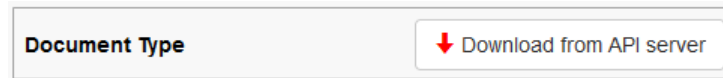


- click the arrow or the **Drop files to upload** button, to select the document from the local computer.
 - click the arrow to finish the uploading process.
 - to delete the uploaded document, click the cancel icon.
- **Download the document** (the screen in the Render application should be in the read-only mode):

- click the **Download file** button to download the document from the Document field.



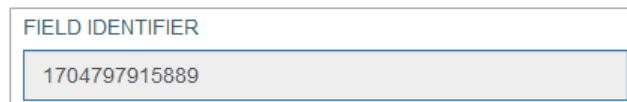
- in case there is no uploaded document, the **Download from API server** button will be shown. If the user clicks this button the default document will be downloaded from the server.



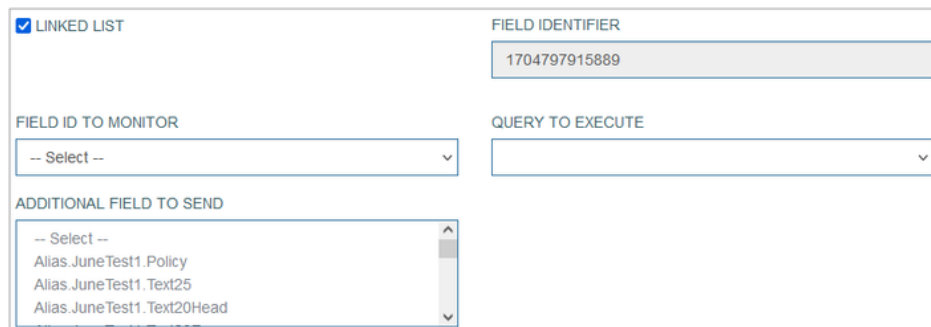
Inline Search

Allows users to see search results without redirecting to a search results page.

- Specific parameters:
 - **Field Identifier** - the automatically generated ID of a UI element. It is used further in the formatting scripts.



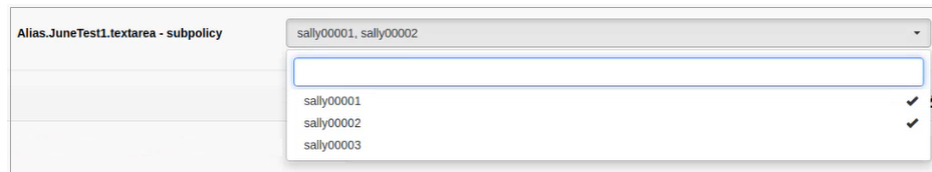
- **Linked List** - allows to set the relation between field options and other fields. The activated Linked List option specifies that the values of the current List field will trigger the filling in the related field. E.g. After selection of the user category, the predefined list of options will be retrieved and displayed in the related field options.



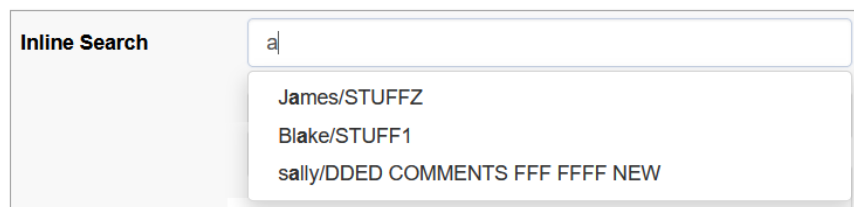
When the Linked List option is activated, the additional parameters to set up are displayed:

- **Field ID to monitor** - this is the field, the value of which will be taken into account and be changed depending on the Data field value.
- **Query to execute** - select the query that will be taken in prior when executing the query on the screen.
- **Additional field to send** - define additional field that can be sent together with the main data
- **Multi select** - activating the check box allows users to select multiple values from the field options in the Render.

In the Render application, the list with the activated **Multi select** check box can be displayed as follows:



In the Render application, the field with the inline search option can be displayed as follows:



DImage (Dynamic Image)

Allows users to upload any image file.

- Specific parameters:
 - **Dynamic Image action** - select the action that will be applied to the screen, when the image is activated (clicked on). Find more details about the available actions in the Image action section on the [Image Configuration](#) page of the User Manual.
 - **Custom #ID** - this is ID of UI element. It can be used in the scripts, to adjust UI element style. The value is generated automatically when you open the image configuration pop-up.
 - **Allow full size modal popup** - activate the check box to add the ability to open the image in the modal pop-up window on the screen in the Render.

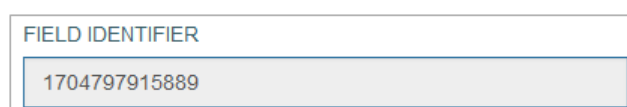
In the Render application, the dynamic image field can be displayed as follows:



Datalist

Allows users to select options from the list of values on the screen in the Render application. The options for selection are predefined in the Values field in the Field Settings pop-up window.

- Specific parameters:
 - **Field Identifier** - the automatically generated ID of a UI element. It is used further in the formatting scripts.



- **Linked List** - allows to set the relation between field options and another fields. The activated Linked List option specifies that the values of the current List field will trigger the filling in the related field. E.g. After selection of the user category, the predefined list of options will be retrieved and displayed in the related field options.

When the Linked List option is activated, the additional parameters to set up are displayed:

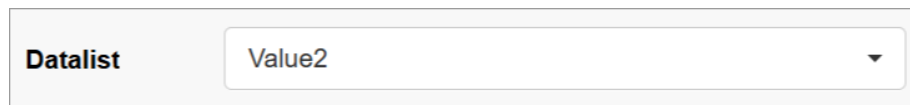
- **Field ID to monitor** - this is the field, the value of which will be taken into account and be changed depending on the Data field value.
- **Query to execute** - select the query that will be taken in prior when executing the query on the screen.
- **Additional field to send** - define additional field that can be sent together with the main data
- **Section Refresh** - selecting this check box in the Architect application provides the possibility to switch the section display in the Render application when selecting the section name from the list. In case of selecting the check box, the **Section to Refresh** field appears. Select the section from the **Section to Refresh** drop-down list to be refreshed in the Render application.

Note that if there are more than two sections in the **Section to Refresh** list, the **Section Refresh** check box must be selected to switch among sections from the list. If the **Section Refresh** check box was not selected, the sections switching in the Render application will be disabled and the default section will be displayed.

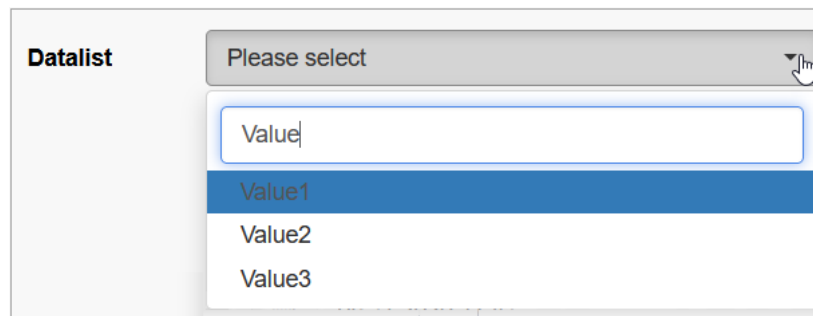
- **Multi select** - activating the check box allows users to select multiple values from the field options in the Render. In the Render application, the list with the activated **Multi select** check box can be displayed as follows:

- **Values** - values specified here will be displayed for the field as options for selection in the Render.
- **Default Field Value** - the field can be pre-populated with a default selection from the dataset in the Render.

In the Render application, the Datalist type field whose selected Value set as “Value2” can be displayed as follows:



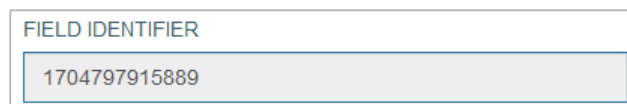
In the Render application, the datalist field can be displayed as follows:



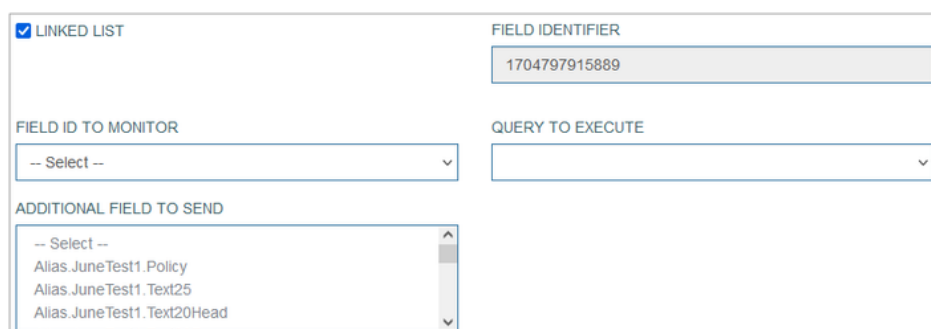
Relation Datalist

Allows users to select options that are defined with custom query.

- Specific parameters:
 - **Field Identifier** - the automatically generated ID of a UI element. It is used further in the formatting scripts.



- **Linked List** - allows to set the relation between field options and other fields. The activated Linked List option specifies that the values of the current List field will trigger the filling in the related field. E.g. After selection of the user category, the predefined list of options will be retrieved and displayed in the related field options.



When the Linked List option is activated, the additional parameters to set up are displayed:

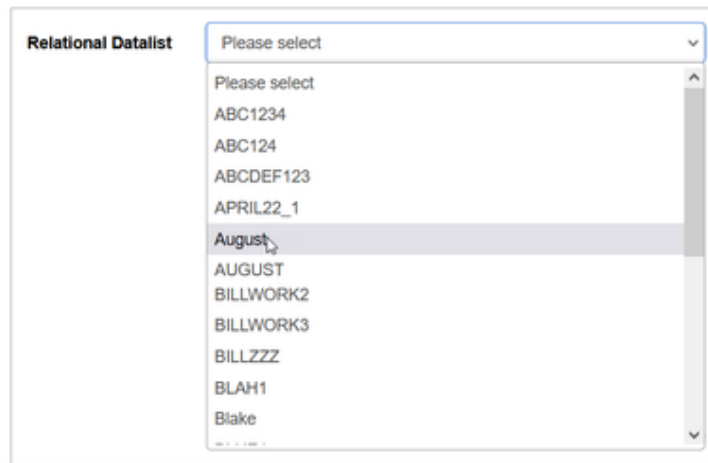
- **Field ID to monitor** - this is the field, the value of which will be taken into account and be changed depending on the Data field value.
- **Query to execute** - select the query that will be taken in prior when executing the query on the screen.
- **Additional field to send** - define additional field that can be sent together with the main data
- **Section Refresh** - selecting this check box in the Architect application provides the possibility to switch the section display in the Render application when selecting the section name from the list. In case of selecting the check box, the **Section to Refresh** field appears. Select the section from the **Section to Refresh** drop-down list to be refreshed in the Render application.

Note that if there are more than two sections in the **Section to Refresh** list, the **Section Refresh** check box must be selected to switch among sections from the list. If the **Section Refresh** check box was not selected, the sections switching in the Render application will be disabled and the default section will be displayed.

- **Multi select** - activating the check box allows users to select multiple values from the field options in the Render.
In the Render application, the list with the activated **Multi select** check box can be displayed as follows:

- **Execute only OnFocus** - select the check box to define that the query for receiving the options for the field will be executed on hovering the field. If the check box unselected, the query will be executed immediately by loading the page.
- **Custom Query** - select the query from the drop-down list. This feature helps users to get the values from the database table. As a rule, the custom query is used in the main search field, but it can be additionally used for other fields on the screens. For more details about the Custom Query functionality, refer to the [Custom Query](#) page (Features > Custom Query) of the User Manual.

In the Render application, the fields with the relation datalist can be displayed as follows:



With dependent field

Allows users to define the conditions for the case when value of one date field should be calculated based on the values of other fields (dependent fields). The dependent fields can be a date field or other field types values. E.g. in this manner, the system will calculate the Due Date value based on other specific date value on the screen in the Render.

In the Render application, the visual display of the fields with the **With dependent field** type may vary depending on the Time format and Date format defined on the Regional tab of the Create User page (Account Settings > Users). For example, the Time format and Date format parameters for users are defined “T1: hh:mm:ss” and “D1: dd.MM.yyyy”, accordingly. In this case, in the Render application, the fields with the **With dependent field** type will have the following visual display: 21.05.2023 13:26:41.

It is recommended to use the **Date/Time** field format type for the fields with the **With dependent field** type. This field should display the detailed date and time depending on the other fields' conditions.

In case users need to display the date with time, taking into account their timezone, the **Date/Time** field format type should be selected. Using the **Date/Time** field format type, the date and time in the field will be recalculated according to the defined timezone. If users select the **Date** field format type, the timezone will not be taken into account, and the data will not be recalculated according to the winter or summer time and will be displayed incorrectly.

If the **Date** field format is still selected for the fields with the **With dependent field** type, to display the data in the Render, the dependent field format type should also be the same **Date** field format type, and the **Lead Time** should contain only days without hours and minutes.

- Allowed format type:

- **Date**

In the Render application, the field with dependent field format type can be displayed as follows:

○ **Date/Time**

In the Render application, the field with dependent field format type can be displayed as follows:

• **Specific parameters:**

The value of main date field with dependent field can be calculated in two ways:

- based on the value of the dependent date field and the Lead Time value that will be added to the dependent field value. The result of this calculation will be the value of the main (pivot) field. For this variant, fill in the following fields:

- **ID of dependent field** - select the field, the value of which will be used as dependent field. The field ID can be found at the bottom left corner of the Field Settings pop-up window.
- **Lead time** (in days, hours, minutes) - define the date/time that will be added to the dependent field to calculate the value of the main date field.

You can select one of the following options:

- Use field date - select this option to use the specified dependent date.
- Use current date - select this option to use the current date for calculation.
- based on the connection with the additional dependent field of other types. In this case, you can define the connection between the dependent date field, a specific value of an additional dependent field of any type and the Lead Time that will be added to the dependent date field to calculate the result value for the main field.
 - **ID of pivot field** - select the field, the value of which will be used as pivot field and add the priority. The field ID can be found at the bottom left corner of the Field Settings pop-up window.

- **Field value** - select the priority of the field: Critical, High, Medium, or Low. Depending on this field value the system will calculate the value of the main field.
- **Lead time** (in days, hours, minutes) - define the date/time that will be added to the dependent field to calculate the value of the main date field.

Click the **plus** icon to add a new row to define new criteria for the pivot field.

Click the **minus** icon to delete the row with the added criteria of the pivot field.

For instance, you need to calculate the Due Date of Delivery. The Delivery date/time can be calculated based on the Purchase Order Creation date/time and the Lead Time value that will be added.

Or the additional parameter, e.g. Urgency, can be included. Then if Urgency is high, the other value of Lead Time will be added to the Creation date/time. And the Due Date of Delivery will be recalculated.

Set value from source field

Allows automatic value assignment based on another field, referred to as the **source field**.

The field can be configured to reference any other field, either within the same section, in the header, or even hidden fields, as its source.

On **insert** or **update** operations, the field's value will be automatically set to match the current value of the specified source field.

This behavior applies both during initial record creation and when records are updated.

This functionality also extends to fields inside **tables**.

If configured within a table, the source field's value will be populated to all entries (rows) in the table for the corresponding field.

Use Cases:

- Useful for keeping fields synchronized automatically without requiring manual input.
- Ideal for scenarios where a common value needs to be replicated across multiple places (e.g., document number, user ID, date, etc.).

When the **Set value from source field** type is selected, the additional parameters to set up are displayed:

- **ID for Source Field** - specifies the field whose value will be used to automatically populate or update this field.

ID FOR SOURCE FIELD

- Checkboxes:
 - **Use the Current User ID on Insert Mode** - automatically sets the field value to the ID

of the currently selected user when a new record is created.

In the Render application, it can be displayed as follows:

user_id_1(insert)	23
-------------------	----

- **Use the Current User ID on Edit Mode** - automatically updates the field value to the ID of the currently logged-in user when an existing record is modified.

In the Render application, it can be displayed as follows:

user_id_3(insert and edit)	23
----------------------------	----

- **Read Only** - this checkbox is automatically selected for the **Set value from source field** type, as such fields cannot be edited manually from the Render.

In the Render application, the field with this type can be displayed as follows:

field1	dependent field
--------	-----------------

4.3.4.7.6.5.7.3 Field Type and Depth tabs

Please note that it is not recommended to use fields of the same type on the screen in different depth tabs. This may lead to the field not functioning correctly on all screens on different depth tabs, except for the first screen. For example, the field will work only on the first tab for the following field types without any additional conditions:

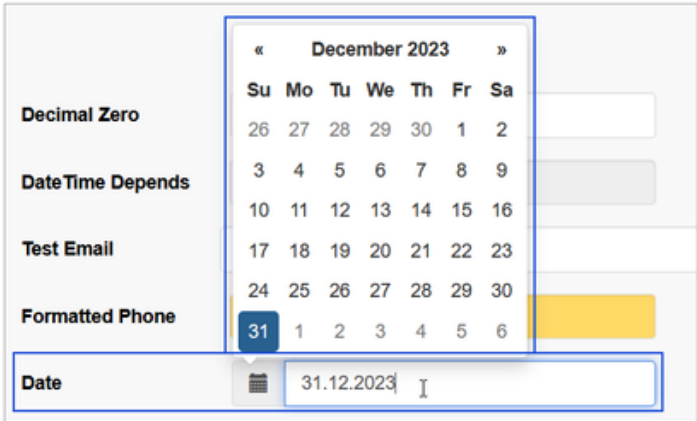
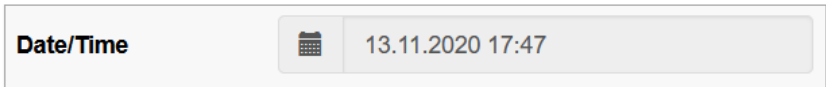
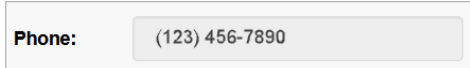
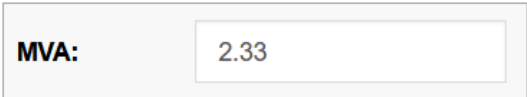
- **Inline Search**
- **DImage**
- **Checkbox**
- **Radio**
- **With dependent field**

The following field types will work incorrectly, in case of additional conditions described below:

- **Text** - in case of using custom query parameters, also the field with a Data/Time format type will work only on the first tab.
- **List** - in case the Linked List parameter is selected.
- **Textarea** - in case the custom query parameter is used.
- **Document** - in case the upload button is used.
- **Datalist** - in case the Linked List parameter is selected.
- **Relation Datalist** - in case the Linked List parameter is selected.

4.3.4.7.6.5.7.4 Field Layout in Render application

Depending on the combination of Field and Format Types, the visual display of data in the Render application will be different. The possible layouts as well as the relation between Field type and Format types are represented in the table view:

Field Type	Format Type	Layout Example
Text	Email	
	Date	
	Date/Time	
	Phone	
	Custom	
Textarea		
Numeric	Decimal - Static Decimal - Dynamic	

	Currency - Static Currency - Dynamic	YTD Comm \$ 74.98
List With Extension Function		List With Extension Please select Please select SAMPLE PRE SAMPLE EXEC SAMPLE POST
List		Vesting Status Partial Please select Vested Partial Not New Agent
Multi-select list		Status Please select Bank Brokerage Captive Independent
Checkbox	Checkbox	Checkbox ☐
	Checkbox Group	Checkbox 1 ☒ Checkbox 2 ☐
Radio	Radio button	Radio ☐
	Radio Group	Radio ☒ Radio 2 ☐
Document	Upload document	Document Drop files here to upload ↑

	Download document	Document Type Download file
Inline Search		Inline Search a James/STUFFZ Blake/STUFF1 sally/DDED COMMENTS FFF FFFF NEW
DImage		Image
Datalist		Datalist Please select Value Value1 Value2 Value3
Relation Datalist		Relational Datalist Please select Please select ABC1234 ABC124 ABCDEF123 APRIL22_1 August AUGUST BILLWORK2 BILLWORK3 BILLZZZ BLAH1 Blake
With dependent field	Date	Decimal Zero DateTime Depends Test Email Formatted Phone Date « December 2023 » Su Mo Tu We Th Fr Sa 26 27 28 29 30 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 31.12.2023

	Date/time	Date/Time  13.11.2020 17:47
Set value from the source field		field1 dependent field

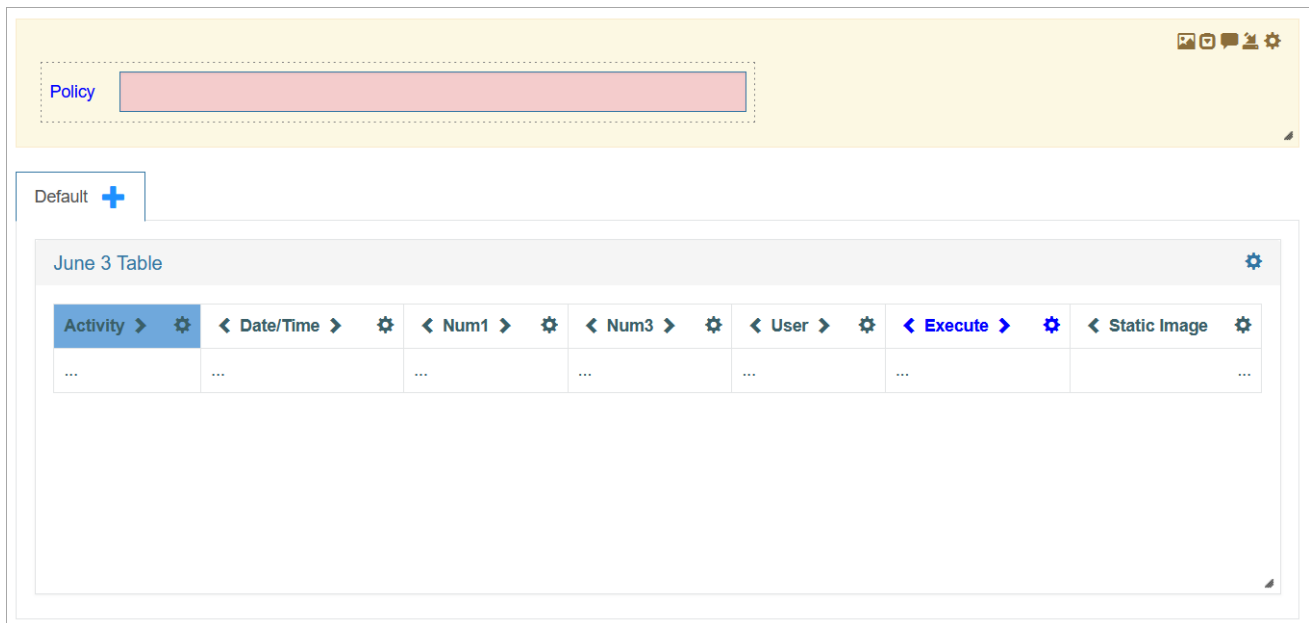
4.3.4.7.7 Section Type: Table Type

4.3.4.7.7.1 Table of Contents

- [Overview](#)
- [Section Settings](#)
 - [Table Configuration](#)
 - [Table Columns Configuration](#)
 - [Common Operations](#)
- [Column-specific Settings](#)
 - [Common Operations](#)
 - [Save](#)
 - [Access Rights](#)
 - [Formatting](#)
 - [Edit JavaScript](#)
 - [Close](#)

4.3.4.7.7.2 Overview

The **Table type** of section provides the possibility to represent the data in table view on the screens in the Render application.



For example, the section configured, as displayed on the screenshot above, will look in the Render as follows:

Policy
sally

June 3 Table

Activity	Date/Time	Num1	Num3	User	Execute	Static Image	Total
All	All	All	All	All			
2333	07.01.2022 17:00	434	2016	76	Extensions		2,450
323	01.12.2020 23:30	483	2017	21	Extensions		2,500

4.3.4.7.7.3 Section Settings

To configure the section settings as well as some part of table configurations, click the gear icon in the right upper corner of the section.

June 3 Table

Activity	Date/Time	Num1	Num3	User	Execute	Static Image
...	...	...	...	...	...	...

The Section Settings pop-up window opens:

SECTION SETTINGS

LAYOUT LABEL

June 3 Table

DEFAULT VALUE

Internationalization

HIDE SECTION HEADER

HIDE SECTION POP-OUT

CSV DOWNLOAD

LINKED FIELD

-- Select --

ACTIVE VALUE

SECTION TYPE

Table type

WORKFLOW

FUNCTION NAME FOR GETTING LIST

GetAliasFrameworkMV: Universal DLL : GetAliasFrameworkMV

ALIAS FRAMEWORK PK CONFIGURATION

Use tenant		
Key part	Alias.JuneTest1.Policy	Delete key part
	Add key part	

Here you can configure the general settings connected to the section and the settings related to the table displayed on the screen further.

The general section settings are described on the [Screens](#) page of the User Manual.

4.3.4.7.7.3.1 Table Configuration

Below you can explore the instructions on how to set up the section parameters exactly for the Table type of section:

- **CSV download** - select the check box to enable the possibility to download the table in CSV format from the Render screen.
- **Alias Framework PK Configuration** - this feature is used in special cases when the tables are connected via a composite key.
Select the Key parts to define the fields taken from the tables of different levels (to fill in values from parent to child tables).

The next part of the parameters that can be set up in the Section Settings pop-up window is connected to the general table settings.

The following parameters can be set:

- **Multi-level Table** - select the check box to enable the possibility to display multi-level tables. This option is actual for the case when some tables can contain sub-tables that can be opened layer by layer.
- **Sub-table Filling Type** - this select box is displayed in case the Multi-level Table is selected. You can select one of the following options:
 - **all at once** - the main table will be the query table, and the sub-table will have multi-dependencies on the parent table. That means that all values of all related tables will be retrieved at once.
 - **on request** - the parent table will be the request table and the sub-table will have Single dependencies from the parent table. That means that only displayed values will be retrieved. The performance is better in this case as a rule.
- **Total for the column** - select the check box to enable the additional row displaying the Total count for the whole column.
- **Total for the row** - select the check box to enable the additional column showing the Total count for the whole row.
- **Ad-hoc table loading** - enables table view with pagination. The table data will be loaded for every page. It can be useful for tables with large bulk of data or dImages to improve the responsiveness of an application.

 Note that the **Total for the column** and **Total for the row** options cannot be selected at the same time with the **Ad-hoc table loading** option. As for the **Total for the column** and **Total for the row** options, the full table should be displayed.

- **Readonly** - select the check box to make the table read-only. This option is used for the tables that should be displayed in View mode only. In case this check box is selected, the table will not be editable even in the Edit and Insert modes on the screen in the Render application.
- **Update Only** - this option allows changing the data in the table only but not editing or adding new rows.
- **Include Column Filter** - select this check box to use Filters in the columns for filtering values. The added filters will automatically contain the list of possible values. Filters can be applied to the column with the data of Field type.
- **Include Extended Search** - select this check box to add a separate search field that allows searching for any value of the table fields.
- **Label orientation** - this option defines the layout of the table header. Select the available options:
 - **Top** - to display the table header at the top row.
 - **Left** - to display the table header as the first left column of the table.
- **Show type** - this option defines how to display the table content on the page - using pagination or infinite scroll.
 - **Scroll** - select this option to scroll on the page.
 - **Without scroll** - select this option to use pagination.
 - **Count** - defines the number of table rows on the page in case of pagination.
- **Pixel Height** - define the size of the window in case of scroll usage. The default value is 580px.

- **Sort Fields** - define the field(s), by which the table value should be sorted in alphabetical order. You can use aliases to define the field(s) to sort the values. If the field is empty, the default sort by primary key is used.

The screenshot shows a configuration window for a table. It includes several checkboxes: 'Multi-level Table' (unchecked), 'Total for the column' (checked), 'Total for the row' (checked), 'Ad-hoc table loading' (unchecked), 'Readonly' (unchecked), 'Update Only' (unchecked), 'Include Column Filter' (checked), and 'Include Extended Search' (unchecked). There are also dropdown menus for 'Label orientation' (set to 'Top') and 'Show type' (set to 'Scroll'). A 'Pixel Height' input field is set to '580'. The 'Sort Fields' input field contains the text 'Array.table.field1,Array.table.field2'.

4.3.4.7.7.3.2 Table Columns Configuration

The next part of parameters in the pop-up window refers directly to the table layout. In comparison to the Edit type of section where we make all configurations that are necessary for fields in the Section Settings pop-up window, the configuration of the table should be done in two places: first in the pop-up window and then directly on the table in the section.

! Please note that when configuring the search screen, users are limited to using data from only one table to populate it. Data will only be returned for the first group of aliases listed. For example, if users include aliases like “Array.table1.field1”, “Array.table2.field1”, “Array.table2.field2, and “Array.table2.field3” in the table, data will be returned only for “Array.table1.field1” (as it is mentioned first), but not for the others.

The screenshot shows a table configuration window with two columns: 'alias_field' and 'column_label'. The 'alias_field' column contains a list of aliases with checkboxes next to them. The 'column_label' column contains the corresponding column labels. At the bottom, there are buttons for 'Add button column' and 'Add static image column'.

alias_field	column_label
☒ Array.JuneTest3.Activity	Activity
☒ Array.JuneTest3.DateTime	Date/Time
☒ Array.JuneTest3.TestNumeric1	Num1
☒ Array.JuneTest3.TestNumeric3	Num3
☒ Array.JuneTest3.User	User
☒ __button_4s2f4d	Execute
☒ __image_9m41qf	Static Image

So, from the Section Settings pop-up you can configure the columns of the table, their labels and the aliases that should be used to receive the values:

- **Alias Field (alias_field)** - in the input field, start typing the alias that should be used to retrieve the field values. The autocomplete feature helps you to find the needed alias.
 - Click the **Add alias field** button to add the selected alias to the table as a column field.

- **Column Label (column_label)** - enter a label text that will be displayed as a column title for the corresponding alias entry.
 - **Internationalization** - click the button to add translations for other supported languages, if needed.
- **Add button column** - click this button to add a column that will contain the buttons. The behavior of the added buttons will be set up directly in the table column.
- **Add static image column** - click this button to add a column with the static images.

4.3.4.7.7.3.2.1 Common Operations

You can perform basic operations by clicking the buttons at the bottom of the Section Settings pop-up window. These actions are listed below:

- **Save** - click the **Save** button to confirm and save the entered data. After saving the table configuration, a newly created table appears in the section area.
- **Close** - click the **Close** button to close the pop-up window without saving the data.
- **Formatting section fields** - click the **Formatting section fields** button to customize the formatting and ‘look and feel’ of labels and fields in the table. But please note that the formatting made directly on the table in the section is considered as a first order formatting and will be applied primarily.

4.3.4.7.7.4 Column-specific Settings

The column-specific settings, including column order, can be configured directly in the table.

After creating the table, adding columns and saving the configured section settings, the created table appears in the section area:

June 3 Table 						
Activity > 	< Date/Time > 	< Num1 > 	< Num3 > 	< User > 	< Execute > 	< Static Image > 
...	...	...	...	...	...	...

To change the sequence of columns in the table, use the **Move Left** or **Move Right** icons next to the Column titles.

To open a column-specific setting, click the **Gear** icon next to the column title. The **Config Column** pop-up appears:

CONFIG COLUMN [X]

PARAM TYPE
Text [v]

FORMAT TYPE
-- Select -- [v]

FIELD WIDTH
100px or 100% or 1em

SORT
-- Empty -- [v]

MAX LENGTH
[]

DEFAULT FIELD VALUE
[]

☐ NO TAB ACCESS

☐ ALLOW TABS - TAB ORDER []

☐ ALWAYS SHOW FIELD BORDER

☐ LINK TYPE

☐ READ ONLY ⓘ

☐ REQUIRED

☐ HIDDEN

[Close] [Edit JavaScript] [Formatting] [Access rights] [Save]

You can set up the parameters of the data that will be processed in every column:

- **Param Type** - select the data type from the drop-down list. As a rule, the data type is defined by the table field that should be processed. But the Param Type value should be specified manually by the user.

i By default, the Param type is set to the Text type, in case the value is not defined by user. And if the field value has another type, it can cause a problem in the Render application.

Based on the selected Param Type in the Architect application, in the Render application the column can be as follow types:

- **Text** - single-line text input field.
- **Numeric** - input restricted to numeric values.
- **Textarea** - multi-line text input for longer content or descriptions.
- **List** - drop-down list allowing selection of a single option from predefined values.
- **Multi-select list** - drop-down list allowing multiple selections.
- **Set value from source field** - sets the value dynamically based on another field (source field).
- **Datalist** - text input with autosuggest capabilities, backed by a predefined list of options.
- **Relation datalist** - similar to datalist, but the options are based on values from a related table.
- **List from API** - display the list of values (options) received from an external application.
- **Checkbox** - displays a binary toggle (checked/unchecked).
- **Radio** - a group of radio buttons for selecting a single option.

- **Button** - a clickable button that can trigger an action or event.
- **Inline search** - allows users to see search results without redirecting to a search results page.
- **Image** - allows image selection or upload.
- **DImage** - allows users to upload any image file.
- **Format Type** - select the Format Type from the drop-down list. The list of available options is restricted by the values related to the selected Param Type.
 - **Email** – to add the email address, e.g., name@domain.com.
 - **Date** – to add the information about date in the Date format.
 - **Date/Time** – to add the information about date and time in the format of Date and Time.
 - **Phone** – to add the phone number.
 - **Custom** – to add the information in the custom format. In case of selecting the custom format field type, the additional **Format Template** field will appear. Set the custom field format in the appeared **Format Template** field, using the **x**, **n**, **-**, **+** characters, where:
 - **x** – any English text and numeric character can be added,
 - **n** – numeric character input only,
 - **- / +** – separator types. The separators will be added automatically on the screen in the Render.
 For example:
 - in case of the xxx--nnn++xn-n template, the entered data might be abc--123++q2-1, or
 - in case of the nn-xx+xn-nx template, the entered data might be 35-pt+a3-4t, etc.

The field format will be shown as a placeholder of the field on the screen in the Render application. In case users enter the data in the format that does not meet the format template set, the warning tip will appear

- **Field Width** - define the width of the field. The width must be specified in %, px, or em. For example, 10%, 20px, or 30em.
It is mandatory to specify units of measurement (% , px, or em), as values entered without them will be ignored in the browser.
It is recommended to use fixed units (px or em) for the columns with buttons and images.

i Please note that the field width can automatically be adjusted according to the content.

- **Sort** - define the ascending or descending sort for the column content. The defined sort will be used by default when displaying the data in table view in the Render application.

Activity	Date/Time	Num1	Num3	User	Execute	Static Image	Total
All	All	All	All	All			
2333	07.01.2022 17:00	434	2016	76	Extensions		2,450

- **Max Length** - define the maximum number of characters allowed to be entered in the field.
- **No Tab Access** - specifies whether it is allowed to use the Tab key from the keyboard. If the option is selected, that means that usage of Tab key is disabled for this column.
- **Allow Tabs - Tab order** - enables the usage of the Tab key from the keyboard. In the input field

next to the radio button, you can define the order when the column appears in the tabulation.

- **Read-only** - select this check box to define the column as not editable. Additional parameter that defines the column as read-only, is the alias: if the alias contains the “-” character, then it’s considered as read-only.
- **Required** - select this check box to mark the field value in the table as required in the Render.
- **Hidden** - select the check box in case the whole column should be hidden.
- **Always show field border** - defined whether the column borders should be shown.
- **Use Current Date/Time on Insert Mode** - specifies that when user opens the screen/field in the **Insert** mode, the current Date and Time will be always taken to save the value (even in case user filled in the field with another value). Available only for columns of the Text type, and Date or Date/Time format types.
- **Use Current Date/Time on Edit Mode** - specifies that when user opens the screen/field in the **Edit** mode, the current Date and Time will be always taken to save the value (even in case user filled in the field with another value). Available only for columns of the Text type, and Date or Date/Time format types.
- **Type Link** - select the value from the drop-down list:
 - Blank - to open a linked page in a new tab.
 - Self - to open a linked page in the current tab.
 - Modal - to open a link in a modal window. Define Modal Size in the connected field.
 - Blank Bypass - to open a link in a new tab and to pass the additional parameter specified in the Pass Through Parameter field.
 - Modal Bypass - to open a link in a modal window and to pass the additional parameter specified in the Pass Through Parameter field.
- Define the following **Type Link** parameters:
 - **Menu** - to select the menu that the required screen is assigned to.
 - **Group screen** - to select the group screen that the required screen is assigned to.
 - **Screen** - to select the required screen that will be opened by link.
 - **Parameter** - to specify the required parameter that will be used for searching on the screen.
 - **Pass Through Parameter** - this parameter will be passed by link to the defined screen.

Note that depending on the selected **Param Type**, additional parameters can be displayed:

- Numeric
 - **Use to calculate totals** - defines whether the values of the data column should be used for calculating the Total count.
 The **Use to calculate totals** parameter appears only if, in the Table Section configuration step, at least one of the following parameters, **Total for the column** or **Total for the row**, is defined. Also, the **Scroll** option should be selected for the **Show type** parameter to provide the correct work of the **Use to calculate totals** functionality in the Render application.
 In the table settings, you can choose whether the amount will be calculated by columns (Total for the column) or by rows (Total for the row), or by both (Total for the column and Total for the row). When calculating the amount, the number of decimal places will be taken as the largest value of the summed ones (for currencies - 2 decimal places).
- Button

- **Button action** - define the action that should be applied to the screen when clicking the button. Select the button action from the available drop-down list.
- **Inline Search**
 - **Custom Query** - select the query that helps users to get the needed values from the database table in case. The custom query is usually used in the search field but can successfully be used for other fields on the screens.
- **Image**
 - **Custom #ID** - the ID of a UI element. It can be used in the scripts, to adjust UI element style. The value is generated automatically.
 - **Image Action** - select the action from the drop-down list to apply it to the screen when the image is activated (clicked on).
 - **Upload Image** - click the File select button to upload the image from your local machine.
 - **Allow full size modal popup** - select the check box to allow opening the image in a separate modal pop-up window.
- **DImage**
 - **Custom #ID** - the ID of the image. It can be used in the scripts, to adjust UI element style. The value is generated automatically.
 - **Image action** - select the action from the drop-down list to apply it to the screen when the image is activated (clicked on).
- **Datalist**
 - **Values** - enter the values that will be displayed as field options for selection in the Render application. Use the delimiter “;”.
- **Relation Datalist**
 - **Execute only OnFocus**
 - **Custom query** - select the query from the drop-down list. This feature helps users to get the values from the database table.
- **Set value from source field**
 - **Use the Current User ID on Insert Mode** - automatically sets the field value to the ID of the currently selected user when a new record is created.
 - **Use the Current User ID on Edit Mode** - automatically updates the field value to the ID of the currently logged-in user when an existing record is modified.

4.3.4.7.7.4.1 Common Operations

At the bottom of the Config Column pop-up window, there is a block with common operations.

×

CONFIG COLUMN

PARAM TYPE

Text

FIELD WIDTH

100px or 100% or 1em

MAX LENGTH

☐ NO TAB ACCESS

☐ ALWAYS SHOW FIELD BORDER

☐ READ ONLY ⓘ

☐ REQUIRED

☐ HIDDEN

FORMAT TYPE

-- Select --

SORT

-- Empty --

DEFAULT FIELD VALUE

☐ ALLOW TABS - TAB ORDER

☐ LINK TYPE

Close

Edit JavaScript

Formatting

Access rights

Save

The following operations can be performed while updating information in the pop-up window:

Save

Click the Save button to confirm and save the entered data. After saving the table configuration, a newly created table appears in the section area.

Access Rights

Click the Access Rights to open the corresponding pop-up window where you can define the View and Update access rights for user groups.

×

ACCESS RIGHTS

VIEW

CodiacGroup: Codiac group

DemoGroup: DemoGroup

DemoLogin: Demo Login

Commission_Basic: Commission_Basic Access

Commission_Manager: Commission Manager

UPDATE

Standard_Group: CODIAC Standard Group

Underwriting_Group: CODIAC Underwriting Group

Agent_Group: CODIAC Agent Group

Owner group: new group

Close

Save

Formatting

In sections with **Table Type**, the Formatting functionality is used to customize the column header and cells formatting:

- the Label parameters are set for a column header.
- the Field parameters are set for the column cells.

Note that the Field parameters can only be used if the **Always show field border** parameter has been selected in the Config Column pop-up window.

Click the **Formatting** button to customize the “look and feel” of the column fields and labels in the table. The formatting customized here will be applied primarily.

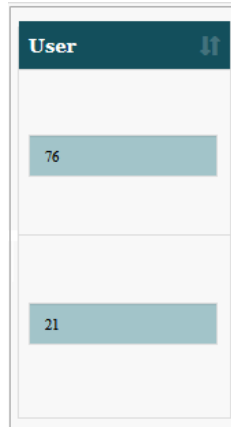
In the opened **Formatting** pop-up window users can define the Label (column header) and Field (column cells) style and format parameters such as:

- Font style:
 - bold
 - italic
 - crossed out
 - underlined
- Text color
- Text background color
- Font family
- Font size
- Text align - cannot be used for the table column formatting.

For example, the formatted column can be displayed as follows:



In the Render application, the formatted column can be displayed as follows:



Click the **Save** button to confirm column formatting changes.

Click the **Reset** button to clear column parameters.

Click the **Close** button to cancel the formatting changes without saving and return to the **Config Column** pop-up window.

Edit JavaScript

Click the **Edit JavaScript** button to open the editor and set up the behavior and CSS styles for UI elements on the screen.

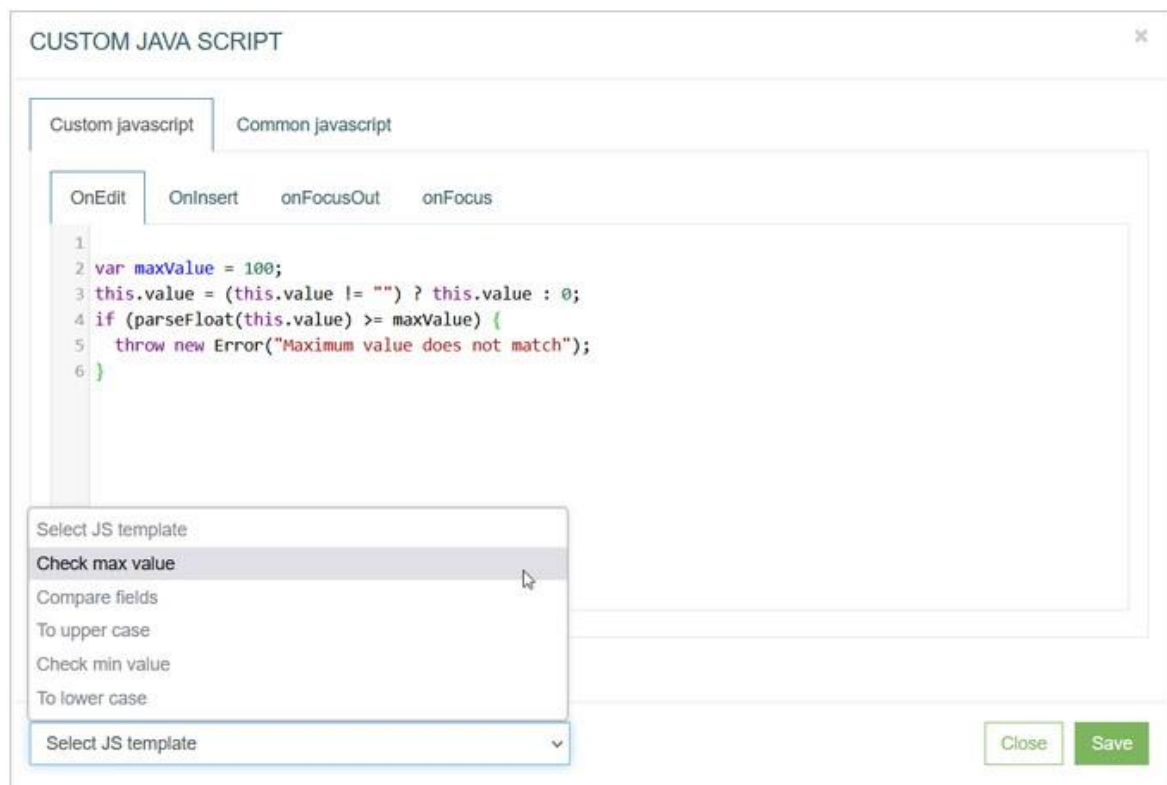
The **Edit JavaScript** functionality is available for the following column parameter types:

- **Text**
- **Numeric**
- **Textarea**
- **List**
- **Multi-selected list**
- **Set value from source field**
- **Datalist**
- **Relation datalist**
- **List from API**
- **Checkbox**
- **Radio**
- **Inline search**
- **DImage**



Note that the JavaScript validation for values entered to the table is performed separately from the JavaScript validation for the regular fields on the screen.

For example, there are 2 sections on the screen. The first one has a Table section type, and the second one has an Edit section type. In this case, the JavaScript validation for values entered to the table is performed when users work directly with the table (add new values to cells, edit values, etc.) before saving the changes on the screen. While the JavaScript validation for the regular fields on the screen is performed when users save the changes on the screen.



Custom JavaScript tab - on the Custom JavaScript tab, you can set up and customize the behavior and CSS styles for UI elements on the screen.

You can set up the OnEdit, OnInsert, onFocusOut and onFocus actions on the correspondent tabs.

To simplify the code writing on the Custom JavaScript tab, the **jQuery** library can be used. The jQuery library provides the possibility to use less symbols to write the Custom JavaScript. For more information about the jQuery library, visit the jQuery website.

It is recommended to define additional checks when the Custom JavaScript performs validation successfully and when the validation is failed.

- For the positive case, when the check is passed, it is necessary to remove the class "not-valid-data" from the element: `$(this).removeClass('not-valid-data');`
- For the negative case, when check is not passed, an error with auxiliary text: `throw new Error('error message');` should be displayed.

For example:

- the Custom JavaScript validation of the field is set up for the onFocusOut action.
- the Custom JavaScript of the field restricts the maximal numeric value entered in the field to 100.

In this scenario, if the user entered a value greater than 100 in the field within the Render application, the following outcome would occur:

- the further execution of the script should be stopped;
- the error message is displayed;
- and the Save action should not be allowed.

Common JavaScript tab - on the Common JavaScript tab, you can set up and define as common the behavior and CSS styles for UI elements on the screen.

You can set up the OnEdit, OnInsert, onFocusOut actions on the correspondent tabs.

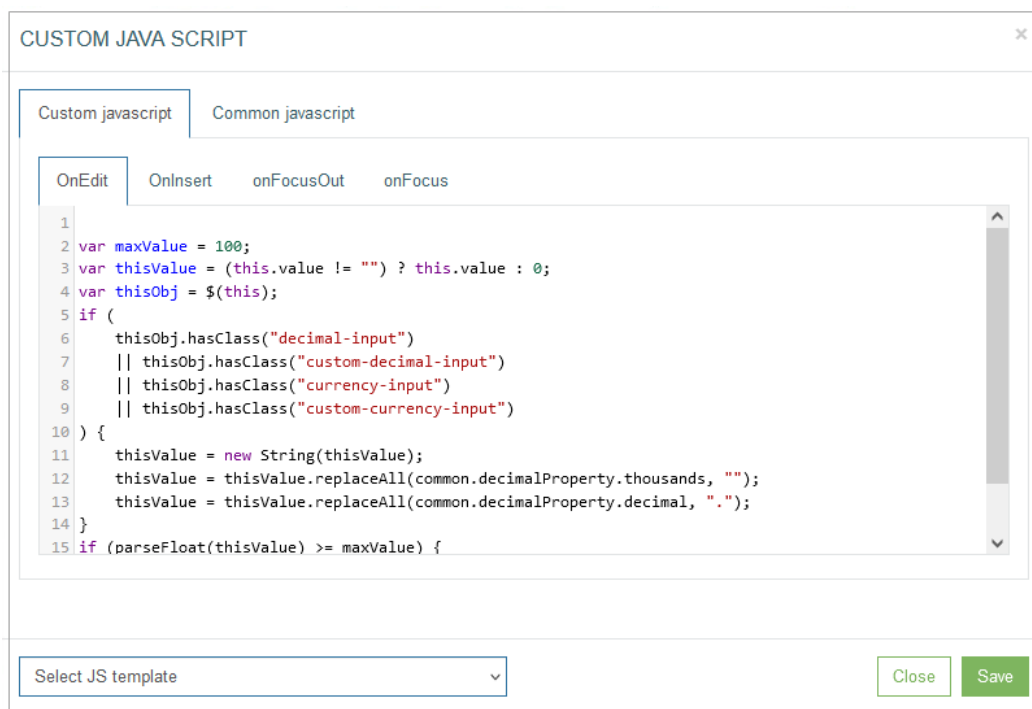
Select JS template - click on the drop-down list to add the existing JavaScript template to the editor. The following templates are available by default:

- **Check max value**
- **Compare fields**
- **To upper case**
- **Check min value**
- **To lower case**

The JavaScript templates with examples are described below:

Check max value

This template provides the possibility to restrict the maximal numeric value entered in the column cell. On the Custom JavaScript tab, the template can be displayed as follows:



On the Common JavaScript tab, the settings are displayed as follows:

Enter the maximal value to the **Max value** field and the text that will be shown as a warning message to the **Error Message** field. The warning message will appear and can be displayed in the Render application as:

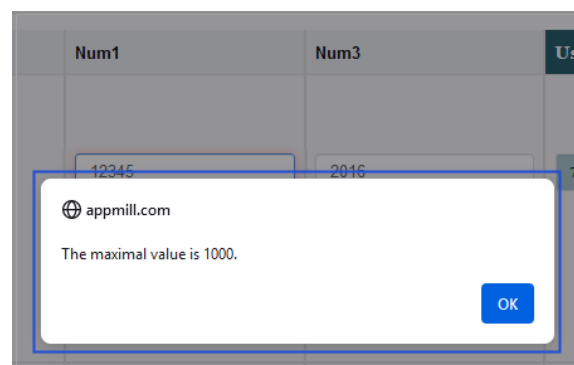
- a **pop-up window**,
- a **tooltip**,
- or
- a **confirmation pop-up window with actions**. This warning message type will appear in case of selecting the **Use confirm modal** check box.

Note that the warning message in the confirmation pop-up window is available only for the onFocusOut action.

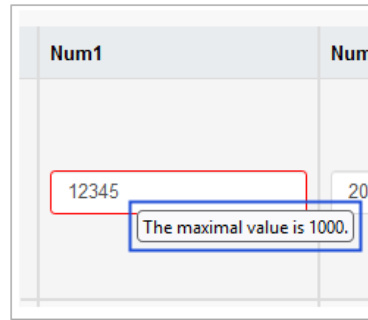
For example, on the Common JavaScript tab, the Check max value operation was set up and defined as “1000” as the common behavior for the onFocusOut action for the “Num1” column.

In case the entered data in the Render application does not match the defined parameters, the warning message will appear and can be displayed as a pop-up window or a tooltip.

In the Render application, the warning message can be displayed as a pop-up as follows:



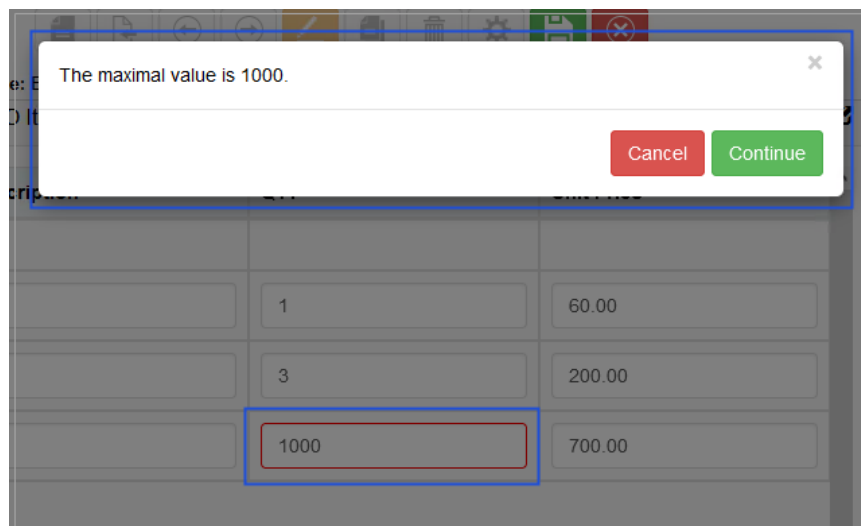
Or as a tooltip as follows:



In case the Check max value operation was set up as the common behavior for the onFocusOut action for the field, the additional confirmation will be available. Select the **Use confirm modal** check box, to display the warning message as a confirmation pop-up window with actions in the Render application.

For example, the entered value in the Num1 column is more than the defined maximal value. The warning message will appear as a confirmation pop-up window.

In the Render application, it can be displayed as follows:



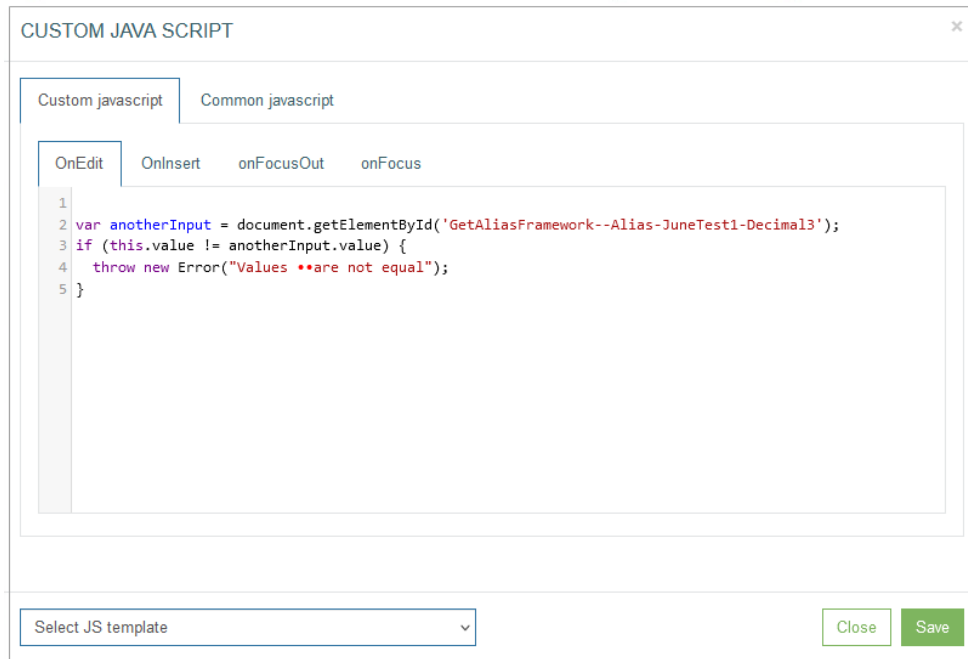
Click the **Continue** button, to confirm the entered value is correct.

Click the **Cancel** button, to deny the confirmation and return to the value editing.

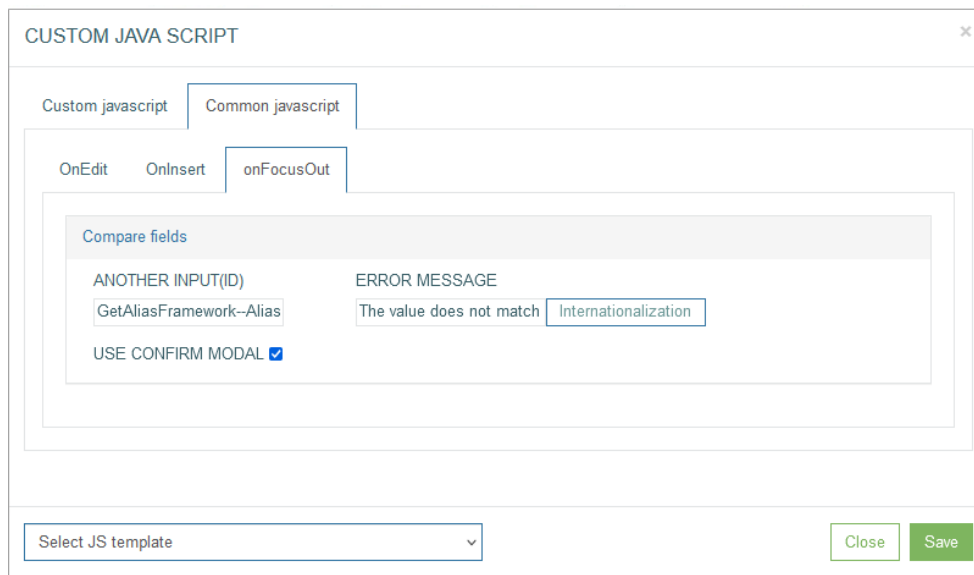
Compare fields

This template provides the possibility to set the field value comparison. The entered data in this column must match the entered data of the field defined in the template.

On the Custom JavaScript tab, the template can be displayed as follows:



On the Common JavaScript tab, the settings are displayed as follows:



Enter the field ID with value of which the entered value will be compared to the **Another input (ID)** field.

The field ID can be found at the bottom left corner of the **Field Settings** pop-up window.

Enter the text that will be shown as a warning message to the **Error Message** field. The warning message will appear and can be displayed in the Render application as:

- a **pop-up window**,
- a **tooltip**,
- or
- a **confirmation pop-up window with actions**. This warning message type will appear in case of selecting the **Use confirm modal** check box.

Note that the warning message in the confirmation pop-up window is available only for the

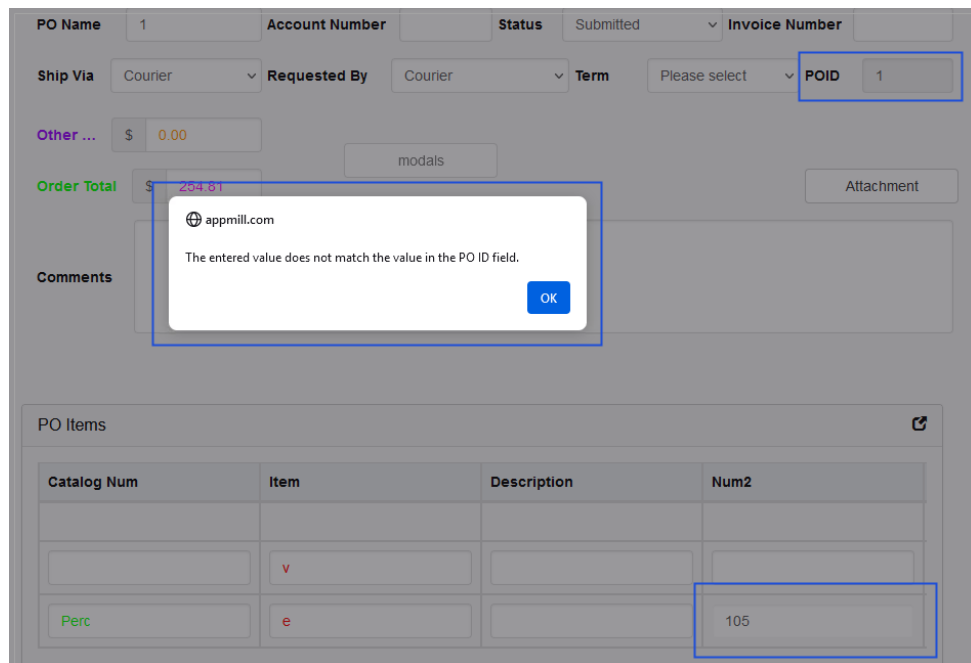
onFocusOut action.

For example, on the Common JavaScript tab, the Compare fields operation was set up as the common behavior to the onFocusOut action for the “Num2” column. I.e., the entered value of the “Num2” column will be compared with the value of the “PO ID” field defined in the Another input (ID) field.

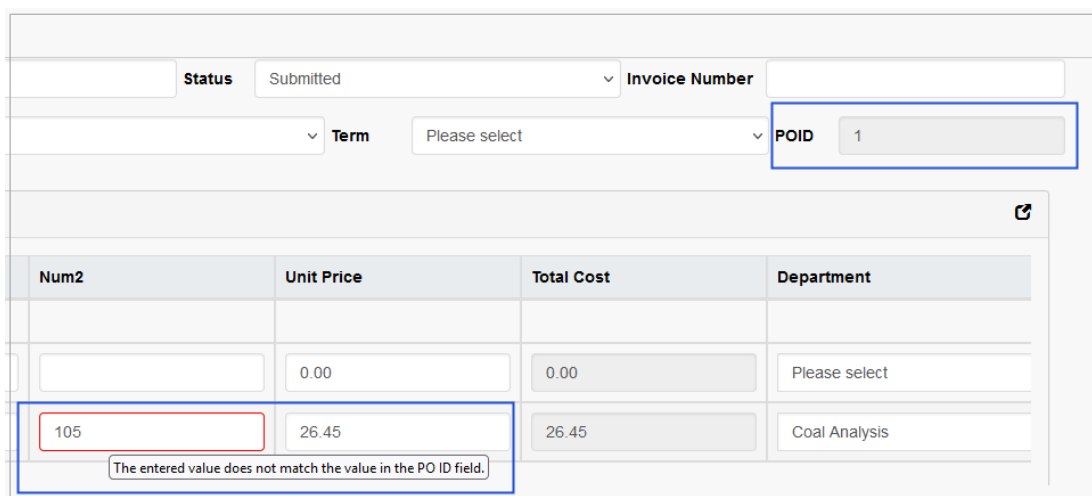
In case the entered data in the “Num2” column in the Render application does not match the value of the “PO ID” field, the warning message will appear and can be displayed as a pop-up, a tooltip or a confirmation pop-up window with actions.

In the Render application, the warning message can be displayed as follows:

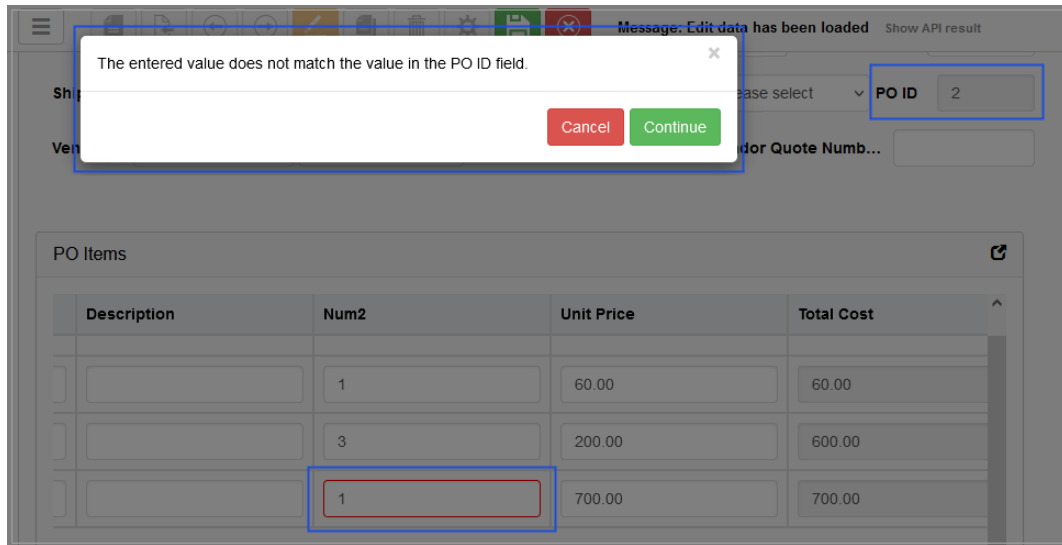
- a pop-up window



- a tooltip



- or a confirmation pop-up window



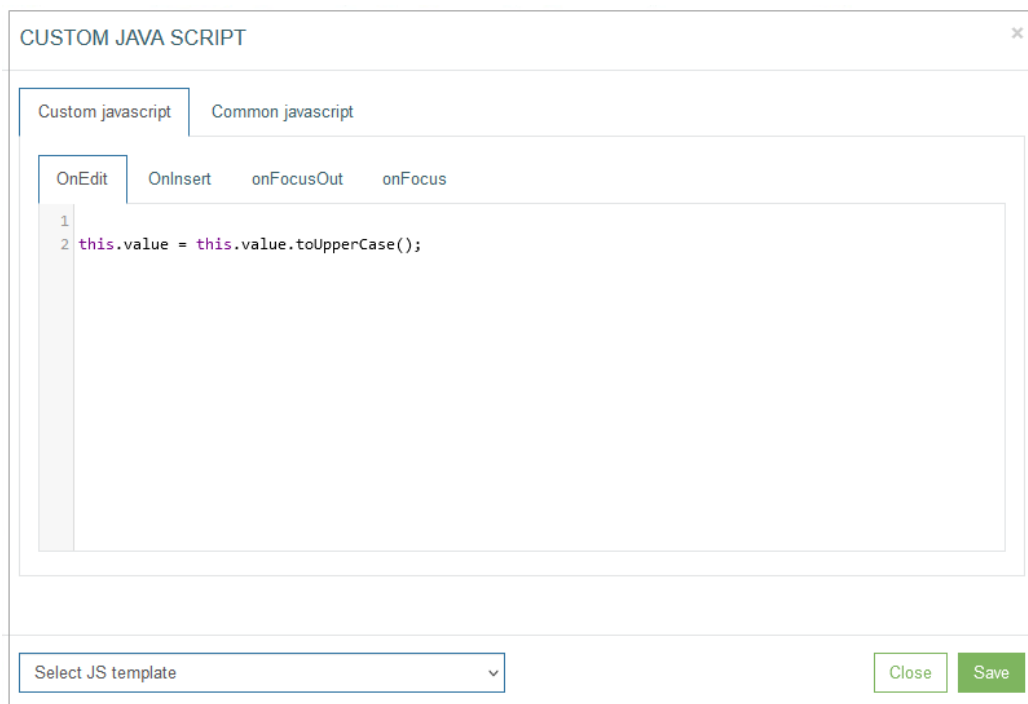
Click the **Continue** button, to confirm the entered value is correct.

Click the **Cancel** button, to deny the confirmation and return to the value editing.

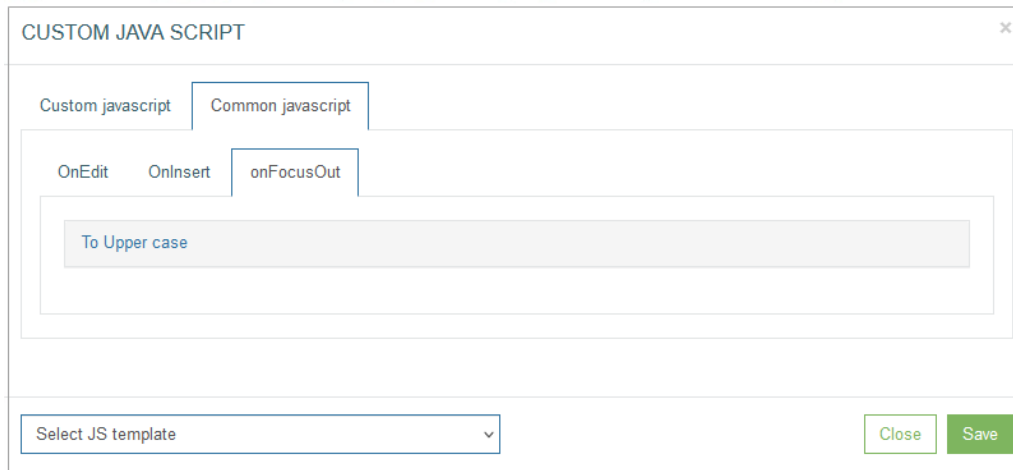
To upper case

This template provides the possibility to define that the entered data in the column cell must be written in capital letters.

On the Custom JavaScript tab, the template can be displayed as follows:



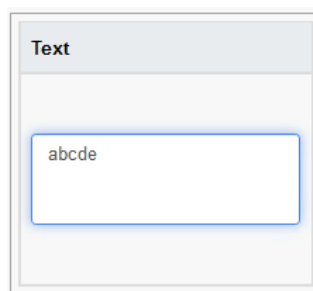
On the Common JavaScript tab, the settings are displayed as follows:



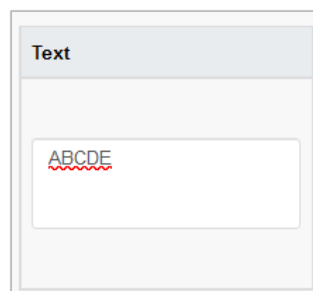
For example, on the Common JavaScript tab, the To Upper case operation was set up as the common behavior for the onFocusOut action for the “Text” column with the Textarea parameter type.

In case the entered data in the Render application is written in small letters, such letters will be replaced with capital letters and can be displayed as follows:

- The entered text written in small letters, when the field is on focus.



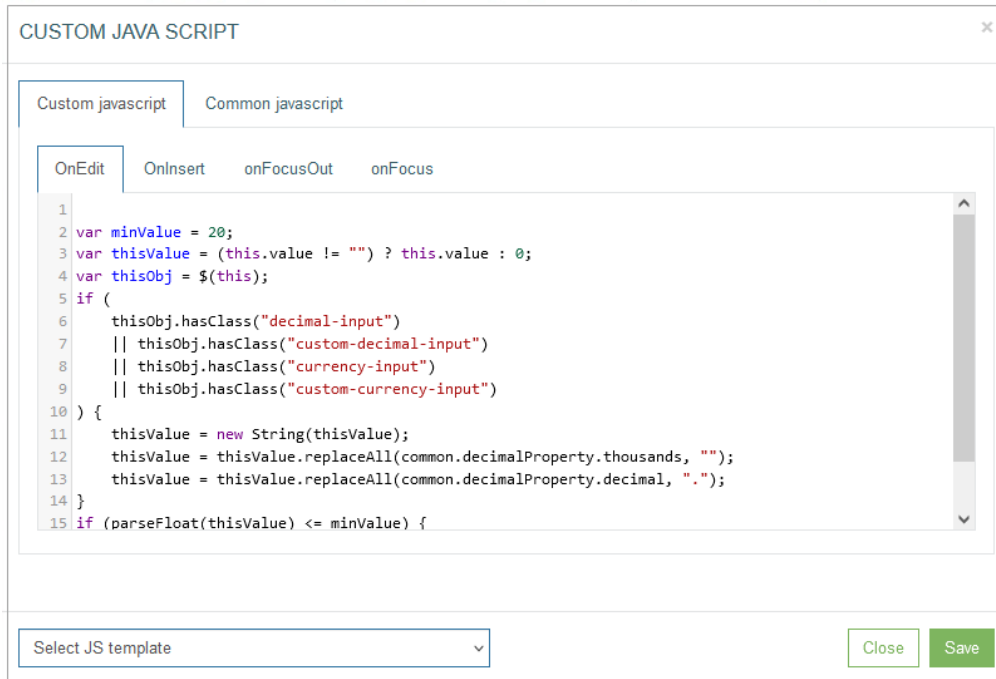
- The entered text replaced with capital letters, when the field is not on focus.



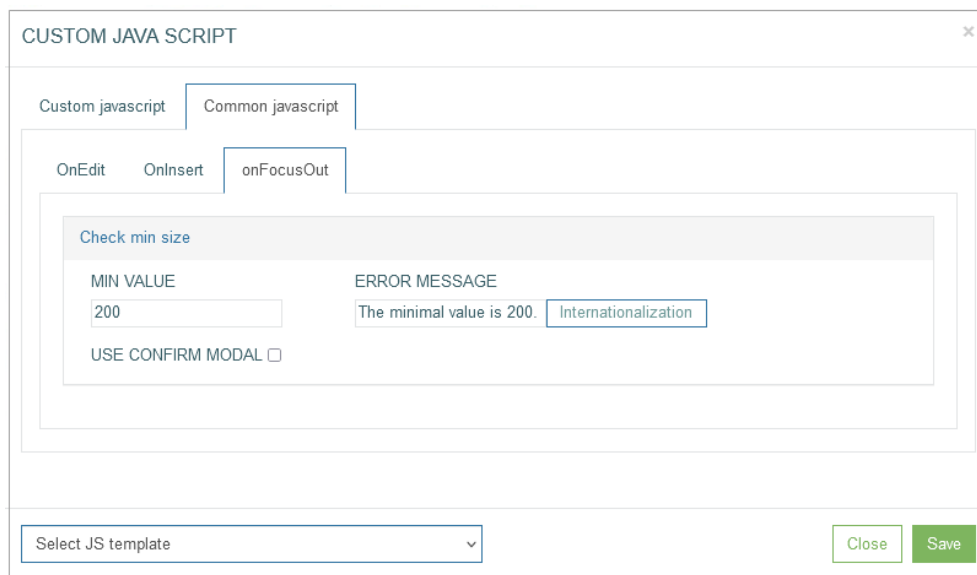
Check min value

This template provides the possibility to restrict the minimal numeric value entered in the column cell.

On the Custom JavaScript tab, the template can be displayed as follows:



On the Common JavaScript tab, the settings are displayed as follows:



Enter the minimal value to the **Min value** field and the text that will be shown as a warning message to the **Error Message** field.

The warning message will appear and can be displayed in the Render application as:

- a **pop-up window**,
- a **tooltip**,
- or
- a **confirmation pop-up window with actions**. This warning message type will appear in case of selecting the **Use confirm modal** check box.

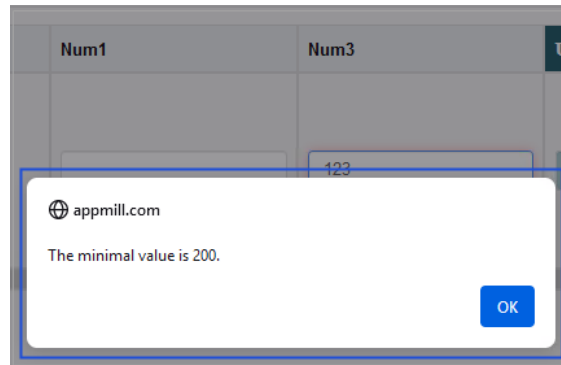
Note that the warning message in the confirmation pop-up window is available only for the onFocusOut action.

For example, on the Common JavaScript tab, the Check min value operation was set up and defined as

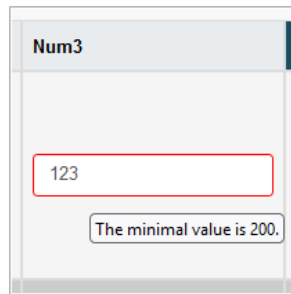
“200” as the common behavior for the onFocusOut action for the “Num3” column.

In case the entered data in the Render application is less than the defined value, the warning message will appear and can be displayed as a pop-up or a tooltip.

In the Render application, the warning message can be displayed as a pop-up window as follows:



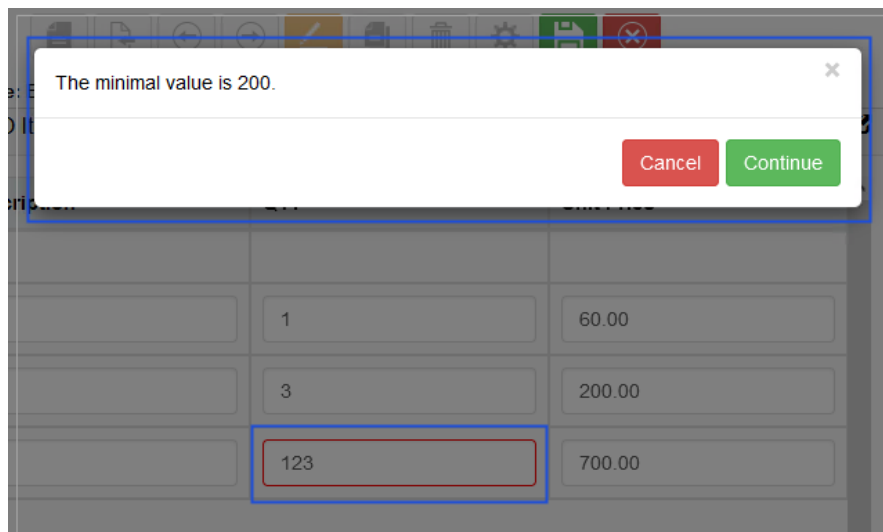
Or as a tooltip as follows:



In case the Check min value operation was set up as the common behavior for the onFocusOut action for the field, the additional confirmation will be available. Select the **Use confirm modal** check box, to display the warning message as a confirmation pop-up window with actions in the Render application.

For example, the entered value to the Num2 column is less than the defined minimal value. The warning message will appear as a confirmation pop-up window.

In the Render application, it can be displayed as follows:



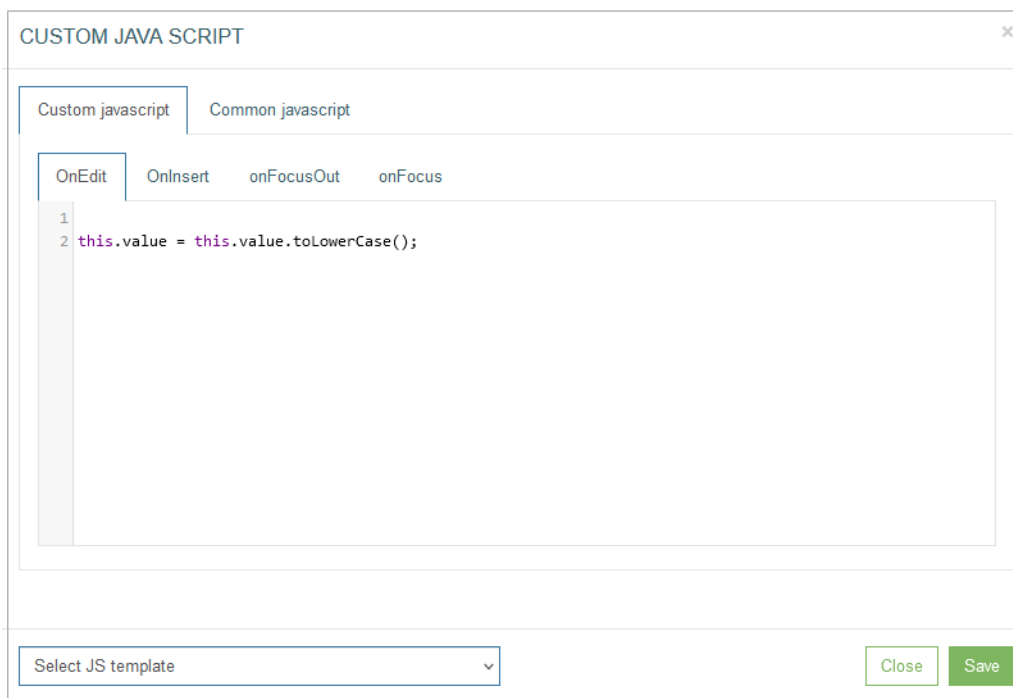
Click the **Continue** button, to confirm the entered value is correct.

Click the **Cancel** button, to deny the confirmation and return to the value editing.

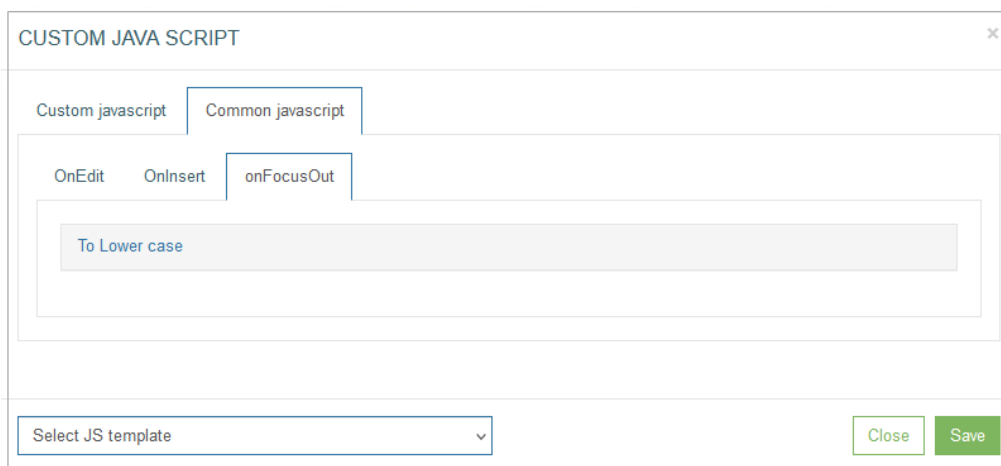
To lower case

This template provides the possibility to define that the entered data in the column cell must be written in small letters.

On the Custom JavaScript tab, the template can be displayed as follows:



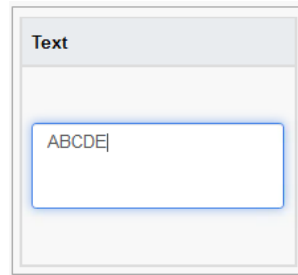
On the Common JavaScript tab, the settings are displayed as follows:



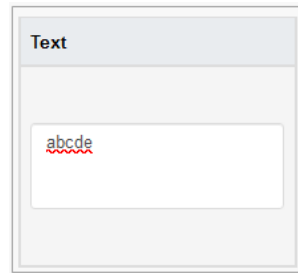
For example, on the Common JavaScript tab, the To Lower case operation was set up as the common behavior for the onFocusOut action for the “Text” column with the Textarea parameter type.

In case the entered data in the Render application is written in capital letters, such letters will be replaced with small letters and can be displayed as follows:

- The entered text written in small letters, when the field is on focus.



- The entered text replaced with capital letters, when the field is not on focus.



For the **Check max value**, **Compare fields**, and **Check min value** templates users can define the translation for the **Error Message**.

To add the translations for the **Error Message**, click the **Internationalization** button. In the opened pop-up window, select and add the language, enter the translation for the selected language. Click the **Apply** button to save the changes. In case the user changes the display language in the Render application, the translated **Error Message** will be shown. For more details about language changing, refer to the [Language](#) page of the User Manual.

Click the **Save** button to save the changes and close the Custom JavaScript pop-up window. Click the **Close** button to close the pop-up without saving the changes.

Close

Click the **Close** button to close the pop-up window without saving the data.

4.3.4.7.8 Section Type: Table from API

4.3.4.7.8.1 Overview

The **Table from API** type of section provides the possibility to receive the data from different AppMill services and represent the received data in a table view on the screens in the Render application.

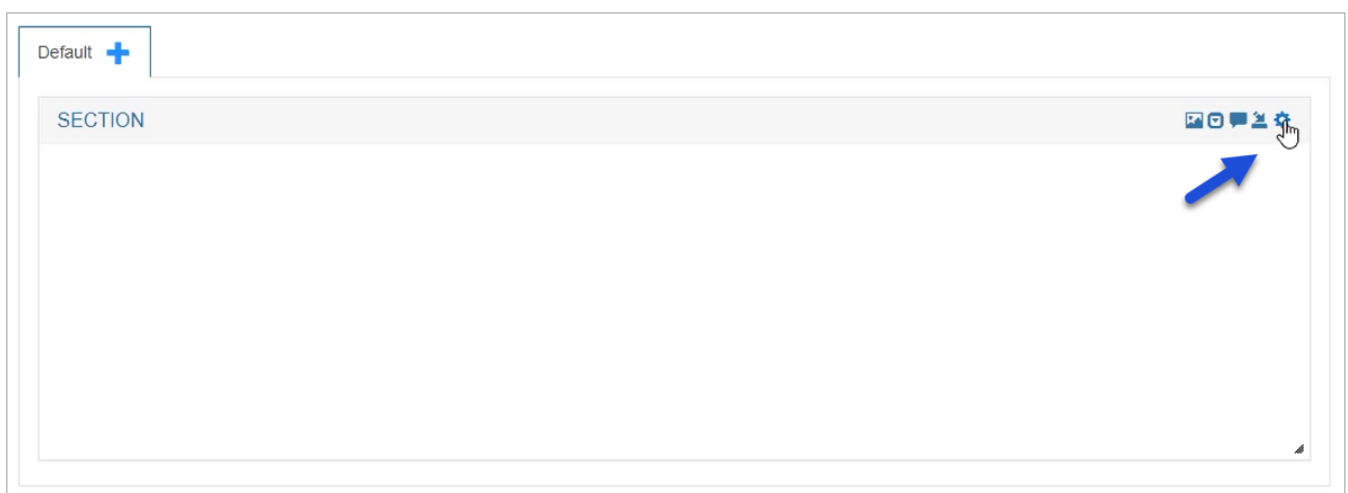
For example, the section of the Table from API may look in the Render as follows:

API Table ⓘ						
Source	item	status	totalprice	poitemid		
http://10.0.1.149:34567	Gross Alpha and Gross Beta	Received	135.00	55066		
http://10.0.1.163:34567	Gross Alpha and Gross Beta	Received	135.00	55066		
http://10.0.1.163:34567	TCLP Tritium	Received	65.00	55067		
http://10.0.1.149:34567	TCLP Tritium	Received	65.00	55067		
http://10.0.1.163:34567	TCLP Gross Alpha Beta	Received	45.00	55068		
http://10.0.1.149:34567	TCLP Gross Alpha Beta	Received	45.00	55068		
http://10.0.1.163:34567	TCLP Iodine	Received	80.00	55069		
http://10.0.1.149:34567	TCLP Iodine	Received	80.00	55069		
http://10.0.1.163:34567	TCLP Radium 226	Received	80.00	55070		
http://10.0.1.149:34567	TCLP Radium 226	Received	80.00	55070		
http://10.0.1.163:34567	TCLP Radium 228	Received	80.00	55071		
http://10.0.1.149:34567	TCLP Radium 228	Received	80.00	55071		

4.3.4.7.8.2 Section Settings

Before setting up the API in the screen sections, ensure the "Pass Thru" check box is checked on the first screen builder page. This will make the screen accessible via the API.

To open and configure the section settings as well as table with the data from API, click the gear icon in the right upper corner of the section:



The Section Settings pop-up window opens. Here you can configure the general settings connected to the section and the settings related to the API table displayed on the screen further.

First, define the Section title and select the type:

- **Layout Label** - enter the text to be displayed as a Section name.
- **Section Type** - to open the Table from API configuration, select the **Table from API type** option from the Section Type drop-down list. The whole set of settings appears in the current pop-up window:

The screenshot shows the 'SECTION SETTINGS' dialog box. At the top, there's a title bar with a close button. Below it, the 'LAYOUT LABEL' field contains 'API Table' and has a 'DEFAULT VALUE' label. To the right of this field is an 'Internationalization' button. Below the layout label field are two checkboxes: 'HIDE SECTION HEADER' (unchecked) and 'HIDE SECTION POP-OUT' (checked). Underneath these are two more fields: 'LINKED FIELD' (a dropdown menu showing '-- Select --') and 'ACTIVE VALUE' (a text input field). The 'SECTION TYPE' dropdown menu is open, displaying a list of options: 'Edit type', '-- Select --', 'Edit type', 'Table type', 'Table from API type' (which is highlighted in blue), 'Chart-pie type', 'Chart-line type', 'Chart-time-series type', 'Chart-scatter-with-linear-regression type', 'Chart-bar-horizontal type', 'Chart-bar-vertical type', 'Chart-doughnut type', and 'Document type'.

The general section settings are described in detail on the [Screens](#) page of the User Manual. The table settings are the same to the [Section Type: Table Type](#).

4.3.4.7.8.3 Table Configuration

Below you can explore the instructions on how to set up the section parameters exactly for the Table from API type of section:

LINKED FIELD

-- Select --

ACTIVE VALUE

SECTION TYPE

Table from API type

API CONFIGURATIONS

Service IP	User Name	Password	Screen Name	Screen Tab Name	
http://10.0.1.163:34	GuestUser_22		PO_SubCon_2	PO_SubCon_2	✕
http://10.0.1.149:34			PO_SubCon_2	PO_SubCon_2	✕
					Add API

Total for the column

☐

Total for the row

☐

Readonly

☒

Include Column Filter

☐

Include Extended Search

☐

Label orientation

Top

Show type

Scroll

Pixel Height

500

Use result block

Array.purchaseorderitem

Need combine

☒

Combine by field

Array.purchaseorderitem.item

alias_field	column_label
<Alias_type>.<table_name>.<column_name>	
Add alias field	
✕ __api_ip	Source Internationalization
✕ Array.purchaseorderitem.item	item Internationalization
✕ Array.purchaseorderitem.status	status Internationalization
✕ Array.purchaseorderitem.totalprice	totalprice Internationalization
✕ Array.purchaseorderitem.poitemid	poitemid Internationalization

Add button column

Add static image column

Close

Formatting section fields

Save

4.3.4.7.8.4 API Configuration

The **API Configuration** part contains the parameters for the APIs that will provide the data for filling in the table on the Render screen. Fill in the following parameters for each API entry:

- **Service IP** – define the API of the AppMill service that you will use to request the data.
- **User Name** – enter the Username that is defined for the Service.
- **Password** – enter the Password that is defined for the Service.
- **Screen Name** – enter the value of the Select existing screen or Add new screen fields from the first Screen Builder page.
- **Screen Tab Name** – enter here the value of the Tab Name field from the first Screen Builder page.

When all parameters are specified for, click the **Add API** button to add a new row below.

4.3.4.7.8.5 Column Settings

The next part of the parameters that can be set up in the Section Settings pop-up window is connected to the general table settings.

- **Total for the column** - select the check box to enable the additional row displaying the Total count for the whole column.
- **Total for the row** - select the check box to enable the additional column showing the Total count for the whole row.
- **Readonly** - select the check box to make the table read-only. This option is used for the tables that should be displayed in View mode only. In case this check box is selected, the table will not be editable even in the Edit and Insert modes on the screen in the Render application.
- **Include Column Filter** - select this check box to use Filters in the columns for filtering values. The added filters will automatically contain the list of possible values. Filters can be applied to the column with the data of Field type.
- **Include Extended Search** - select this check box to add a separate search field that allows searching for any value of the table fields.
- **Label orientation** - this option defines the layout of the table header. Select the available options:
 - **Top** - to display the table header at the top row.
 - **Left** - to display the table header as the first left column of the table.
- **Show type** - this option defines how to display the table content on the page - using pagination or infinite scroll.
 - **Scroll** - select this option to scroll on the page.
 - **Without scroll** - select this option to use pagination.
 - **Count** - defines the number of table rows on the page in case of pagination.
- **Pixel Height** - define the size of the window in case of scroll usage. The default value is 580px.
- **Result Block** – specify the alias for the block of data that will be used in the Response.
- **Need Combine** – define if the results of several APIs should be combined and sorted by the field entered in the Combine by Field value in one table
- **Combine by Field** – specify the field by which the table will be sorted.

Next, you can configure the columns of the table, their labels and the aliases that should be used to receive the values from AppMill:

- **Alias Field (alias_field)** - in the input field, start typing the alias that should be used to retrieve the field values. The autocomplete feature helps you to find the needed alias.

- Click the **Add alias field** button to add the selected alias to the table as a column field.
- Column Label (column_label)** - enter a label text that will be displayed as a column title for the corresponding alias entry.
 - Internationalization** - click the button to add translations for other supported languages, if needed.
- Add button column** - click this button to add a column that will contain the buttons. The behavior of the added buttons will be set up directly in the table column.
- Add static image column** - click this button to add a column with the static images.

4.3.4.7.8.6 Common Operation

Save

Click the **Save** button to confirm and save the entered data. After saving the table configuration, a newly created table appears in the section area.

Formatting Section Fields

The Formatting functionality is used to customize the column header and cells formatting:

- the Label parameters are set for a column header.
 - the Field parameters are set for the column cells.
- Note that the Field parameters can only be used if the **Always show field border** parameter has been selected in the Config Column pop-up window.

Click the **Formatting Section Fields** button to customize the “look and feel” of the column fields and labels in the table. The formatting customized here will be applied primarily.

The screenshot shows a 'FORMATTING' dialog box with two main sections: 'Label' and 'Field'. Each section contains a set of formatting controls. The 'Label' section includes buttons for bold, italic, strikethrough, and underline, followed by input fields for text color (set to #ffffff), text background color (set to 'Choose text background color...'), font family (set to Arial), font size (set to 16), and text align (set to center). The 'Field' section includes similar buttons, followed by input fields for text color (set to #000000), text background color (set to #a2c4c9), font family (set to Times New Roman), and font size (set to 12). At the bottom right of the dialog, there are three buttons: 'Close', 'Reset', and 'Save'.

In the opened **Formatting** pop-up window users can define the Label (column header) and Field (column cells) style and format parameters such as:

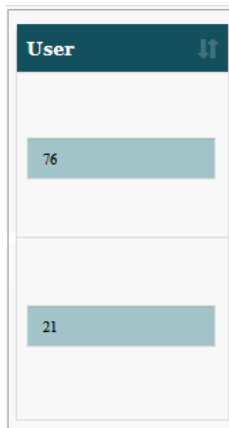
- Font style:

- bold
 - italic
 - crossed out
 - underlined
- Text color
- Text background color
- Font family
- Font size
- Text align - cannot be used for the table column formatting.

For example, the formatted column can be displayed as follows:



In the Render application, the formatted column can be displayed as follows:



Click the **Save** button to confirm column formatting changes.

Click the **Reset** button to clear column parameters.

Click the **Close** button to cancel the formatting changes without saving and return to the **Config Column** pop-up window.

Close

Click the **Close** button to close the pop-up window without saving the data.

4.3.4.7.9 Section Type: Chart Type

4.3.4.7.9.1 Table of Contents

- [Overview](#)
- [Section Settings](#)
 - [Pie Chart](#)
 - [Doughnut Chart](#)
 - [Horizontal Bar Chart](#)
 - [Vertical Bar Chart](#)
 - [Line Chart](#)
 - [Scatter Chart with Linear Regression](#)
 - [Time Series Chart](#)

4.3.4.7.9.2 Overview

The Section **Chart types** provide the possibility to represent the data in different chart and diagram view on the screens in the Render application. Currently, we support various types of charts. Below you can explore different chart types and check examples of chart usage.

4.3.4.7.9.3 Section Settings

To configure the section settings as well as chart configurations, click the gear icon in the right upper corner of the section.

In the opened pop-up window, you can configure the general settings connected to the section as well as the settings related to the charts. The general section settings are described on the [Screens](#) page. The setting and parameters that should be set up to charts depend on what type of char is selected in the Section Type field. See the details about every chart further.

 You may note that the layout configuration for the chart type is very similar to the table type, but the data will be displayed according to the selected Section type.

4.3.4.7.9.3.1 Pie Chart

To represent the data in the pie chart view, set up the following parameters:

- **Section Type** - select Chart-pie type.
- **Function name for getting list** - the value should be pre-defined automatically.
- **Alias Field** - define the alias for the field data to be displayed in the pie chart.
- **Column Label (Section chart label)** - define the label to be displayed in the pie chart for the corresponding alias field.
 - **Internationalization** - click the button to add translations for other supported languages, if needed.
- **Format type** - select the Format Type from the drop-down list. The list of available options is restricted by the table field.

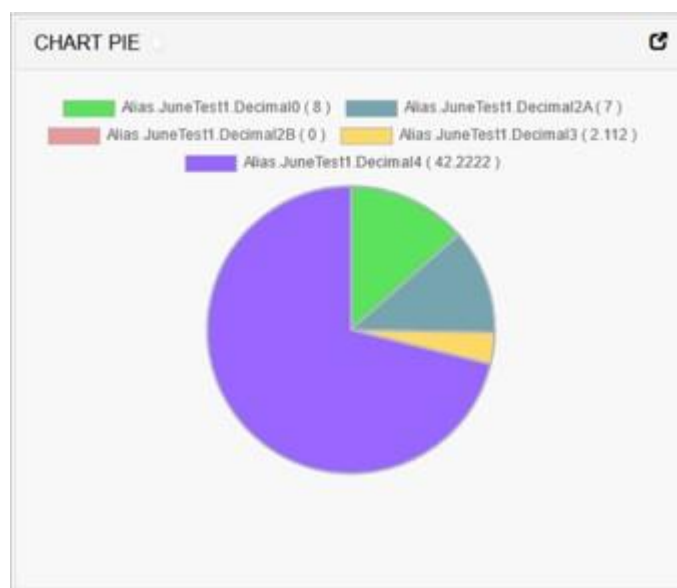
SECTION TYPE
Chart-pie type

FUNCTION NAME FOR GETTING LIST
GetAliasFramework: Universal DLL : GetAliasFramework

	alias_field	column_label	format_type
	Choose from the following...		Add alias field
✕	Alias.JuneTest1.Decimal0	Alias.JuneTest1.Decimal0 Internationalization	Numeric
✕	Alias.JuneTest1.Decimal2A	Alias.JuneTest1.Decimal2A Internationalization	Numeric
✕	Alias.JuneTest1.Decimal2B	Alias.JuneTest1.Decimal2B Internationalization	Numeric
✕	Alias.JuneTest1.Decimal3	Alias.JuneTest1.Decimal3 Internationalization	Numeric
✕	Alias.JuneTest1.Decimal4	Alias.JuneTest1.Decimal4 Internationalization	Numeric

Close Save

The configured pie chart looks on the screen in the Render as follows:



4.3.4.7.9.3.2 Doughnut Chart

To represent the data in the doughnut chart view, open the Section settings and set up the following parameters:

- **Section Type** - select chart-doughnut type.
- **Function name for getting list** - the value should be pre-defined automatically.
- **Alias Field** - define the alias for the field data to be displayed in the doughnut chart.
- **Column Label (Section chart label)** - define the label to be displayed in the doughnut chart for the corresponding alias field.
 - **Internationalization** - click the button to add translations for other supported languages, if needed.

- **Format type** - select the Format Type from the drop-down list. The list of available options is restricted by the table field.

SECTION TYPE

Chart-doughnut type

FUNCTION NAME FOR GETTING LIST

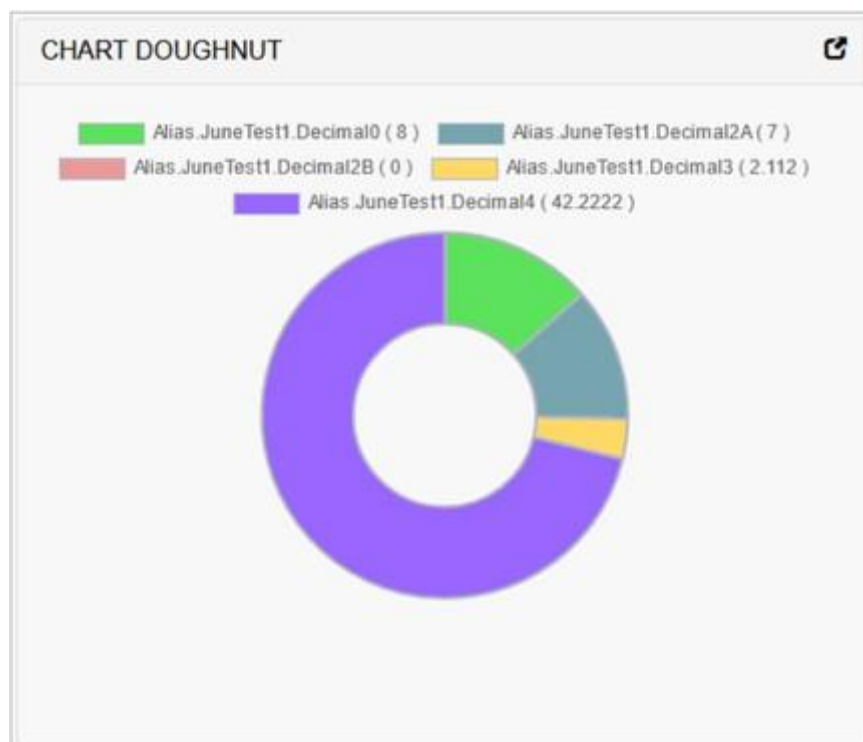
GetAliasFramework: Universal DLL : GetAliasFramework

alias_field	column_label	format_type
Choose from the following...		Add alias field
✕ Alias.JuneTest1.Decimal0	Alias.JuneTest1.Decimal0	Internationalization
✕ Alias.JuneTest1.Decimal2A	Alias.JuneTest1.Decimal2A	Internationalization
✕ Alias.JuneTest1.Decimal2B	Alias.JuneTest1.Decimal2B	Internationalization
✕ Alias.JuneTest1.Decimal3	Alias.JuneTest1.Decimal3	Internationalization
✕ Alias.JuneTest1.Decimal4	Alias.JuneTest1.Decimal4	Internationalization

Close

Save

The configured doughnut chart looks on the screen in the Render as follows:



4.3.4.7.9.3.3 Horizontal Bar Chart

To represent the data in the horizontal bar chart view, set up the following parameters:

- **Section Type** - select the chart-bar-horizontal type.
- **Function name for getting list** - the value should be pre-defined automatically.

 Note that at first the data fields for the Y axis should be defined. Thereafter, the data fields for the X axis will be defined.

- **Alias Field** - define the alias for the field data to be displayed in the bar chart.
- **Column Label (Section chart label)** - define the label to be displayed in the bar chart for the corresponding alias field.
 - **Internationalization** - click the button to add translations for other supported languages, if needed.
- **Format type** - select the Format Type from the drop-down list. The list of available options is restricted by the table field.

SECTION TYPE

Chart-bar-horizontal type

FUNCTION NAME FOR GETTING LIST

GetAliasFrameworkMV: Universal DLL : GetAliasFrameworkMV

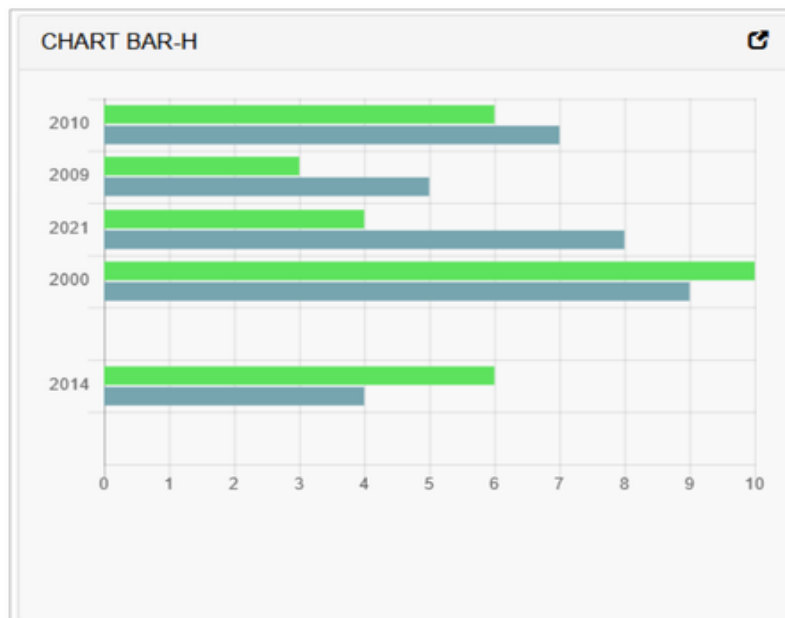
alias_field	column_label	format_type
Choose from the following...		Add alias field
✕ Array.JuneTest3.TestNumeric1	TestNumeric1	Internationalization
✕ Array.JuneTest3.TestNumeric2	TestNumeric2	Internationalization

alias_field	format_type
Choose from the following...	
✕ Array.JuneTest3.TestNumeric3	Numeric

Close

Save

The configured bar chart looks on the screen in the Render as follows:



4.3.4.7.9.3.4 Vertical Bar Chart

To represent the data in the vertical bar chart view, set up the following parameters:

- **Section Type** - select the chart-bar-vertical type.

- **Function name for getting list** - the value should be pre-defined automatically.



Note that at first the data fields for the Y axis should be defined. Thereafter, the data fields for the X axis will be defined.

- **Alias Field** - define the alias for the field data to be displayed in the vertical bar chart.
- **Column Label (Section chart label)** - define the label to be displayed in the vertical bar chart for the corresponding alias field.
 - **Internationalization** - click the button to add translations for other supported languages, if needed.
- **Format type** - select the Format Type from the drop-down list. The list of available options is restricted by the table field.

SECTION TYPE

Chart-bar-vertical type

FUNCTION NAME FOR GETTING LIST

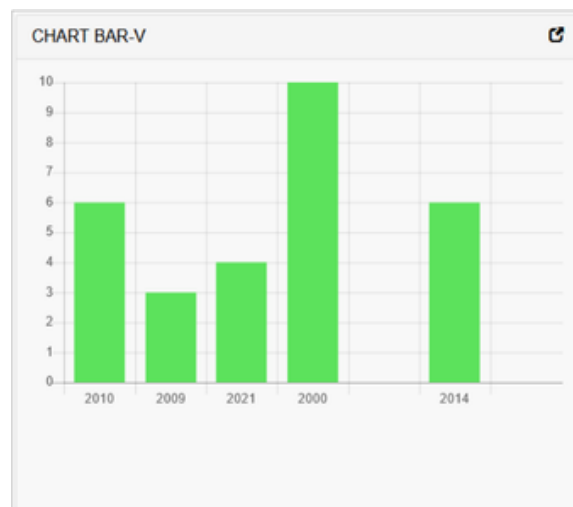
GetAliasFrameworkMV: Universal DLL : GetAliasFrameworkMV

alias_field	column_label	format_type
Choose from the following...	Add alias field	
✕ Array.JuneTest3.TestNumeric1	JuneTest3.TestNumeric1	Internationalization
		Numeric

alias_field	format_type
Choose from the following...	Add alias field
✕ Array.JuneTest3.TestNumeric3	Numeric

Close Save

The configured vertical bar chart looks on the screen in the Render as follows:



4.3.4.7.9.3.5 Line Chart

To represent the data in the vertical line chart view, set up the following parameters:

- **Section Type** - select the chart-line type.
- **Function name for getting list** - the value should be pre-defined automatically.

 Note that at first the data fields for the Y axis should be defined. Thereafter, the data fields for the X axis will be defined.

- **Alias Field** - define the alias for the field data to be displayed in the line chart.
- **Column Label (Section chart label)** - define the label to be displayed in the line chart for the corresponding alias field.
 - **Internationalization** - click the button to add translations for other supported languages, if needed.
- **Format type** - select the Format Type from the drop-down list. The list of available options is restricted by the table field.

SECTION TYPE			
Chart-line type			
FUNCTION NAME FOR GETTING LIST			
GetAliasFrameworkMV: Universal DLL : GetAliasFrameworkMV			
alias_field	column_label	format_type	
Choose from the following...		Add alias field	
✕ Array.JuneTest3.TestNumeric3	TestNumeric3	Internationalization	Numeric
alias_field	format_type		
Choose from the following...		Add alias field	
✕ Array.JuneTest3.TestNumeric1	Numeric		
		Close	Save

The configured line chart looks on the screen in the Render as follows:



4.3.4.7.9.3.6 Scatter Chart with Linear Regression

To represent the data in the scatter chart with linear regression view, set up the following parameters:

- **Section Type** - select the chart-scatter-with-linear-regression type.
- **Function name for getting list** - the value should be pre-defined automatically.

 Note that at first the data fields for the Y axis should be defined. Thereafter, the data fields for the X axis will be defined.

- **Alias Field** - define the alias for the field data to be displayed in the scatter chart with linear regression.
- **Column Label (Section chart label)** - define the label to be displayed in the scatter chart with linear regression for the corresponding alias field.
 - **Internationalization** - click the button to add translations for other supported languages, if needed.
- **Format type** - select the Format Type from the drop-down list. The list of available options is restricted by the table field.

SECTION TYPE
Chart-scatter-with-linear-regression type

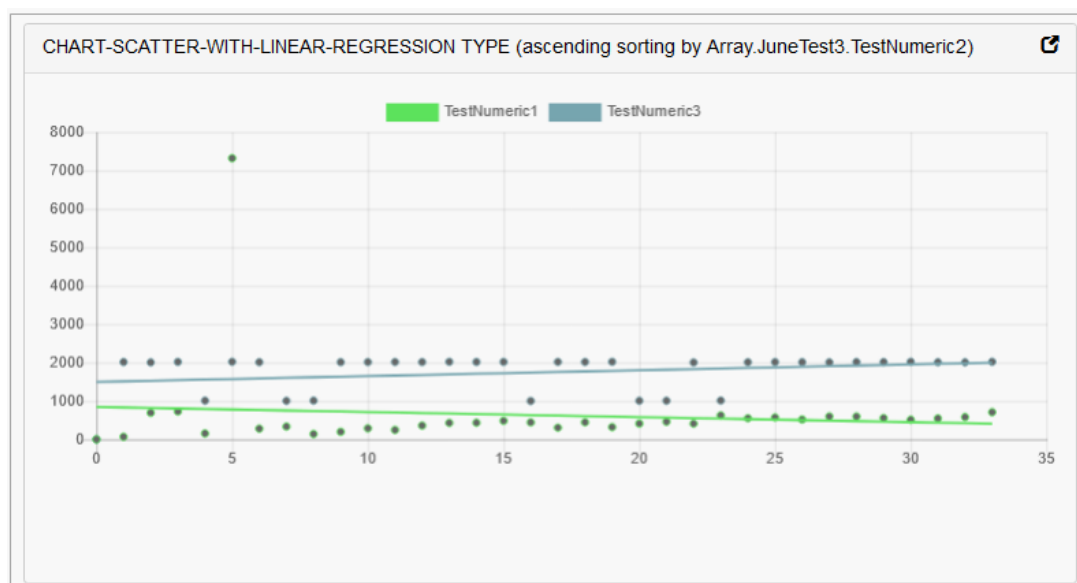
FUNCTION NAME FOR GETTING LIST
GetAliasFrameworkMV: Universal DLL : GetAliasFrameworkMV

alias_field	column_label	format_type
Choose from the following...		Add alias field
✕ Array.JuneTest3.TestNumeric1	TestNumeric1	Internationalization -- Select --
✕ Array.JuneTest3.TestNumeric3	TestNumeric3	Internationalization -- Select --

alias_field	format_type
Choose from the following...	
✕ Array.JuneTest3.TestNumeric2	-- Select --

Close Save

The configured scatter chart with linear regression looks on the screen in the Render as follows:



4.3.4.7.9.3.7 Time Series Chart

To represent the data in the time series chart view, set up the following parameters:

- **Section Type** - select the chart-time-series type.
- **Function name for getting list** - the value should be pre-defined automatically.

 Note that at first the data fields for the Y axis should be defined. Thereafter, the data fields for the X axis will be defined.

- **Alias Field** - define the alias for the field data to be displayed in the time series chart.
- **Column Label (Section chart label)** - define the label to be displayed in the time series chart for the corresponding alias field.

- **Internationalization** - click the button to add translations for other supported languages, if needed.
- **Format type** - select the Format Type from the drop-down list. The list of available options is restricted by the table field.

SECTION TYPE
Chart-time-series type

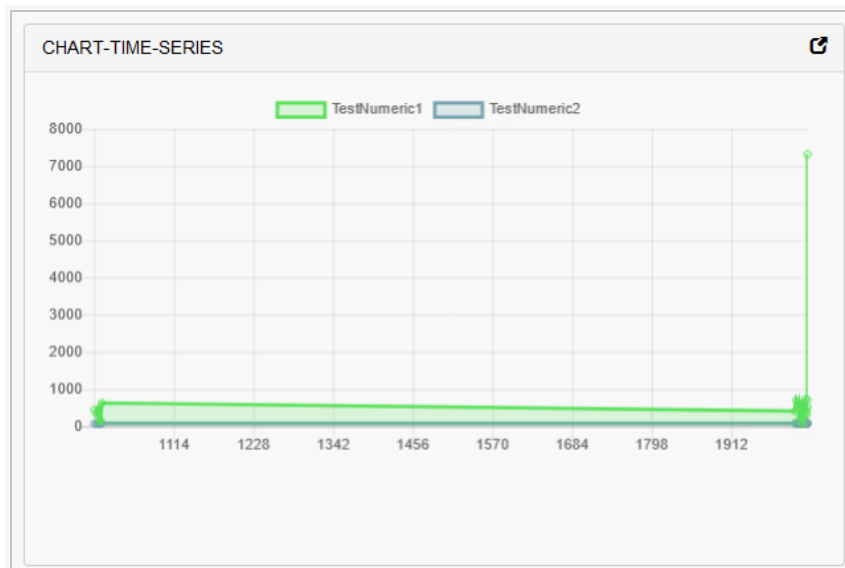
FUNCTION NAME FOR GETTING LIST
GetAliasFrameworkMV: Universal DLL : GetAliasFrameworkMV

alias_field	column_label	format_type
Choose from the following...		Add alias field
✕ Array.JuneTest3.TestNumeric1	TestNumeric1	Internationalization
✕ Array.JuneTest3.TestNumeric2	TestNumeric2	Internationalization

alias_field	format_type
Choose from the following...	
✕ Array.JuneTest3.TestNumeric3	Numeric

Close
Save

The configured time series chart looks on the screen in the Render as follows:

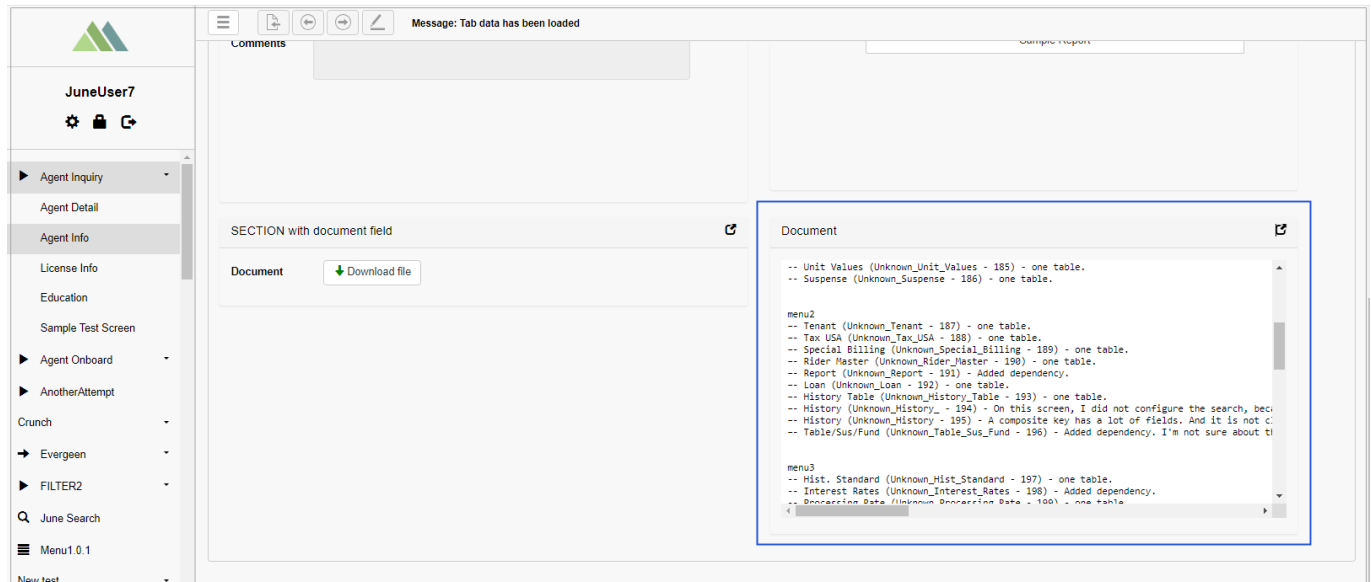


4.3.4.7.10 Section Type: Document Type

4.3.4.7.10.1 Overview

The **Document Type** section provides the possibility to view directly in the Render application the documents uploaded to the field with the Document field type in the section with the Edit type.

For example, the section with Document type will look in the Render as follows:



4.3.4.7.10.2 Section Settings

To configure the section settings, click the gear icon in the upper-right corner of the section.

The Section Settings pop-up window opens:

SECTION SETTINGS

LAYOUT LABEL DEFAULT VALUE

Document

Internationalization

HIDE SECTION HEADER ☐

HIDE SECTION POP-OUT ☐

LINKED FIELD

-- Select --

ACTIVE VALUE

SECTION TYPE

Document type

FUNCTION NAME FOR GETTING LIST

GetList_Demo_Agent: Universal DLL : GetList_Demo_Agent

alias_field

Choose from the following...

Add alias field

×

Broker

Close

Save

Select a query function from the **Function Name For Getting List** drop-down list.

After that, select an alias field from the **alias_field** list and click the **Add alias field** button.

In the Render application, the selected field is displayed as the **Upload file** button in the section with Edit type.

The uploaded document in the section with Edit type will be displayed as a document preview in the section with Document type.

If users re-log in to the Render application, the preview of the previously uploaded file will not be displayed in the section with Document type. The **Download from API Server** button appears in the section with the Document type instead of the document preview. Click the **Download from API Server** button to download the document from the API server and preview the document.

The screenshot displays the AppMILL Architect User Manual interface. On the left is a sidebar menu with the user 'JuneUser7' and a list of navigation items including 'Agent Inquiry', 'Agent Detail', 'Agent Info', 'License Info', 'Education', 'Sample Test Screen', 'Agent Onboard', 'Another Attempt', 'Crunch', 'Evergeen', 'FILTER2', 'June Search', and 'Menu 1.0.1'. The main content area shows a form for 'Agent Inquiry'. The form has several sections: 'Vesting Status' (Not), 'Reward Level' (Bronze), 'Broker' (1129), 'Broker Id' (empty), 'Pay Level' (No Pay), and 'Comments' (empty). Below these is a 'SECTION with document field' containing a 'Document' section with a 'Download file' button. To the right of this is a 'Document' section with a 'Download from API server' button, which is highlighted with a blue box. The top of the form has a message: 'Message: Tab data has been loaded'. The bottom of the form has a 'Now test' button.

Note that only documents with the .txt and .pdf formats can be displayed in the section with the Document type in the Render application. If users upload documents with any other formats, the document details will not be displayed and the error message will appear.

4.3.5 Login Screen Configuration

4.3.5.1 Table of Contents

- [Overview](#)
- [Configure Login Screen](#)
 - [Section Settings](#)
 - [Default \(Login Screen\)](#)
 - [SMS Verification](#)
 - [Email Verification](#)
 - [Secret Question Authorization](#)
 - [Registration](#)
 - [Password Reset](#)

4.3.5.2 Overview

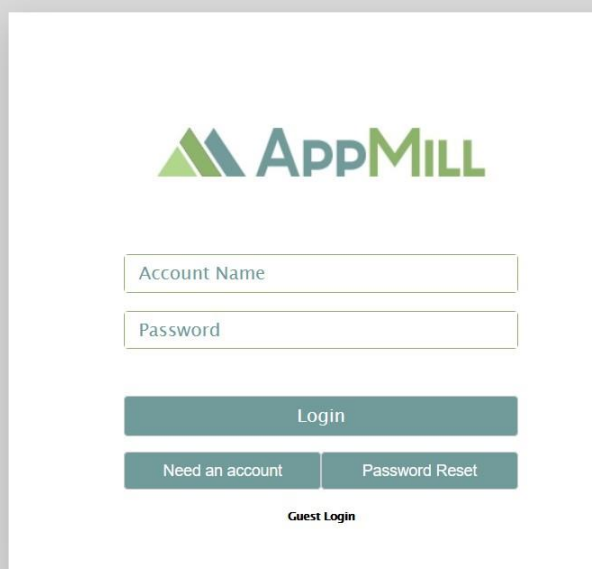
The Architect application provides the possibility to create and configure the Login screen and additional options that can be used for Login procedure, such as SMS Verification, Email Verification, Secret Question Authorization, Registration, Password Reset screens.

A special Login screen template is used for creating and adjusting a Login screen.

 Please note that *fields* on the Login screen contain the stable and fixed values of the *Data Field* parameter.

Do NOT change the values for *Data Field* parameter for the field UI elements when configuring a Login screen. This may break the template sections or incorrectly fill in the data in the Render application.

As any simple and intuitive Login screen, the Login screen template existing in the system, already includes the **Username** (Account Name) and **Password** fields, as well as additional labels and buttons for better user experience. These labels, buttons and fields can differ depending on the type of Login screen or additional options.



Let us have a look at the Login screen template currently configured in the Architect.

4.3.5.3 Configure Login Screen

On the **Screens Overview** page, find the Login screen. Open the Screen Builder for editing by clicking the Update with builder icon.

You can adjust the Login screen according to your view, brand customization and requirements.

On the first page of Screen builder, the following parameters are connected to the Login screen and should be specified for the correct screen configuration:

- **Primary Table** - the actual database table must be selected. Currently, the `c_user_accounts` database table is used.
- **LOGIN SCREEN** - the LOGIN SCREEN check box must be selected.
- **Screen Layout** - 1x1 layout must be selected by default.

On the second page of Screen builder, you can rearrange the UI elements and configure the functional part of the Login screen.

The simple Login screen is configured on the **Default** tab. Other options and versions of screen configuration are built on other tabs.

4.3.5.3.1 Section Settings

The Section Settings for the **Default**, **SMS Verification**, **Email Verification** and **Secret Question Authorization** pages are like regular section settings and look as follows:

The screenshot shows a 'SECTION SETTINGS' dialog box with a close button (X) in the top right corner. The dialog is divided into several sections:

- LAYOUT LABEL** (with a 'DEFAULT VALUE' label): A text input field containing 'Software Made Easy' and a button labeled 'Internationalization'.
- HIDE SECTION HEADER**: A checkbox that is checked.
- HIDE SECTION POP-OUT**: An unchecked checkbox.
- USE 50% SECTION WIDTH**: An unchecked checkbox.
- LINKED FIELD**: A dropdown menu showing '-- Select --'.
- ACTIVE VALUE**: A text input field.
- SECTION TYPE**: A dropdown menu showing 'Edit type'.

At the bottom right, there are three buttons: 'Close', 'Formatting section fields', and 'Save'.

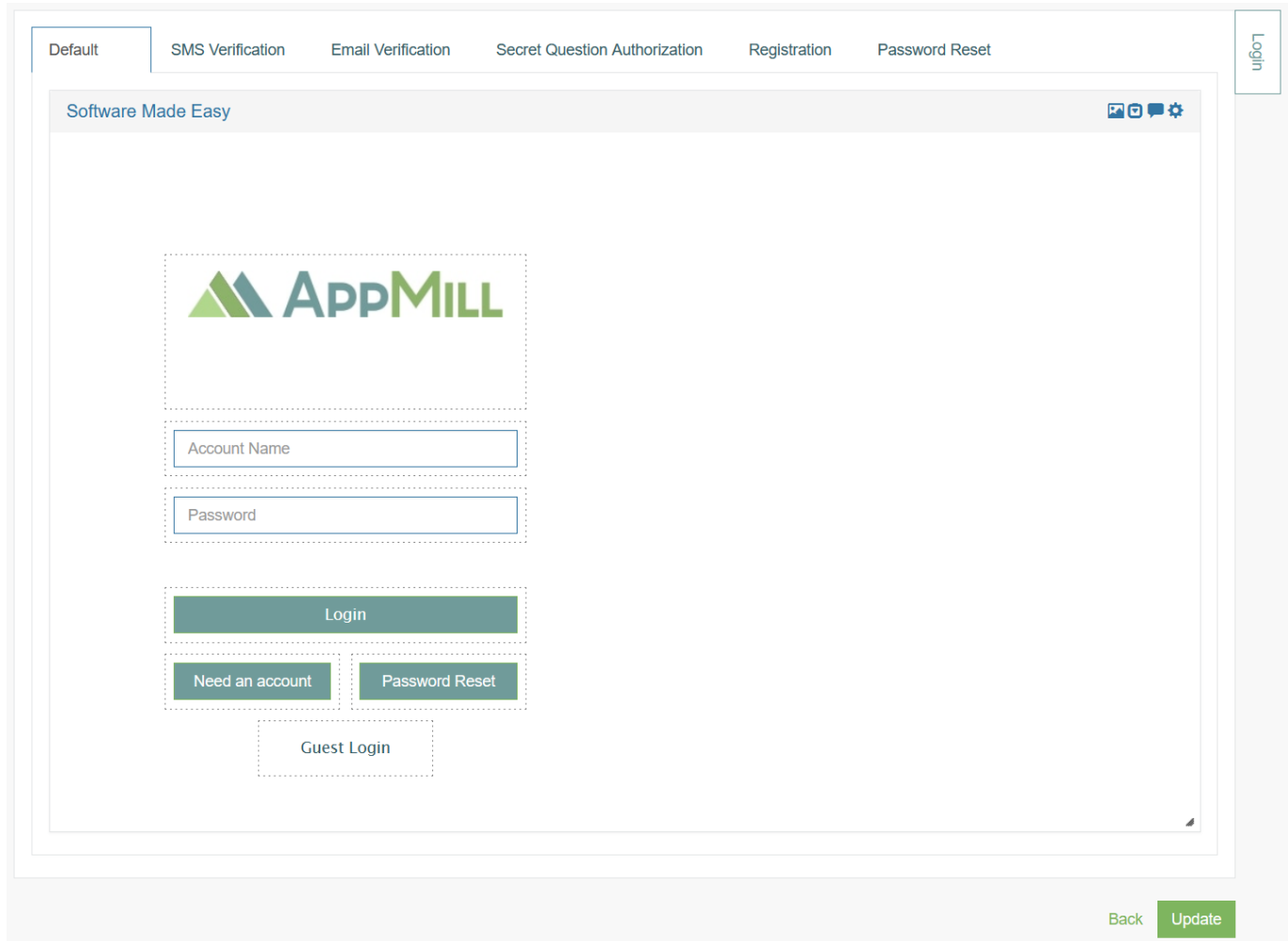
One difference is that there is a possibility to resize the screen section:

- Select the **Use 50% section width** check box to reduce the section at 50% of the normal section size.

The setting settings for the **Registration** and **Password Reset** will be described in the corresponding sections below.

4.3.5.3.2 Default (Login Screen)

On the Default tab, you can configure a template for a simple Login screen appearing in the Render application by default.



The following parameters are specified and can be adjusted, if needed:

- **Logo Image** - an image used as a company logo on the Login screen.
- **Account Name** - a field used for entering a user name.
- **Password** - a field used for entering a password.

 Please do not change the **Data Field** values for the **Account Name** and **Password** fields. This may cause problems when filling in the required data in the Render application.

- **Login** - a button with the Login button action. Clicking the Login button on the Login screen in the Render application will submit the form and verify the combination of data entered in the Account Name and Password fields. After successful authorization user will access the Render application.
- **Need an account** - a button with the Registration button action. This option gives the possibility to self-register in case the user does not have an account.
- **Password Reset** - a button with the Password Reset button action. Clicking the Password Reset

button will redirect user to a Password Reset page. This can be helpful for users in case of forgotten or incorrect password.

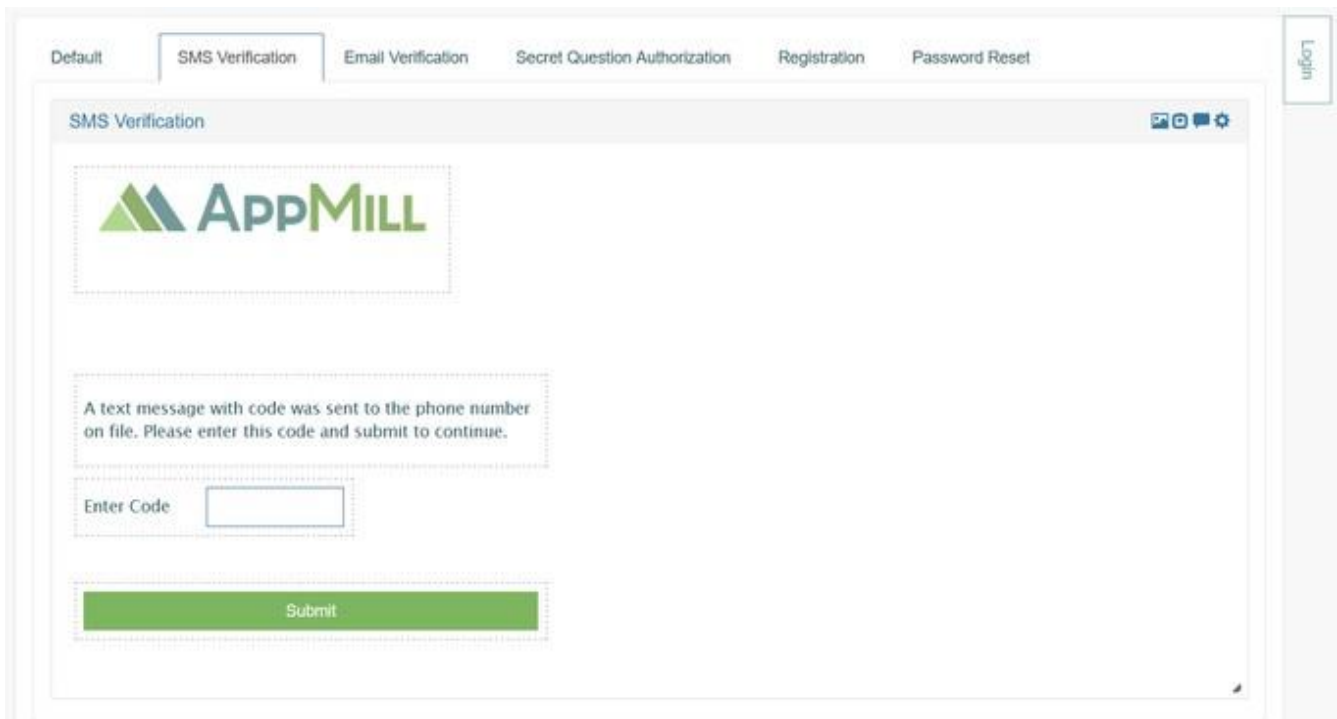
- **Guest Login** - a label with the link providing a guest login with the possibility to further create non-secure items in the Render.

In the Render application the default login screen will be displayed as follows:

The image shows a default login screen for AppMILL. At the top is the AppMILL logo. Below it are two input fields: 'Account Name:' and 'Password'. Under the password field is a 'Login' button. Below the 'Login' button are two buttons: 'Need an account' and 'Password Reset'. At the bottom is a 'Guest Login' link.

4.3.5.3.3 SMS Verification

On the **SMS Verification** tab, you can configure a screen template used to double-check the identity of a user. In case of SMS verification, an SMS verification code will be sent to user's phone number after entering Username and Password. The received code is used to complete the login procedure.

The image shows a configuration window for the 'SMS Verification' screen. The window has a tabbed interface with 'SMS Verification' selected. The screen content includes the AppMILL logo, a text message stating 'A text message with code was sent to the phone number on file. Please enter this code and submit to continue.', an 'Enter Code' input field, and a 'Submit' button. The window also has a 'Login' button on the right side.

The following parameters are configured and can be adjusted, if needed:

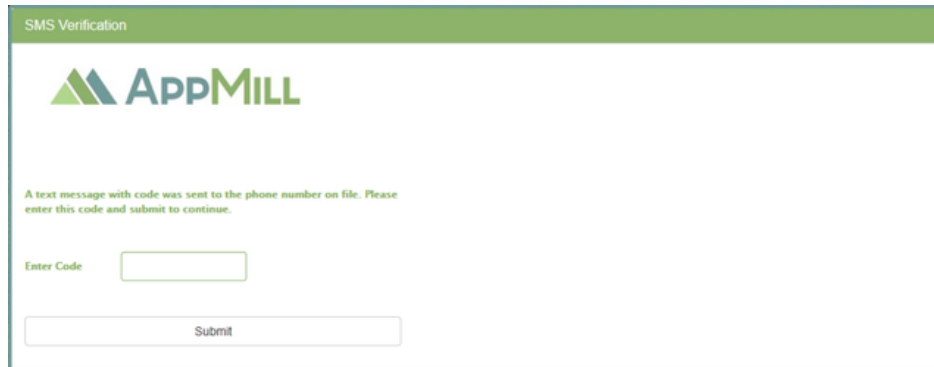
- **Logo Image** - an image used as a company logo on the Login/SMS Verification screen.
- **Explanation Code** - label containing the text with the explanation of the SMS Verification

procedure.

- **Enter Code** - a field for entering the received code.
- **Submit** - a button with the Login button action to submit the form.

Clicking this button will process and verify the data entered on the Login screen in the Render.

In the Render application the login screen with SMS verification will be displayed as follows:



4.3.5.3.4 Email Verification

On the **Email Verification** tab, you can configure a screen template used to double-check the identity of a user via help of code sent to the email address (like SMS Verification).

In the Render application, after entering Username and Password, user will receive a verification code to user's email address.

The code received via email is used to complete the login procedure.

The following parameters are configured and can be adjusted in the Architect, if needed:

- **Logo Image** - an image used as a company logo on the Login/Email Verification screen.
- **Explanation Code** - label containing the text with the explanation of the Email Verification procedure.
- **Enter Code** - a field for entering the received code.
- **Submit** - a button with the Login button action to submit the form.

Clicking this button on the Login screen in the Render will verify the data entered on the screen.

The Email Verification tab looks as follows:

Default
SMS Verification
Email Verification
Secret Question Authorization
Registration
Password Reset

Email Verification



An authorization code was sent to the email address on file. Please enter the code and press submit.

Enter Code

Submit

In the Render application the login screen with Email Verification will be displayed as follows:

Email Verification

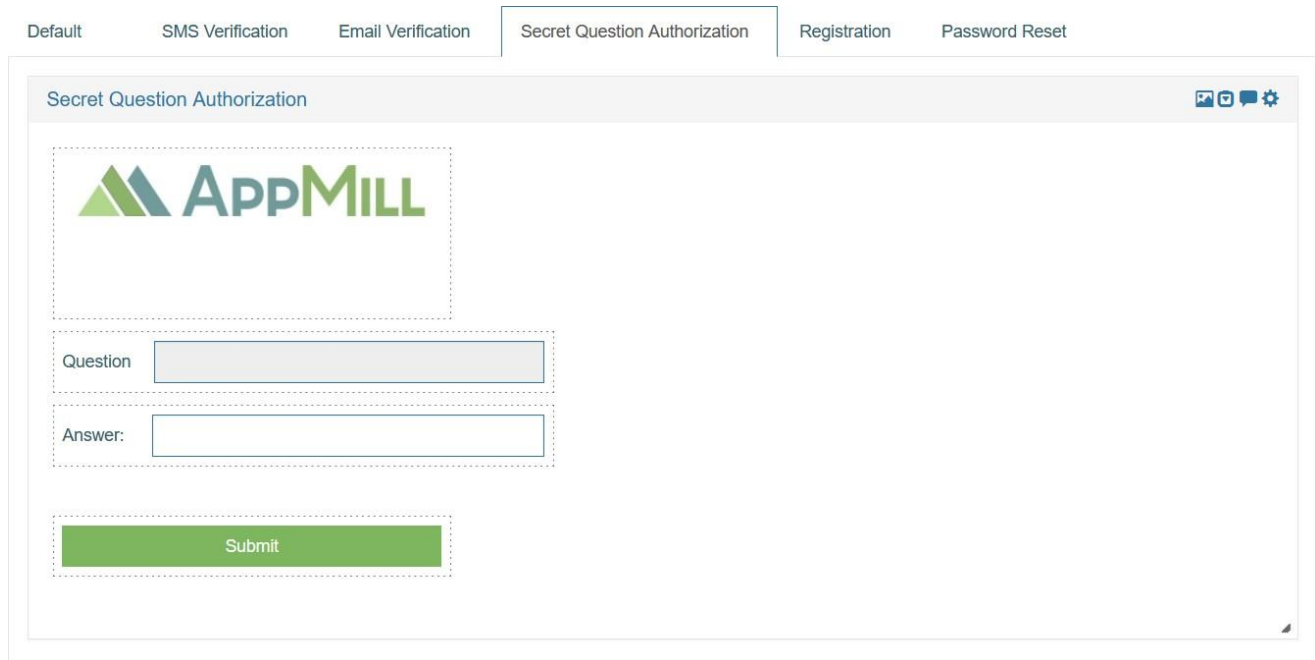


An authorization code was sent to the email address on file. Please enter the code and press submit.

Enter Code

4.3.5.3.5 Secret Question Authorization

On the **Secret Question Authorization** tab, you can configure a screen template used in case the Secret Questions Authentication is selected as an Authorization Type in the Security Filters. After entering Username and Password, a secret question will be displayed. User needs to enter the secret answer to complete the login procedure.



The screenshot shows a configuration interface for the 'Secret Question Authorization' screen. At the top, there are tabs: 'Default', 'SMS Verification', 'Email Verification', 'Secret Question Authorization' (which is selected), 'Registration', and 'Password Reset'. Below the tabs, the screen template is displayed within a preview window. The template includes the AppMill logo at the top, followed by a 'Question' input field, an 'Answer:' input field, and a green 'Submit' button at the bottom. The fields and button are outlined with dashed lines, indicating they are draggable or configurable elements.

The following parameters are configured and can be adjusted, if needed:

- **Logo Image** - an image used as a company logo on the Login screen.
- **Question** - this is read-only field filled in with the secret question. One of 5 questions stored in the database will appear in turn.
- **Answer** - this is a field where user should enter a secret answer to the secret question on the Login screen.

i The combination of secret questions and answers are stored in the database.

- **Submit** - a button with the Login button action to submit the form. Clicking this button will process and verify the data entered on the screen.

4.3.5.3.6 Registration

On the **Registration** tab, you can configure a screen template used as a **Self-Registration** form in the Render. To open the Registration page in the Render, user should click the **Need an Account** button on the Login page.

The Registration screen Section Settings are different from the regular section settings and look as follows:

The screenshot shows the 'SECTION SETTINGS' window with the following fields and options:

- LAYOUT LABEL**: Registration
- DEFAULT VALUE**: Internationalization
- HIDE SECTION HEADER**: ☐
- HIDE SECTION POP-OUT**: ☐
- USE 50% SECTION WIDTH**: ☐
- LINKED FIELD**: - Select -
- ACTIVE VALUE**: (empty field)
- ACCOUNT STATUS**: ☒
- DEFAULT GROUP**: Standard_Group
- ACCOUNT TYPE**: External_User
- GROUP MEMBERSHIP**: Standard_Group, Underwriting_Group, Agent_Group, Claims_Group
- TENANT CODE**: 1: test
- DOCUMENT GROUPS**: document_claims_full, document_policy_read, document_report_generate, document_claims_state_read
- USER TYPE**: 1: Internal user
- NOTIFICATION USER TYPE**: NewAccountUserEmail
- NOTIFICATION PASSWORD TYPE**: NewAccountPasswordEmail
- IDENTIFY VERIFICATION**: ☒
- PRIMARY TABLE**: policy
- ACCOUNT PROTECTION**: ☒
- SECTION TYPE**: Edit type

Buttons at the bottom: Close, Formatting section fields, Save.

In the Section Settings pop-up window, the following parameters can be set up:

- **Layout Label** - the title of the section that will be displayed in the Render.
- **Hide Section Header** - select the check box to hide the section name.
- **Hide Section pop-up** - the header section can be opened as a pop-up window. Select the check box to deactivate the possibility of opening the section in a pop-up window.
- **Use 50% section width** - select the check box to reduce the section at 50% of the normal section size.
- **Linked Field and Active Value** - these fields are not related to the Registration screen and can be skipped.
- **Account Status** - define the Account Status of a user after registration.

Enable the check box to set the status to Active.

- **Account Type** - define the account type that will be saved to user settings.
- **Tenant Code** - define the tenant code that will be saved to user accounts. The Tenant Regional and Styles settings will be copied to a new user account as well.
- **User Type** - define the user type that will be saved to user accounts.
- **Default Group** - selecting the default group you define the Render start screen appearing for user after login.
- **Group Membership** - select the user groups that will be assigned to the user. The user will have access to the screens of the selected groups.
- **Document Groups** - select the groups of documents that will be available for the user.
- **Notification User Type** - select an email template containing user login name. The email will be sent to the user after self-registration procedure.
- **Notification Password Type** - select an email template containing password. The email will be sent to the user after self-registration procedure.
- **Identify Verification** - select the check box to enable the Identify Verification section on the Registration screen.
- **Primary Table** - the field is connected to the Identify Verification check box to include the primary key(s) values to the fields and security filters.
- **Account Protection** - the field is connected to the Account Protection section with the list of secret questions. Select the check box to enable the Account Protection section.
- **Section Type** - should be Edit type.

The default screen template for the Registration screen looks as follows:

Default
SMS Verification
Email Verification
Secret Question Authorization
Registration
Password Reset

Registration


User Details

Username:

Account Name:

Mobile Number:

Email Address:

Identify Verification

Policy Number:

Value:

Field 3:

Field 4:

Account Protection

Enter Answer:

Enter Answer:

Enter Answer:

Enter Answer:

Submit

The Registration screen template consists of several sections:

- **User Details**
 - **Username** - user login name that will be used to log in into the Render.
 - **Account Name** - user name that will be displayed on UI and saved as an account name in the Architect.
 - **Mobile Number** - contact phone number.
 - **Email Address** - email address that will be used to send a password and username for login.
- **Identify Verification**
 - **Policy Number** - the primary table field that can be used for the verification and saves as a Security Filter 1.
 - **Value** - the primary table field that can be used for the verification and saved as Security Filter 2.
 - **Field 3** - the primary table field that can be used for the verification. The field is hidden.
 - **Field 4** - the primary table field that can be used for the verification. The field is hidden.

 The Field 3 and Filed 4 are technical and internal. They are not displayed on the Registration page on the Render application.

- **Account Protection**
 - **Secret Questions** - there are 5 secret questions already stored in the database table.
 - **Secret Answers** - these are fields for entering the secret answers that will be further stored in the database.
- **Submit** - a button with the Registration Submit button action to submit the Registration form. Clicking this button will save the data entered on the screen.

 Note that all values of the Data Field parameter for Fields UI elements on the Registration tab are not editable to prevent the problems in the Render application.

In the Render application the Registration screen will be displayed as follows:

Registration



User Details

Username:

Account Name:

Mobile Number:

Email Address:

Identify Verification

Policy Number:

Value:

Account Protection

What is your favorite number ?

Enter Answer:

What is your favorite pet name ?

Enter Answer:

What is your birthday ?

Enter Answer:

What is your first school number ?

Enter Answer:

Submit

4.3.5.3.7 Password Reset

On the **Password Reset** tab, you can configure a screen template used in case user cannot log in into application (the password is incorrect or forgotten).

The Password Reset page provides the possibility to change the current password. A new password will be sent to the email address entered on the Password Reset screen.

User can use the received password to complete the login procedure.

The Section Settings of the Password Reset screen are different from the regular section settings and look

as follows:

SECTION SETTINGS

LAYOUT LABEL

DEFAULT VALUE

Password Reset

Internationalization

HIDE SECTION HEADER

HIDE SECTION POP-OUT

USE 50% SECTION WIDTH

LINKED FIELD

-- Select --

ACTIVE VALUE

NOTIFICATION TEMPLATE

NewAccountPasswordEmail

SECTION TYPE

Edit type

Close

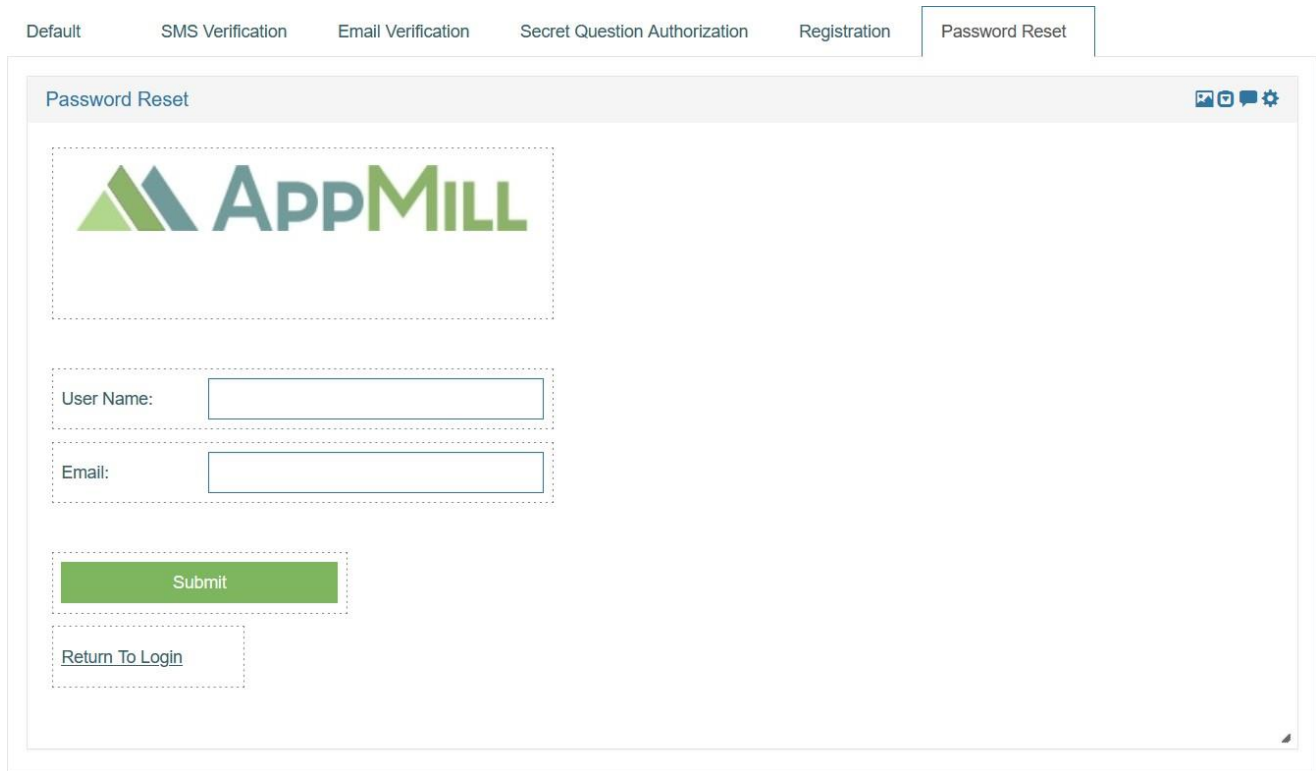
Formatting section fields

Save

In the Section Settings pop-up window, the following parameters can be set up:

- **Layout Label** - the title of the section that will be displayed in the Render.
- **Hide Section Header** - select the check box to hide the section name.
- **Hide Section pop-up** - the header section can be opened as a pop-up window. Select the check box to deactivate the possibility of opening the section in a pop-up window.
- **Use 50% section width** - select the check box to reduce the section at 50% of the normal section size.
- **Linked Field and Active Value** - these fields are not related to the Registration screen and can be skipped.
- **Notification Template** - select the notification template that will be sent during Password Reset procedure. The email will contain a new password.
- **Section Type** - should be Edit type.

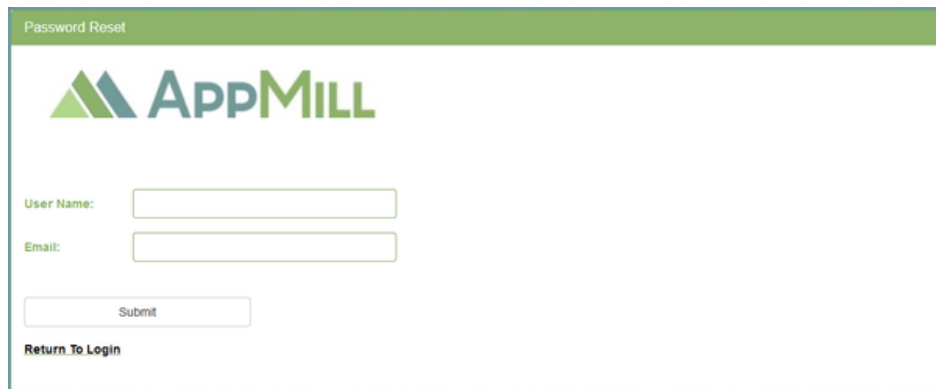
The default screen template for the Password Reset screen looks as follows:



The following screen template parameters are configured and can be adjusted, if needed:

- **Logo Image** - an image used as a company logo on the Password Reset screen.
- **Email** - a field for entering the email address. A new password will be sent to the email entered here.
- **Submit** - a button with the Password Reset Submit button action to submit the form.
- **Return to Login** - label with the link leading to the default AppMill Login page.

In the Render application the Password Reset screen will be displayed as follows:



4.3.6 Search Screen Configuration

4.3.6.1 Table of Contents

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 - [Search Submit Button](#)
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4.3.6.2 Overview

The Architect application provides the possibility for users to create the search screens that will be used in the Render.

The search screen is designed to allow users searching for the required data in database tables and displaying the search results that are found on the screen in the Render application.

As a rule, the Search screen contains a standard set of parameters and blocks:

- Search input field, where user can enter search parameter,
- Submit Search button that initiates the search when user clicks the button.
- Found Search Results.

4.3.6.3 Search Screen Configuration

The configuration of the Search screen differs from the configuration of regular screens.

To build a search screen, pay your attention to the settings and the parameters that are specific for the search screen.

On the first page of Screen builder, you can specify the following parameters:

- **Tab Weight** - the value of this field must not be equal to “0” or “99”.
Use a tab weight of:
“0” - to fully customize the screen and configure search field, audit fields, select extension functions, etc.
“99” - to create screen in pop-up window, otherwise the screen will not be displayed.
- **Screen State** - select the View value.
Other Screen States are available for selection but they are not actual for the Search screen. To avoid unexpected behavior or failure, it is recommended to select the View value for the Screen State.
- **Search Screen** - select the check box to define the type of the screen.
Other check boxes for screen type are disabled.
- **Screen Layout** - the only one option is allowed and automatically predefined for the Search screen.

 The Search parameters and Extension functions sections are missing on the first Screen Configuration page as there is no sense to use them on the Search screen.

However, other fields are also important and should be filled in:

- **Tab Devices** - defines, which devices are allowed to render the screen content.
- **Screen** - defines the screen to which the tab will be assigned to.
You can select an existing screen or create a new one.
- **Primary Table** - specifies the database table with the related data.
- **Tab Text** - specifies the title displayed for the screen tab.
- **Tab Description** - explains the purpose of the tab.

Update screen - Agent_Search

TAB DEVICES *

☒ DESKTOP ☒ MOBILE ☒ WEB ☐ PASS_THRU

SELECT EXISTING SCREEN -- Or -- ADD NEW SCREEN SCREEN DESCRIPTION

Agent_Search

PRIMARY TABLE

Demo_Agent

TAB WEIGHT ⓘ

2

TAB TEXT *

By Name Internationalization

TAB DESCRIPTION

By Name

SCREEN STATE

View

☐ ACTIVE/PASSIVE

☒ SEARCH SCREEN

☐ WORKFLOW TRACKER VIEWABLE

☐ LOGIN SCREEN ⓘ

Header

1x1 1x2

2x1 2x2

○ HEADER 2X2

Header

1x1 1x2

2x1 2x2

3x1 3x2

○ HEADER 2X3

1x1 1x2

2x1 2x2

○ 2X2

1x1 1x2

2x1 2x2

3x1 3x2

○ 2X3

1x1

○ 1X1

Header

1x1

○ HEADER 1X1

Header

1x1 1x2

○ HEADER 1X2

1x1 1x2

○ 1X2

Header

1x1

2x1

○ HEADER 2X1

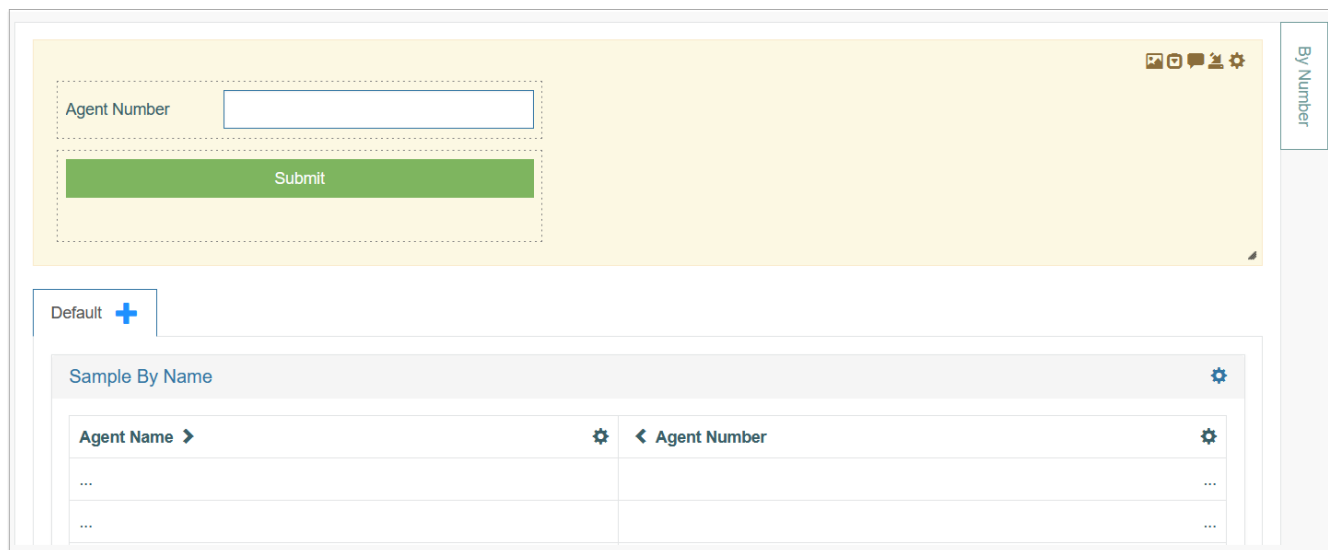
1x1

2x1

○ 2X1

Back Next

On the second page of *Screen builder*, you can set up the UI elements and configure the functional part of the Search screen.



The screenshot displays the AppMill screen builder interface for configuring a search screen. The main workspace is a yellow rectangle containing a search form. The form has a label "Agent Number" next to a text input field. Below the input field is a green "Submit" button. In the top right corner of the workspace, there are icons for adding elements, deleting, and settings. To the right of the workspace is a vertical sidebar with a "By Number" label. Below the workspace, there is a "Default +" button. Underneath that is a "Sample By Name" section with a settings gear icon. This section contains a table with two columns: "Agent Name" and "Agent Number". Each column has a settings gear icon. The table has three rows, with the first row containing ellipses (...) in both columns, and the second and third rows also containing ellipses (...).

4.3.6.3.1 Screen Header

On the Header level, you can configure the search input field and the submit search button.

4.3.6.3.1.1 Search Input Button

The search input field settings differ from the regular fields' settings. Add a field to the header, this will open the Field Settings pop-up window:

The main characteristic of the search field and the difference from the regular field is that the Data Field to select the alias is missing in the search field settings and the Key Field check box is activated.

In the Field Settings pop-up window, specify the following parameters:

- **Label** - enter the label text that will be displayed as a field name on UI screen in the Render.
- **Label orientation** - select the label orientation that defines the direction of label display relative to the input field.
- **Type** - specifies the data type allowed for the field.
The layout of the field in the Render application, validation of the entered data, supported data format will differ depending on the selected **Field Type**.
When you select a field type value, additional field type-specific parameters appear.
- **Format type** - depends on the selected Field type. It defines what type of data can be specified in the field. The relation between Field and Format types is represented in the table below.
- **Max Length** - specifies the maximal allowed field length. The length depends on the values stored

in the database. You can specify specific field length limitation here, if you need to set specific restriction for the value.

- **Num Rows** - specify the quantity of rows displayed for the field.
- **Tooltip** - enter the text here that displays information about field when hovering over it on the screen in the Render.
- **Rule Type** - should specify the rule applied to the search.
- **Value 1** - defines the alias used for the alias arrays and custom multi aliases.
- **Value 1 Helper** - enter the text that is displayed as a field placeholder.
- **Key field** - the selected check box specifies that the field can be editable in read-only mode (for the Header section only) and the request to receive the data is sent to the service.

4.3.6.3.1.2 Search Submit Button

Add the button to the Header section. This opens the Button Settings pop-up window:

The main characteristic and difference of the button configuration for the Search screen is the **Button Action** value. Select the **Search Submit** button action that will initiate the search based on the entered value in the search input field.

4.3.6.3.2 Screen Sections

On the Section level, you can configure the search result table. The table column details should consider the data specified for the search input field in the Header to display the correct search results on the screen in the Render. More information about the Table configuration, find in the Table Configuration section on the [Section Type: Table Type](#) page of the User Manual.

SECTION SETTINGS

LAYOUT LABEL

DEFAULT VALUE

Sample By Name

Internationalization

HIDE SECTION HEADER

HIDE SECTION POP-OUT

CSV DOWNLOAD

LINKED FIELD

-- Select --

ACTIVE VALUE

SECTION TYPE

Table type

WORKFLOW

FUNCTION NAME FOR GETTING LIST

GetAliasFrameworkMV: Universal DLL : GetAliasFrameworkMV

ALIAS FRAMEWORK PK CONFIGURATION

Use tenant	☐	
Key part		Delete key part
	Add key part	

Multi-level Table	☐
Total for the column	☐
Total for the row	☐
Ad-hoc table loading	☐
Readonly	☒
Update Only	☐
Include Column Filter	☐
Include Extended Search	☐
Label orientation	Top
Show type	Scroll
Pixel Height	
Sort Fields	Array.table.field1;Array.table.field2

alias_field	column_label
Choose from the following...	
× Multi.Demo_Agent.AgentName2	Agent Name Internationalization
× Multi.Demo_Agent.AgentNumber2	Agent Number Internationalization

Add button column

Add static image column

Close

Formatting section fields

Save

4.3.6.3.2.1 Search Results Table Configuration

To set the search results table to be displayed in the Render application, fill in the Section fields below:

- **Layout Label** - enter a title for the section.
To add the translations for new labels, click the **Internationalization** button. In the opened pop-up window, select and add the language, enter the translation for the selected language. Click the **Apply** button to save the changes.
- **Hide section header** - you can decide whether to display the Header section on the screen in the Render or not. Select the check box to hide the Header section on the screen.
- **Hide section pop-out** - the section can be opened as a pop-up window.
- **CSV download** - select the check box to enable the possibility to download the table in CSV format from the Render screen.
- **Linked Field** - there is a possibility to link the specific section body state to a field value from the header.
- **Active Value** - specify the value that will be linked with the section.
- **Section Type** - select the Table Type from the drop-down list. The additional parameters will appear.

The next part of the parameters that can be set up in the Section Settings pop-up window is connected to the general table settings.

- **Alias Framework PK Configuration** - this feature is used in special cases when the tables are connected via a composite key.
Select the Key parts to define the fields taken from the tables of different levels (to fill in values from parent to child tables).
- **Multi-level Table** - this option cannot be added to the Search Screen as the possibility to display multi-level tables in the Search Screen is unavailable. For more information about the option, refer to the Table Configuration section on the [Section Type: Table Type](#) page of the User Manual.
- **Total for the column** - select the check box to enable the additional row displaying the Total count for the whole column.
- **Total for the row** - select the check box to enable the additional column showing the Total count for the whole row.
- **Ad-hoc table loading** - enables table view with pagination. The table data will be loaded for every page. It can be useful for tables with large bulk of data or dImages to improve the responsiveness of an application.



Note that the **Total for the column** and **Total for the row** options cannot be selected at the same time with the **Ad-hoc table loading** option. As for the **Total for the column** and **Total for the row** options, the full table should be displayed.

- **Readonly** - select the check box to make the table read-only.



Note that the Search Screen is designed to work with the Custom generated and Custom Multi aliases. These aliases are not directly linked to database fields, meaning they cannot be edited and are not suitable for extension functions. It is recommended to enable the **Readonly** option, as editing the Custom generated and Custom Multi aliases is not possible.

- **Update Only** - this option cannot be added to the Search Screen as the search results table cannot

be edited. For more information about the option, refer to the Table Configuration section on the [Section Type: Table Type](#) page of the User Manual.

- **Include Column Filter** - select this check box to use Filters in the columns for filtering values. The added filters will automatically contain the list of downloaded values from the database table. Filters can be applied to the column with the data of Field type.
- **Include Extended Search** - select this check box to add a separate search field that allows searching for any value of the table fields.
- **Label orientation** - this option defines the layout of the table header. Select the available options:
 - **Top** - to display the table header at the top row.
 - **Left** - to display the table header as the first left column of the table.
- **Show type** - this option defines how to display the table content on the page - using pagination or infinite scroll.
 - **Scroll** - select this option to scroll on the page.
 - **Pixel Height** - define the size of the window in case of scroll usage. The default value is 580px.
 - **Without scroll** - select this option to use pagination.
 - **Count** - defines the number of table rows on the page in case of pagination.
- **Sort Fields** - define the field(s), by which the table value should be sorted in alphabetical order. You can use aliases to define the field(s) to sort the values. If the field is empty, the default sort by primary key is used.

From the Section Settings pop-up you can configure the columns of the table, their labels and the aliases that should be used to receive the values:

- **Alias Field (alias_field)** - in the input field, start typing the alias that should be used to retrieve the field values. The autocomplete feature helps you to find the needed alias.
 - Click the **Add alias field** button to add the selected alias to the table as a column field.
- **Column Label (column_label)** - enter a label text that will be displayed as a column title for the corresponding alias entry.
 - **Internationalization** - click the button to add translations for other supported languages, if needed.
- **Add button column** - click this button to add a column that will contain the buttons. The behavior of the added buttons will be set up directly in the table column.
- **Add static image column** - click this button to add a column with the static images.

The column-specific settings, including column order, can be configured directly in the table. More information about the Table column configuration, find in the Column-specific Settings on the [Section Type: Table Type](#) page of the User Manual.

4.3.6.3.3 Common Operations

You can perform basic operations by clicking the buttons at the bottom of the Section Settings pop-up window. These actions are listed below:

- **Save** - click the **Save** button to confirm and save the entered data. After saving the table configuration, a newly created table appears in the section area.
- **Close** - click the **Close** button to close the pop-up window without saving the data.

- **Formatting section fields** - click the **Formatting section fields** button to customize the formatting and “look and feel” of labels and fields in the table. But please note that the formatting made directly on the table in the section is considered as a first order formatting and will be applied primarily.

4.3.6.4 Key Points

On the Screen Header level, the special search query alias should be created in the **Value 1** field. This special search query alias should have the name started with the “Search.” word and contain the parameter name. For example, “Search.AgentName”. It is a special search query alias that will be added to the list of processed aliases. After that, it will be used in the SQL query in the SQL Statement (:Search.AgentName) for custom multi aliases.

The custom multi alias should be created on the Custom Multi page before it will be added to the table as a column. For more details about custom multi aliases, refer to the [Custom Multi](#) page of the User Manual.

Every custom multi alias in the search results table should have the same SQL query to return the right data from the database. The SQL query can be edited in the Evaluation section in the SQL Statement field on the Custom Multi page. Such SQL query must contain the special search query alias name (:Search.AgentName) according to the rules for writing SQL queries.

If the SQL query for custom multi aliases is not defined and some module is used to fill in the search values, users need to create an additional custom multi alias activator. In this additional custom multi alias activator the special search query alias (:Search.AgentName) should be added manually in the SQL query. After that, the newly created additional custom multi alias activator should be added to the search result table. It is necessary to do so to avoid a search failure, for example, while using the Search Screen, or in the case of screen transfer. More details about screen transfer, refer to the [Screen Transfer](#) page of the User Manual.

Also, the additional custom multi alias activator should not be placed in the first position in the custom multi aliases list as the first column of the search results table. As the search should be enabled by the table and column names in the custom multi alias name, users should place custom multi aliases first.

4.3.7 Active/Passive Screen Configuration

4.3.7.1 Table of Contents

- [Overview](#)
- [Active/Passive Screen Configuration](#)
 - [Header Level](#)
 - [Section Level](#)

4.3.7.2 Overview

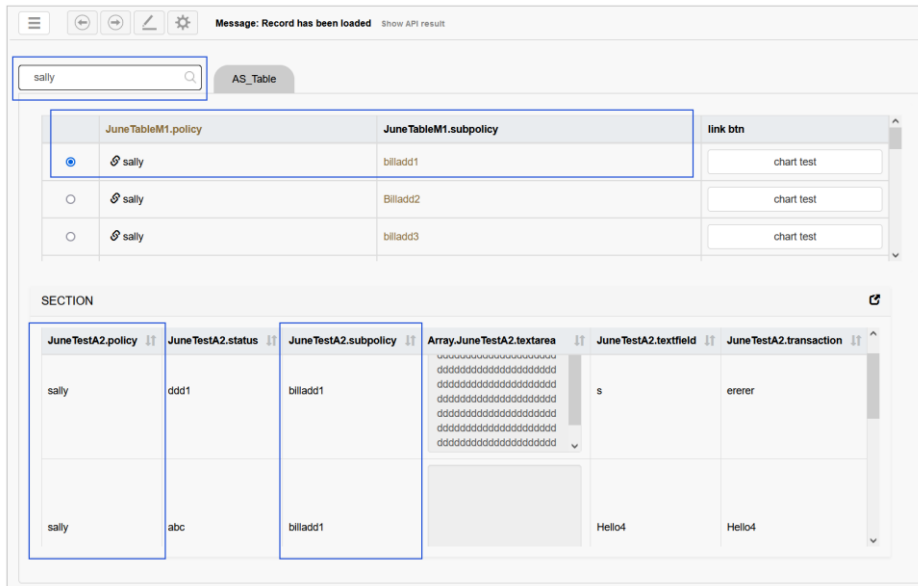
The Active/Passive screen provides the possibility for users to see the data from 3 hierarchically linked tables.

For instance, there is a hierarchy of three tables:

1. JuneTest1
2. JuneTabem1
3. JuneTestA2

The **JuneTest1** table contains a field (Primary Key) that is linked to the fields (Primary Keys) of the **JuneTabem1** table. The **JuneTabem1** contains the records (Primary Keys) linked to the table **JuneTestA2**.

The Active/Passive screen configured for this case will look in the Render as follows:



4.3.7.3 Active/Passive Screen Configuration

The configuration of the Active/Passive screen differs from the configuration of regular screens.

To build a search screen, pay your attention to the settings and the parameters that are specific for the search screen.

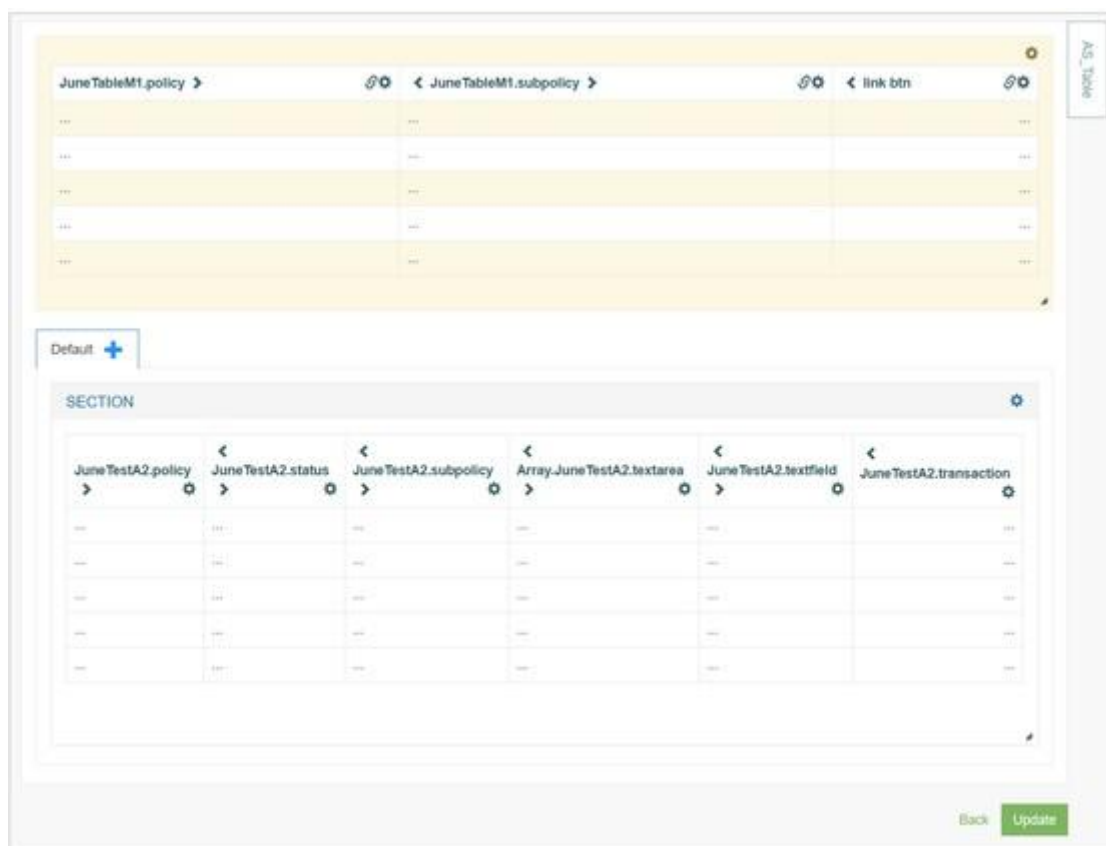
On the first page of Screen builder, you can specify the specific parameters:

- **Tab Weight** - set the value to “0”.
- **Screen State** - for the correct work of the Active/Passive screen, the View option should be selected.
- **Screen Layout** - the only one screen layout option is allowed and automatically predefined.
- **Active/Passive** - select the check box.

Other parameters of the first page can be configured as usual.

i Pay attention that you can display the hierarchy of 3 tables only. And only the values in the third table can be editable. The field values of the first and the second tables are not editable.

On the second page of Screen builder, you can set up the tables displayed in the Header and Section of the Active/Passive screen.



4.3.7.3.1 Header Level

The table is configured as a usual table. But there are some points that are special for the header section of the table. In the Section Settings, the **Read-only** checkbox must be selected. The columns should be configured for retrieving the data of the table linked on the second level of hierarchy.

It's possible to add a link to the column name. Click the link icon to open the Config Link pop-up window where you can set up the linked page and the link behavior.

4.3.7.3.2 Section Level

In the section, the table of third level should be configured.

The Table section is configured as a usual section of Table type. More information about the Table Configuration find in the Table Configuration section on the [Section Type: Table Type](#) page of the User Manual.

The most important part of Section Settings is the **Alias Framework PK Configuration**:

FUNCTION NAME FOR GETTING LIST		
GetAliasFrameworkMV: Universal DLL : GetAliasFrameworkMV		
ALIAS FRAMEWORK PK CONFIGURATION		
Use tenant	☐	
Key part	Array.JuneTestA2.policy	Delete key part
Key part	Array.JuneTestA2.subpolicy	Delete key part
Key part	Array.JuneTestA2.transaction	Delete key part
Add key part		

Here you can specify the key parts that will be excluded from editing. That means that the values of key parts defined here will not be allowed to edit in the Render. Other fields can be edited.

4.4 Group Screens

4.4.1 Access

Click **Screen Configurations > Group screen** to access the Group Screen functionality and to manage screens united in groups.

4.4.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Results](#)
 - [Navigate](#)
- [Create Group Screen](#)
- [Update Group Screen](#)
- [Delete Group Screen](#)

4.4.3 Overview

The **Group Screen** functionality allows users to build and manage the structure of the Main menu displayed in the Render application. Here you can create and manage the second level menu items (child items) that are assigned to the first level Menu items (parent items) in the Main menu on the Render page.

Group screen									
Add	Delete	Edit	Copy	Inquire	Execute	Group name ↕	Menu name	Screen text	Weight ↕
☐	☐	☐	☐	☐	☐				
Yes	Yes	Yes	Yes	Yes	Yes	Agent_Group	Policy_Menu	Agent Dashboard	50
Yes	Yes	Yes	Yes	Yes	Yes	Agent_Group	Client_Menu	Agent Client SubMenu	60
Yes	Yes	Yes	Yes	Yes	Yes	Agent_Group	Agent_Menu	Agent Agent SubMenu	70
Yes	Yes	Yes	Yes	Yes	Yes	Agent_Group	Product1_Menu	Agent Product SubMenu	80
Yes	Yes	Yes	Yes	Yes	Yes	BLAZE	HELLO	BLAZE1	10
Yes	Yes	Yes	Yes	Yes	Yes	CodiacGroup	Policy	Policy	0
Yes	Yes	Yes	Yes	Yes	Yes	CodiacGroup	Policy	Unknown	10
Yes	Yes	Yes	Yes	Yes	Yes	CodiacGroup	Policy	unknown2	20
Yes	Yes	Yes	Yes	Yes	No	Commission_Basic	Agent_Detail	Agent Detail	0
Yes	Yes	Yes	Yes	Yes	Yes	Commission_Basic	Simple_Table	Person Table	0

The screens assigned to a particular menu build a group of screens and are shown in the Menu drop-down list in the Render main menu.

Here you can control the visibility of buttons and the ability to perform particular actions on the screen as

well.

4.4.4 Search

To search for a menu or filter the search results, use the following search filters and enter any or all the search criteria:

- Actions - select a Yes or No option for the actions defined for the Group Screen. The following actions can be selected:
 - Add
 - Delete
 - Edit
 - Copy
 - Inquire
 - Execute
- Group name
- Menu name
- Screen text
- Weight

After filling in the filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching as well.

4.4.4.1 Sort Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

4.4.4.2 Navigate

Use the navigation bar at the bottom of the Search Result page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

4.4.5 Create Group Screen

Click the **Create** button on the Search Result page to create a new Group Screen. This opens the Create Group Screen page.

Create group screen

☒ ADD	☒ SHOW ADD BUTTON
☒ DELETE	☒ SHOW DELETE BUTTON
☒ EDIT	☒ SHOW EDIT BUTTON
☒ COPY	☒ SHOW COPY BUTTON
☐ INQUIRE	☐ SHOW INQUIRE BUTTON
☒ EXECUTE	☒ SHOW EXECUTE BUTTON

GROUP NAME *
Agent_Group

MENU NAME *
Agent_Menu

SCREEN NAME
Agent_Search

SCREEN TEXT *
Search Internationalization

WEIGHT ⓘ
30

Back Submit

The page is divided in two sections where you can define:

1. The **actions** that will be available on the screen and control the **visibility** of the corresponding buttons.
2. The **parameters** of group screen.

Let's review the settings in details:

- **Available Actions**

Please select the corresponding check boxes to define the actions that will be available on the screen in the Render. Currently the following actions are supported:

- Add
- Delete
- Edit
- Copy
- Inquire
- Execute

- **Visibility of the action buttons in the Render**

Please select the corresponding check boxes to define whether the action buttons will be displayed in the Render menu or not. Currently the following actions are supported:

- Show Add Button
- Show Delete Button
- Show Edit Button
- Show Copy Button
- Show Inquire Button
- Show Execute Button
- **Group Screen Parameters**

Please fill in the necessary fields:

- **Group Name** – select a User Group Name, for which the screen will be available, from the drop-down list. This field is required.
- **Menu Name** - select a Menu name, a unique identifier generated automatically at menu creation time.
Note that if the menu items for different user groups have the same value in the Menu Name field, users will only see one menu item in the Menu Name drop-down list, regardless of the selected user group.
- **Screen Name** - select a screen from the drop-down list that should be assigned to the selected menu selected in the previous fields.
Note that the same values for the Menu Name and Screen Name fields can be selected for different user groups. I.e., users that are assigned to the above-mentioned user groups will only see one menu item and/or one screen item in the Render application.
- **Screen Text** - enter a text for the screen (menu item of the second level) that will be displayed on the Render page.
 - **Internationalization** - add the translations into other languages for the displayed Screen Text. For that follow the steps:
 - click the **Internationalization** button next to the input field.
 - In the opened Internationalization pop-up window, select the Language and click the Add button.
 - A new field for entering the translation value will appear. Enter the text into the input field and click the **Apply** button.
- **Weight** - define the weight for the screen. For this, enter the number, a so-called global key, which controls the place and the order in which the menu items are displayed in the Render application. The larger the number is, the lower the menu item displayed. This field is required.

 In case the Menu items have the same weight, they will be ordered alphabetically. If you define the weight to be equal to 99, the screen will be hidden in the menu.

After filling in all mandatory and optional fields and selecting the check boxes for the buttons, click the **Submit** button to save the created Group Screen.

Click the **Back** button to go back to the Group Screen overview page without saving the data.

4.4.6 Update Group Screen

To edit a Group Screen, click the **Edit** (pencil) icon for the selected entry in the search results table. The Update Group Screen page opens for editing.

Update group screen - Agent_Search

☒ ADD	☒ SHOW ADD BUTTON
☒ DELETE	☒ SHOW DELETE BUTTON
☒ EDIT	☒ SHOW EDIT BUTTON
☐ COPY	☐ SHOW COPY BUTTON
☐ INQUIRE	☐ SHOW INQUIRE BUTTON
☒ EXECUTE	☒ SHOW EXECUTE BUTTON

GROUP NAME *

MENU NAME *

SCREEN NAME

SCREEN TEXT *

WEIGHT ⓘ

After making the necessary changes, click the **Submit** button. To return to the Group Screen search page, click the **Back** link.

4.4.7 Delete Group Screen

To delete a Group Screen, click the **Delete** icon on the Search Result page for the selected Group Screen entry. The confirmation pop-up will appear where you can confirm or cancel the Delete action.

5 Document Access

The Document Access functionality allows you to manage documents and files uploaded by users into the Render application. You can define the documents storage, classify and categorize documents, organize them in groups to control security to family content, set up the access rights based on the document category, etc.

For more details about the Document Management refer to the corresponding pages:

- **Document Devices** - to define and manage the document storage.
- **Document Family** - to manage the document families and the connected categories.
- **Document Groups** - to manage access rights and permissions.

5.1 Document Devices

5.1.1 Access

Click **Document Access > Document Devices** to access the functionality for managing the document storage.

5.1.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Navigate](#)
- [Create Document Device](#)
- [Update Document Device](#)
- [Delete Document Device](#)

5.1.3 Overview

The Document Devices functionality provides the possibility to define the storage for documents uploaded by users in the Render.

5.1.4 Search

You can search for a particular document device or filter search results. For this, use any of the search filters such as **Device ID**, **Device Name**, **Path**, **Share Type**, **Max File Count** and **Active**, and click the Enter key or on any screen place. The screen displays search results if found. To have an overview of all document devices existing the system, leave the filters empty.

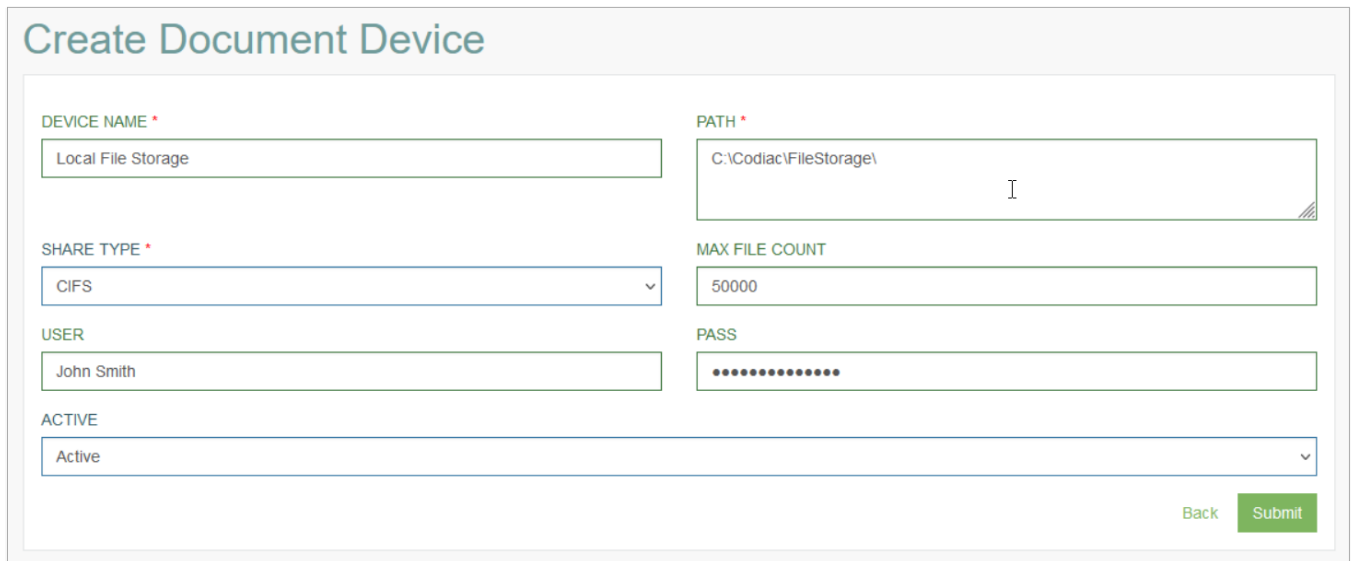
Document devices						
Device ID	Device Name	Path	Share Type	Max File Count	Active	
2	Remote_Share	\\192.168.100.211 \\RemoteFileStorage\	CIFS	50000	Active	 
7	Local_Share	C:\Codiad\FileStorage\	Local	50000	Active	 
8	Bill Test	c:\bill\	Local	50000	Active	 
						Create

5.1.4.1 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

5.1.5 Create Document Device

Click the **Create** button on the Overview page to create a new Document Device. This opens the page in creation mode.



Fill in the following fields:

- **Device Name** – enter a name for a Document Device. This name will be displayed on the pages where you select the required document device from the lists. The field is required.
- **Path** – enter a path to the storage. It can be a path leading to your local computer storage or a path to the remote location. The field is required.

 Note that after saving the page, editing the Path value will not be allowed.

- **Share Type** - select a Type of shared storage. It can be:
 - CIFS - for the remote storage,
 - Local - for the local storage accordingly.

This field is required.

- **Max File Count** - define the maximum count of the files allowed to store. The default value is 50000. You can change it.
- **User** - enter a user domain name used to log in to your local computer. It is used for the remote access to the document storage in case of the CIFS Share Type.
- **Pass** - enter a password used to log in to your local computer. It is used for the remote access to the document storage in case of the CIFS Share Type.

In this case, users will need to enter the credentials every time when they access the document storage remotely.

- **Active** - select the status of the Document Device: Active or Inactive. This parameter controls the availability of Document Device. If the value is set to “inactive”, users will not be able to access the document storage.

After filling in the required and optional data, click the **Submit** button to save the Document Device. To return to the Overview page without saving, click the **Back** link.

After saving the data, the system generates a unique **Document Device ID** that is not manually editable. Device ID is displayed on the Update Document Device and the Overview pages.

5.1.6 Update Document Device

To edit a Document Device, click the Edit (pencil) icon for the selected Document Device entry on the Overview page. The Update Document Device opens for editing.

The screenshot shows a web form titled "Update Document Device - Local_Share". The form has several input fields and buttons. The fields are: "DEVICE ID" with the value "7", "DEVICE NAME" with the value "Local_Share", "PATH" with the value "C:\Codiact\FileStorage\", "SHARE TYPE" with a dropdown menu showing "Local", "MAX FILE COUNT" with the value "50000", "USER" with the value "John Smith", "PASS" with a masked password "*****", and "ACTIVE" with a dropdown menu showing "Active". At the bottom right of the form, there are two buttons: "Back" and "Submit".

Pay attention that you cannot update the Device ID and Path values. Other fields are editable.

After making the necessary changes, click the **Submit** button. To return to the Overview page, click the **Back** link.

5.1.7 Delete Document Device

To delete a Document Device, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the Delete action.

5.2 Document Family

5.2.1 Access

Click **Document Access** > **Document Family** to access the functionality for managing families (groups) of documents.

5.2.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Navigate](#)
- [Create Document Family](#)
- [Update Document Family](#)
- [Delete Document Family](#)

5.2.3 Overview

The Document Family functionality provides the possibility to create and manage groups of associated documents (files), so-called Document Family. The documents that can be categorized according to common properties or purpose of documents building one big Document Family.

5.2.4 Search

You can search for a particular document family or filter search results. For this, use any of the search filters such as **Family Name** or **Family Description**, and click the Enter key or on any screen place. The screen displays search results if found. To have an overview of all document family entries existing the system, leave the filters empty.

Family Name	Family Description
claims	claims
policy	policy
report	report
system	system
test	test

Create

5.2.4.1 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

5.2.5 Create Document Family

Click the **Create** button on the Overview page to create a new Document Family. This opens the page in creation mode.

Create document family

FAMILY NAME *

FAMILY DESCRIPTION

DEVICE ID

Local_Share

CATEGORY	DESCRIPTION	K.P. 1	K.P. 2	K.P. 3	K.P. 4	K.P. 5	RETENTION TIME (IN DAYS)	ANNOTATION LOCK TIME(MINUTES)
Customer	Customer	Alias.z						

Fill in the following fields:

- **Family Name** – enter a name for a Document Family. The field is required.
- **Family Description** – enter a short and clear description for the Document Family.
- **Device ID** - select a Device from the drop-down list of existing document devices. Pay attention that in the drop-down list you see Device Names.
- **Category** - in the Category table you can specify and manage the categories that belong to the current Document Family. Enter the following parameters:
 - **Category Name** - enter a Name for the category of document into the input field.
 - **Description** - enter a description for the category into the input field.
- **KP. (Key Part) 1, 2, 3, 4, 5** - these are 5 key parts that can build the needed key to define the required Category. Click the input field to define key parts one by one. In the opened pop-up window, enter an alias that represents the key part.
 In case the key part is a set number of characters, the maximal allowed field length is limited to match the maximum size of the values stored in the database.
 In case the key part is defined as variable text, the field length is up to 80 characters.

 Although "Alias.table.field" aliases are available for selection, you can use the "Document" and "Execute (possible document return)" buttons when using tables with the selected category. In such cases, the data from the "Array.table.field" alias will be substituted with "Alias.table.field" and vice versa. Also, buttons and fields (which are part of the key) should be in the same section.

- **Retention Time (in days)** - specify the time (in days) for documents storage. In case the retention time has expired, the document file is deleted and not available anymore.
- **Signature Only** - specify the possibility to sign the document in the document annotation and restrict the other edit actions. Select the following options:
 - **True** - to enable the Signature Only functionality. On the document annotation page in the

- Render application, only the sign action can be available for users.
 - **False** - to disable the Signature Only functionality. On the document annotation page in the Render application, all edit actions can be available for users.
- **Annotation Lock Time (minutes)** - specify time (in minutes) over which it is allowed for the user to edit the document's annotation.

The specified time is considered from the moment when the annotation has been created.

i In case you leave the Annotation field empty, the annotation option will be blocked in one hour.

To add a new Category entry, click the **Add Category** button below the table. To delete the entry, click the **Cross** (delete) icon for a particular category correspondingly.

After filling in the required and optional data, click the **Submit** button to save the Document Family. To return to the Overview page without saving, click the **Back** link.

5.2.6 Update Document Family

To edit a Document Family, click the Edit (pencil) icon for the selected Document Family entry on the Overview page. The Update Document Family page opens for editing.

Update document family - policy

FAMILY NAME *
policy

FAMILY DESCRIPTION
Policy category description

REVIEW ID
Local_Share

CATEGORY	DESCRIPTION	KP 1	KP 2	KP 3	KP 4	KP 5	RETENTION TIME (IN DAYS)	ANNOTATION LOCK TIME(MINUTES)	
777									
AGT	Agent Statement	Alias I							×
Array JuneTableM1 p	Array JuneTableM1 p	Array.							×
Array JuneTableM1 si	Array JuneTableM1 si	Array.							×
Customer	Customer	Alias z							×
JUNE	JuneTest	Alias J							×
JuneTestM2 transact	JuneTestM2 transact	Alias J	Alias J	Alias .					×

Add category

Back Submit

Pay attention that you cannot edit the Family Name value. Other fields are editable.

After making the necessary changes, click the **Submit** button. To return to the Overview page, click the **Back** link.

5.2.7 Delete Document Family

To delete a Document Family, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the Delete action.

5.3 Document Groups

5.3.1 Access

Click **Document Access > Document Group** to access the functionality for managing documents access rights.

5.3.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Navigate](#)
- [Create Document Group](#)
- [Update Document Group](#)
- [Delete Document Group](#)

5.3.3 Overview

The Document Group functionality provides the possibility to control the access permissions and rights to perform actions on documents (files) uploaded on the Render screens. You can define whether it's allowed to view, upload, edit, delete documents for the particular category(ies).

5.3.4 Search

You can search for a particular document group or filter search results. For this, use any of the search filters such as **Group Name** or **Group Description**, and click the Enter key or on any screen place. The screen displays search results if found. To have an overview of all document groups existing the system, leave the filters empty.

Document groups

Group name	Group description	
document_claims_full	tets	
test	test	
stef_cc	stefan	
document_report_generate	document_report_generate	
admin_import	admin_import2	
document_claims_state_read	document_claims_state_read1	
document_policy_admin	document_policy_admin2	
document_policy_full	document_policy_full3	

Create

5.3.4.1 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the

search results list accordingly.

5.3.5 Create Document Group

Click the **Create** button on the Overview page to create a new Document Group. This opens the page in creation mode. On the opened page, fill in the following fields:

- **Group Name** – enter a name for a Document Group. The field is required.
- **Group Description** – enter a short and clear description for the Document Group.
- **Document Family** - select a Document Family from the drop-down list of existing document families.
- **Document Category** - in the select box, you can select a category (or multiple categories). The list of available categories is restricted based on the Family you selected in the previous field.
- **Access Rights** - select the corresponding radio-button for the level of access rights you'd like to grant. The following options are available:
 - **Full Access** - allows users to perform all the actions (read, write, modify, delete) on documents.
 - **Read Only** - allows users to view documents without the ability to edit or delete them.
 - **Access is Denied** - restricts the access to documents.
 - **Admin Rights** - allows users to perform any possible actions on documents.

Create document group

GROUP NAME *

document_policy_full

GROUP DESCRIPTION

Document policy full

DOCUMENT FAMILY

policy - policy

DOCUMENT CATEGORY

AGT
Array.JuneTableM1.policy
Array.JuneTableM1.subpolicy
Customer

ACCESS RIGHTS *

☒ FULL ACCESS
☐ READ ONLY
☐ ACCESS IS DENIED
☐ ADMIN RIGHTS

Back Submit

After filling in the required and optional data, click the **Submit** button to save the Document Group. To return to the Overview page without saving, click the **Back** link.

5.3.6 Update Document Group

To update a Document Group, click the **Edit** (pencil) icon for the selected Document Group entry on the Overview page. The Update Document Group page opens for editing.



The screenshot shows a web form titled "Update document group - document_claims_full". The form contains the following fields and controls:

- GROUP NAME ***: A text input field containing "document_claims_full".
- GROUP DESCRIPTION**: A text area containing "lets".
- DOCUMENT FAMILY**: A dropdown menu showing "claims - claims".
- DOCUMENT CATEGORY**: A dropdown menu showing "state" and "taxdoc".
- ACCESS RIGHTS ***: A group of radio buttons with the following options:
 - ☐ FULL ACCESS
 - ☒ READ ONLY
 - ☐ ACCESS IS DENIED
 - ☐ ADMIN RIGHTS
- Buttons**: "Back" and "Submit" buttons located at the bottom right of the form.

Make the required changes. Click the **Submit** button to apply the changes. To return to the Overview page, click the **Back** link.

5.3.7 Delete Document Group

To delete a Document Group, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the Delete action.

6 Workflow

The Workflow functionality provides the possibility to manage and automate repeatable business processes and tasks, minimizing the risk of errors and increasing overall efficiency. With the help of the Workflow functionality, managers can make quicker, smarter decisions and employees are empowered to collaborate in a more productive and agile way.

Process workflow is the set of steps and activities that occur in a particular order and are necessary to complete a task. Each step in a workflow has a specific step before and a specific step after, with the exception of the first and last steps.

Using the Architect Workflow functionality, you can:

- Create process workflows with visual editor.
- Incorporate notifications to SMS, Chat, Email as supplement to task traverse of workflow.
- Assign custom extension functions across the routing life of the task.

For more details refer to the following pages:

- [Workflow Builder](#) - to create and manage the process workflows.
- [Tasks](#) - to have an overview of the workflow tasks and edit them.
- [Task History](#) - to see the activity of a specific workflow task.
- [Task Notes](#) - to view and manage notes attached to the task.

6.1 Workflow Builder

6.1.1 Access

Click **Workflow > Workflow Builder** to manage workflow diagrams for the processes and tasks.

6.1.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Navigate](#)
- [Create Workflow Diagram](#)
 - [Drawing Area](#)
 - [Shape Library](#)
 - [Workflow Data](#)
 - [How to build a workflow diagram](#)
 - [Process Steps Handling](#)
 - [Process Step Basic Data](#)
 - [Process Step Tools](#)
 - [Links Handling](#)
 - [Link Basic Data](#)
 - [Link Tools](#)
- [Update Workflow Diagram](#)
- [Delete Workflow Diagram](#)

6.1.3 Overview

The Workflow Builder functionality allows you to create and manage the process workflow diagrams using a visual editor. A workflow diagram provides a graphic overview of the business process. Using standardized shapes and links in the workflow builder, you can create the workflows to show step by step how the process is completed from the start point to end point.

6.1.4 Search

To have an overview of all workflow diagrams, search for a particular workflow or filter the search results, enter **Workflow Diagram name**, **Task Description** and click the Enter key or on any screen place. The screen displays search results if found.

Workflow Diagrams

Workflow Diagram name	Task Description	
Adress -> Adress 2 (test)	Bill ->Bill Addresses	 
test-hold	test hold	 
and-hold1	and-hold1	 
and-hold2	and-hold2	 
and-hold4	and-hold4	 
and-hold5	and-hold5	 
and-hold6	and-hold6	 
and-hold7	and-hold7	 
and-hold8	and-hold8	 
and-hold10	and-hold10	 

« 1 2 3 »

Create

6.1.4.1 Navigate

Use the navigation bar at the bottom of the Workflow Diagrams Overview page to navigate through the search result pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

6.1.5 Create Workflow Diagram

Click the **Create** button on the Workflow Diagrams Overview page to open the Workflow builder in the creation mode and create a new Workflow process.

Account settings

Screen configurations

Document access

Workflow

Alias Management

System data

Features

Language

Help

1

2

START

END

3

FLOWID

WORKFLOW DIAGRAM NAME *

TASK DESCRIPTION *

MENU

Standard_Group - Policy

☐ AUTO ADVANCE

Back Save

The Workflow Editor consists of 3 areas:

1. Drawing area
2. Shape library
3. Workflow diagram data

Let's take a closer look at each part of the editor.

6.1.5.1 Drawing Area

In the Drawing Area, you can build the diagram using shapes, arrows and a set of the additional settings.

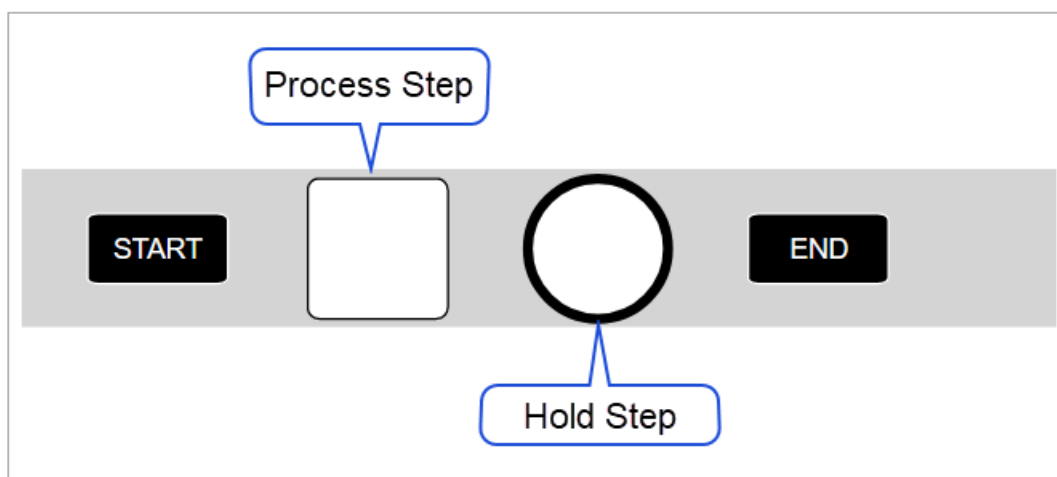
You can use the toolbar options by clicking the icons in the expandable/collapsible section in the top left corner of the drawing area:

- **Zoom In** - to make the diagram picture bigger.
- **Zoom out** - to make the diagram picture smaller.
- **Clear** - to clear the working area and delete all diagram elements from the drawing area.
- **Undo** - to cancel the previously done action.
- **Redo** - to return/restore the cancelled action.

6.1.5.2 Shape Library

Shape Library contains shapes for the steps that build the process workflow.

A set of steps defines the sequence of activities required to complete a specific process or task. Each step is connected to a particular screen that configured for a specific task. Going through the workflow, user will be redirected from screen to screen according to the sequence of steps defined in the workflow diagram.



Currently, the following shapes can be used in a workflow diagram:

- **Start (Begin) step** - the first step of each diagram. This step is activated by the Insert action on the selected screen.
- **Process step** - a single activity step representing a part of the process. This step is activated by the Edit action on the selected screen.
- **Hold step** - a conditional step of the diagram. This step contains a certain hold condition that

prevents the transition to the next step until the required actions are done. E.g., notifications to SMS, Chat, Email, etc. The transition from this step to the next step can only be initiated from a custom plugin or by manually editing the task on the Tasks page (Workflow > Tasks) in the Architect application. For more details about the task editing, refer to the Update Task section on the [Tasks](#) page of the User Manual.

- **End step** - the last step of a diagram that closes the process.

Note that the Start and End steps can be used only once per workflow.

6.1.5.3 Workflow Data

A workflow diagram data section that is displayed on the right side of the drawing area shows the details and options of the workflow diagram or certain components of a diagram. The section displays data and options depending on what element you select and highlight on the diagram.

So, this section can show the details for:

- Workflow diagram
- Workflow diagram steps (Start, Process, Hold, End)
- Links between the diagram steps

When creating a new workflow diagram, you should first enter the data related to a diagram in the workflow data section. Fill in the following data:

- **Flow ID** - the unique identifier of the diagram generated automatically.
- **Workflow Diagram Name** - the name of the diagram that will be displayed on the Overview page and can be used for searching.
- **Task Description** - the short and clear description of the diagram. The value will be displayed on the Overview page and can be used for searching.
- **Menu** - select the menu from the drop-down list of available menu items. The created workflow steps will be assigned to the selected menu and will be displayed at the top of the page in the Render application.
- **Auto Advance** - select the check box to activate the Auto Advanced mode. The Auto Advance mode allows users to create a simple one- way process without conditional steps. In this mode, you cannot assign an executor to a process and specify the next step, and switching between steps and screens occurs automatically after completing the action on the screen. Select the check box to activate the Auto Advance mode.

6.1.5.4 How to build a workflow diagram

To build a new process diagram, perform the following actions in the Workflow Diagram editor:

1. Define the workflow stages and sequence of steps that should be represented in the diagram.
2. Start with the Start step (BeginStep) and add it to the drawing area.
3. For that, drag and drop a Start shape from the shape library onto the drawing area. This first step should be a starting point of any diagram.
4. Drag and drop other process steps from the shape library onto the drawing area.
5. Associate each process step with the definite screen by filling in the required data in the process step data section on the right side of the drawing area.

6. Drag connectors (arrows) from one shape and drop them on another shape to connect each step in the diagram. Link the steps to each other carefully following the established sequence of steps.
7. Edit steps using available settings and tools if needed.

6.1.5.5 Process Steps Handling

This section contains information about process steps' general data and tools.

6.1.5.5.1 Process Step Basic Data

Every process step used in the diagram (except for the End step) should be associated with the definite screen. The corresponding screen will appear in the Render application according to the workflow step configured. To assign the screen as well as to define the process step details, fill in the data form on the right side of the drawing area. This form is displayed when the process step is selected.

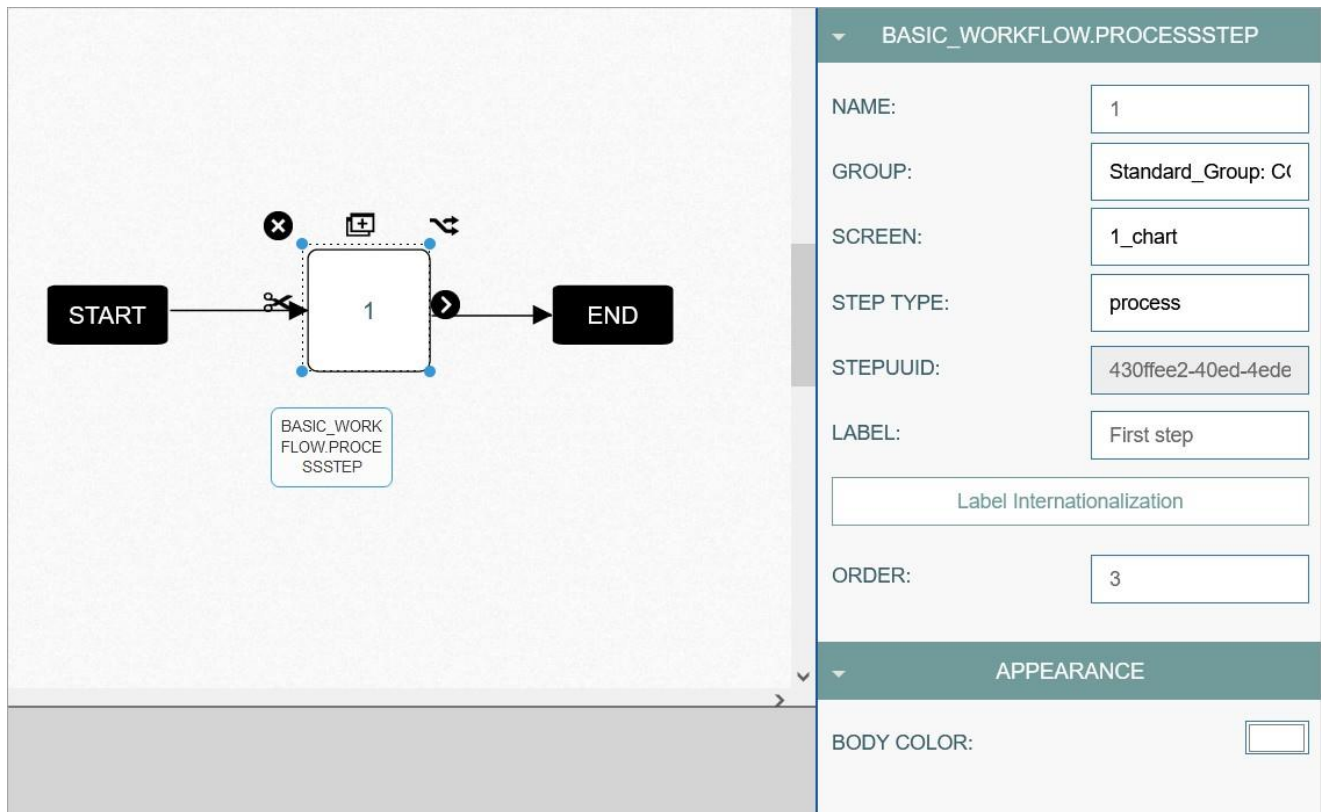
Fill in the following parameters:

- **Basic data**
 - **Name** - enter step name displayed on the shape in the diagram.
 - **Group** - select the user group from the drop-down list, for which the step will be available.
 - **Screen** - select the screen that will be associated with the process step.
 - **Step Type** - the type of step is pre-defined and corresponds to the selected shape.

The supported types are:

- **Start step**
 - **Process step**
 - **Hold step**
 - **End step**
- **Step ID** - the unique identifier of the step generated automatically.
- **Label** - the title displayed in the sequence of steps in the Render application.
- **Label Internationalization** - the translations of the label done into other languages. Click the button to add a new translation.
- **Order** - enter a number that will define the step order number in the whole chain of the steps.
- **Appearance**
 - **Body Color** - select the fill color of the shape.

See the screenshot below:



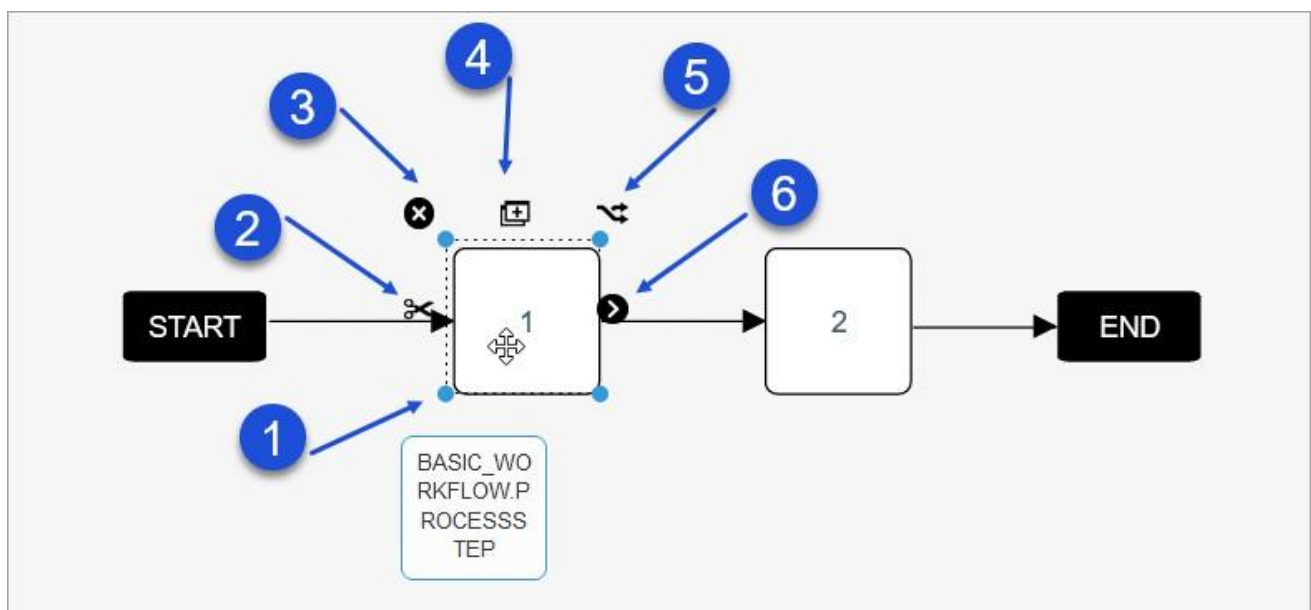
The screenshot displays the AppMill Architect interface. On the left, a workflow diagram shows a sequence: **START** → **1** (a process step) → **END**. The process step **1** is highlighted with a dashed border and blue handles. A tooltip below it reads "BASIC_WORKFLOW.PROCESSSTEP". On the right, the configuration panel for "BASIC_WORKFLOW.PROCESSSTEP" is shown with the following fields:

- NAME:** 1
- GROUP:** Standard_Group: C
- SCREEN:** 1_chart
- STEP TYPE:** process
- STEPUUID:** 430fee2-40ed-4ede
- LABEL:** First step
- Label Internationalization:** (checkbox)
- ORDER:** 3
- APPEARANCE:**
 - BODY COLOR:** (color picker)

- ❗ If the workflow tracker viewable checkbox is enabled in the selected screen's settings, the workflow tracker will be displayed on that screen, allowing users to monitor progress and status updates. If this option is not checked, the workflow tracker will be hidden for that screen.

6.1.5.5.2 Process Step Tools

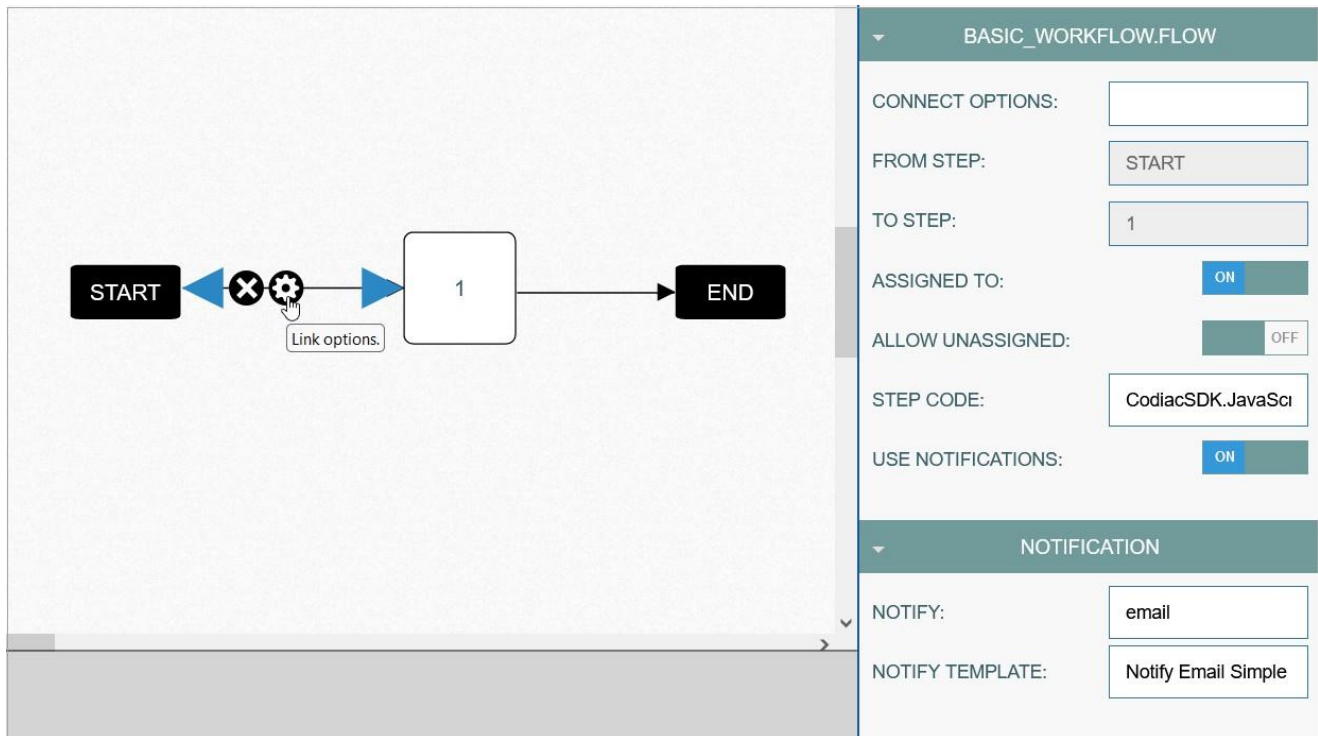
The following operations can be performed on the process step shapes. Please use the corresponding tools to:



1. Resize a shape.
2. Delete all links (arrows) that are connected to the current shape.
3. Delete a shape.
4. Duplicate a shape.
5. Connect and copy a shape. Pay attention that the step name is copied, too.
6. Link to another process step using an arrow.

6.1.5.6 Links Handling

The process steps are connected to each other via arrows. Each link (arrow) can be additionally set up:



6.1.5.6.1 Link Basic Data

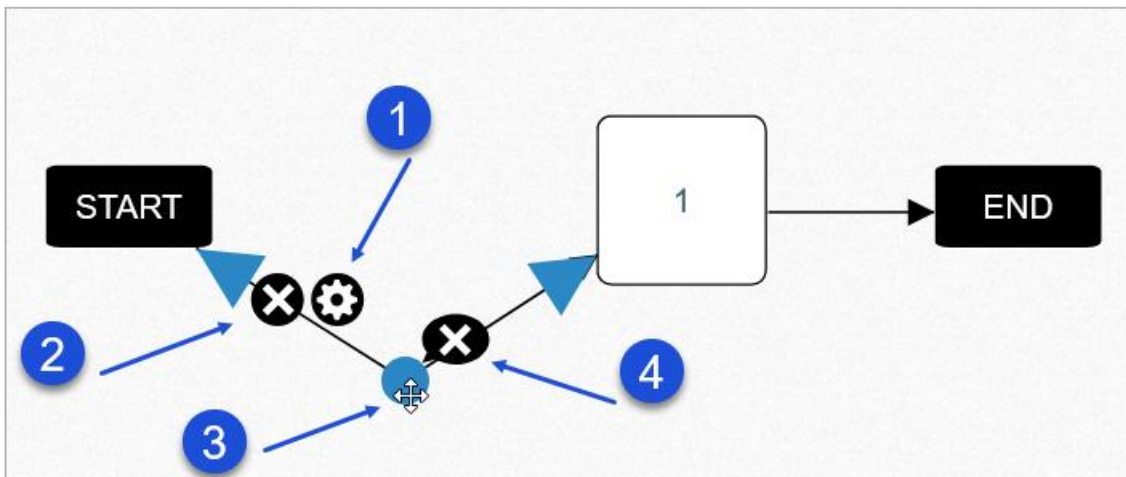
To open the Link Options section, click on the link between two steps and then click the Settings (wheel gear) icon. Set up the link filling in the following fields in the section opened on the right side of the drawing area:

- **Basic data**
 - **Connect Options** - this is a label for link. It is not used in the Render.
 - **From Step** - automatically filled in with the name of the step from which the link is
 - **To Step** - automatically filled in with the name of the step to which the link is connected.
 - **Assigned To** - is used to specify that the target step has a specific assigned user. This means that in the Render, the system will look at the group on the target step to generate the list of users for assignment.
 - **Allow Unassigned** - is used to specify whether the task can be moved to the next step if no assignee has been selected. In case the check box is activated, that means that the target step can have unassigned tasks.
 - **Step Code** - is used as an extension function that will be executed during the transition between steps.
 - **Use Notifications** - enable/disable a notification by switching on/off.

- **Notification**
 - **Notify** - select the type of notification: SMS or email.
 - **Notify Template** - select a template for the notifications.

6.1.5.6.2 Link Tools

The following operations can be performed on the link connecting two shapes. Please use the corresponding tools to:



1. Open the Link Options section.
2. To delete a link.
3. Click on any place of the link, drag the way-point appeared on the link to make a broken line.
4. Click the cross icon to remove the break.

6.1.6 Update Workflow Diagram

To edit a workflow diagram, click the Edit (pencil) icon for the selected entry on the Overview page. The Workflow Builder page opens for editing.

After making the necessary changes, click the **Save** button. To return to the Overview page, click the **Back** link. Note that these buttons are available by clicking on an empty space on the diagram.

6.1.7 Delete Workflow Diagram

To delete a workflow diagram, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the action.

6.2 Tasks

6.2.1 Access

Click **Workflow > Tasks** to manage workflow tasks that are created and scheduled, in progress or closed.

6.2.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Results](#)
 - [Navigate](#)
- [Create Task](#)
- [Update Task](#)
- [Delete Task](#)

6.2.3 Overview

When we talk about Workflow, we mean a series of activities (or Tasks) that must be completed sequentially or parallel to achieve a particular business goal. A task is an item of a process workflow, which is performed and completed by a user or a Role. A task can be assigned to a specific user or user group indicating that the user or some role needs to take action on the specific workflow step.

On the Workflow Tasks Overview page, you can see all tasks existing in the system:

Task description	Due date	Status	Customer Defined ID	Task id	Parent task	Task Key	Notes	Assign To Group
		v	v					v
AGENT_ONBOARD	(not set)	Unassigned	(Not assigned)	318	(not set)	{"AgentNumber":"CAPT000024"}	(not set)	Commission_Manager
AGENT_ONBOARD	(not set)	Unassigned	(Not assigned)	319	(not set)	{"AgentNumber":"INDP000009"}	(not set)	Commission_Manager
AGENT_ONBOARD	(not set)	Unassigned	(Not assigned)	320	(not set)	{"AgentNumber":"BROK000022"}	(not set)	Commission_Manager
AGENT_ONBOARD	(not set)	Unassigned	(Not assigned)	321	(not set)	{"AgentNumber":"BANK000027"}	(not set)	Commission_Manager
AGENT_ONBOARD	(not set)	Unassigned	(Not assigned)	322	(not set)	{"AgentNumber":"BANK000028"}	(not set)	Commission_Manager
AGENT_ONBOARD	(not set)	Closed	(Not assigned)	323	(not set)	{"AgentNumber":"BANK000029"}	(not set)	Commission_Manager
AGENT_ONBOARD	(not set)	Closed	(Not assigned)	324	(not set)	{"AgentNumber":"CAPT000025"}	(not set)	Commission_Manager
AGENT_ONBOARD	(not set)	Closed	(Not assigned)	325	(not set)	{"AgentNumber":"BANK000030"}	(not set)	Commission_Manager
AGENT_ONBOARD_TEMP	18/05/2023	Closed	Admin	326	(not set)	{"AgentNumber":"31"}	(not set)	Standard_Group
AGENT_ONBOARD	(not set)	Unassigned	JuneUser7	327	(not set)	{"AgentNumber":"BANK000031"}	(not set)	Commission_Manager

<
>

«
6
7
8
9
10
11
12
13
14
15
»

Create

6.2.4 Search

To have an overview of tasks, search for a task or filter search results, use the following filter fields above and click the Enter key or on any screen place.

Currently, you can use the following field filters:

- Task Description
- Due Date
- Status
- Customer Defined ID
- Task ID
- Parent Task
- Task Key
- Notes
- Assign to Group
- Assign to User

The screen displays search results if found.

6.2.4.1 Sort Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

6.2.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the Search Results list accordingly.

6.2.5 Create Task

Click the **Create** button on the Overview page to create a new User Task. This opens the page in creation mode.

Create task

TASK DESCRIPTION *
AGENT_ONBOARD_TASK
182 Character(s) Remaining

WORKFLOW *
AGENT_ONBOARD

CURRENT STEP *
START

CUSTOMER DEFINED ID

ASSIGN TO USER
New User

ASSIGN TO GROUP
Agent_Group

DUE DATE

TASK KEY

NOTES

STATUS
Assigned

Back Submit

Fill in the following fields:

- **Task Description** - enter a description for a task that will help you to quickly find the needed task in the whole list of tasks on the Overview page. This field is required.
Below the Task Description field, you see the information indicating how many Character(s) are Remaining for the description text.
- **Workflow** - select the Workflow, to which the task must be linked. This field is required.
- **Current Step** - select the step, where the task should be executed. This field is required.
- **Customer Defined ID** - enter external customer ID, if needed.
- **Assign to User** - select a user from the drop-down list. The Task will be assigned to the selected

user.

- **Assign to Group** - select the User Group that will be assigned to the Task.
- **Due Date** - using a date picker, select a date till when the task should be completed.
- **Task Key** - enter a key of Task. Otherwise, it will be generated automatically when the task is saved.
- **Notes** - add a note to the task. Notes attached to the tasks can be additionally managed on the Task Notes page. For more details about notes, refer to the [Task Notes](#) page of the User Manual.
- **Status** - define the status of the task. Currently, the following statuses are supported:
 - **Assigned** - specifies that the task is assigned to a user or group of users.
 - **Unassigned** - specifies that the task is assigned.
 - **Closed** - indicates that the task has been completed.
 - **Hold** - indicates that the task is put on hold.
 - **In progress** - indicates the task is being completed now.

You can change the status at any time you need.

6.2.6 Update Task

To edit a Task, click the Edit (pencil) icon for the selected Task entry in the search results table.

	Due date	Status	Customer Defined ID	Task id	Parent task	Task Key	Notes	Assign To Group	Assign To User	
RD	(not set)	Unassigned	(Not assigned)	318	(not set)	{"AgentNumber":"CAPT000024"}	(not set)	Commission_Manager	(Not assigned)	
RD	(not set)	Unassigned	(Not assigned)	319	(not set)	{"AgentNumber":"INDP000009"}	(not set)	Commission_Manager	(Not assigned)	
RD	(not set)	Unassigned	(Not assigned)	320	(not set)	{"AgentNumber":"BROK000022"}	(not set)	Commission_Manager	(Not assigned)	
RD	(not set)	Unassigned	(Not assigned)	321	(not set)	{"AgentNumber":"BANK000027"}	(not set)	Commission_Manager	(Not assigned)	
RD	(not set)	Unassigned	(Not assigned)	322	(not set)	{"AgentNumber":"BANK000028"}	(not set)	Commission_Manager	(Not assigned)	
RD	(not set)	Closed	(Not assigned)	323	(not set)	{"AgentNumber":"BANK000029"}	(not set)	Commission_Manager	(Not assigned)	
RD	(not set)	Closed	(Not assigned)	324	(not set)	{"AgentNumber":"CAPT000025"}	(not set)	Commission_Manager	(Not assigned)	
RD	(not set)	Closed	(Not assigned)	325	(not set)	{"AgentNumber":"BANK000030"}	(not set)	Commission_Manager	(Not assigned)	
RD_TEMP	18/05/2023	Closed	Admin	326	(not set)	{"AgentNumber":"31"}	(not set)	Standard_Group	(Not assigned)	
RD	(not set)	Unassigned	JuneUser7	327	(not set)	{"AgentNumber":"BANK000031"}	(not set)	Commission_Manager	(Not assigned)	

< >

« 6 7 8 9 10 11 12 13 14 15 »

Create

The Update Task page opens for editing.

Update task - AGENT_ONBOARD_TEMP

TASK DESCRIPTION *

AGENT_ONBOARD_TEMP

182 Character(s) Remaining

WORKFLOW *

AGENT_ONBOARD_TEMP

CURRENT STEP *

HOLD

CUSTOMER DEFINED ID

ASSIGN TO USER

-- Select --

ASSIGN TO GROUP

Standard_Group

DUE DATE

18/05/2023

TASK KEY

{"AgentNumber": "31"}

NOTES

Details are provided.

STATUS

Closed

Back

Submit

Change the information you need. After making the necessary changes, click the **Submit** button. To return to the Tasks Overview page, click the **Back** link.

6.2.7 Delete Task

To delete a Task, click the **Delete** icon on the Overview page for the selected Task. The confirmation pop-up will appear where you can confirm or cancel the action.

6.3 Task History

6.3.1 Access

Click **Workflow > Task History** to check the activities performed on the Workflow tasks.

6.3.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Results](#)
 - [Navigate](#)
- [Task History](#)

6.3.3 Overview

All actions performed on the Workflow Tasks are recorded, stored and can be found on the Workflow Task History page. You can filter and see the actions of a particular task as well as open the details of a particular task action.

Action	CreatedBy	Workflow	From Step	To Step	TaskId ↓	TaskKey	User	
Close	LCC Elevated Account	(not set)	Agent Approve	End	311	null	LCC Elevated Account	
Created	LCC Elevated Account	AGENT_ONBOARD	Agent_Photo	(not set)	310	{"AgentNumber":"BROK000019"}	LCC Elevated Account	
Routed	LCC Elevated Account	(not set)	Agent_Photo	Agent Approve	310	null	LCC Elevated Account	
Close	LCC Elevated Account	(not set)	Agent Approve	End	310	null	LCC Elevated Account	
Created	LCC Elevated Account	AGENT_ONBOARD	Agent_Photo	(not set)	309	{"AgentNumber":"BROK000018"}	LCC Elevated Account	
Routed	LCC Elevated Account	(not set)	Agent_Photo	Agent Approve	309	null	LCC Elevated Account	
Close	LCC Elevated Account	(not set)	Agent Approve	End	309	null	LCC Elevated Account	
Created	LCC Elevated Account	AGENT_ONBOARD	Agent_Photo	(not set)	308	{"AgentNumber":"BROK000017"}	LCC Elevated Account	
Routed	LCC Elevated Account	(not set)	Agent_Photo	Agent Approve	308	null	LCC Elevated Account	
Close	LCC Elevated Account	(not set)	Agent Approve	End	308	null	LCC Elevated Account	

« 1 2 3 4 **5** 6 7 8 9 10 »

6.3.4 Search

To search for a task action or filter search results, use the following filter fields above the search results table, and click the Enter key or on any screen place.

Currently, you can use the following filters:

- Action
- Created By
- Workflow
- From Step
- To Step
- Task ID
- Task Key
- User

The screen displays search results if found.

6.3.4.1 Sort Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

6.3.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the Search Results list accordingly.

6.3.5 Task History

To open the details and the history of the changes of a Task, click the **Task History** icon for the selected Task action in the search results table.

The **Task History** pop-up window appears. It contains the table with the details on each action performed on the Workflow task.

TASK HISTORY ×							
Action	CreatedBy	Workflow	undefined	To Step	TaskId	TaskKey	User
Created	LCC Elevated Account	AGENT_ONBOARD	Agent_Photo		310	{"AgentNumber":"BROK000019"}	LCC Elevated Account
Routed	LCC Elevated Account	null	Agent_Photo	Agent Approve	310	null	LCC Elevated Account
Close	LCC Elevated Account	null	Agent Approve	End	310	null	LCC Elevated Account

Click the **Cross** icon to close the Task History pop-up and return to the Overview page.

6.4 Task Notes

6.4.1 Access

Click **Workflow > Task Notes** to manage the notes added to workflow tasks.

6.4.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Results](#)
 - [Navigate](#)
- [Create Note](#)
- [Update Note](#)
- [Delete Note](#)

6.4.3 Overview

Users can attach any Note directly to the Workflow Tasks to add some additional information to a particular task. On the Workflow Task Notes Overview page, you can see all notes created and stored in the system:

Note	Attached to Task
UNIT TEST Note	Description test1
UNIT TEST Note	Description test1
Model chosen	Choose model and type
Color chosen	choose color, price

Create

6.4.4 Search

To have an overview of notes, search for a note or filter search results, use the following filter fields above and click the Enter key or on any screen place. Currently, you can use the following Note and Attached to Task fields as search filters. The screen displays search results if found.

6.4.4.1 Sort Results

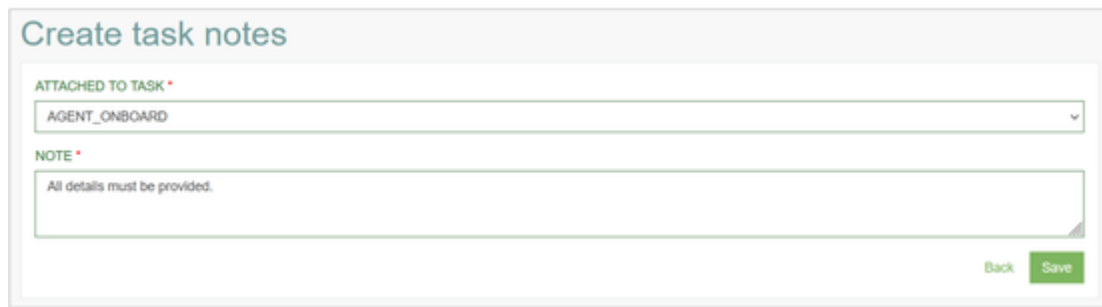
You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

6.4.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the Search Results list accordingly.

6.4.5 Create Note

Click the **Create** button on the Overview page to create a new Note and attach it to a Task. This opens the page in creation mode.

The screenshot shows a web form titled "Create task notes". It has two main input fields. The first is a dropdown menu labeled "ATTACHED TO TASK" with a red asterisk, currently showing "AGENT_ONBOARD". The second is a text area labeled "NOTE" with a red asterisk, containing the placeholder text "All details must be provided.". At the bottom right of the form are two buttons: "Back" and "Save".

On the opened page, fill in the following fields:

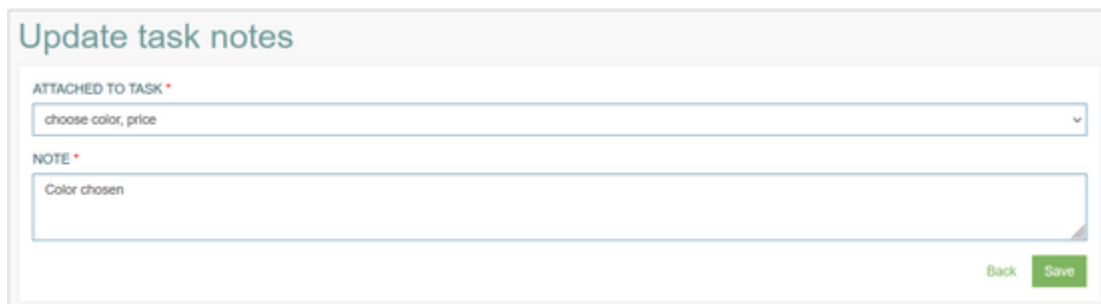
- **Attached to Task** - select the Task, to which the Note should be attached. This field is required.
- **Note** - enter text of a Note. This field is required.

After entering the data, click the **Save** button to save the note. To return to the Task Notes page, click the **Back** link.

6.4.6 Update Note

To edit a Note, click the Edit (pencil) icon for the selected Note entry in the search results table.

The Update Task Notes page opens for editing.

The screenshot shows a web form titled "Update task notes". It has two main input fields. The first is a dropdown menu labeled "ATTACHED TO TASK" with a red asterisk, currently showing "choose color, price". The second is a text area labeled "NOTE" with a red asterisk, containing the text "Color chosen". At the bottom right of the form are two buttons: "Back" and "Save".

Change the information you need to change. After making the necessary changes, click the **Save** button. To return to the Task Notes page, click the **Back** link.

6.4.7 Delete Note

To delete a Note, click the **Delete** icon on the Overview page for the selected Note. The confirmation pop-up will appear where you can confirm or cancel the action.

7 Alias Management

Alias Management simplifies the handling of database-stored data with its user-friendly and adaptable approach. The simple interfaces facilitate easy work with data, enabling users to execute personalized calculations effortlessly within the database. Once the database tables are created and their dependencies are established, any data can be used and applied to any application screen or report.

The common overview of the Alias Management framework (including Usage, Alias Types, Alias Naming Convention) is described on the [Alias Management Overview](#) page of the User Manual.

For more details about the Alias Management functionality refer to the following pages:

- [Database Field](#)
- [Arrays](#)
- [Custom Generated Fields](#)
- [Custom Multi](#)
- [Alias Dependency](#)
- [Alias Relationship](#)
- [Alias Include/Exclude](#)

7.1 Alias Management Overview

7.1.1 Table of Contents

- [Overview](#)
- [Alias Management Framework Usage](#)
- [Data Restrictions](#)
- [Alias Types](#)
- [Alias Naming Convention](#)

7.1.2 Overview

The Alias Management functionality provides you an easy and flexible way to manage data stored in a database. The Alias Management has simple interfaces to work with the data. That allows users to easily perform custom calculations on any data in the database.

Any kind and size of database can be managed via the Alias Management feature. Any data can be used and applied to any application screen or report once the database tables are created and their dependencies are established.

7.1.3 Alias Management Framework Usage

The Alias Management Framework can collect and process the data in two ways:

- based on the Primary Key dependency specified by the user (so called Primary Key Substitution),
- with the help of the Relations between the tables in the database, which can be specified by the user or auto-generated based on the certain rules.

To evaluate and to receive the required data, the user must provide input values and an output list of aliases for the requested values.

In the first iteration, the Alias Framework checks the output list and evaluates the aliases based on the given inputs.

In the second and next iterations, the Alias Framework uses the values of evaluated aliases to evaluate other aliases. To put that into perspective, the Alias Framework can be represented as tree branches where branches are aliases. And there are no limitations on how large the tree can be.

To improve and optimize the performance of the alias evaluating and to avoid reducing the calculation speed, the aliases can be processed in different threads. The user can define how many threads can be used.

7.1.4 Data Restrictions

After the evaluation, all aliases are additionally checked against the restrictions that are set up by the user when creating aliases. Depending on the defined restrictions, some data and information will be hidden from the user.

7.1.5 Alias Types

Currently, the following Alias Types are supported:

- **Database field**

The database field alias represents a single cell value from a specific table column and a row. The value that this alias will have corresponds to dependencies that the user specified and the input that was used to start the evaluation.

For more information open the [Database Field](#) page of the User Manual.

- **Arrays**

The arrays represent a subset of values from a specific table column the value that this alias will have corresponds to dependencies that the user specified and the input that was used to start the evaluation.

For more information open the [Arrays](#) page of the User Manual.

- **Custom generated**

The custom generated aliases represent single values that can be calculated either with an SQL query or inside an AF module. The custom alias can be dependent on other aliases, for example you might need one Database field alias and one Array alias to evaluate the custom alias. The custom alias will be evaluated only after the two other aliases are evaluated.

For more information open the [Custom Generated](#) page of the User Manual.

- **Custom multi**

The custom multi aliases represent multi values (column, array) that can be calculated either with an SQL query or inside an AF module. The Custom multi behaves in the same way as the custom generated with the only difference that can return an array (column) of values.

For more information open the [Custom Multi](#) page of the User Manual.

7.1.6 Alias Naming Convention

Database field and **Array** are named according to the fixed naming convention. The name convention depends on the Alias Type, Table name and Column name.

Custom generated can contain any name after **Custom.*.*** if they are evaluated with an SQL query. In case the evaluation is done with an Alias Framework Module, the alias name needs to correspond to the Library name and the Function that will evaluate the alias.

Custom generated can contain any name after **Multi.*.*** if they are evaluated with an SQL query. In case the evaluation is done with an Alias Framework Module, the alias name needs to correspond to the Library name and the Function that will evaluate the alias.

The Alias naming convention is represented in the following table:

Alias Type	Naming Convention	Example
Database field	Alias.TableName.TableColumn	Alias.AccountingDaily.Policy
Arrays	Array.TableName.TableColumn	Array.AccountingDaily.Tenant
Custom generated	Custom.LibraryName.FunctionName OR Custom.AnyName.AnyName	Custom.Library.Function OR Custom.Example.Example
Custom multi	Multi.LibraryName.FunctionName OR Multi.AnyName.AnyName	Multi.Library.Function OR Multi.Example.Example

7.2 Database Field

7.2.1 Access

Click **Alias Management** > **Database Field** to manage aliases for single database fields.

7.2.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Search Results](#)
 - [Navigate](#)
- [Create Database Field Alias](#)
 - [Alias Details Tab](#)
 - [Special Access Restrictions Tab](#)
 - [Alias Restriction Tab](#)
- [Update Database Field Alias](#)
- [Delete Database Field Alias](#)

7.2.3 Overview

By a database alias, we understand a user-defined object connected to a database that helps to use and show the connected data on any screen or report. When you create and compose database aliases, you include parameters for connecting the related database. In order to execute requested functions and recalculate the data, a specific database connection must be identified by database alias name. For more information about the Alias Management open the [Alias Management Overview](#) page of the User Manual.

The **Database Field Alias** functionality is related to a single cell value from a specific table column and a row. This alias's value is related to the dependencies the user specified and the input that used to initiate the evaluation.

The Database Fields Overview page looks as follows:

Database Fields					
Alias Code	Description	Info	Format type	Database Table	Database Field
Alias.aa .aa	(not set)	(not set)	character varying	aa	aa
Alias.aaa1.bol	(not set)	(not set)	boolean	aaa1	bol
Alias.aaa1.strarr	(not set)	(not set)	ARRAY	aaa1	strarr
Alias.ABC123.ABC123	(not set)	(not set)	character varying	ABC123	ABC123
Alias.ABC123.ADB_NUMBER	(not set)	(not set)	numeric	ABC123	ADB_NUMBER
Alias.ABC123.description	(not set)	(not set)	character varying	ABC123	description
Alias.ABC123.Mobile	(not set)	(not set)	character varying	ABC123	Mobile
Alias.ABC123.name	(not set)	(not set)	character varying	ABC123	name
Alias.ABC123.newfield	(not set)	(not set)	character varying	ABC123	newfield
Alias.ABC123.Password	(not set)	(not set)	timestamp without time zone	ABC123	UpdateTime

« 1 2 3 4 5 6 7 8 9 10 »

Back Show All Create

7.2.4 Search

You can search for a particular Database Field Alias or filter search results. For this, use any of the search filters such as **Alias Code**, **Description**, **Info**, **Format type**, **Database Table**, **Database Field** and click the Enter key or on any screen place. The screen displays search results if found. To have an overview of all Database Field alias existing the system, leave the filters empty.

7.2.4.1 Sort Search Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

7.2.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

7.2.5 Create Database Field Alias

Click the **Create** button on the Overview page to create a new Database Field alias. This opens the page in creation mode. The process of Alias creation for a single database field consists of several steps and filling in required and optional data. These steps are represented by the corresponding tab: Alias Details, Special Access Restrictions, Alias Restriction.

7.2.5.1 Alias Details Tab

Create Database Fields

Alias Details
Special Access Restrictions
Alias Restriction

ALIAS CODE *

TYPE *

Database Field

DESCRIPTION

INFO

FORMAT

FORMAT TYPE

character

EDITS

DATABASE TABLE

AgentLicensing

DATABASE FIELD

LicenseType

☐ DEFAULT GROUP/USER IS NO ACCESS

☐ DEFAULT VALUE IS NO ACCESS

Back
Submit

Fill in the following fields:

- Alias Code** - this field is filled in automatically based on the selected Database Table and Field name. The Alias code is named according the Alias naming convention.
Find more information about the naming convention in the Alias Naming Convention section of the [Alias Management Overview](#) page of the User Manual.
- Type** - the alias type is pre-selected depending on the page, from which the alias is created. In this case, this is Database Field.
More information about other alias types can be found in the Alias Types section of the [Alias Management Overview](#) page of the User Manual.
- Description** - enter a description for the alias you are creating.
- Info** - add additional helpful information.
- Format Type** - is automatically populated with a data format type value (e.g., character, numeric, etc.), when you select the database table.
- Database Table** - select the database table that is used to evaluate the data.
- Database Field** - after the database table selection, you are able to select the database field from the drop-down list.

- **Default Group/User is no access** - select the check box to define, whether all groups/users are restricted from viewing the data that is stored in this alias.
This setting can be overridden using the Special Access Restrictions (see the Special Access Restrictions tab of the current editor).
- **Default Value is no access** - select the check box to specify that all alias data is restricted no matter what the data (value) for the alias is. This setting can be overridden using the Special Access Restrictions.

Note that all settings set up to a specific Alias.*,*, apply to the same Array.*,* alias.

Warning After saving the data, the **Alias Code** and **Type fields** will not be manually editable.

After filling in the required and optional data, click the **Submit** button to save the Database Field alias. To return to the Overview page without saving, click the **Back** link.

7.2.5.2 Special Access Restrictions Tab

On the Special Access Restrictions tab, there is a possibility to define the access rights for users, user groups or alias values.

Create Database Fields

Alias Details
Special Access Restrictions
Alias Restriction

ENTITY *

USER/GROUP/VALUE *

RIGHTS *

Add to List

LIST

Entity	UserGroupValue	Rights	
1	U - User	N - No Access	-

Back

Fill in the following required fields:

- **Entity** - define an entity for the special access. Specify here the name of user/group or the value, on which the restriction should be applied.
- **User/Group/Value** - select the area of restriction: User, Group or Value.
- **Rights** - define the level of access:
 - **No Access** - the complete restriction to the data evaluated with help of alias.
 - **Read Only** - the possibility to view the data without ability of editing.
 - **Update/All** - all available actions are allowed.

After filling in the required data, click the **Add to List** button to save the Access Restrictions. The saved data will be displayed in the **List** below.

To delete the Added entry, click the **Minus** button for the corresponding line. To return to the Overview page without saving, click the **Back** link.

7.2.5.3 Alias Restriction Tab

On the Alias Restrictions tab, you can set up general access restriction that will be applied to numeric aliases. Fill in the following required fields:

- **Entity** - define an entity for the special access. Specify here the name of user/group restriction that should be applied.
- **User/Group/Value** - select the area of restriction: User, Group or Value.
- **Value** - define the value that should be restricted. Here, you can specify an operator and a value.

For example, the value is defined as “< 10”. That means that if the alias value is less than 10, the selected user/group will have selected access right.

Currently, the supported operators are: ==, !=, <, >, <=, >=.

- **Rights** - define the level of access:
 - **No Access** - the complete restriction to the data evaluated with help of alias.
 - **Read Only** - the possibility to view the data without ability of editing.
 - **Update/All** - all available actions are allowed.

Create Database Fields

Alias Details
Special Access Restrictions
Alias Restriction

ENTITY *

USER/GROUP/VALUE *

U - User

VALUE *

RIGHTS *

N - No Access

Add to List

LIST

Entity	UserGroup	Value	Rights	
2	U - User	Alias.AgentLicensing.LicenseType	N - No Access	-

Back

After filling in the required data, click the **Add to List** button to save the Access Restrictions. The saved data will be displayed in the **List** below.

To delete the added entry, click the **Minus** button for the corresponding line.

To return to the Overview page without saving, click the **Back** link.

After filling in all required and optional data, click the **Submit** button on the **Alias Details** tab to save the Database Field alias.

To return to the Overview page without saving, click the **Back** link.

7.2.6 Update Database Field Alias

To update a Database Field alias, click the **Edit** (pencil) icon for the selected Database Field alias entry on the Overview page. The Update Database Field alias opens for editing.

Pay attention that you cannot update the Alias Code and Type values in the existing alias. Other fields are editable. After making the necessary changes, click the **Submit** button. To return to the Overview page, click the **Back** link.

7.2.7 Delete Database Field Alias

To delete a Database Field alias, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the Delete action.

7.3 Arrays

7.3.1 Access

Click **Alias Management** > **Arrays** to access the functionality for managing aliases for arrays of fields.

7.3.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Search Results](#)
 - [Navigate](#)
- [Create Arrays Fields Alias](#)
- [Update Arrays Alias](#)
- [Delete Arrays Alias](#)

7.3.3 Overview

The **Arrays Fields Alias** functionality is related to a set of values from a specific table column. For more information about the Alias Management open the [Alias Management Overview](#) page of the User Manual.

The value that this alias contains corresponds to dependencies that the user specified and the input that was used to start the evaluation. The Arrays Fields Overview page looks as follows:

Alias Code	Description	Info	Format type	Database Table	Database Field	
Array.aa .aa	(not set)	(not set)	character varying	aa	aa	 
Array.aaa1.bol	Array.aaa1.bol	aaa1.bol	boolean	aaa1	bol	 
Array.aaa1.js1	(not set)	(not set)	jsonb	aaa1	js	 
Array.aaa1.strarr	(not set)	(not set)	ARRAY	aaa1	strarr	 
Array.ABC123.ABC123	(not set)	(not set)	character varying	ABC123	ABC123	 
Array.ABC123.ADB_NUMBER	(not set)	(not set)	numeric	ABC123	ADB_NUMBER	 
Array.ABC123.description	(not set)	(not set)	character varying	ABC123	description	 
Array.ABC123.Mobile	(not set)	(not set)	character varying	ABC123	Mobile	 
Array.ABC123.name	(not set)	(not set)	character varying	ABC123	name	 
Array.ABC123.newfield	(not set)	(not set)	character varying	ABC123	newfield	 

« 1 2 3 4 5 6 7 8 9 10 »

Back Show All Create

7.3.4 Search

You can search for a particular Array Alias or filter search results. For this, use any of the search filters such as Alias Code, Description, Info, Format type, Database Table, Database Field and click the Enter

key or on any screen place.

The screen displays search results if found. To have an overview of all Array Alias existing the system, leave the filters empty.

7.3.4.1 Sort Search Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

7.3.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

7.3.5 Create Arrays Fields Alias

Click the **Create** button on the Overview page to create a new Arrays Fields Alias. This opens the page in creation mode.

Create Arrays Fields

Alias Details

ALIAS CODE *

Array.AgentTraining.Comments

TYPE *

Array

DESCRIPTION

Comments for Agent Training

INFO

FORMAT

FORMAT TYPE

character varying(40)

EDITS

DATABASE TABLE

AgentTraining

DATABASE FIELD

Comments

☐ DEFAULT GROUP/USER IS NO ACCESS

☐ DEFAULT VALUE IS NO ACCESS

Back

Submit

Fill in the following fields:

- **Alias Code** - this field is filled in automatically based on the selected Database Table and Field name. The Alias code is named according the Alias naming convention. See more information about the naming convention in the Alias Naming Convention section of the [Alias Management Overview](#) page of the User Manual.
- **Type** - the alias type is pre-selected depending on the page, from which the alias is created. In this case, this is Array. More information about other alias types can be found in the Alias Types section of the [Alias Management Overview](#) page of the User Manual.
- **Description** - enter a description for the alias you are creating.
- **Info** - add additional helpful information.
- **Format Type** - is automatically populated with a data format type value (e.g., character, numeric, etc.), when you select the database table.
- **Database Table** - select the database table that corresponds to alias you are creating.
- **Database Field** - after the database table selection, you are able to select the database field from the drop-down list.
- **Default Group/User is no access** - select the check box to define, whether all groups/users are restricted from viewing the data that is stored in this alias.

This setting can be overridden using the Special Access Restrictions, this tab is available in the corresponding Alias.*.* alias. All settings set up to a specific Alias.*.*, apply to the same Array.*.* alias.

- **Default Value is no access** - select the check box to specify that all alias data is restricted no matter what the data (value) for the alias is. This setting can be overridden using the Special Access Restrictions, this tab is available in the corresponding Alias.*.* alias. All settings set up to a specific Alias.*.*, apply to the same Array.*.* alias.

 After saving the data, the **Alias Code** and **Type fields** will not be manually editable.

After filling in the required and optional data, click the **Submit** button to save the Database Field alias. To return to the Overview page without saving, click the **Back** link.

7.3.6 Update Arrays Alias

To edit an Arrays alias, click the Edit (pencil) icon for the selected alias entry on the Overview page. The Update Arrays Alias opens for editing.

Update Arrays Fields - Array.ABC123.name

Alias Details

ALIAS CODE *

Array.ABC123.name

TYPE *

Array

DESCRIPTION

INFO

FORMAT

FORMAT TYPE

character varying(10)

EDITS

DATABASE TABLE *

ABC123

DATABASE FIELD *

name

☐ DEFAULT GROUP/USER IS NO ACCESS

☐ DEFAULT VALUE IS NO ACCESS

Back

Update

After making the necessary changes, click the **Submit** button. To return to the Overview page, click the **Back** link.

7.3.7 Delete Arrays Alias

To delete an Arrays alias, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the Delete action.

7.4 Custom Generated Fields

7.4.1 Access

Click **Alias Management > Custom Generated** to manage custom aliases for single database fields.

7.4.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Search Results](#)
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- [Create Custom Generated Alias](#)
 - [Alias Details Tab](#)
 - [Alias Dependency Tab](#)
 - [Special Access Restrictions Tab](#)
 - [Alias Restriction](#)
- [Update Custom Generated Alias](#)
- [Delete Custom Generated Alias](#)

7.4.3 Overview

The **Custom Generated Fields Alias** functionality is related to single values that can be calculated either with an SQL query or set with Alias Framework using AF Modules. For more information about the Alias Management open the [Alias Management Overview](#) page of the User Manual.

The custom alias can be dependent on other aliases, for example Database field alias and Array alias can be used to evaluate the Custom Generated alias. In this case, the Custom alias is evaluated only after these two other aliases are evaluated.

Alias Code	Description	Info	Format type	Database Table	Database Field	
Custom.CSharp.Test	(not set)	(not set)	(not set)	(not set)	(not set)	 
Custom.DarkoTestModule.darkoExtensionFunction	(not set)	(not set)	(not set)	(not set)	(not set)	 
Custom.DarkoTestModule.DarkoTestModule	(not set)	(not set)	(not set)	(not set)	(not set)	 
Custom.DemoAgentModule.CustomCalculation	(not set)	(not set)	(not set)	(not set)	(not set)	 
Custom.DemoAgentPolicy.Band1	(not set)	(not set)	(not set)	(not set)	(not set)	 
Custom.DemoAgentPolicy.Band2	(not set)	(not set)	(not set)	(not set)	(not set)	 
Custom.DemoAgentPolicy.Band3	(not set)	(not set)	(not set)	(not set)	(not set)	 
Custom.DemoAgentPolicy.Type1	(not set)	(not set)	(not set)	(not set)	(not set)	 
Custom.DemoAgentPolicy.Type2	(not set)	(not set)	(not set)	(not set)	(not set)	 
Custom.DemoAgentPolicy.Type3	(not set)	(not set)	(not set)	(not set)	(not set)	 

« 1 2 3 4 5 6 7 »

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7.4.4 Search

You can search for a particular Database Field Alias or filter search results. For this, use any of the search filters such as **Alias Code**, **Description**, **Info**, **Format type**, **Database Table**, **Database Field** and click the Enter key or on any screen place. The screen displays search results if found. To have an overview of all Database Field alias existing the system, leave the filters empty.

7.4.4.1 Sort Search Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

7.4.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

7.4.5 Create Custom Generated Alias

Click the **Create** button on the Overview page to create a new Database Field alias. This opens the page in creation mode.

7.4.5.1 Alias Details Tab

Create Custom Generated Fields

Alias Details
Alias Dependency
Special Access Restrictions
Alias Restriction

ALIAS CODE *

Custom.ABC123.name

TYPE *

Custom Generated

DESCRIPTION

INFO

FORMAT

FORMAT TYPE

EDITS

☐ DEFAULT GROUP/USER IS NO ACCESS
☐ DEFAULT VALUE IS NO ACCESS

EVALUATION

MODULE EVALUATION

☐ C#
☐ C++
☐ COBOL
☐ JAVASCRIPT
☐ PHP
☐ PYTHON
☒ NONE

SQL STATEMENT

Back
Submit

Fill in the following fields:

- Alias Code** - fill in the Alias Code according to the naming convention: AliasType.TableName.TableColumn format, e.g. Custom.ABC123. name.
 - AliasType is Custom in this case, and means that the custom alias has only one value (Multi will be used for array or multiple values).
- Type** - the type is pre-selected with Custom Generate value. More information about other alias types can be found in the Alias Types section of the [Alias Management Overview](#) page of the User Manual.
- Description** - enter a description for the alias you are creating.
- Info** - add additional helpful information.
- Format Type** - fill in a data format type (e.g., character, numeric, etc.). It depends on data to be evaluated.
- Database Table** - select the database table that is used to evaluate the data.

- **Database Field** - after the database table selection, you are able to select the database field from the drop-down list.
- **Default Group/User is no access** - select the check box to define, whether all groups/users are restricted from viewing the data that is stored in this alias. This setting can be overridden using the Special Access Restrictions (see the Special Access Restrictions tab of the current editor).
- **Default Value is no access** - select the check box to specify that all alias data is restricted, no matter what the data (value) for the alias is. This setting can be overridden using the Special Access Restrictions (see the Special Access Restrictions tab of the current editor).
- **Evaluation**

The Evaluation section represents the custom alias evaluation, which refers to how the custom alias will be evaluated. Custom Alias can be calculated either with an SQL query or inside an Alias Framework module.

Depending on the selected module, Alias Framework will invoke the specific language interpreter for Python, PHP, JavaScript, Cobol to execute a script; or execute the C++ or C# module.

 Note that if an AF Module is used, the alias name should correspond to the library and function name.

After filling in the required and optional data, click the **Submit** button to save the Custom Generated Alias. To return to the Overview page without saving, click the **Back** link.

7.4.5.2 Alias Dependency Tab

On the Alias Dependencies tab, you can define the dependencies that are needed in order to evaluate the custom alias.

 When an SQL query is used to evaluate the custom alias, there is no need to specify dependencies. They will be automatically created from the SQL query.

Pay attention that the dependencies on the alias level are defined only for custom aliases (Custom and Multi).

Create Custom Generated Fields

Alias Details
Alias Dependency
Special Access Restrictions
Alias Restriction

PRIMARY TABLE *
ABC123

DEPENDENTS ON
Please select field

LIST

Dependent

Alias.ABC123.test1

Clear
Group Dependencies

LIST GROUPS

Depends On
Primary Table

Alias.ABC123.name;Alias.ABC123.Password
ABC123

Back

Fill in the following fields to define the dependencies:

- **Primary Table** - select the Primary Table, the value of which will be used to evaluate the custom alias.
- **Depends On** - is used to select an alias, on which the custom alias depends on.

⚠ The custom alias cannot be evaluated without the values of the depending alias.

- **List of Dependencies**

After selection, click the **Add to List** button to add the alias to the Dependencies list. The added dependency will be displayed in the **List** section.

This setup is usually done in order to call the AF Module after all of the other data is ready.

You need to define the group of values as a dependency, add several values to the List and click the **Group Dependencies** button.

- **List Groups** - this is the final dependency for a particular primary table.

The selected group of values will be displayed in the table of the **List Group** section.

- **Depends On** - represents the fields which the alias is depending on.
- **Primary Table** - the database table that is selected for dependency.

7.4.5.3 Special Access Restrictions Tab

Create Custom Generated Fields

Alias Details Alias Dependency **Special Access Restrictions** Alias Restriction

ENTITY *
1

USER/GROUP/VALUE *
U - User

RIGHTS *
N - No Access

Add to List

Entity	UserGroupValue	Rights
1	U - User	N - No Access

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Fill in the following fields:

- **Entity** - define an entity for the special access.

Here, you can specify the name of user/group or the value on which the restriction should be applied.

- **User/Group/Value** - select the area of restriction: User, Group or Value.
- **Rights** - define the level of access:
 - **No Access** - the complete restriction to the data evaluated with help of alias.
 - **Read Only** - the possibility to view the data without ability of editing.
 - **Update/All** - all available actions are allowed.

After filling in the required data, click the **Add to List** button to save the Access Restrictions. The saved data will be displayed in the **List** below.

To delete the Added entry, click the Minus button for the corresponding line.

To return to the Overview page without saving, click the **Back** link.

7.4.5.4 Alias Restriction

On the Alias Restriction tab, fill in the following fields:

- **Entity** - define an entity for the special access. Specify here the name of user/group restriction should be applied.
- **User/Group/Value** - select the area of restriction: User, Group or Value.
- **Value** - define the value that should be restricted.

Here, you can specify an operator and a value.

For example, the value is defined as “< 10”. That means that if the alias value is less than 10, the selected user/group will have selected access right.

Currently, the supported operators are: ==, !=, <, >, <=, >=.

- **Rights** - define the level of access:
 - **No Access** - the complete restriction to the data evaluated with help of alias.
 - **Read Only** - the possibility to view the data without ability of editing.
 - **Update/All** - all available actions are allowed.

Create Custom Generated Fields

Alias Details
Alias Dependency
Special Access Restrictions
Alias Restriction

ENTITY *

USER/GROUP/VALUE *

U - User

VALUE *

RIGHTS *

R - Read Only

Add to List

LIST

Entity	UserGroup	Value	Rights	
2	U - User	name	R - Read Only	-

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After filling in the required data, click the **Add to List** button to save the Access Restrictions. The saved data will be displayed in the **List** below.

To delete the added entry, click the Minus button for the corresponding line.

To return to the Overview page without saving, click the **Back** link.

After filling in all required and optional data, click the **Submit** button on the **Alias Details** tab to save the Database Field alias.

To return to the Overview page without saving, click the **Back** link.

7.4.6 Update Custom Generated Alias

To update a Custom Generated alias, click the Edit (pencil) icon for the selected Custom Generated alias entry on the Overview page. The Update Custom Generated alias opens for editing.

After making the necessary changes, click the **Submit** button. To return to the Overview page, click the **Back** link.

7.4.7 Delete Custom Generated Alias

To delete a Custom Generated alias, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the Delete action.

7.5 Custom Multi

7.5.1 Access

Click **Alias Management > Custom Multi** to manage custom aliases that return array of values.

7.5.2 Table of Contents

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- [Create Custom Multi Alias](#)
 - [Alias Details Tab](#)
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 - [Alias Restriction](#)
- [Copy Custom Multi Alias](#)
- [Update Custom Multi Alias](#)
- [Delete Custom Multi Alias](#)

7.5.3 Overview

The **Custom Multi Alias** functionality is related to multi values (column, array) that can be calculated either with an SQL query or via Alias Framework module. The Custom multi are handled in the same way as the custom generated aliases but they return an array (column) of values similar to standard Array Alias functionality. For more information about the Alias Management, open the [Alias Management Overview](#) page of the User Manual.

Alias Code	Description	Info	Format type	Database Table	Database Field	
Multi..	test multi	(not set)	(not set)	(not set)	(not set)	  
Multi.carsTable.model	Model m	model	character varying(20)	carsTable	model	  
Multi.CrunchF.Contract	(not set)	(not set)	character varying(10)	CrunchF	Contract	  
Multi.CrunchF.Description	(not set)	(not set)	character varying(50)	CrunchF	Description	  
Multi.CrunchF.FundNo	(not set)	(not set)	character varying(10)	CrunchF	FundNo	  
Multi.CSharp.Test.	(not set)	(not set)	(not set)	(not set)	(not set)	  
Multi.Demo_Agent.AgentName	Agent Search	(not set)	character varying(40)	Demo_Agent	AgentName	  
Multi.Demo_Agent.AgentName2	Agent Name 2	(not set)	character varying(40)	Demo_Agent	AgentName	  
Multi.Demo_Agent.AgentNumber	Agent Number	(not set)	character varying(10)	Demo_Agent	AgentNumber	  
Multi.Demo_Agent.AgentNumber2	Agent Number 2	(not set)	character varying(10)	Demo_Agent	AgentNumber	  

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7.5.4 Search

You can search for a particular Database Field Alias or filter search results. For this, use any of the search filters such as **Alias Code**, **Description**, **Info**, **Format type**, **Database Table**, **Database Field** and click the Enter key or on any screen place. The screen displays search results if found. To have an overview of all Database Field alias existing the system, leave the filters empty.

7.5.4.1 Sort Search Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

7.5.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

7.5.5 Create Custom Multi Alias

Click the **Create** button on the Overview page to create a new Database Field alias. This opens the page in creation mode.

7.5.5.1 Alias Details Tab

Create Custom Multi Fields

Alias Details

Alias Dependency

Special Access Restrictions

Alias Restriction

ALIAS CODE *

Multi.ActivityLog.ActivityDate

TYPE *

Custom Multi

DESCRIPTION

INFO

FORMAT

FORMAT TYPE

character varying(8)

EDITS

DATABASE TABLE

ActivityLog

DATABASE FIELD

ActivityDate

☐ DEFAULT GROUP/USER IS NO ACCESS

☐ DEFAULT VALUE IS NO ACCESS

EVALUATION

MODULE EVALUATION

☐ C#

☐ C++

☐ COBOL

☐ JAVASCRIPT

☐ PHP

☐ PYTHON

☒ NONE

SQL STATEMENT

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Submit

Fill in the following fields:

- **Alias Code** - fill in the Alias Code according to the naming convention: AliasType.TableName.TableColumn format, e.g. Multi.ABC123. name.

- AliasType is Multi in this case, and means that the custom alias returns array of values.

i The value in the **Alias Code** field will be updated automatically after selecting the **Database Table** and **Database Field** values.

Please note that the value in the **Alias Code** field must be filled in according to the naming convention. For more information about the naming convention, refer to the **Alias Naming Convention** section on the [Alias Management Overview](#) page of the User Manual.

I.e., if the values in the **Database Table** or **Database Field** that users selected include the “_” character (e.g., “table_Search”, “field_1”), then the **Alias Code** field value will automatically be entered according to the selected ones and will be “Multi.table_Search.field_1”. However, this may conflict with the established naming convention. In this case, users are required to manually update the **Alias Code** field value according to the naming convention, excluding the “_” character. So, the correct **Alias Code** field value will be “Multi.tableSearch.field1”.

i Be aware that the Alias Code value can be edited only in the alias creation step.

- **Type** - the type is pre-selected with Custom Generate value. More information about other alias types can be found in the Alias Types section of the [Alias Management Overview](#) page of the User Manual.
- **Description** - enter a description for the alias you are creating.
- **Info** - add additional helpful information.
- **Format Type** - fill in a data format type (e.g., character, numeric, etc.). It depends on data to be evaluated.
- **Database Table** - select the database table that is used to evaluate the data.
- **Database Field** - after the database table selection, you are able to select the database field from the drop-down list.
- **Default Group/User is no access** - select the check box to define, whether all groups/users are restricted from viewing the data that is stored in this alias. This setting can be overridden using the Special Access Restrictions.
- **Default Value is no access** - select the check box to specify that all alias data is restricted no matter what the data (value) for the alias is. This setting can be overridden using the Special Access Restrictions.
- **Evaluation**

The Evaluation section represents the custom alias evaluation, which refers to how the custom alias will be evaluated. Custom Alias can be calculated either with an SQL query or inside an Alias Framework module

Depending on the selected module, Alias Framework will invoke the specific language interpreter for Python/PHP/JavaScript/Cobol to execute a script; or execute the C++ or C# module.

i Note that if an AF Module is used, the alias name should correspond to the library and function name.

In case the module will be used to fill in the search values, users should create an additional custom multi alias to activate the search query aliases. For more details, refer to the Key Points section on the [Search Screen Configuration](#) page of the User Manual.

In order to avoid unexpected behavior and errors that are difficult to identify, it is recommended to leave the **SQL Statement** field empty when using the module to receive data.

After filling in the required and optional data, click the **Submit** button to save the Custom Generated Alias. To return to the Overview page without saving, click the **Back** link.

7.5.5.2 Alias Dependency Tab

On the Alias Dependencies tab, you can define the dependencies that are needed in order to evaluate the custom alias. It is important to mention that when an SQL query is used to evaluate the custom alias there is no need to specify dependencies, they will be automatically created from the SQL query.

Pay attention that the dependencies on the alias level are defined only for custom aliases (Custom and Multi).

Create Custom Multi Fields

Alias Details
Alias Dependency
Special Access Restrictions
Alias Restriction

PRIMARY TABLE *

ABC123456

DEPENDENTS ON

Please select field

LIST

Dependent

Alias.ABC123.UpdatedBy

-

Clear

Group Dependencies

LIST GROUPS

Depends On	Primary Table	
Alias.ABC123.Mobile	ABC123456	-
Alias.ABC123.ABC123	ABC123456	-

Back

Fill in the following fields to define the dependencies:

- **Primary Table** - select the Primary Table, the value of which will be used to evaluate the custom alias.
- **Depends On** - This field is used to select an alias, on which the custom alias depends on.

 The custom alias cannot be evaluated without the values of the depending alias.

- **List of Dependencies**

After selection, click the **Add to List** button to add the alias to the Dependencies list. The added dependency will be displayed in the **List** section. This setup is usually done so that the AF Module is called after all of the other data is ready.

You need to define the group of values as a dependency, add several values to the List and click the **Group Dependencies** button.

- **List Groups** - this is the final dependency for a particular primary table.

The selected group of values will be displayed in the table of the **List Group** section.

- **Depends On** - represents the fields which the alias is depending on.
- **Primary Table** - the database table that is selected for dependency.

7.5.5.3 Special Access Restrictions Tab

Create Custom Multi Fields

Alias Details
Alias Dependency
Special Access Restrictions
Alias Restriction

ENTITY *

USER/GROUP/VALUE *

RIGHTS *

LIST

Entity	UserGroupValue	Rights	
2	U - User	N - No Access	-

Fill in the following fields:

- **Entity** - define an entity for the special access. Here, specify the name of user/group or the value on which the restriction should be applied.
- **User/Group/Value** - select the area of restriction: User, Group or Value.
- **Rights** - define the level of access:
 - No Access - the complete restriction to the data evaluated with help of alias.
 - Read Only - the possibility to view the data without ability of editing.
 - Update/All - all available actions are allowed.

After filling in the required data, click the **Add to List** button to save the Access Restrictions. The saved data will be displayed in the **List** below.

To delete the Added entry, click the Minus button for the corresponding line. To return to the Overview

page without saving, click the **Back** link.

7.5.5.4 Alias Restriction

Fill in the following fields:

- **Entity** - define an entity for the special access. Here, specify the name of user/group restriction should be applied.
- **User/Group/Value** - select the area of restriction: User, Group or Value.
- **Value** - define the value that should be restricted.

Here the user has the option to specify an operator and a value.

For example, the value defined as “< 10” means that if the alias value is less than 10, the selected user/group will have selected access right. At the moment the supported operators are: ==, !=, <, >, <=, >=.

- **Rights** - define the level of access:
 - **No Access** - the complete restriction to the data evaluated with help of alias.
 - **Read Only** - the possibility to view the data without ability of editing.
 - **Update/All** - all available actions are allowed.

Create Custom Multi Fields

Alias Details
Alias Dependency
Special Access Restrictions
Alias Restriction

ENTITY *

6

USER/GROUP/VALUE *

U - User

VALUE *

name

RIGHTS *

N - No Access

Add to List

LIST

Entity	UserGroup	Value	Rights	
6	U - User	name	N - No Access	-

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After filling in the required data, click the **Add to List** button to save the Access Restrictions. The saved data will be displayed in the **List** below.

To delete the added entry, click the Minus button for the corresponding line.

To return to the Overview page without saving, click the **Back** link.

After filling in all required and optional data, click the **Submit** button on the **Alias Details** tab to save the Database Field alias.

To return to the Overview page without saving, click the **Back** link.

7.5.6 Copy Custom Multi Alias

To copy a Custom Multi alias, click the **Copy** icon for the selected Custom Multi alias entry on the Overview page. The Copy Custom Multi alias opens for editing. Fill in the fields and click the **Submit** button.

7.5.7 Update Custom Multi Alias

To a Custom Multi alias, click the **Edit** (pencil) icon for the selected Custom Multi alias entry on the Overview page. The Update Custom Multi alias opens for editing.

After making the necessary changes, click the **Submit** button. To return to the Overview page, click the **Back** link.

7.5.8 Delete Custom Multi Alias

To delete a Custom Generated alias, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the Delete action.

7.6 Alias Dependency

7.6.1 Access

Click **Alias Management > Alias Dependency for Database Aliases** to manage dependencies for database aliases.

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7.6.3 Overview

Defining dependencies for database aliases (Alias and Array) is done on a type and database table level. For more information about the Alias Management, open the [Alias Management Overview](#) page of the User Manual.

The Alias Dependency Overview page looks as follows:

Alias Dependency				
Alias Table	Alias Type	Request Table	Group Screen Name	Dependency Type
AccountingDaily	Alias	JuneTest1	DEF	PKS
AccountingDaily	Alias	JuneTest3	DEF	REL
AccountingDaily	Alias	JuneTest4Upload	DEF	REL
AccountingDaily	Alias	JuneTest4Upload_And1	DEF	REL
AgentPayMaster	Alias	Portfolio2	DEF	REL
appmill_anv	Alias	NEWTABLE4	DEF	REL
c_Flow	Alias	TaxUSA	DEF	REL
c_Report	Alias	Portfolio2	DEF	REL
c_Restrict	Alias	Portfolio2	DEF	REL
c_Step	Alias	TaxUSA	DEF	REL

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7.6.4 Search

You can search for a particular Database Field Alias or filter search results. For this, use any of the search filters such as **Alias Table**, **Alias Type**, **Request Table**, **Group Screen Name**, **Dependency Type** and

click the Enter key or on any screen place. The screen displays search results if found.

To have an overview of all Database Field alias existing the system, leave the filters empty.

7.6.4.1 Sort Search Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

7.6.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages.

Click the appropriate page number to open it.

Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

7.6.5 Create Alias Dependency

Click the **Create** button on the Overview page to create a new Alias Dependency. This opens the page in creation mode.

Create Alias Dependency

ALIAS TYPE *

Alias

ALIAS TABLE *

ABC123

REQUEST TABLE * ⓘ

AccountingDaily

GROUP SCREEN NAME * ⓘ

policy_dashboard2

DEPENDENCY TYPE * ⓘ

PKS

DEPENDENCY ALIAS TYPE

DEPENDENTS ON

Array.aaa1.bol

LIST

Dependent

Add to List

Back

Submit

Fill in the following fields:

- **Alias Type** - select the type from the drop-down list:
 - Alias - for a single database field,
 - Array - for a set of fields.
- **Alias Table** - select the Alias database table.
- **Request Table** - select the request table that the created dependency will correspond to.
 - **DEF** – when this option is selected, the user can override the default dependencies that are created by the AppMill service. Default dependencies consist of the primary key of the table. This means there is no need for any setup when aliases from one table are used.
- **Group Screen Name** - select the group screen, on which the dependency should apply.
 - **DEF** – when this option is selected it means the dependency will be used on all screens that do not specify dependency that match the request.
- **Dependency Type** - select the Type of dependency from the drop-down menu. Currently, the following type are supported:
 - **PKS (Primary Key Substitution)** - this Dependency Type means that the values of the aliases in the list defined by the user will be used to populate the Primary Key fields in the “Alias Table” table. For this type, user needs to create a list of dependencies.
 - **REL (Relation)** - with this Dependency Type, users do not need to create a list of dependencies as the dependencies are created automatically based on the relationship data.
 - **DEF** – This option is only available when the request table is set to DEF.
- **Dependency Alias Type** - these two options allow the user to filter the available aliases in the Depends On field. Usually, *Single* would need to be selected, but if a dependency for Multi-level Table is created, then the user needs to select *Multi*.
 - **Single** – filters the results in the Depends On field to show only Alias.*.* and Custom.*.* aliases
 - **Multi** – filters the results in the Depends On field to show only Array.*.* and Multi.*.* aliases
- **Dependent On (when Dependency Type is PKS)** – select here an alias to be added to the dependency list. The order in this list is important, the values from the aliases in the list will be used to evaluate the aliases from Alias Table.
- **Dependency Alias Table (when Dependency Type is REL)** – this field is important when creating a dependency for Multi-level Table. Select the table, on which the Alias Table aliases will depend on, meaning only relationship items from that table will be used.

After filling in the required and optional data, click the **Submit** button to save the Database Field alias. To return to the Overview page without saving, click the **Back** link.

7.6.6 Update Alias Dependency

To edit an Alias Dependency, click the Edit (pencil) icon for the selected entry on the Overview page. The Update Alias Dependency page opens for editing.

Update Alias Dependency

ALIAS TYPE *

Alias

ALIAS TABLE *

AccountingDaily

REQUEST TABLE * ⓘ

JuneTest1

GROUP SCREEN NAME * ⓘ

DEF

DEPENDENCY TYPE * ⓘ

PKS

DEPENDENCY ALIAS TYPE

-- Select dependency alias type --

DEPENDENTS ON

Please select field

Add to List

LIST

Dependent

Alias.aaa1.bol

-

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Submit

After making the necessary changes, click the **Submit** button. To return to the Overview page, click the **Back** link.

7.6.7 Delete Alias Dependency

To delete an Alias Dependency, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the Delete action.

7.7 Alias Relationship

7.7.1 Access

Click **Alias Management > Manage Alias Relationship** to manage relations between two database fields.

7.7.2 Table of Contents

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7.7.3 Overview

The **Alias Relationship** functionality is designed to manage, create, update the dependencies between two database fields of the Relationship type. New dependencies are created by selecting the parent and child tables and specifying the parent and child fields and correspondingly.

Some relationships are automatically created with the alias reload process. From this screen they can be set as active/inactive.

In order to automatically apply the changes done in the Alias Relationship (creating or updating the dependencies), you should reload aliases by clicking the Reload Aliases button on the Alias Include / Exclude page.

The Alias Relationship Overview page looks as follows:

Group Screen Name	Parent Table	Parent Field	Child Table	Child Field	Active
DEF	JuneTest1	Policy	AccountingDaily	Policy	Yes
DEF	JuneTest3	Policy	AccountingDaily	Policy	Yes
DEF	JuneTest4Upload	Policy	AccountingDaily	Policy	Yes
DEF	JuneTest4Upload_And1	Policy	AccountingDaily	Policy	Yes
DEF	Portfolio2	UniqueID	AgentPayMaster	UniqueID	Yes
DEF	NEWTABLE4	New	appmill_anv	New	Yes
DEF	ABC1234	id	appmill_PROTOTYPE	id	Yes
DEF	ABC12345	id	appmill_PROTOTYPE	id	Yes
DEF	ABC123456	id	appmill_PROTOTYPE	id	Yes
DEF	ABC1234567	id	appmill_PROTOTYPE	id	Yes

« 1 2 3 4 5 »

Back Show All Relationship Builder Create

For more information about the Alias Management, open the [Alias Management Overview](#) page of the User Manual.

7.7.4 Search

You can search for a particular Database Field Alias or filter search results. For this, use any of the search filters such as **Group Screen Name**, **Parent Table**, **Parent Field**, **Child Table**, **Child Field**, **Active** and click the Enter key or on any screen place. The screen displays search results if found. To have an overview of all Database Field alias existing the system, leave the filters empty.

7.7.4.1 Sort Search Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

7.7.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

7.7.5 Create Alias Relationship

There are two ways to create an Alias Relationship: using a Simple Form or the Relationship Builder.

1. The **Simple Form** allows you to manually define the Parent Table, Parent Field, Child Table, and Child Field through form input fields.
2. The **Relationship Builder** provides a graphical way to visually connect fields between tables using an interface. This interface provides an intuitive graphical representation for managing relationships between database tables.

To create a new Alias Relationship between database tables using Simple Form, click the **Create** button on the Overview page.

To create an Alias Relationship using the graphical tool, click on the **Relationship Builder** button on the Overview page.

7.7.5.1 Create Alias Relationship using Simple Form

Click the **Create** button on the Overview page to create new Alias Relationship between database tables. This opens the page in creation mode.

Create Alias Relationship

GROUP SCREEN NAME * ⓘ
policy_activities

PARENT TABLE *
AccountingDescription

PARENT FIELD *
AccountNumber

CHILD TABLE *
AgentLicensing

CHILD FIELD *
Agent

ACTIVE ☒

Back Submit

Fill in the following fields:

- **Group Screen Name** - select the Group Screen Name from the drop-down list. This field is required.
 - **DEF** – select this option if you want this relationship to be used for all screens.
- **Parent Table** - select the database table that will be defined as parent table in the fields relationship.
- **Parent Field** - select the field from the drop-down list. The list is restricted by the selected parent database table.
- **Child Table** - select the database table that will be defined as parent table in the fields relationship.
- **Child Field** - select the field from the drop-down list. The list is restricted by the selected child database table.
- **Active** - select the check box to indicate the created relation as active. As the relations are built automatically, this check box defines if the relation should be taken into account when updating the list of related fields.

All the fields are required and must be filled in before saving.

After entering the data, click the **Submit** button to save the Database Field alias. To return to the Overview page without saving, click the **Back** link.



To apply the changes, don't forget to reload aliases by clicking the Reload Aliases button on the Alias Include / Exclude page.

7.7.5.2 Create Alias Relationship using Relationship Builder

The Relationship Builder provides a graphical approach to defining Alias Relationships. It allows users to visually connect fields between parent table and child table using an intuitive drag-and-drop interface. To create an Alias Relationship we need to define **Parent Table**, **Parent Field**, **Child Table**, and **Child Field**. Instead of manually entering values, Relationship Builder allows us to define all these fields using visual elements.

To create a new Alias Relationship between database tables using the graphical tool, click the Relationship **Builder** button on the Alias Relationship overview page. This opens the page in creation mode with a graphical canvas for defining relationships:

Create Alias Relationship

Parent Table

JuneTest1	
Policy	VARCHAR
CSV	NUMERIC
MVA	NUMERIC
Comments	VARCHAR
Image1	TEXT
textarea	VARCHAR
Decimal0	NUMERIC
Decimal3	NUMERIC
Decimal4	NUMERIC
Text20	VARCHAR
Text1A	CHAR
Text1B	CHAR
Text1C	CHAR
Text30	VARCHAR
Text21	VARCHAR
Text22	VARCHAR
Text23	VARCHAR
Text500	VARCHAR
Text24	VARCHAR
Text25	VARCHAR
Text20Head	VARCHAR
DateTime	VARCHAR

Child Table

AccountingDaily	
Tenant	VARCHAR
AcctCompany	VARCHAR
AcctNumber	VARCHAR
AcctPostDate	VARCHAR
SeqNo	NUMERIC
ProcessDate	VARCHAR
EffectiveDate	VARCHAR
Company	VARCHAR
Policy	VARCHAR
AcctAmount	NUMERIC
BalanceType	CHAR
TrxCode	VARCHAR
SubCode	VARCHAR
TrxType	CHAR
FundNo	NUMERIC
UpdatedBy	VARCHAR
UpdateTime	VARCHAR

GROUP SCREEN NAME DEF

ACTIVE ☒

Back **Submit**

When you create an Alias Relationship using Relationship Builder Parent Table, Parent Field, Child Table, and Child Field will be defined in the canvas and you will have additional form fields for Group Screen Name and Active fields.

Fill in the following fields:

- **Parent Table** - double click anywhere on the canvas to open a pop-up window where you can select the Parent Table name from a drop-down list. After selecting the table from the drop-down list, click Close button, this will load all fields of the Parent Table on canvas. To remove the selected table from canvas, click the Remove button.

See image below:

The screenshot shows the 'Create Alias Relationship' dialog box. The title bar is 'Create Alias Relationship'. There is a 'Canvas' tab. The main area contains a table with the name 'JuneTest1' and one row. Below the table is a form with a 'NAME:' label, a dropdown menu showing 'JuneTest1', and 'Remove' and 'Close' buttons. At the bottom, there is a 'GROUP SCREEN NAME' dropdown menu showing 'DEF', an 'ACTIVE' checkbox which is checked, and 'Back' and 'Submit' buttons.

- **Child Table** - double click again on the canvas to select the Child Table and its corresponding Fields will be available on canvas.
- **Define Relationship** - double click on the field of the Parent table and drag the arrow to the field of the Child Table to establish the relationship between them.
- **Group Screen Name** - select the Group Screen Name from the drop-down list. This field is required.

- o **DEF** – select this option if you want this relationship to be used for all screens.
- **Active** - select the check box to indicate the created relation as active. As the relations are built automatically, this check box defines if the relation should be taken into account when updating the list of related fields.

All the fields are required and must be filled in before saving.

After entering the data, click the **Submit** button to save the Database Field alias. To return to the Overview page without saving, click the **Back** button.

7.7.6 Update Alias Relationship

To edit an Alias Relationship, you can use two options:

- Editing via clicking the Edit (**Pencil**) icon for the selected alias relationship entry in the search results table.
- Editing via builder (clicking the **Gear wheel** icon).

Use the Simple Form when making minor changes, such as updating the Active status or updating a Group Screen Name. For more complex modifications involving multiple dependencies, you can use the Relationship Builder as it provides a visual representation of the relationships, making them easier to manage.

7.7.6.1 Update Alias Relationship using Simple Form

To edit an Alias Relationship, click the Edit (pencil) icon for the selected entry on the Overview page. The Update Alias Relationship page opens for editing.

Update Alias Relationship

GROUP SCREEN NAME * ⓘ
DEF

PARENT TABLE *
JuneTest3

PARENT FIELD *
Policy

CHILD TABLE *
AccountingDaily

CHILD FIELD *
Policy

ACTIVE ☒

Back Submit

After making the necessary changes, click the **Submit** button. To return to the Overview page, click the

[Back link.](#)

7.7.6.2 Update Alias Relationship Using Relationship Builder

To edit an Alias Relationship using relationship builder, click the Gear icon for the selected entry on the Overview page. The Update Alias Relationship page opens for editing in graphical mode. Click on the arrow connecting the parent and child fields. This will allow you to update the relation between fields. After making the necessary changes, click the **Submit** button.

Update Alias Relationship ?

JuneTest1	
Policy	VARCHAR
CSV	NUMERIC
MVA	NUMERIC
Comments	VARCHAR
Image1	TEXT
textarea	VARCHAR
Decimal0	NUMERIC
Decimal3	NUMERIC
Decimal4	NUMERIC
Text20	VARCHAR
Text1A	CHAR
Text1B	CHAR
Text1C	CHAR

AccountingDaily	
Tenant	VARCHAR
AcctCompany	VARCHAR
AcctNumber	VARCHAR
AcctPostDate	VARCHAR
SeqNo	NUMERIC
ProcessDate	VARCHAR
EffectiveDate	VARCHAR
Company	VARCHAR
Policy	VARCHAR
AcctAmount	NUMERIC
BalanceType	CHAR
TrxCode	VARCHAR
SubCode	VARCHAR

DEF;AccountingDaily;Policy;JuneTest1;Policy

GROUP SCREEN NAME ?

DEF

ACTIVE ☒

[Back](#) [Submit](#)

To return to the Overview page, click the **Back** button.



To apply the changes, don't forget to reload aliases by clicking the Reload Aliases button on the Alias Include / Exclude page.

7.7.7 Delete Alias Relationship

To delete an Alias Relationship, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the Delete action.

7.8 Alias Include/Exclude

7.8.1 Access

Click **Alias Management** > **Alias Include/Exclude** to include/exclude the data in the database.

7.8.2 Overview

The Alias Include/Exclude functionality provides the possibility to have an overview of tables that are included or excluded from the aliases (fields and arrays) usage. The aliases of the excluded tables are not available for usage on the Render screens. The list of excluded tables is stored in the `c_AliasIncludeExclude` database table.

Alias Include / Exclude

Aliases reload is necessary to initialize the data and for any updates on this screen to take affect. Reload aliases

Table Name	☐
aa	☒
aaa1	☒
ABC123	☒
ABC1234	☒
ABC12345	☒
ABC123456	☒
ABC1234567	☒
ABC12345678	☒
AccountingDaily	☒
AccountingDescription	☒

To **include/exclude** the database table, enable or disable the check box for the selected database table respectively and click the **Update** button at the bottom of the page to save the selection.

After that, click the **Reload Aliases** to initialize the data reload and to apply any updates on this screen.

For more information about the Alias Management, open the [Alias Management Overview](#) page of the User Manual.

8 System Data

The System Data functionality provides the possibility to

- access the database table data,
- create database tables from uploaded excel spreadsheets,
- build alias views and validate the created dependencies in aliases,
- use extension modules and plugins using JavaScript, Python, PHP, C#, and C++ to extend the platform,
- build custom notification templates to use within functions for email, SMS,
- use internationalization features and much more.

For more details on the System Data refer to the corresponding page. Open the following pages:

- [Alias View](#)
- [Swap Tables](#)
- [Activity Audit](#)
- [Architect Screen Access](#)
- [Auto Fill](#)
- [Error Messages Management](#)
- [Lists](#)
- [Extension Functions](#)
- [Client Verification](#)
- [Servers](#)
- [TPC Custom Endpoints](#)
- [Notifications](#)
- [Internationalization](#)

8.1 Alias View

8.1.1 Access

Click **System Data > Alias View** to manage custom aliases for single database fields.

8.1.2 Table of Contents

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8.1.3 Overview

The **Alias View** functionality provides the possibility to use Alias Framework in an easier way, to create a pre-defined Alias Framework requests and use them in other functionalities at any time later when it is required.

In contrast to the usual approach of creating the Aliases, when you need to write an Alias Framework query in order to receive the needed data, in case of the Alias View functionality you can pre-define all required data and then use and run it at any time later when you need that data.

The Alias View can be used in the following cases:

- The Alias View can be used in the Extension Function when configuring the screen. You can attach any Alias View to the extension function and then later, when the Pre or Post function is executed, the attached Alias View will also be evaluated and the evaluated data will be sent together with other data from the screen.
- The Alias View can also be used in the Reports functionality. In this case instead of defining the aliases and inputs for the reports, user can create a particular Alias View and connect it to the report. When the Alias View is evaluated, the report will be filled in by required data.
- The Alias View can also be used to validate the alias dependencies and ensure they are set up correctly and the valid data will be received and evaluated.

The Alias View Overview page looks as follows:

Alias View

Alias View Name	Alias Primary Table	Alias View Description
BILL_TEST_VIEW	AgentTraining	BILL TEST VIEW
BILLPOLICY	PolicyMaster	BILLPOLICY
cars_o	carsTable	carsOD
CppSendEmailView	EmailSendTests	SendEmailViewDescription
CrunchView	Crunch	CrunchViewDescription
DemoAgent_View	Demo_Agent	DemoAgent_View_Desc
JsSendEmailView	EmailSendTests	SendEmailViewDescription
JuneMultiLevel	JuneTest1	JuneMultiLevel
NewView	Crunch	NewView Desc
PhpSendEmailView	EmailSendTests	SendEmailViewDescription

« 1 2 3 »

Create Show All

8.1.4 Search

You can search for a particular Database Field Alias or filter search results. For this, use any of the search filters such as **Alias Code**, **Description**, **Info**, **Format type**, **Database Table**, **Database Field** and click the Enter key or on any screen place. The screen displays search results if found. To have an overview of all Database Field alias existing the system, leave the filters empty.

8.1.4.1 Sort Search Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

8.1.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

8.1.5 Create Alias View

Click the **Create** button on the Overview page to create a new Alias View. This opens the page in creation mode.

Create Alias View

ALIAS VIEW NAME *

ALIAS VIEW DESCRIPTION

GROUP SCREEN NAME

ALIAS PRIMARY TABLE *

ALIAS ITEMS TO PRE-LOAD *

ALIAS

CRUNCH

☒ Check All		
☒ Alias.Crunch.Address1	Add Rule	ON
☒ Alias.Crunch.Address2	Add Rule	OFF
☒ Alias.Crunch.Address3	Add Rule	OFF
☒ Alias.Crunch.Agent	Add Rule	OFF
☒ Alias.Crunch.Annuitant	Add Rule	OFF

ALIAS TABLES

ARRAY TABLES

MULTI

CUSTOM

Alias Weight

Alias Code	Weight
☐ Custom.DemoAgentPolicy.Type1	1
☐ Multi.Demo_Agent.AgentNumber2	2

Alias Formatting

Alias Code	Format
☐ Alias.Crunch.Address1	~CU~mk
☐ Alias.Crunch.Address2	
☐ Alias.Crunch.Address3	
☐ Alias.Crunch.Agent	
☐ Alias.Crunch.Annuitant	
☐ Alias.Crunch.Contract	

Validate View

Back
Submit

Fill in the following fields:

- **Alias View Name** - enter a name for the alias view. This field is required.
- **Alias View Description** - enter a description for the alias view you are creating.

- **Group Screen Name** - select the Group Screen where the alias view will be used. When you select the particular Screen Group, other Group Screens will be excluded for this alias view. If you leave the field empty, the alias view will work for all group screens.
 - **DEF** - means that alias view will be used for all screen groups.
- **Alias Primary Table** - select the database table that is used to evaluate the data.
- **Other Tables** - you can add aliases, arrays, multi and custom tables that will be loaded for the alias view by selecting the tables from the corresponding drop-down lists:
 - **Alias Tables**
 - **Array Tables**
 - **Multi**
 - **Custom**
- **Alias Items to Pre-load**

In the **Alias Items to Pre-load** section, you will see all the aliases that will be sent to the Alias Framework in order to be evaluated. The section consists on the selected tables aliases depending on the alias type:

- **Alias**
- **Array**
- **Multi**
- **Custom**

Click the Plus icon to open the list of aliases for the selected table. In the opened list, you can select all or several aliases by clicking the check boxes. The selected aliases will be evaluated in scope of the created alias view at any time later.

To delete the table, click the **Delete** icon next to the table name in the Alias Items to Pre-load section.

8.1.5.1 Add Rule

You can add a rule to any selected alias. The configured rule will be applied to the alias during the validation. The rule can be applied to the alias and arrays tables only (not custom or multi).

To add a rule to the selected alias, first activate the rule by turning the toggle-switch on and click the **Add Rule** button. The pop-up window appears:

In the pop-up window, you need to set up only the following fields:

- **Rule Type** - select the type of rule that should be applied to the alias value:
 - **Equal** - the result of evaluation will return aliases with values equal to the value defined in the rule.
 - **Greater** - the result of evaluation will return aliases with values greater than the value defined in the rule.
 - **Greater or equal** - the result of evaluation will return aliases with values equal to or greater than the value defined in the rule.
 - **Less** - the result of evaluation will return aliases with values less than the value defined in the rule.
 - **Less or equal** - the result of evaluation will return aliases with values less or equal to the value defined in the rule.
 - **Like** - the result of evaluation will return aliases with values containing the value defined in the rule.
 - **Range** - the result of evaluation will return aliases within the specific range defined in the rule.
 - **In** - the result of evaluation will return aliases with values equal to the value defined in the rule.
- **Value 1** - enter the value that will be taken into account when applying the rule during the alias validation. For the Range, you will need to specify the Value 1 and Value 2 fields.
For the **In** rule type, users can specify multiple values. The values must be delimited with a comma “,”.
- **Value Helper** - enter a help text that will be displayed in the placeholder for the View Parameter field in the View Validation pop-up.

8.1.5.2 Alias Weight

The Multi and Custom aliases are connected to the Alias Weight. Via the Alias Weight option user can define in which order each custom and multi alias should be evaluated. When you select two and more aliases, they will be displayed in the Alias Weight table where you can define the weight for each of aliases.

8.1.5.3 Alias Formatting

The **Alias Formatting** option provides the possibility to define the format of the alias value, in which the value will be returned from the service and displayed. This is done by appending the name of the formatting function and options to the alias code.

Alias Formatting is relevant for all aliases (alias, array, custom and multi). You can provide the specific string that will define how the alias should be formatted.

Take a look at the example: `Array.test.completedby~CQ~QueryName`, where

- `Array.test.completedby` - alias code,
- `~` - separator,
- `CQ` - formatting function,
- `QueryName` - formatting option.

Different formatting functions are currently available (date format conversions, currency formatting, custom query formatting) and all of them have different formatting options.

At the moment, we support the following functions:

- CQ (example: “~CQ~acctcodeTOclientname”)

description: uses a custom query to format the value

parameter: name of a custom query defined in AppMill

- TD (example: “~TD~%Y%m%d TO %B %e, %Y”)

description: to date, converts from one date format to another using C++ specifiers

parameter: from date and to date separated with “TO” (example: “%Y%m%d TO %B %e, %Y”)

- CU (example: “~CU~mk”)

description: converts a numeric value to a specific currency

parameter: the country code of the currency

- DE (example: “~DE~2”)

description: rounds the number to a specific decimal point

parameter: the number of decimal points

i In case a report is set up to use an Alias View with Alias Formatting, users must specify which version of the alias value should be used in the report. If the formatted version of the alias value should be used, users must specify the alias code plus the formatting string in the report, for example, “Array.test.completedby~CQ~QueryName”. Otherwise, they can specify just the alias code “Array.test.completedby”.

8.1.5.3.1 Custom Query for Alias Formatting

The custom query (CQ) that is going to be used for alias formatting should be prepared in a specific way.

Update custom query

QUERY NAME *

QUERY VALUE

```
select "glaccountnumber"."glaccountnumber" as "id", "glaccountnumber"."glaccountname" as "formatted_value" from "glaccountnumber" where "glaccountnumber"."glaccountnumber" IN (:Array.purchaseorderitem.glaccountnumber)
```

QUERY PARAMS

QUERY PKS

DESCRIPTION

Back Submit

The example of how the custom query can be prepared is described below:

- The custom queries should contain the **id** and **formatted_value** values in the **SELECT** part of the query entered into the Query Value field.
 - id** - the same column name where the input values are used.
For the alias with the Alias or Custom types (single values), the **id** value can be omitted.
 - formatted_value** - the value that will be shown for the formatted alias.

For example, the following value could be entered into the Query Value field:

SELECT “glaccountnumber”.“glaccountnumber” as ”id”, “glaccountnumber”.“glaccountname” as ”formatted_value” from “glaccountnumber” where “glaccountnumber”.“glaccountnumber” IN (:Array.purchaseorderitem.glaccountnumber)

- The input value should be the alias value(s) that will be formatted, in this case *Array.purchaseorderitem.glaccountnumber*. This alias also must be the only Query Params value

specified for the custom query.

- Depending on the alias type (single or multi value), an appropriate operator should be used. The example of the custom query for the aliases with the Alias or Custom types (single value) is displayed below:

Update custom query

QUERY NAME *

PORequestedBy

QUERY VALUE

SELECT "c_user_accounts"."account_name" as "formatted_value" FROM "c_user_accounts" WHERE "c_user_accounts"."id" = :Alias.purchaseorder.requestedby

QUERY PARAMS

:Alias.purchaseorder.requestedby

QUERY PKS

PK1; PK2; ...

DESCRIPTION

Used on the PO Report

Back

Submit

The following operators can be used:

- **IN** - this operator should be used if the aliases with the Array or Multi types are formatted and many input values are provided for formatting.
- **=** - this operator can only be used for formatting the aliases with the Alias or Custom types.

For more details about custom query, refer to the [Custom Query](#) page of the User Manual.

8.1.6 Validate Alias View

To avoid errors while configuring the Alias View, you can validate view and check whether the Alias View is set up correctly and all aliases have the dependencies that are supposed to have.

Click the **Validate View** button, the Validate View pop-up window will be opened:

VALIDATE VIEW

VIEW PRIMARY SET

PRIMARY TABLE FIELDS

Alias.Crunch.Contract

Add field

VALUE

BILLTEST01

VIEW PARAMETERS

Close

Validate

Select the **Primary Table Fields** (Primary key), enter the field **Value**.

To apply the specific rules, enter the Rule Value into the View Parameters field.

Click the **Validate** button to start the alias view evaluation. In the JSON View section, you will see the result of the validation. Explore the different representations of JSON request:

- Native View
- Formatted View
- Formatted Nested View

VALIDATE VIEW

VIEW PRIMARY SET

PRIMARY TABLE FIELDS

Alias.Crunch.Contract

Add field

VALUE

BILLTEST01

VIEW PARAMETERS

JSON VIEW

JSON REQUEST

Native View

Formatted View

Formatted Nested View

```
{
  "func_name": "AliasFrameworkEntryPoint",
  "func_param": {
    "alias_input": {
      "Alias.Crunch.Contract": "BILLTEST01"
    },
    "alias_output": [
      "Alias.Crunch.Address1",
      "Alias.Crunch.Address2",
      "Alias.Crunch.Address3",
      "Alias.Crunch.Agent"
    ]
  }
}
```

8.1.7 Delete Alias View

To delete an Alias View, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the Delete action

8.2 Swap Tables

8.2.1 Access

Click **System Data > Swap Tables** to access the functionality for creating and managing swap tables.

8.2.2 Table of Contents

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- [Search](#)
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- [Create Swap Table](#)
- [Update Swap Table](#)
- [Delete Swap Table](#)

8.2.3 Overview

The Swap Tables functionality provides the possibility to clone the existing table and use all data captured on the moment of table cloning. For instance, that can be useful in cases when the user needs to make a report based the stable data or collect some statistics, but the table data is constantly updated and the data used become not actual very quickly.

8.2.4 Search

To search for a menu or filter the search results, use the following search filters and enter any or all the search criteria:

- Table Name
- User Name
- Plugin Name

After filling in the filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching as well.

8.2.4.1 Sort Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

8.2.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

8.2.5 Create Swap Table

Click the **Create** button on the Overview page to create a Swap Table. This opens the Create Swap Table page.

Create Swap Table

TABLE NAME: Address | PLUGIN NAME: CodiacSDK.AdminMenu | USER NAME: Admin

FILTER RULES

COLUMN NAME: -- Select -- | FILTER NAME:

Add Filter Rule | Back | Submit

Fill in the following fields:

- **Table Name** – select a table that should be swapped.
- **Plugin Name** - select the plugin, where this table will be used.
- **User Name** - select the user that will be responsible for this task and swap table.
- **Column Name** - select the column that will be processed. Only the selected column will be copied to the swap table. Other data will not be cloned. You can add several columns by adding new filter rows below. If you leave the field empty, all the columns will be cloned.
- **Filter Name** - specify the selection of the values by entering the filter name.

To define several columns and filters, click the **Add Filter Rule** button.

After filling in all mandatory and optional fields click the **Submit** button to save the created Swap Table. Click the **Back** button to go back to the Overview page without saving the data.

8.2.6 Update Swap Table

To edit a swap table, click the **Edit** (pencil) icon for the selected entry in the search results table. The Update Swap Table page opens for editing.

After making the necessary changes, click the **Submit** button. To return to the Overview page, click the Back link.

8.2.7 Delete Swap Table

To delete a swap table, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the action.

8.3 Activity Audit

8.3.1 Access

Click **System data > Activity Audit** to access the Activity Audit Tracking functionality.

8.3.2 Overview

The **Activity Audit Tracking** functionality provides the possibility to collect audit data from the screens and databases and monitor users' activity.

Activity Audit Tracking				
User Name	Date Time	Activity	Result	Message
Admin	2020-04-18T02:37:51	agent_master	Success	UPDATE
Admin	2020-04-19T09:54:38	agent_master3	Success	Add -
Admin	2020-04-19T09:59:54	agent_master3	Success	Add -
Admin	2020-04-19T10:22:15	agent_master3	Failed	Add - Add -
Admin	2021-05-05T14:49:54.998866	MerriTest	Success	Update - Alias.MerriTest.Key= {"oldValue":"","pk":"scooter","value":"scooter"}
Admin	2021-05-05T14:50:23.43206	MerriTest	Success	Update - Alias.MerriTest.Key= {"oldValue":"","pk":"scooter6","value":"scooter6"}
Admin	2021-06-02T20:40:50.738314	MerriTest	Success	Inquire - Alias.MerriTest.Key= {"pk":"goo","rights":"U","value":"goo"}
Admin	2021-06-02T20:40:50.86892	MerriTest	Success	Inquire - Alias.MerriTest.Key= {"pk":"goo","rights":"U","value":"goo"}
Admin	2021-06-02T20:40:50.979262	MerriTest	Success	Inquire - Alias.MerriTest.Key= {"pk":"goo","rights":"U","value":"goo"}
Admin	2021-06-02T20:41:00.681449	MerriTest	Success	Inquire - Alias.MerriTest.Key= {"pk":"goo3","rights":"U","value":"goo3"}

1 2 ... 3 ... 4281 4282 »

To monitor the activity, you can review the following information:

- **User Name** - shows the user who was active.
- **Date Time** - shows the date and time of activity.
- **Activity** - shows the screen where the actions were done.
- **Result** - shows the status of the action (successful or failed).
- **Message** - shows the action that was done and the fields on which the actions were performed.

i The fields to be monitored and displayed in the Message column can be defined on the screen level. On the first page of the Screen Builder opened for the needed screen, select the fields from the list of the **Audit Fields**.

8.3.3 Search

You can search for a particular list of values or specific value as well as to filter the search results. For this, use any of the search filters such as **User Name**, **Date Time**, **Activity**, **Result** and click the Enter key

or on any screen place. The screen displays search results if found. To have an overview of all activities' entries stored the system, leave the filters empty and click the Enter key or on any screen place.

8.3.3.1 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the Search Results list accordingly.

8.4 Architect Screen Access

8.4.1 Access

Click **System data > Architect Screen Access** to manage the access to Architect screens per user groups.

8.4.2 Overview

The Architect Screen Access functionality provides the possibility to restrict an access to the menu items of the Architect application. Here you can create an access rule that defines what menu items and pages are available for the users. The rule created here can be assigned to the particular user in the User Account settings (Account Settings > Users). For more details about assigning the rule to the user, refer to the Create User section on the [Users](#) page of the User Manual.

Group name	Menu List
Tenant Access	Tenant
test	Groups, Users, Tenant, Menu, Tooltip, Document Groups, Custom Generated

Show All Create

8.4.3 Search

You can search for a particular restriction rule and to filter the search results. For this, use the Group Name search filter and click the Enter key or on any screen place. The screen displays search results if found. To have an overview of all access rules, leave the filter empty and click the Enter key or on any screen place.

8.4.3.1 Sort Search Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

8.4.3.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the Search Results list accordingly.

8.4.4 Create Architect Screen Access Rule

Click the **Create** button on the Overview page to create a new access rule. This opens the page in creation mode.

Create Architect Screen Access

GROUP NAME

Menu name	
Groups	☐
Users	☐
Tenant	☐
Logo	☐
Security filters	☐
Menu	☐
Menu Tooltip	☐
Screens	☐
Group screens	☐
Document devices	☐
Document family	☐
Report builder	☐
Column Encryption	☐

Back
Submit

Fill in the following fields:

- **Group Name** – enter a name for a new restriction rule for an access to the Architect pages.
- **Menu Name** - select the corresponding check boxes for the menu items that should be available for the user assigned to this group. To select all the menu items, click the main **Menu name** check box.

i Pay attention that Language, Help and Logout options do not belong to the list of menu items. They will be always available for all admin user groups.

After changes are done, click the **Submit** button to save the entered data. Click the **Back** button to go back to the Overview page without saving the data.

8.4.4.1 Assign Access Rights to User

To assign the Access Rights created on the Architect Screen Access page to a user, open the User Settings (Account Settings > Users) and select the appropriate option from the **Admin Group Rights** select box. For more details about assigning the rule to the user, refer to the Create User section on the [Users](#) page of the User Manual.

8.4.5 Update Access Rights

To update a group of access rights, click the Edit (pencil) icon for the selected entry on the Architect Screen Access Overview page. The Update Architect Screen Access opens for editing.

Make the necessary changes and click the **Submit** button to save them. To return to the Overview page, click the **Back** link.

8.4.6 Delete Access Rights

To delete a group of Access Rights, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the Delete action.

8.5 Auto Fill

8.5.1 Access

Click **System Data > Auto Fill** to manage search functions of the database tables.

8.5.2 Table of Contents

- [Overview](#)
- [Fill](#)
 - [Repopulate Tables](#)

8.5.3 Overview

The Auto Fill functionality provides the possibility to create search functions that will available and be used by users in the screen builder.

8.5.4 Fill

When a new table is created, an admin user will need to create the search functions for this table so that users can see and select these functions from the list in the screen builder.

Auto fill

TABLE LIST

Address
AgentHierarchy
AgentLicensing
AgentMaster
AgentPayMaster
AgentPaySchedules
AgentTraining
alexg_create_template
AmendEndorse
AmendEndorseBreakout
appmill_any

Repopulate tables ☒

Fill

To do this, select the needed table(s) in the table list and click the **Fill** button.

8.5.4.1 Repopulate Tables

In case you need to delete all the functions connected to the selected tables and to create new functions from scratch, activate the **Repopulate tables** check box after selecting the table(s) and click the **Fill** button. This can be useful when new fields have been added to the table and you need to consider them in search functions as well.

8.6 Error Messages Management

⚠ This feature is dated and is not used.

8.6.1 Access

Click **System data > Error Messages Management** to manage error messages used in the Render.

8.6.2 Overview

The Error Messages Management functionality provides the possibility to manage the error messages, create new, edit and delete the existing ones.

Library name	Function name	Language	Error Code

No results found.

Create Show All

8.6.3 Search

You can search for an error message and to filter the search results. For this, use the search filter and click the Enter key or on any screen place. The screen displays search results if found. To have an overview of all access rules, leave the filter empty and click the Enter key or on any screen place.

8.6.3.1 Sort Search Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

8.6.3.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the Search Results list accordingly.

8.6.4 Create Error Message

Click the **Create** button on the Overview page to create a new error message. This opens the page in creation mode. Fill in the following fields for general information:

- **Library Name** - select the library for which the error message will be created.
- **Function Name** - select the function from the list. The list of available functions is restricted based on the selected library.
- **Language** - select the locale for which the added message will be applied.
- **Error Code** - specify the code of the message.
- **Parameters** - define the parameters that will be taken for the error message into account.

- **Error Message Body** - define the error message that will be displayed in the Render.
- **Description** - enter the clear and short description.
- **Notes/Remarks** - add some useful notes or remarks, if needed.

After changes are done, click the **Submit** button to save the entered data. Click the **Back** button to go back to the Overview page without saving the data.

8.6.5 Update Error Message

To update the error message, click the Edit (pencil) icon for the selected entry on the Overview page. The Update Error Message page opens for editing.

Make the necessary changes and click the **Submit** button to save them. To return to the Overview page, click the **Back** link.

8.6.6 Delete Error Message

To delete the error message entry, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the Delete action.

8.7 Lists

8.7.1 Access

Click **System data > Lists** to access the lists of values used further on the screens.

8.7.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Search Results](#)
 - [Navigate](#)
- [Create List](#)
- [Update List](#)
 - [Update Single Value Option](#)
- [Bulk Update List](#)
 - [Add Options to List](#)
- [Delete List](#)

8.7.3 Overview

The **Lists** functionality provides the possibility to organize and store data in a structured way and further retrieve the data on the Render screens as a list of options.

The data can be used in the various functionalities and screens to complete specific tasks and processes, to fill in the fields.

Lists			
List name	Entry name	Description	Weight
123	IA	123	20
AuthType	E	Email Authentication	0
AuthType	L	Login Authentication	0
AuthType	LD	LDAP Authentication	0
AuthType	S	SMS Authentication	0
AuthType	SAML	SAML	0
AuthType	SQ	Secret Question Authentication	0
AuthType new1	SQ new1	Secret Question Authentication new1	100
AuthType new1	test	test	40
Bill_Sample	BI	BILL SAMPLE	0

« 1 2 3 4 5 6 7 8 9 10 »

Show All Create

8.7.4 Search

You can search for a particular list of values or specific value as well as to filter the search results. For this, use any of the search filters such as **List Name**, **Entry Name**, **Description**, **Weight** and click the Enter key or on any screen place.

The screen displays search results if found. To have an overview of all list values existing the system, leave the filters empty and click the Enter key or on any screen place.

8.7.4.1 Sort Search Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order.

Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

8.7.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the Search Results list accordingly.

8.7.5 Create List

Click the **Create** button on the Overview page to create a new List of values. This opens the page in creation mode.

Create list

LIST NAME *

Date

DESCRIPTION

yyyyMMdd

Internationalization

ENTRY NAME *

DEFAULT_VALUE

GROUPS

WEIGHT

0

EXTENSION FUNCTION

— Select —

FILTER

RESTRICT CODE

Back

Submit

Fill in the following fields:

- **List Name** – enter a name for the List. This field is required.
- **Description** - enter a value of the option.

That value will be displayed as an option in the list of options for selection from the select box on the screen in the Render application. This field is required.

- **Entry Name** - this value will be stored for the field in the database. This field is required. It is not recommended to use the “\” and “/” characters in the Entry Name value. The Entry Name value is used to form a primary key that will be used to build a link to update a single value page. And if the Entry Name value contains the “\” and “/” characters, the link will be incorrect, and the Update List page for a single value will not be opened. However, users still have the possibility to update the list, using the Update Bulk operation. For more details about update list operations, refer to the Update List section.

- **Groups** - enter the User Group name to specify that this option should be visible to the specified group only.

You can enter several comma-separated User Groups.

- **Weight** - enter the number defining the weight of the option.

It influences on the ordering in the list of displayed options in the select box.

- **Extension Function** - select an extension function from the list of available extensions.

After filling in all mandatory and optional fields click the **Submit** button to save the created List Value. Click the **Back** button to go back to the Lists Overview page without saving the data.

8.7.6 Update List

There are two possibilities to edit the lists and values:

Update a single value option

Bulk update of all value options from one list on a single page.

8.7.7 Update Single Value Option

To update a single value option of a List, click the **Edit** (pencil) icon for the selected list value in the search results table. The Update list page opens for editing.

Make the necessary changes and click the **Submit** button to save them. To return to the Lists Overview page, click the **Back** link.

8.7.8 Bulk Update List

To have the possibility to bulk update all the values of one list, follow the steps:

1. Find the needed list in the search result table on the List Overview page.
2. Click the **Update Bulk** button appearing in the bottom right corner of the page:

The screenshot shows a web interface titled "Lists". It contains a table with the following columns: "List name", "Entry name", "Description", and "Weight". The "List name" column has a dropdown menu currently showing "UserTypeForFilter". The table lists five entries:

List name	Entry name	Description	Weight
UserTypeForFilter	B	BLAZE TEST	(not set)
UserTypeForFilter	G	Guest User Account	(not set)
UserTypeForFilter	I	Internal user	(not set)
UserTypeForFilter	L	Login Account - Forced	(not set)
UserTypeForFilter	U	Basic User	(not set)

At the bottom right of the table, there are two buttons: "Show All" and "Update Bulk". The "Update Bulk" button is highlighted with a green border.

3. The Update Bulk page opens:

The screenshot shows a web interface titled "Update Bulk". It contains two forms, labeled "#1" and "#2", each for updating a list entry. Form #1 is for "External User" and Form #2 is for "Internal User". Each form has the following fields:

- List name:** A dropdown menu showing "UserType".
- Entry name:** A text input field.
- Weight:** A text input field.
- Filter:** A text input field.
- Description:** A text input field.
- Groups:** A text input field.
- Extension Function:** A dropdown menu showing "-- Select --".
- Restrict code:** A text input field.

At the bottom of the page, there are three buttons: "Add more", "Back", and "Submit". The "Submit" button is highlighted with a green background.

On the Update Bulk page, you can:

- review all the value options belonging to one list listed out on the page,
- change any data of any value option of the list,

- create a new value option for the selected list by clicking the **Add more** button.

8.7.8.1 Add Options to List

To create a new value option for the current list, click the **Add more** button in the bottom left corner of the page. A new card with the fields to be filled in will appear at the end of the list.

The List Name will be pre-defined with the current List name.

Fill in other fields and click the **Submit** button to save the changes. Click the Back link to leave the page.

8.7.9 Delete List

To delete a List, click the **Delete** icon for the selected list on the Overview page. The confirmation pop-up will appear where you can confirm or cancel the action.

8.8 Extension Functions

8.8.1 Access

Click **System data > Extension Functions** to add the extension functions or plugins stored in Service to the Architect.

8.8.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Search Results](#)
 - [Navigate](#)
- [Create Extension Function](#)
- [Update Extension Function](#)
- [Delete Extension Function](#)

8.8.3 Overview

The Extension Functions functionality provides the possibility to add extension functions (plugins) that can be created in different languages and stored in the Service. The extension functions (plugins) can be further used in the screen configuration process. The function (plugin) can be written in the following languages:

- C#
- C++
- COBOL
- JavaScript
- PHP
- Python

Extension functions			
Datasource Lib	Data source function	Extension function	Extension Library
CodiacSDK.Universal	CreateUnitValues	extensionCreatePre	CodiacSDK.JavaScriptWrapper
CodiacSDK.Universal	DeleteUnitValues	extensionDeletePre	CodiacSDK.NewModule
CodiacSDK.Universal	UpdateUnitValues	extensionUpdatePre	CodiacSDK.NewModule
CodiacSDK.Universal	SearchUnitValues	extensionInquirePre	CodiacSDK.NewModule
CodiacSDK.Universal	GetUnitValuesList	extensionExecutePre	CodiacSDK.NewModule
CodiacSDK.Universal	CreateUnitValues	extensionCreatePost	CodiacSDK.NewModule
CodiacSDK.Universal	DeleteUnitValues	extensionDeletePost	CodiacSDK.NewModule
CodiacSDK.Universal	UpdateUnitValues	extensionUpdatePost	CodiacSDK.NewModule
CodiacSDK.Universal	SearchUnitValues	extensionInquirePost	CodiacSDK.NewModule
CodiacSDK.Universal	GetUnitValuesList	extensionExecutePost	CodiacSDK.NewModule

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9
10
»

Show All
Create

8.8.4 Search

You can search for an extension function and to filter the search results. For this, use the search filter and click the Enter key or on any screen place. The screen displays search results if found. To have an overview of all access rules, leave the filter empty and click the Enter key or on any screen place.

8.8.4.1 Sort Search Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

8.8.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the Search Results list accordingly.

8.8.5 Create Extension Function

Click the **Create** button on the Overview page to create a new extension function. This opens the page in creation mode.

Create extension function

DATA SOURCE FUNCTION GetUnitValuesList	DATA SOURCE DESCRIPTION
PRIMARY TABLE ABC123	ALIAS MAP(S)
EXTENSION LIBRARY * Python	EXTENSION FUNCTION * UnitValues::extensionGetListPre

Back Submit

Fill in the following fields:

- **Data Source Function** – enter a name for a new extension function.
- **Data Source Description** - add a short description for the extension function. This is a required field.
- **Primary Table** - select table that the extension function (plugin) will be added to. The selected Primary table will be taken into account in the extension functions list on the first page of the Screen Builder.
- **Alias Map(s)** - define the Alias View data that the extension function will receive in JSON parameter.
- **Extension Library** - select the language, in which the extension function is written. E.g., if the plugin is written in C++, select C++ correspondingly.

- **Extension Function** - enter a class name and function name of the extension function. For different languages, the way to connect functions may differ. For example, they can be separated by double semicolon as follows, e.g. `UnitValues::extensionGetListPre`.

 More instructions on how to write and connect extension functions (plugins) can be found in the ***Extension Functions (Plugins) and Alias Framework Extension Functions*** document.

When writing extension functions (plugins), you need to keep in mind that the plugin's response must match what the UI expects. So, the example of the plugin's response finds below:

```
{ "resultbody": { "extendedinfo": "<info_text>", "requestresult": "successfully" } }
```

Pay attention to the request result value. The expected values for this field are "successfully" or "unsuccessfully".

After data is entered, click the **Submit** button to save the entered data. Click the **Back** button to go back to the Overview page without saving the data.

Now, the created extension Function can be used in the Screen Configuration. See details in the Configure Extension Functions section on the ***Screen Master Data Settings*** page of the User Manual. The included extension function (plugin) added in Screen Configuration will be applied on the screen in the Render application when user clicks the Execute button there.

8.8.6 Update Extension Function

To edit an extension function, click the **Edit** (pencil) icon for the selected entry on the Overview page. The Update extension function opens for editing.

Make the necessary changes and click the **Submit** button to save them. To return to the Overview page, click the **Back** link.

8.8.7 Delete Extension Function

To delete an extension function from the list of added functions, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the Delete action.

8.9 Client Verification

8.9.1 Access

Click **System Data > Client Verification** to manage the synchronization of plugins and services.

8.9.2 Table of Contents

- [Overview](#)
- [Enable Client Verification](#)
- [Search](#)
 - [Sort Results](#)
 - [Navigate](#)
- [Create Client Verification Entry](#)
- [Update Client Verification Entry](#)
- [Delete Client Verification Entry](#)

8.9.3 Overview

The primary purpose of a Client Verification functionality is to control and manage the level of access that client applications have to the entire service. By default, this functionality is deactivated, granting unrestricted service access to all client applications. When activated, unverified client applications will be limited to accessing only the third-party controller.

Client Verification

Client Name	RK Validity (hours)	VK Update Interval (hours)	Active
			v
PHP_Local	8	24	Yes  
QtRpt_Local	8	24	Yes  

Show All Create

The Client Verification functionality provides a possibility to manage the data related to the client verification process such as:

- setting time interval to validate a request key;
- setting time interval when the request key will be changed;
- the client verification activation.

For example, this functionality can be used to manage the licenses. There is important to manage the licenses usage time as it is usually granted for a specific duration of time. By implementing robust license usage time management, organizations can optimize resource allocation, prevent unauthorized usage, and stay compliant with licensing agreements. This functionality allows administrators to track the expiration dates of licenses, ensuring that software or services are utilized within the defined timeframe.

Here is a list of applications that support the Client Verification functionality, and the place where the generated request key can be specified:

- **Architect and Render** - the generated request key can be specified in the **request_key** attribute in the *params-local.php* file stored in the *config* folder by the following path: *config\params-local.php*.
- **WebDesigner** - the generated request key can be specified in the **\$request_key** attribute in the *params.php* file stored in the *config* folder by the following path: *webdesigner\config\params.php*.
- **ReportDesigner** - in the pop-up window that will be opened after clicking the **Configuration** button on the **Login** screen.

8.9.4 Enable Client Verification

On the first run the Client Verification functionality should be deactivated in order for the main client application (Architect) to be able to generate the first request key. After that the functionality can be activated and the generated request key can be used to validate the main client application (Architect).

To enable the Client Verification functionality, the following steps should be performed:

1. In the *CodiacSDK.Core.config* service configuration file stored in the *service_folder* folder, set the value of the **client_verification** parameter to **false** as described in the example below:

```
1 <config>
2   <datapool dbtype = "Abcdf" address = "123.4.5.1" port = "1234" name = "abcdf" password
3   <logs store = "false" plugins_logs = "false" store_db = "false" />
4   <devicecryptor deviceaeskey = "NLkfn82390amKCMD583kfjlsOIERH89435KBAsd93XBbjg4JL23JG
5   <security language = "Language.en-US" encryption = "false" hashpassword="qwer"
6   client_verification="false"/>
7   <passthru is_passthru = "false" acceptXML="true" />
8 </config>
```

2. Restart the AppMill Service application.
3. Open the PHP Architect application, and select the following parameters from the menu: **System data > Client Verification**. Click the **Create** button.
4. On the Create page enter the following parameters:
 - **Client Name** - a unique name that identifies the generated request key.
 - **RK Validity (hours)** - this parameter indicates the duration for which the request key will remain valid after its generation. The request key must be used within this specified timeframe.
 - **VK Update Interval (hours)** - to increase security, the request keys should be continuously rotated. And this parameter specifies how often the request keys should be updated.
 - **Active** - this parameter specifies whether this Client Verification entry is active or not. If it is unchecked, all client applications previously verified with this request key will be denied complete service access.
5. Click the **Submit** button. After that the generated request key will be available and can be used to verify client applications.
6. In the *CodiacSDK.Core.config* service configuration file stored in the *service_folder* folder, set the

value of the *client_verification* parameter to **true** as described in the example below:

```
1 <config>
2   <datapool dbtype = "Abcdf" address = "123.4.5.1" port = "1234" name = "abcdf" password
3   <logs store = "false" plugins_logs = "false" store_db = "false" />
4   <devicecryptor deviceaeskey = "NLkfn82390amKCMD583kfjlsOIERTH89435KBAsd93XBbjg4JL23JG
5   <security language = "Language.en-US" encryption = "false" hashpassword="qwer"
6   client_verification="true"/>
7   <passthru is_passthru = "false" acceptXML="true" />
8 </config>
```

7. Restart the AppMill Service application.

i Note that if there are multiple client applications on the same device used by the same user account, generating multiple request keys is unnecessary. Verifying one application is sufficient when they are used by the same user account on the same device.

8.9.5 Search

To search for an auto sequence or filter the search results, use the following search filters and enter any or all the search criteria:

- Client Name
- RK Validity (hours)
- VK Update Interval (hours)
- Active

After filling in the filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be considered while searching as well.

8.9.5.1 Sort Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

8.9.5.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

8.9.6 Create Client Verification Entry

Click the **Create** button on the Overview page to create a new Client Verification entry. This opens the **Client Verification Entry** page.

Client Verification Entry

CLIENT NAME *

a1b2c3d4

RK VALIDITY (HOURS) *

8

VK UPDATE INTERVAL (HOURS) *

24

☒ ACTIVE

Back

Submit

Fill in the following fields:

- **Client Name** - a unique client name.
- **RK Validity (hours)** - the parameter that defines the time interval to request a key validation.
- **VK Update Interval (hours)** - verification key update interval in hours defines the time interval when the verification key will be changed.
- **Active** - select this check box to activate the Client Verification entry. Otherwise, the Client Verification entry will not be activated.

After filling in all mandatory and optional fields, click the **Submit** button to save a new Client Verification entry.

Click the **Back** button to go back to the Overview page without saving the data.

8.9.7 Update Client Verification Entry

To edit a Client Verification entry, click the **Edit** (pencil) icon for the selected Client Verification entry in the search results table. The Client Verification Entry page opens for editing.

After making the necessary changes, click the **Submit** button. To return to the Overview page, click the **Back** link.

8.9.8 Delete Client Verification Entry

To delete a Client Verification entry, click the **Delete** icon on the Overview page for the selected Client Verification entry. The confirmation pop-up will appear where you can confirm or cancel the action.

8.10 Servers

8.10.1 Access

Click **System Data > Servers** to have an overview of all available servers.

8.10.2 Table of Contents

- [Overview](#)
- [Search](#)
- [Create Server Entry](#)
- [Edit Server Entry](#)
- [Delete Server Entry](#)

8.10.3 Overview

The Servers functionality provides the possibility to manage the list of existing servers:

Servers			
IP Address	Port	Description	
192.168.8.210	34567	Server 23	 
192.168.8.210	44569	Server 22	 
192.168.8.222	22	Server 14	 
192.168.8.65	34567	Test Server	 
			Create

It helps to support the actual information about the currently used servers.

8.10.4 Search

To search for a server in the table or filter the search results, use the following search filters and enter any or all the search criteria:

- IP Address
- Post
- Description

After filling in the filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching as well.

8.10.5 Create Server Entry

Click the **Create** button on the Overview page to create an entry about new server. This opens the Create server page.

The screenshot shows a web form titled "Create server". It contains the following fields and controls:

- IP ADDRESS ***: A text input field containing "192.168.8.210".
- PORT ***: A text input field containing "44567".
- DESCRIPTION**: A text area containing "Server 22".
- NOTE**: An empty text area.
- Buttons**: "Back" and "Submit" buttons located at the bottom right of the form.

Fill in the following fields:

- **IP Address** – select the IP address of the server. This is a required field.
- **Port** - enter a port number of the server. This is a required field.
- **Description** - provide an informative description for a new created server.
- **Note** - add some useful information if needed.

After filling in all mandatory and optional fields click the **Submit** button to save the created server information. Click the **Back** button to go back to the Servers overview page without saving the data.

8.10.6 Edit Server Entry

To edit a Server entry, click the **Edit** (pencil) icon for the selected server in the search results table. The Update Server page opens for editing.

After making the necessary changes, click the **Submit** button. To return to the Servers Overview page, click the Back link.

8.10.7 Delete Server Entry

To delete a Menu, click the **Delete** icon on the Menu Overview page for the selected Menu entry. The confirmation pop-up will appear where you can confirm or cancel the action.

8.11 TPC Custom Endpoints

8.11.1 Access

Click **System data > TPC Custom Endpoints** to manage notification templates that will be used for notifying users in the Render application.

8.11.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Results](#)
 - [Navigate](#)
- [Create TPC Custom Endpoint](#)
- [Steps to Configure a Custom Endpoint](#)
 - [Write Extension Function](#)
 - [Register Extension Function](#)
 - [Test the Endpoint \(via Postman\)](#)
- [Update TPC Custom Endpoint](#)
- [Delete TPC Custom Endpoint](#)

8.11.3 Overview

The TPC Custom Endpoints functionality provides the possibility to create API endpoints that execute extension functions, manage secure authentication, enforce IP-based access control, and pass additional data through headers and encrypted values.

8.11.4 Search

To search for a menu or filter the search results, use the following search filters and enter any or all the search criteria:

- Endpoint Name
- Extension Function ID
- Pass Thru Guest User

After filling in the filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching as well.

8.11.4.1 Sort Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are

indicated with arrows. Click the appropriate column name to sort search results by it.

8.11.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

8.11.5 Create TPC Custom Endpoint

Click the **Create** button on the Overview page to create a TPC Custom Endpoint. This opens the Create TPC Custom Endpoint page.

Create Custom Endpoint

ENDPOINT NAME *

EXTENSION FUNCTION ID *

-- Select --

PASS THRU GUEST USER

-- Select --

IP ALLOW LIST ⓘ

HEADERS TO FORWARD ⓘ

SECRET VALUE

Back

Submit

Fill in the following fields:

- **Endpoint Name** – specify a unique name for the endpoint, which will act as its identifier in the system and URL. This is a required field.
- **Extension Function ID** – provide the ID of the extension function that will be executed when the endpoint is accessed. This field is mandatory and cannot be null.

 More instructions on how to write and connect extension functions (plugins) can be found in the Extension Functions (Plugins) and Alias Framework Extension Functions document.

- **Pass-Thru Guest User** – define the user that will be used for authentication on the AppMill system. If left null, the client must authenticate by other means, such as calling the TPC login function or specifying the "Authorization" or "Session-Handle" in the HTTP headers.
- **IP Allow List** – input a semicolon-separated list of IP addresses. If specified, only requests

originating from these IP addresses will be allowed to access the endpoint, adding a layer of security.

- **Headers to Forward** – provide a semicolon-separated list of HTTP header keys. The values of these headers will be forwarded to the extension function as parameters under the `additional_data` JSON key. This enables the function to receive additional context or configuration for processing.
- **Secret Value** – enter a secret value associated with the endpoint. This value can be encrypted using the "Column Encryption" feature for security purposes. The decrypted secret value will be passed to the extension function under the `additional_data` JSON key for validation or processing.

The headers specified in the **Headers to Forward** and the decrypted **Secret Value** will be included in the function parameters under the JSON key `"additional_data"`. So inside the function parameters you would have something like this:

```
{
  "additional_data": {
    "forwarded_headers": {
      "x-fs-signature": "some_value"
    },
    "secret_value": "some_value"
  }
}
```

 The API endpoint URL format is as follows:
`{{service_ip}}:{{service_port}}/osoc/api/thirdpartycontroller/{{tpc_endpoint_name}}`

After filling in all mandatory and optional fields click the **Submit** button to save the created TPC Custom Endpoint. Click the **Back** button to go back to the Overview page without saving the data.

8.11.6 Steps to Configure a Custom Endpoint

This section provides a step-by-step guide for configuring and using a TPC Custom Endpoint. It is useful to set up an API endpoint that executes extension functions while enforcing security and access control. Follow these steps to create, register, and test the endpoint to ensure it functions well.

8.11.6.1 Write Extension Function

To create an extension function, start by writing the function in a supported programming language such as PHP, JavaScript, Python, or C++. The function must be implemented according to system requirements and should handle the necessary logic for processing incoming requests.

Once the function is written, ensure that the service where it will be hosted has a static IP address. The service must allow public access to the required port. Place the function (plugin files) in the appropriate service directory so it can be properly executed when called by the system.

8.11.6.2 Register Extension Function

To register an extension function in the AppMill Architect application you need to create an Extension Function. For more information see the Create Extension Function section on the [Extension Functions](#) page (System Data > Extension Functions) of the User Manual.

8.11.6.3 Test the Endpoint (via Postman)

After registering the extension function, testing the TPC custom endpoint ensures it works correctly. Postman or a similar API testing tool can be used to send requests and verify responses.

To test the Endpoint, follow these steps:

1. Create a TPC custom endpoint. For more information see the Create TPC Custom Endpoint section of the current page.
2. Use the API URL format:
`{{service_ip}}:{{service_port}}/osoc/api/thirdpartycontroller/{{tpc_endpoint_name}}`
3. Send a request and verify that the response matches the expected output, confirming that the extension function executes as intended.

8.11.7 Update TPC Custom Endpoint

To edit a TPC Custom Endpoint, click the **Edit** (pencil) icon for the selected entry in the search results table. The Update TPC Custom Endpoint page opens for editing.

After making the necessary changes, click the **Submit** button. To return to the Overview page, click the Back link.

8.11.8 Delete TPC Custom Endpoint

To delete a TPC Custom Endpoint, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the action.

8.12 Notifications

8.12.1 Access

Click **System data > Notifications** to manage notification templates that will be used for notifying users in the Render application.

8.12.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Search Results](#)
 - [Navigate](#)
- [Create Notification](#)
- [Update Notification](#)
- [Delete Notification](#)

8.12.3 Overview

The Notifications functionality provides the possibility to create and configure templates for notifications that can be sent to users at some points of workflows, processes on the screens in the Render.

Notifications			
Notify name	Notify type	Recipient type	
bought	E: EMail Notification	U: Users	 
Chat (Update field)	C: Chat Notification	C: Custom	 
Email (Sample)	E: EMail Notification	C: Custom	 
Email (Update field)	E: EMail Notification	C: Custom	 
FileImport	C: Chat Notification	U: Users	 
Group notification	C: Chat Notification	G: Groups	 
html email ascii header	E: EMail Notification	U: Users	 
html email no header	E: EMail Notification	U: Users	 
html email utf8 header	E: EMail Notification	U: Users	 
LP-chat	C: Chat Notification	U: Users	 

« 1 2 3 »

Create

8.12.4 Search

You can search for a notification and to filter the search results. For this, use the search filter and click the Enter key or on any screen place.

The screen displays search results if found. To have an overview of all access rules, leave the filter empty and click the Enter key or on any screen place.

8.12.4.1 Sort Search Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order.

Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

8.12.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the Search Results list accordingly.

8.12.5 Create Notification

Click the **Create** button on the Overview page to create a new notification template. This opens the page in creation mode.

Create notification

NOTIFY NAME *

Monthly Report

NOTIFY TYPE *

E: EMail Notification

DESCRIPTION

Monthly Report

RECIPIENT TYPE *

G: Groups

RECIPIENT_LIST

Ordering_Group

Agent_Group

Owner group

New_Group

test

PARAMETERS

:field_name::new_value:

SUBJECT *

Monthly Report

BODY *

File Edit View Insert Format Tools Table

Paragraph B I S A [color picker] [link icon] [image icon] [video icon] [bulleted list icon] [numbered list icon] [outdent icon] [indent icon] [table icon] [undo icon] [redo icon]

p 0 words Powered by Tiny

NOTE

Back

Submit

Fill in the following fields:

- **Notify Name** – enter a name for a notification template.
- **Notify type** - select the type of notification. Currently, we support two types:

- E: Email Notification
 - S: SMS Notification
- **Description** - add a short description for the notification.
- **Recipient type** - select the recipient type from the drop-down list. Currently, the following types are supported:
 - **Custom** - the notification with the Custom recipient type can be sent to the user only under specific conditions:
 - the Recipient Field ID in the field Notification tab should be defined. For more details, refer to the Notifications section on the [Field Configuration](#) page.
 - in the Render application, the field with an Email format type should contain an email address. A notification will be sent to this email address informing that the related field value has changed. The notification will be sent each time the value of the related field changes.
 - **Groups** - defines that the notification will be sent to user group(s) selected in the Recipient List field.
 - **Users** - defines that the notification will be sent to user(s) selected in the Recipient List field.
- **Recipient list** - select the recipients. The list of recipients will be restricted by the Recipient Type value.
- **Parameters** - enter the parameters that will be taken into account for sending the notification. These parameters will be available to configure on the Notifications tab in the Screen Builder. More details on how to set up the notifications in the Screen Builder for image, button, and field, can be found in the Notifications section on the [Image Configuration](#), [Button Configuration](#), and [Field Configuration](#) pages of the User Manual accordingly.
- **Subject** - enter the subject of the email/message.
- **Body** - use the visual editor to create the body of notification.
- **Note** - add a note with additional details and useful comments.

After data is entered, click the **Submit** button to save the entered data. Click the **Back** button to go back to the Overview page without saving the data.

8.12.6 Update Notification

To edit a notification, click the Edit (pencil) icon for the selected entry on the Overview page. The Update notification page opens for editing. Make the necessary changes and click the **Submit** button to save them. To return to the Overview page, click the **Back** link.

8.12.7 Delete Notification

To delete a notification template from the list, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the Delete action.

8.13 Internationalization

8.13.1 Access

Click **System data > Internationalization** to support application localization and to handle translations for error, information and GUI messages.

8.13.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Search Results](#)
 - [Navigate](#)
- [Create Internationalization Entry](#)
- [Internationalization](#)
- [Update Internationalization Entry](#)
- [Delete Internationalization Entry](#)

8.13.3 Overview

The Internationalization functionality provides the possibility to make it easier to localize an application without adjusting the source code. You can modify any message in the application UI to support any required locale.

Code	Application	Type	Name	Body	Module	
rdt_err_access_denied_screens	render	error	access_denied_screens	["Internationalization":{"en-us":"Access denied: All of screens is locked for update","mk":"Пристапот е одбиен: Сите екрани се заклучени за ажурирање","ru":"Доступ запрещен: все экраны заблокированы для обновления"}]	(not set)	
rdt_err_error_during_search	render	error	error_during_search	["Internationalization":{"en-us":"Error during search","mk":"Трешка при пребарување"}]	(not set)	
rdt_err_error_execute	render	error	error_execute	["Internationalization":{"en-us":"Error execute extension","mk":"Трешка при извршувањето на дополнителната функција"}]	(not set)	
rdt_err_error_generate	render	error	error_generate	["Internationalization":{"en-us":"Error generate","mk":"Трешка при генерирање"}]	(not set)	
rdt_err_error_getting_assigned_user	render	error	error_getting_assigned_user	["Internationalization":{"en-us":"Error with getting assigned user list","mk":"Трешка при добивање на листата на доделени корисници"}]	(not set)	
rdt_err_error_getting_secret_question	render	error	error_getting_secret_question	["Internationalization":{"en-us":"Error getting secret question","mk":"Трешка при земање на тајното прашање."}]	(not set)	

8.13.4 Search

You can search for an error message and to filter the search results. For this, use the search filter and click the Enter key or on any screen place. The screen displays search results if found. To have an overview of all access rules, leave the filter empty and click the Enter key or on any screen place.

8.13.4.1 Sort Search Results

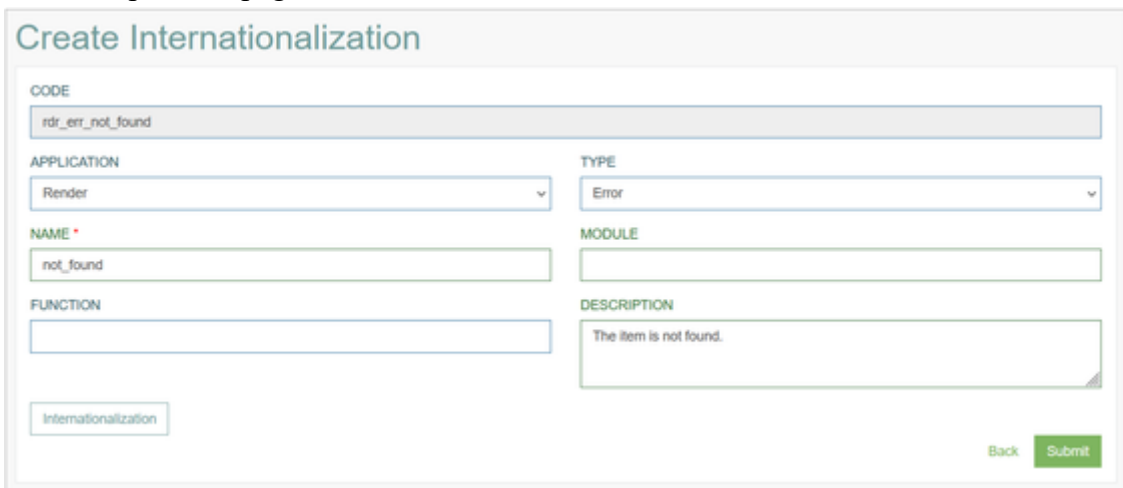
You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

8.13.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the Search Results list accordingly.

8.13.5 Create Internationalization Entry

Click the **Create** button on the Overview page to create a new internationalization entry and add required translations. This opens the page in creation mode.



Fill in the following fields for general information:

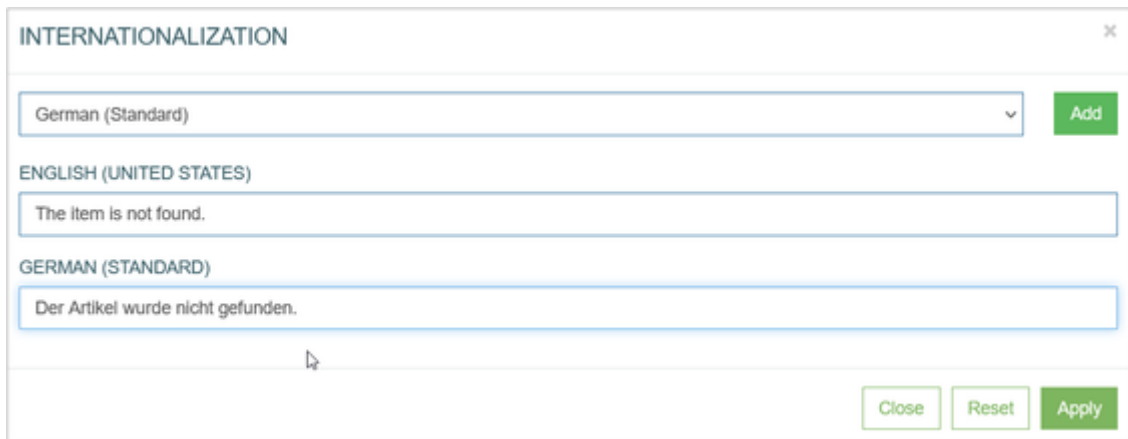
- **Code** - an identification code, the source translation code that will be generated automatically when you add translations to the entry.
- The code is built based on application, type and name values.
- **Application** - select the application where the translations should be applied. Currently, we support the internationalization in the following applications:
 - Service
 - Builder (Architect)
 - Render
 - Desktop
- **Type** - select the type of message:
 - GUI
 - Error

- Information

- **Name** - specify the name of the message. This name will be used in the generated code. This is required field.
- **Module** - define the module, if needed.
- **Function** - define the function, if needed.
- **Description** - enter the clear and short description.

8.13.5.1 Internationalization

After filling in the general details, click the **Internationalization** button.



In the opened pop-up window, you can add the required locale and the corresponding translations:

1. Select the **language** and click the **Add** button.
2. In the added input field, enter the message for the added locale.
3. Click the **Submit** button to save the entered data.
4. Click the **Reset** button to clear all translations from the Internationalization pop-up.
5. Click the **Close** button or **Cross** icon to close the pop-up window.

The added or updated translations will be applied in the Render not immediately, but only after the next login into the Render application.

After changes are done, click the **Submit** button to save the entered data. Click the **Back** button to go back to the Overview page without saving the data.

8.13.6 Update Internationalization Entry

To update the existing translations and an Internationalization entry, click the Edit (pencil) icon for the selected entry on the Overview page. The Update Internationalization page opens for editing.

Make the necessary changes and click the **Submit** button to save them. To return to the Overview page, click the **Back** link.

8.13.7 Delete Internationalization Entry

To delete an Internationalization entry, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the Delete action.

9 Features

The Architect features section provides wide range of benefits and possibilities for managing the processes and data. For instance, you can:

- develop custom queries to attach to dynamic screen elements and report generation.
- built in scheduler to allow functions, reports, and screens to be called on a normalized basis
- transfer data into various databases and cloud databases via migration tool
- collect and review audit information and much more.

For more details on the features refer to the corresponding page. Open the following pages:

- [Custom Query](#)
- [Migration Tool](#)
- [DB Schema Comparison](#)
- [Screen Transfer](#)
- [Screen Backup](#)
- [Screen Rollback](#)
- [SQL Query Window](#)
- [Management](#)
- [Import Files](#)
- [Job Scheduler](#)
- [Scheduler Builder](#)
- [Tables](#)
- [Simple Table Maintenance](#)
- [Auto Sequence](#)
- [Advanced Audit](#)
- [Audit History](#)
- [Locked Records](#)
- [Report Builder](#)
- [Column Encryption](#)

9.1 Custom Query

9.1.1 Access

Click **Features > Custom Query** to have an overview of existing custom queries and manage them.

9.1.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Results](#)
 - [Navigate](#)
- [Create Custom Query](#)
 - [Create custom query with builder](#)
 - [Create custom query \(using simple form\)](#)
- [Edit Custom Query](#)
- [Delete Custom Query](#)

9.1.3 Overview

The custom query functionality is designed to manage, retrieve, and show the data of the connected database table. In most cases they are used to receive and show the data using the “select” query. Custom query can be used to configure multi-search with custom query, the fields of the Relation Datalist and Inline Search types.

Custom query

Query name	Description	
ADDRESS_SEARCH	Address Search	  
Agent_Demo	Demo_Agent	  
Agent_Number	Agent_Number	  
Alias.JuneTableM1.subpolicy	Alias.JuneTableM1.subpolicy	  
Alias.JuneTest1.Text20	Alias.JuneTest1.Text20	  
Alias.JuneTestM2S.fund	Alias.JuneTestM2S.fund	  
Alias.JuneTestM2S.fund_for_Alias.JuneTest1.Text500	Alias.JuneTestM2S.fund_for_Alias.JuneTest1.Text500	  
Alias.JuneTestM2S.fund_for_Alias.JuneTest1.textarea	Alias.JuneTestM2S.fund_for_Alias.JuneTest1.textarea	  
Alias.JuneTestM2S.fund_for_subpolicy	Alias.JuneTestM2S.fund_for_subpolicy	  
Big query test	(not set)	  

«
1
2
3
4
5
6
7
»

Create with builder
Create
Show All

9.1.4 Search

To search for a required custom query or filter the search results, use the following search filters:

- Query name
- Description

After filling in the filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching as well.

9.1.4.1 Sort Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

9.1.4.2 Navigate

Use the navigation bar at the bottom of the Custom Query Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

9.1.5 Create Custom Query

There are two possible ways to create a custom query:

1. **Create custom query with builder** - this version of a custom query creation will be useful for the multi-search in the screen builder in case of quite simple queries, when the query contains one search parameter and one output parameter.
2. **Create custom query (using simple form)** - this is another way to create a screen.



Please note that these two ways of custom query creation are different.

When you select the particular way of creation, you need to follow the same way when updating the custom query.

That means that when you create a Custom Query via builder, you will need to edit the custom query via builder too. And vice versa, if you have created the custom query via simple form, you will be able to edit your custom query via simple form too.

Let's review these two ways and methods of the custom query creation in detail further.

9.1.5.1 Create custom query with builder

Click the **Create with Builder** button on the Custom Query Overview page to create a new custom query. This opens the Create custom query editor page:

Create custom query

QUERY NAME *

DESCRIPTION

TYPE

SELECT

TABLE NAME

Address

OUT PARAMS

Address.Country

Address.Tenant

Address.PostalCode

Address.AddressLine1

Address.AddressType

Address.PostalExtend

PKS

Address.Country

Address.Tenant

Address.PostalCode

Address.AddressLine1

Address.AddressType

Address.PostalExtend

AND OR

Address.Country

equal

value: USA

Delete

Address.City

equal

input parameter

Delete

Address.Tenant

equal

input parameter

Delete

+ Add rule

+ Add group

Back

Submit

Fill in the following fields:

- **Query Name** – enter a name for a new query.
- **Description** - provide the short and informative description for the query.
- **Type** - select the type of query:
 - select - is used to return all values that meet the query.
 - select distinct - is used to return only distinct (different) values.
- **Table Name** - select list the database table, in which the search should be executed.
- **Out Params** - select the parameters that will be returned and displayed in the search results.
- **PKS** - select Primary Key(s) of the database table. The values should be selected manually.
- **Search Condition Section** - in the section, you can configure the additional conditions for the search query.

- **Add Rule** - click the **Add Rule** button to add a new row for defining the condition. In the added row, select **field**, define the **operator** and specify the **value** of the field or select the **input parameter** (will be taken from the screen).
- **Add Group** - click the Add Group button to add a group of rows. Several rows with conditions can be grouped for defining one common condition.

After filling in all mandatory and optional fields click the **Submit** button to save the created Custom Query. Click the **Back** button to go back to the Custom Query overview page without saving the data.

9.1.5.2 Create custom query (using simple form)

Click the **Create** button on the Custom Query Overview page to create a new query. This opens the Create custom query editor page:

Create custom query

QUERY NAME *

Alias.JuneTableM1.subpolicy

QUERY VALUE

SELECT CONCAT("JuneTableM1"."subpolicy") AS "Text21" FROM "JuneTableM1" WHERE "JuneTableM1"."subpolicy" LIKE ':%Text21%'

QUERY PARAMS

:Text21

QUERY PKS

JuneTableM1.policy;JuneTableM1.subpolicy

DESCRIPTION

Alias.JuneTableM1.subpolicy

Back

Submit

Fill in the following fields:

- **Query Name** – enter a name for a new query.
- **Query Value** – write a custom query to retrieve the data from the required table.

 If you use a Custom Query for the Relation Datalist field in the screen configuration, you can improve the query as follows:

- When requesting `select "unique_field" from "first_table"`, you will get a select field. The value and description of the field option will be the same (and equal to the value of the *unique_field*).
- When requesting `select "unique_field" as "value", "info_field" as "description" from "first_table"`, you will get a select field. The value of the field option will be equal to *unique_field*, and the description will be equal to *info_field*. This way you can store a *unique_field* in the database, but the user can choose a more understandable option.

- **Query Params** - enter the parameters that are taken for the query execution into account.
- **Query PKS** - define the Primary Keys.

Use the following convention to define PKS: Use letters and numbers only. Multiple parameters should be separated via the “;” delimiter.

- **Description** - provide the short and informative description for the query.

9.1.6 Edit Custom Query

To edit the custom query, you can use two options:

 Use the following convention to enter the parameters: the parameter should start with “:”. Use letters and numbers only. Multiple parameters should be separated via the “;” delimiter.

- editing via clicking the **Edit** (pencil) icon for the selected custom query entry in the search results table.
- editing via builder (clicking the Gear icon).

Your choice will depend on the way the custom query is created.

After making the necessary changes, click the **Submit** button. To return to the Custom Query Overview page, click the Back link to cancel the changes.

9.1.7 Delete Custom Query

To delete a custom query, click the **Delete** icon on the Custom Query Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the action.

9.2 Migration Tool

9.2.1 Access

Click **Features > Migration Tool** to manage the database migrations.

9.2.2 Table of Contents

- [Overview](#)
- [Create Database Migration](#)
 - [Migration Options](#)
 - [Settings](#)
 - [Table Override](#)
 - [Dev Ops](#)
 - [Filtering](#)
 - [Data Mask](#)
 - [Start Migration](#)
- [View Migration](#)
- [Delete Migration](#)

9.2.3 Overview

The Migration Tool functionality provides the possibility to completely migrate the database schema from the source database to the destination database.

ID	job_id	User	Created	Updated	Started	Finished	Status	
74	(not set)	Codiac Admin Account	2021-05-25 09:23:59	2021-05-25 05:24:00	2021-05-25 05:24:00	(not set)	0%	
73	(not set)	Codiac Admin Account	2021-05-25 09:23:13	(not set)	(not set)	(not set)	0%	
72	(not set)	Codiac Admin Account	2021-05-25 08:53:56	2021-05-25 04:53:57	2021-05-25 04:53:57	(not set)	0%	
71	(not set)	Codiac Admin Account	2021-05-25 08:52:20	2021-05-25 04:52:21	2021-05-25 04:52:21	(not set)	0%	
70	(not set)	Codiac Admin Account	2021-04-29 14:12:40	2021-05-25 04:50:50	2021-05-25 04:50:50	2021-04-29 10:12:41	0%	
65	(not set)	newUser	2021-04-26 15:18:35	2021-06-11 05:14:05	2021-06-11 05:14:05	2021-04-29 08:07:47	0%	
49	(not set)	Egor Work	2021-04-15 12:20:38	2021-04-19 08:14:06	(not set)	(not set)	10%	
48	(not set)	Egor Work	2021-04-15 11:46:18	(not set)	(not set)	(not set)	50%	
47	(not set)	Egor Work	2021-04-15 10:12:40	2021-04-15 11:38:24	(not set)	(not set)	100%	
46	(not set)	Egor Work	2021-04-14 08:05:53	2021-04-14 10:48:52	(not set)	(not set)	60%	
45	(not set)	Egor Work	2021-04-13 12:59:07	2021-04-29 16:34:01	2021-04-29 16:34:01	(not set)	0%	
44	46	Egor Work	2021-04-13 09:38:40	2021-06-21 12:14:45	2021-04-12 15:33:48	2021-06-21 12:44:18	100%	

Create

It does not matter, what types the source and destination databases are. The databases could be different types. Currently, we support the following database types:

- PostgreSQL
- OracleSQL

- MicrosoftSQL
- MySQL
- SQLite

i Please note that different databases have specific capabilities.

If, during database migration, a table contains functionality that is not supported by the **destination** database, the migration of that table will be canceled.

For example, **PostgreSQL** allows the use of autoincrement for any field, while some other databases only support autoincrement for the **Primary Key** field.

As a result, such a table will generate an error during migration and will not be migrated.

9.2.4 Create Database Migration

To migrate database, click the **Create** button. This opens the Create Migration page with Source and Destination databases forms that should be filled in.

Fill in the following fields for the Source and Destination databases:

- **Database Type** - select the type of database from the drop-down list.
- **Host** - define the host where the database is stored.
- **Port** - define the port where the database is stored.
- **Database Name** - enter the database name.
- **User** - enter the user who has the access to the database.
- **Password** - enter the password used to access the database.

The screenshot shows the 'Create Migration' interface. It features two main sections: 'SOURCE' and 'DESTINATION'. The 'SOURCE' section is for PostgreSQL and includes fields for Host (127.0.0.1), Port (5432), Database Name (testmigration_11), User (postgres), and Password (masked). The 'DESTINATION' section is for MySQL and has empty fields for Host, Port, Database Name, User, and Password. A 'Connect' button is located below the source fields, and a red error message 'CONNECTED: X' is displayed below it. At the bottom, there are three buttons: 'Migration Options', 'Start Migration', and 'Save Migration Details'.

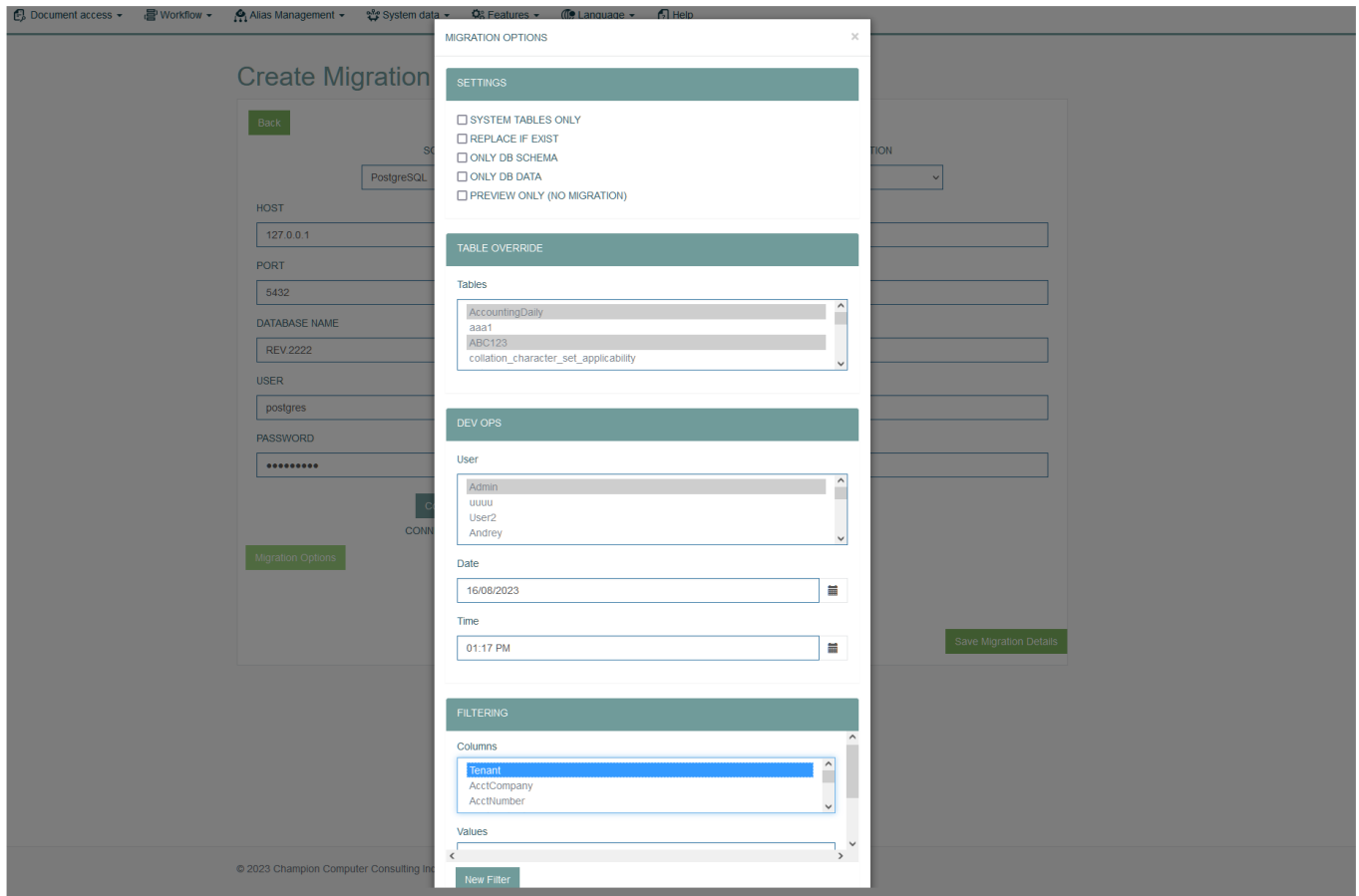
After filling in all the fields, click the **Connect** button below the form. If the connection is successful, you

will see the green check mark icon. If the connection failed, the red cross icon will be shown next to the button.

9.2.4.1 Migration Options

In case of successful connection, the **Migration Options** button that previously was not available will be activated.

Click the Migration Options button to set up the details of migration: settings, table overriding, DevOPS information, filtering options, etc. The Migration Options pop-up window appears:



You can set up the parameters in the following sections:

- [Settings](#)
- [Table Override](#)
- [Dev Ops](#)
- [Filtering](#)
- [Data Mask](#)

9.2.4.1.1 Settings

- **System tables only** - this option allows you to transfer only the system tables (the names of system tables start with “c_”).
- **Replace if exist** - select this option to specify that in case the destination table contains some data

in primary fields, this data should be updated. In case the option is not selected and the data exist, the error message will occur during the migration.

- **Only DB schema** - this option allows you to transfer DB schema only.
- **Only DB data** - this option allows you to transfer DB data only.
- **Preview only (no migration)** - this option allows you to only preview and check the queries that will be executed on the destination database. No migration will be performed in this case.

 Note that the **Preview only (no migration)** option is available only when the DevOps details are added. This restriction is designed to avoid the large volume of statistics and performance issues.

9.2.4.1.2 Table Override

In the section, you can select the Tables that need to be migrated. In order not to migrate all the existing tables, but only those that should be migrated, you need to define the required tables.

9.2.4.1.3 Dev Ops

Based on the date-specific information specified in this section, the system will define which records should be transferred during the migration.

You can select the User, define Date and Time data and the system will consider only the records that were created after the specified date/time.

9.2.4.1.4 Filtering

In this section you can specify the columns and the values that will not be migrated to the destination database.

- **Column** - select the column the values of which that you do not need to migrate. The list of available columns is restricted according to the tables selected above.
- **Values** - enter the values that should be excluded from the migration.

Click the **New Filter** button to add more values to be filtered out.

9.2.4.1.5 Data Mask

Here you have the possibility to hide the transferred values and mask them out in case the data is sensitive or confidential. Fill in the following details:

- **Tables** - select the tables containing the data to be mask out.
- **Columns** - select the required columns.
- **Values** - the values entered here will replace all real values during the migration to the destination database.

Click the **New Mask** button to add more data masks.

9.2.4.2 Start Migration

When all the required parameters are set up, you can start the migration. For this, click the **Start Migration** button.

The confirmation pop-up with the information that you are in the Migration mode appears, confirm your

action and the migration will be started. The page title will be changed to View Migration.

When the migration is finished, you will see new buttons and status info in the upper left corner of the form:

- **Reload** - click the Reload button to reload the migration page manually and update the statistics. This can be useful in case the migration takes long time.
- **Statistics** - click the button to open the information about the migration (successful migration or some errors).
- **Status** - shows the completion of the migration process.

To save the changes done on the Migration page click the **Save Migration Details** button.

To cancel the Migration process, click the **Cancel** button below the Save Migration Details button.

To leave pages without saving, click the **Back** button.

9.2.5 View Migration

To view the Migration details, click the selected entry row in the search results table. The View Migration page opens for editing.

To return to the Overview page, click the **Back** button in the upper left corner of the form.

9.2.6 Delete Migration

To delete a Migration entry, click the **Delete** icon on the Overview page. The confirmation pop-up will appear where you can confirm or cancel the action.

9.3 DB Schema Comparison

9.3.1 Access

Click **Features > DB Schema Comparison** to compare two databases.

9.3.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Results](#)
 - [Navigate](#)
- [Create DB Schema Comparison](#)
- [Update DB Comparison Record](#)
- [Delete DB Comparison Record](#)

9.3.3 Overview

The Database Schema comparison functionality is designed to compare two database schemas - a source database and a destination database. As a comparison result, the user will view the differences (missing/new columns, updated column type, missing/new constraints, etc.). The functionality allows the user to select which updates should be executed on the destination database, to execute the selected updates, to see the result on UI.

DB schema comparison					
Rows in this table will be created and updated automatically when a user compares or synchronizes two databases.					
New comparison					
Id	User	Params Source	Params Destination	Compare Data	Result
1	newUser	("host":"localhost","name":"ap...	("host":"localhost","name":"ap...	[{"additional_info":"","column_...	(not set)
2	Admin		("host":"localhost","name":"ap...		(not set)
3	newUser	("host":"localhost","name":"ap...	("host":"localhost","name":"ge...	[{"additional_info":"Table ABC1...	(not set)
4	newUser	("host":"localhost","name":"ap...	("host":"localhost","name":"ge...	[{"additional_info":"Table ABC1...	(not set)
5	newUser	("host":"localhost","name":"ap...	("host":"localhost","name":"ge...	[{"additional_info":"Table ABC1...	(not set)
6	newUser	("host":"localhost","name":"ap...	("host":"localhost","name":"ge...	[{"additional_info":"Table ABC1...	(not set)

 The rows in this table will be created and updated automatically, when a user compares or synchronizes two databases.

9.3.4 Search

To search for a database comparison record or filter the search results, use the following search filters: ID, User, Params Source, Params Destination, Compare Data, Result.

After filling in the filters, click the Enter key or any screen place. The screen displays search results if

found. Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching as well.

9.3.4.1 Sort Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

9.3.4.2 Navigate

Use the navigation bar at the bottom of the Custom Query Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

9.3.5 Create DB Schema Comparison

To compare two databases, click the New Comparison button. This opens the Create DB schema comparison page with Source and Destination databases forms to be filled in:

The screenshot shows a web form titled "Create DB schema comparison". At the top left is a green "Back" button. Below it is a "DATABASE TYPE" dropdown menu with "PostgreSQL" selected. The form is split into two side-by-side sections: "Source" and "Destination". Each section contains five input fields: "HOST" (pre-filled with "localhost"), "PORT" (pre-filled with "5432"), "DATABASE NAME" (pre-filled with "test12" for Source and "test11" for Destination), "USER" (pre-filled with "postgres"), and "PASSWORD" (masked with asterisks). At the bottom center of the form is a green button labeled "Compare Database Schema". At the bottom right is another green "Back" button.

Select the Database Type from the drop-down menu. Currently, four database types are supported:

- PostgreSQL
- OracleSQL
- MicrosoftSQL
- MySQL

Fill in the following parameters for every database (Source and Destination):

- **Host** - define the host where the database is stored.
- **Port** - define the port where the database is stored.
- **Database Name** - enter the database name.
- **User** - enter the user, who has the access to the database.
- **Password** - enter the password used to access the database.

After filling in all the fields, click the **Compare Database Schema** button below the forms.

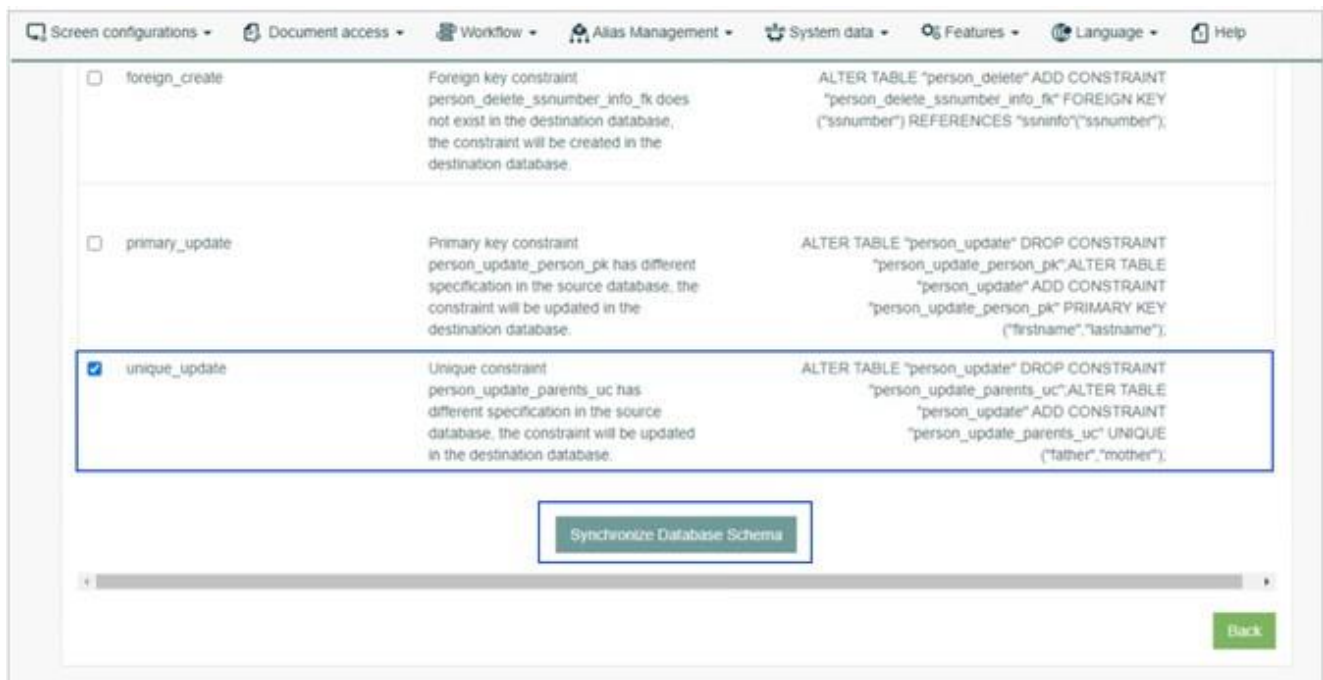
The result of the databases comparison is displayed below the forms:

The screenshot shows the AppMill Architect interface with a top navigation bar containing: Screen configurations, Document access, Workflow, Alias Management, System data, Features, Language, and Help. Below the navigation bar, there are two identical forms for database configuration. Each form has a 'USER' field with 'postgres' entered and a 'PASSWORD' field with '*****' entered. Below these forms is a green button labeled 'Compare Database Schema' with a refresh icon. Below the button is a table with the following columns: Mode, Column Name, Additional Info, and Queries.

Mode	Column Name	Additional Info	Queries
☐ foreign_delete		Foreign key constraint person_create_ssnnumber_info_fk does not exist in the source database, the constraint will be deleted in the destination database.	ALTER TABLE "person_create" DROP CONSTRAINT "person_create_ssnnumber_info_fk";
☐ unique_delete		Unique constraint person_create_parents_uc does not exist in the source database, the constraint will be deleted in the destination database.	ALTER TABLE "person_create" DROP CONSTRAINT "person_create_parents_uc";

You can review the list of differences between two schemas in the result table. In the Additional Info column, you find the explanation about the changes that will apply to the Destination database if you select the record for synchronization.

To select the items to be synchronized, check the appropriate check boxes and click the **Synchronize Database Schema** button:



After successful synchronization and the applied changes, this entry will not be available for selection.

The next time that you compare these two databases, the applied changes will not be shown in the list of differences.

9.3.6 Update DB Comparison Record

To update a DB Comparison record, click the **Edit** (pencil) icon for the selected entry in the search results table. The DB Schema Comparison page opens for editing.

Here you can compare or synchronize two databases again. To return to the Overview page, click the **Back** button.

9.3.7 Delete DB Comparison Record

To delete a DB Comparison record, click the **Delete** icon on the Overview page. The confirmation pop-up will appear where you can confirm or cancel the action.

9.4 Screen Transfer

9.4.1 Access

Click **Features > Screen Transfer** to have an overview of transferred screens and manage them.

9.4.2 Table of Contents

- [Access](#)
- [Overview](#)
- [Search](#)
 - [Navigate](#)
- [Create Screen Transfer](#)
- [Update Screen Transfer](#)
- [Delete Screen Transfer](#)

9.4.3 Overview

The **Screen Transfer** functionality is designed to update screens or transfer them between the source and target (destination) databases. For example, when upgrading to a new database, the Screen Transfer functionality allows users to transfer their settings and data from the old database to the new one. Or, in case users work on cross-platform applications, they can use the Screen Transfer functionality to test their software on various devices and screen sizes, ensuring a consistent user experience.

When transferring, only the data for the screen is modified if it exists in the target database. Additionally, related data such as lists, custom queries, notifications, etc., will be generated if they do not exist yet, or users may be prompted to verify them manually.

Screen Transfer				
Id	DB role	Screen	Other DB	Mode
5	Target	Id: 215	{ "type": "Postgres", "host": "10....	Run
8	Both	WorkOrder Workorder		Run
				Create

9.4.4 Search

To search for a required screen transfer or filter the search results, use the following search filters:

- **ID** - the Screen Transfer entry ID.
- **DB role** - the database role.
- **Screen** - the name of the transferred screen.
- **Other DB** - the name of the source or target database.
- **Mode** - the Screen Transfer mode.

After filling in the filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching as well.

9.4.4.1 Navigate

Use the navigation bar at the bottom of the Screen Transfer Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

9.4.5 Create Screen Transfer

To create the Screen Transfer, click the **Create** button. This opens the **Screen Transfer Create** page with forms that should be filled in.

Screen Transfer Create

DB ROLE *

Source

Target DB Params

TYPE * PostgreSQL

HOST * 123.12.1.2

PORT * 1234

NAME * test1234

USER * John Smith

PASSWORD *

Main Params

SCREEN * WorkOrder | Workorder

MODE * Test

Back Start

Fill in the following fields (all fields are mandatory):

DB Role - this parameter signifies the role in which the connected service will use the associated database.

Select the database role from the drop-down list:

- **Source** - select this role to define the database as a source one. I.e., that the screen of this database will be transferred to the destination (target) database.
- **Target** - select this role to define the database as a target one. I.e., that the screen from the source database will be transferred to this destination (target) database.
- **Both** - select this role to transfer screen within one database. Also, this role verifies the accuracy of transferred screens manually. For example, it enables the validation of IDs for **Extension**

function and screens referenced in links.

Depending on the value in the **DB Role** field the **Target DB Parameters** or **Source DB Parameters** section appears.

Target DB Parameters

The **Target DB Parameters** (Target DB Params) section is displayed in case the **Source** database role is selected. Enter the data to the fields below, to define the target database:

- **Type** - select the database type from the drop-down list:
 - **PostgreSQL**
 - **OracleSQL**
 - **MicrosoftSQL**
 - **MySQL**
- **Host** - enter the database host.
- **Port** - enter the database port.
- **Name** - enter the database name.
- **User** - enter the username.
- **Password** - enter the database password.

Source DB Parameters

The **Source DB Parameters** (Source DB Params) section is displayed in case the **Target** database role is selected. Enter the data to the fields below:

- **Type** - select the database type from the drop-down list:
 - **PostgreSQL**
 - **OracleSQL**
 - **MicrosoftSQL**
 - **MySQL**
- **Host** - enter the database host.
- **Port** - enter the database port.
- **Name** - enter the database name.
- **User** - enter the username.
- **Password** - enter the database password.

In case the Target database role is selected the **Get Source Screen List** button appears. Click the **Get Source Screen List** button to access the source database screen list.

Main Parameters

In the **Main Parameters** (Main Params) section define the following parameters:

- **Screen** - select the screen to be transferred from the drop-down list.
- **Mode** - select the mode, in which the Screen Transfer will be created, from the drop-down list:
 - **Test** - using this mode executes all required checks, but the modifications will not be implemented into the target database.
It is recommended to use this mode prior to switching to the **Run** mode to gather

information about different data, such as variations in **Custom Query** or **ID for Extension function** between the source and target databases.

- **Run** - using this mode executes all required checks, and all modifications will be implemented into the target database at once.

Additional Parameters

The **Additional Parameters** section appears if in the **Main Parameters** section the **Run** mode is selected. For the **Test** mode, the Additional Parameters section will not be displayed.

In the **Additional Parameters** section users can select which **Custom Query**, **List**, **Document Family**, and **Group Screen** data from the source database will be transferred and updated in the target database.

Define the parameters for the following fields:

- **Custom Query** - select the parameter from the drop-down list:
 - **Create and use a new one** - to save both the source and target database custom queries in the target database.
For example, in both the source and target databases, there are two custom queries with the same name but a different function used. To avoid errors, it is necessary to keep both custom queries. As a result, after the screen is transferred, in the target database there will be two custom queries: the old one and a new one with the same name and prefix. The prefix will be added automatically by the system. The new custom query will be used on the transferred screen. The old custom query can still be used on the other screens.
 - **Update** - to update the custom query in the target database without saving the old custom query. In this case, new custom query will replace the old one.
- **List** - select the parameter from the drop-down list:
 - **Create and use a new one** - to save both the source and target database lists in the target database.
For example, in both the source and target databases, there are two lists with the same name but different list options used. To avoid errors, it is necessary to keep both lists. As a result, after the screen is transferred, in the target database there will be two lists: the old one and a new one with the same name and prefix. The prefix will be added automatically by the system. The new list will be used on the transferred screen. The old list can still be used on the other screens.
 - **Update** - to update the list in the target database without saving the old list. In this case, new list will replace the old one.
- **Document Family** - select the parameter from the drop-down list:
 - **Create and use a new one** - to save both the source and target database document families in the target database.
For example, in both the source and target databases, there are document families with the same name but different parameters used. To avoid errors, it is necessary to keep both document families. As a result, after the screen is transferred, in the target database there will be two document families: the old one and a new one with the same name and prefix. The prefix will

be added automatically by the system. The new document family will be used on the transferred screen. The old list can still be used on the other screens.

- **Update** - to update the document family in the target database without saving the old document family. In this case, new document family will replace the old one.
- **Group Screen** - select the parameter from the drop-down list:
 - **Create and use a new one** - to save both the source and target database group screens in the target database.
For example, in both the source and target databases, there are group screens with the same name but different parameters used. To avoid errors, it is necessary to keep both group screens. As a result, after the screen is transferred, in the target database there will be two group screens: the old one and a new one with the same name and prefix. The prefix will be added automatically by the system. The new group screen will be used on the transferred screen. The old list can still be used on the other screens.
 - **Update** - to update the group screen in the target database without saving the old group screen. In this case, new group screen will replace the old one.

Click the **Start** button, to execute the Screen Transfer process. The results of the Screen Transfer process execution will be displayed below in the **Result** section.

Click the **Back** button, to cancel the Screen Transfer process and return to the Screen Transfer Overview page.

After the screen transfer, a record of the screen's previous state will be added to the target database. In a service where the target database is the main one, users can access the previous screen state on the Screen Backup page (Features > Screen Backup). For more details about the screen backup process, refer to the [Screen Backup](#) page of the User Manual.

Additionally, users have the option to restore the earlier state on the Screen Rollback page (Features > Screen Rollback). For more details about the screen rollback process, refer to the [Screen Rollback](#) page of the User Manual.

9.4.6 Update Screen Transfer

To update a Screen Transfer entry, click the **Edit** (pencil) icon for the selected Screen Transfer entry in the search results table. The Screen Transfer Update page opens for editing.

After making the necessary changes, click the **Start** button.

In case the Screen Transfer entry in the Run mode is updated, a new screen transfer process will be performed, and a new Screen Backup will be created for the target database.

To return to the Overview page, click the **Back** link.

9.4.7 Delete Screen Transfer

To delete a Screen Transfer entry, click the **Delete** icon on the Overview page for the selected Screen

Transfer entry. The confirmation pop-up will appear where you can confirm or cancel the action.

9.5 Screen Backup

9.5.1 Access

Click **Features > Screen Backup** to access the functionality to manage the screen backups.

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- [Overview](#)
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- [Delete Screen Backup](#)

9.5.3 Overview

The Screen Backup functionality supports versioning, allowing users to maintain a history of different states of screens over time. This is useful for tracking changes and reverting to previous versions if needed.

Screen Backup				
Id	Screen	Created At	Previous State	
15	203	2024-02-29T10:42:50.706596	{"inserted":{"c_AliasTable":{"...	 
16	ChemSearch_py ChemSearch_py	2024-02-29T12:04:25.450932	{"inserted":{"c_AliasTable":{"...	 
17	ChemSearch_py ChemSearch_py	2024-02-29T12:08:29.793929	{"inserted":{"c_AliasTable":{"...	 
18	WorkOrder Workorder	2024-03-04T15:02:19.871511	{"previous_condition":{"c_scre...	 

9.5.4 Search

To search for a required screen transfer or filter the search results, use the following search filters:

- **ID** - the Screen Backup ID.
- **Screen** - the screen name.
- **Created at** - the Screen Backup creating date.
- **Previous State** - the screen previous state.

After filling in the filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching as well.

9.5.4.1 Navigate

Use the navigation bar at the bottom of the Screen Backup Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous

page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

9.5.5 View Screen Backup

On the **Screen Backup Overview** page click the View icon. This opens the **Screen Backup** page with Screen Backup details such as:

- **Screen** - the screen name.

i For the screens that were deleted or rolled back from the Screen Backup, the screen ID will be used instead of the screen name. The Screen Rollback for such screens cannot be performed.

- **Created at** - the date when the screen backup was created.
- **Updated** - the table contains the information about the updates of the already existing data.
- **Inserted** - the table contains information about the transferred screen (if there was none) and the added related data to the other tables.
- **Previous Condition** - the table contains information about the previously saved screen settings.

Screen Backup - 17

SCREEN

ChemSearch_py | ChemSearch_py

CREATED AT

2024-02-29T12:08:29.793929

Updated:

Table	Keys
c_screen	204

Inserted:

Table	Keys
c_AliasTable	Multi.ChemicalInventoryModulePy.active; Multi.ChemicalInventoryModulePy.chemicalgroup; Multi.ChemicalInventoryModulePy.chemicalinventoryid; Multi.ChemicalInventoryModulePy.chemicalinventoryname; Multi.ChemicalInventoryModulePy.expirationdate; Multi.ChemicalInventoryModulePy.groupname
c_custom_query	ecb81c98-8182-41f9-854e-31cca8b02d07ChemicalGroupSearch; fb751318-7e23-4fd3-8ad4-1e6602084b5dEnv Departments

Previous Condition:

Table	PKS	Previous Data
c_screen	204	<pre>{ "UpdateTime": null, "UpdatedBy": null, "active_passive": false, "audit_fields": null, "hide_search_bar": false, "hide_tabs": false, "id": 204, "login_screen": false, "passthru_guest_user": null, "screen_desc": "ChemSearch_py", "screen_lib": "CodiakSDK.Universal", "screen_name": "ChemSearch_py", "screen_tab_desc": "ChemSearch_py", "screen_tab_devices": "D;M;W;P", "screen_tab_help": { "add": { "data": { "data_field": "", "screen_name": "ChemSearch_py", "screen_tab_name": "ChemSearch_py", "table_data": [[{ "Multi.ChemicalInventoryModulePy.active": "", "Multi.ChemicalInventoryModulePy.chemicalgroup": "", "Multi.ChemicalInventoryModulePy.chemicalinventoryid": "", "Multi.ChemicalInventoryModulePy.chemicalinventoryname": "", "Multi.ChemicalInventoryModulePy.expirationdate": "", "Multi.ChemicalInventoryModulePy.groupname": "" }]], "delete": { "pk": { "chemicalinventoryid": "", "screen_name": "ChemSearch_py", "screen_tab_name": "ChemSearch_py" }, "edit": { "data": { "data_field": "", "main_pk": { "chemicalinventoryid": "", "screen_name": "ChemSearch_py", "screen_tab_name": "ChemSearch_py", "table_d" } } } } } } } }</pre>

Back

Create Rollback

In case the Screen Transfer process should be rolled back, click the **Create Rollback** at the bottom right corner of the page. The **Screen Rollback** page will be opened with predefined data in its fields. For more

information about the screen rollback process, refer to the [Screen Rollback](#) page of the User Manual.

Click the **Back** button, to return to the Screen Backup Overview page.

9.5.6 Delete Screen Backup

To delete a Screen Backup entry, click the Delete icon on the Overview page for the selected Screen Backup entry. The confirmation pop-up will appear where you can confirm or cancel the action.

9.6 Screen Rollback

9.6.1 Access

Click **Features > Screen Rollback** to have an overview of screen rollback entries and manage them.

9.6.2 Table of Contents

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- [Overview](#)
- [Search](#)
 - [Navigate](#)
- [Create Screen Rollback](#)
- [Update Screen Rollback](#)
- [Delete Screen Rollback](#)

9.6.3 Overview

The **Screen Rollback** functionality enables users to undo modifications made to a screen, restoring it to a state captured during a previous backup or version.

Screen Rollback				
Id	Screen	Backup	Mode	
6	203	2024-02-29T10:42:50.706596	Run	 
7	ChemSearch_py ChemSearch_py	2024-02-29T12:08:29.793929	Test	 
				Create

9.6.4 Search

To search for a required screen transfer or filter the search results, use the following search filters:

- **ID** - the Screen Rollback ID.
- **Screen** - the transferred screen name.
- **Backup** - the screen backup version.
- **Mode** - the Screen Rollback mode.

After filling in the filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching as well.

9.6.4.1 Navigate

Use the navigation bar at the bottom of the Screen Rollback Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous

page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

9.6.5 Create Screen Rollback

To create the Screen Rollback, click the **Create** button. This opens the **Screen Rollback Create** page with forms that should be filled in.

Screen Rollback Create

SCREEN *
WorkOrder | Workorder

BACKUP *
2024-03-04T15:02:19.871511

MODE *
Test

Backup Params

UPDATED
-- Select --

INSERTED
-- Select --
All
c_AliasTable
c_alias_view
c_custom_query
c_extension_funcs
c_group
c_group_screen
c_list_table
c_menu

Back Start

Fill in the following fields:

- **Screen** - select the screen to be rolled back from the drop-down list.
- **Backup** - select the version of the screen from the drop-down list.
- **Mode** - select the mode, in which the Screen Rollback entry will be created, from the drop-down list:
 - **Test** - using this mode executes all required modifications without the implementation into the target database.
It is recommended to use this mode prior to switching to the **Run** mode to avoid errors during the Screen Rollback process.
 - **Run** - using this mode executes all required modifications by implementing them into the target database at once.

In the **Backup Parameters** (Backup Params) section select the following parameters:

- **Updated** - select the table that was updated but should be rolled back in this Screen Rollback entry. Users can select one or all tables from this list.

- **Inserted** - select the table that was inserted but should be rolled back in this Screen Rollback entry. Users can select one, several, or all tables from this list.

Click the **Start** button, to execute the Screen Rollback process. The results of the Screen Rollback process execution will be displayed below in the **Result** section.

Click the **Back** button, to cancel the Screen Rollback process and return to the Screen Rollback Overview page.

9.6.6 Update Screen Rollback

To update a Screen Rollback entry, click the **Edit** (pencil) icon for the selected Screen Rollback entry in the search results table. The Screen Rollback Update page opens for editing.

After making the necessary changes, click the **Start** button. To return to the Overview page, click the **Back** link.

9.6.7 Delete Screen Rollback

To delete a Screen Rollback entry, click the **Delete** icon on the Overview page for the selected Screen Rollback entry. The confirmation pop-up will appear where you can confirm or cancel the action.

9.7 SQL Query Window

9.7.1 Access

Click **Features > SQL Query Window** to access the Query Tool functionality.

9.7.2 Overview

SQL statements can be executed within the relevant database, without having to revert to other external database query systems. The SQL Query Window executes a set of arbitrary SQL statements.

Sql query window

QUERY VALUE

☒ USE LIMIT RESULT

Submit **SAVE CSV**

OUTPUT

Total 119 items.

#	id	user_name
1	10	owner
2	141	(not set)
3	143	(not set)
4	12	New User
5	31	dev5

Specify the following parameters:

- **Query Value** - type the SQL query into the **Query Value** text area.
To search across all tables that **begin with the specified string**, users can add the ~~~ characters to a table name in the **Query Value** text area. Users can define **specific parameters** in the query field, such as which fields should appear in the resulting tables.
For example: **select * from abc~~~**
As a result, all tables that contain **abc_** in their names will be displayed.
This functionality is available for **simple queries only**.
If users need to **escape the table name**, the ~~~ sequence must be enclosed in **escape quotation marks** (e.g. “~~~”).
- **Use limit result** - the check box and the input value specify the limitation for the returned data. The check box is selected by default. The value of result is set to 1000.

⚠ Be very careful when deactivating the Limit Result option. Unlimited queries could return large data sets. This could adversely impact service performance.

Click the **Submit** button to execute the SQL query.

The execution results will be displayed in the **Output** section.

If users do not have access to the data requested or used in the query, then the query will not be executed as some security filters are set to restrict the data display. In this case, the notification appears in the pop-up window. For more details about security filters, refer to the [Security Filters](#) page of the User Manual.

If the SQL query is executed with some errors, a message with an error explanation appears in a pop-up window.

If needed, you can save the result table as CSV file. For this, click the Save CSV button above the result table.

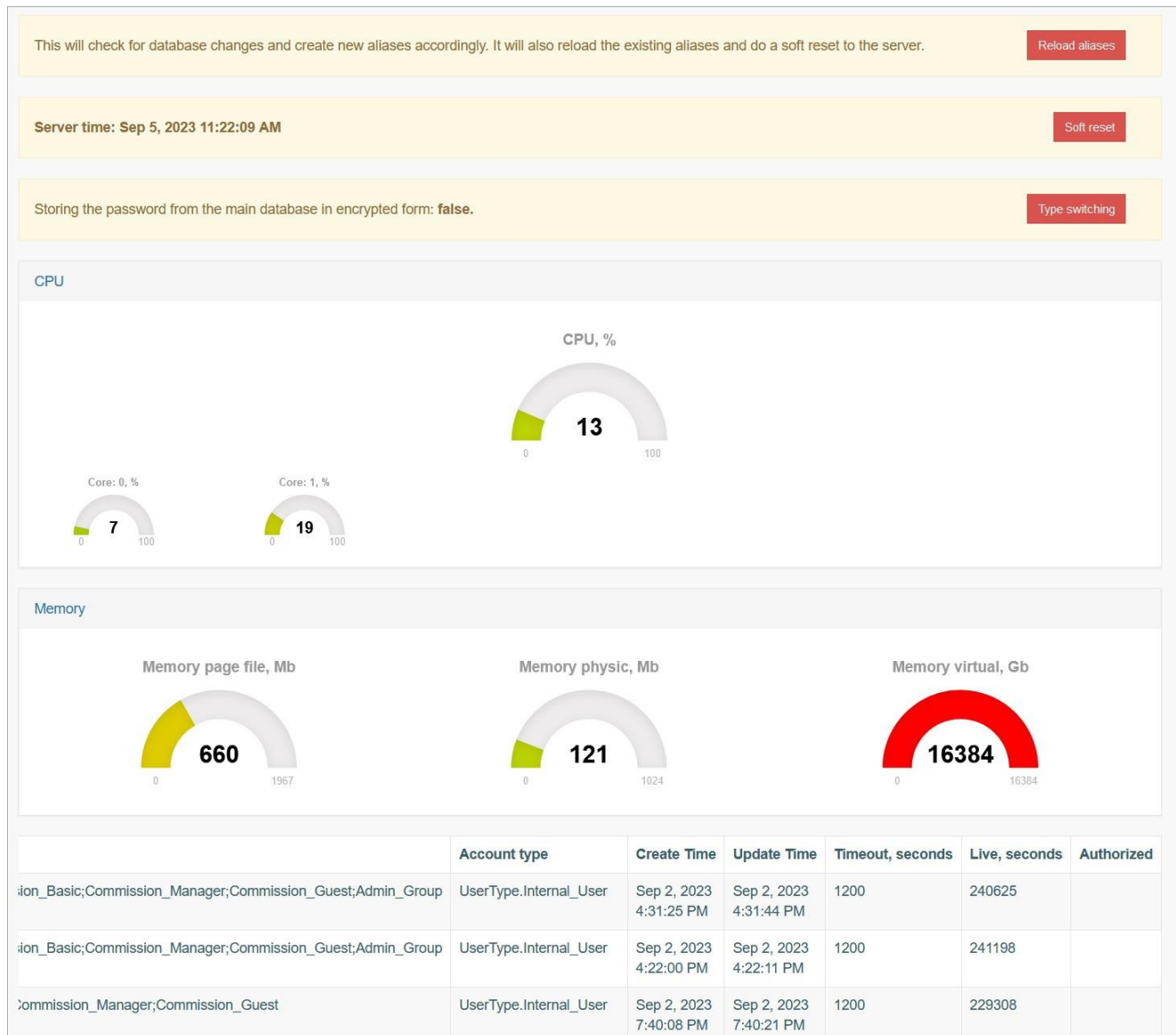
9.8 Management

9.8.1 Access

Click **Features > Management** to access the System Management tools.

9.8.2 Overview

The Management page consists of several parts that manage different system parts:



9.8.2.1 Reload Aliases

Some types of Aliases (custom multi, arrays) can require additional updates. To apply the changes performed on the aliases, you need to reload them.

For this, click the **Reload Aliases** button. This will check for database changes and create new aliases accordingly. It will also reload the existing aliases and do a soft reset to the server.

9.8.2.2 Reload Service

On the Management page, you can reload the service in case new plugins or modules have been added.

- **Server Time** - the current server time is displayed according to the time zone.
- **Soft Reset** - to reload the service, click the **Soft Reset** button. In case of Soft Reset, the rebooting of the service is partial. E.g., all sessions in the service will be reset, the updated extension functions will be applied, etc.

9.8.2.3 Encrypt Database Password

It is allowed to specify whether the database password stored in the config file should be encrypted or not. To encrypt the password, click the **Type Switching** button. The status of storing the password in encrypted form will be changed to **true** or **false** respectively.

9.8.2.4 Service Data

The next part of the Management functionality provides the data related to the Service:

- **CPU** and **Memory** sections provide the information about the machine processor where the service run.
- **Login Information table** - aggregates all information about the users' logins into the system (both the Render and Architect applications).

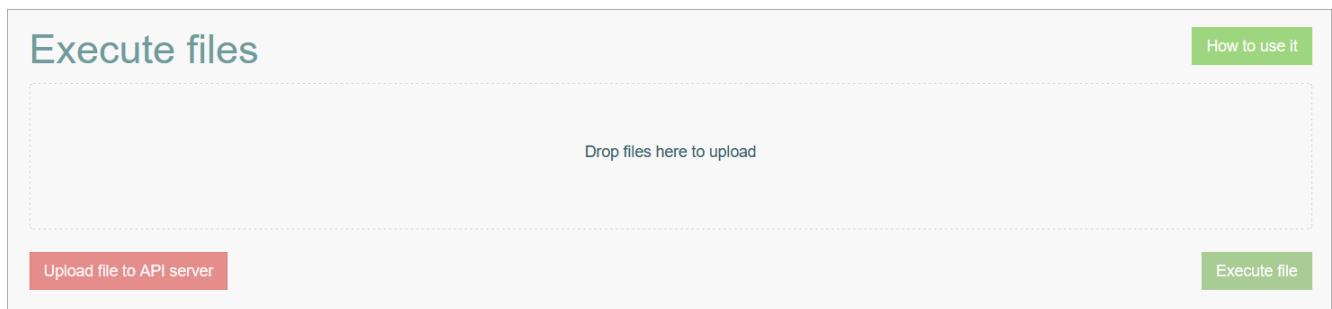
9.9 Import Files

9.9.1 Access

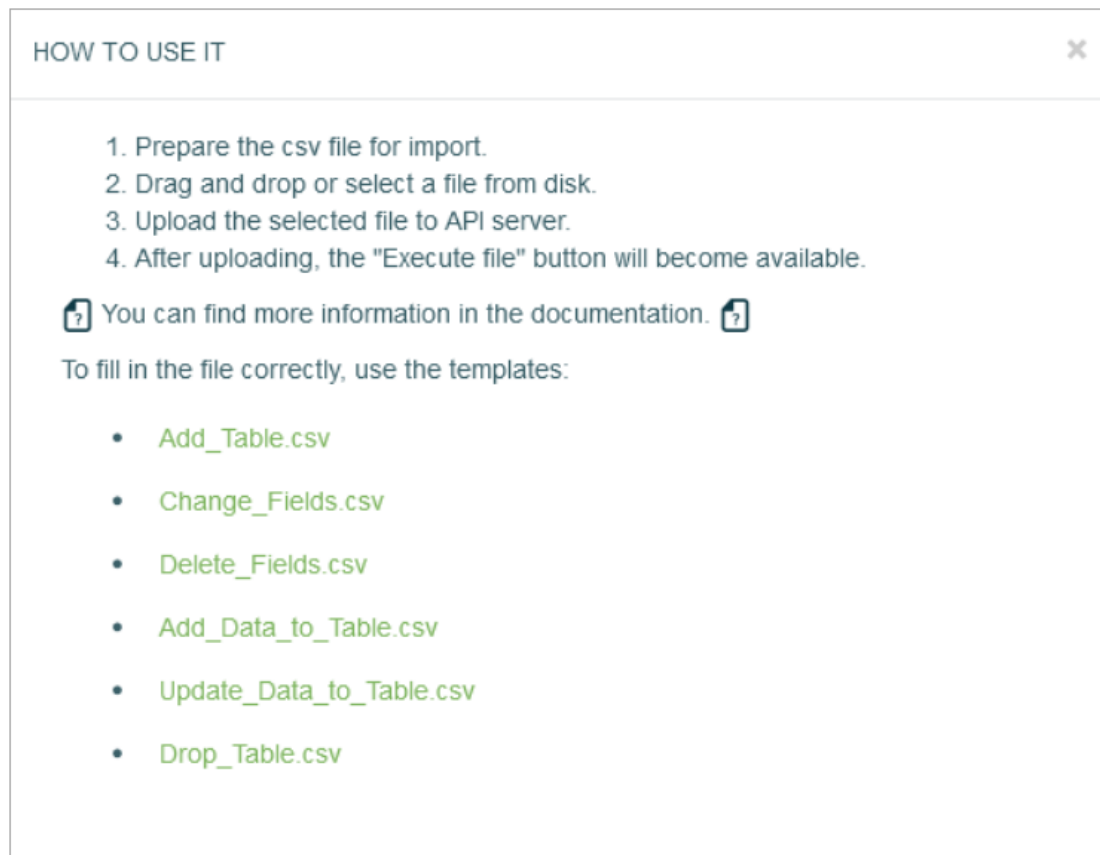
Click **Features > Import Files** to access the functionality for uploading the CSV files.

9.9.2 Overview

The Import Files functionality provides the possibility to upload the files with the changes to be applied to the database tables. The uploaded files will be stored first in the API Server and then imported to the database.



There is a helpful hint with the instructions on how to use the Import Files functionality. To open the instruction, click the **How to use it** button in the right upper corner. The pop-up window opens:



HOW TO USE IT

1. Prepare the csv file for import.
2. Drag and drop or select a file from disk.
3. Upload the selected file to API server.
4. After uploading, the "Execute file" button will become available.

 You can find more information in the documentation. 

To fill in the file correctly, use the templates:

- [Add_Table.csv](#)
- [Change_Fields.csv](#)
- [Delete_Fields.csv](#)
- [Add_Data_to_Table.csv](#)
- [Update_Data_to_Table.csv](#)
- [Drop_Table.csv](#)

The pop-up describes the steps to import the files and the CSV templates. From this pop-up window, you can open the User Manual page to see more details. You also can download any import template and use

it as an example of the Import file.

Let's have a closer look at the CSV file structure and steps to import the files in sections below.

9.9.3 CSV File Structure

A CSV file is a file in text format that is used to display the table data.

The CSV file has the following structure:

1. **Header section**
2. **Data section**

Header:Start	
Table:Example1And;Drop:No;UpdateDuplicates:Yes;ColumnChangeRun:yes;Notify:Email; , ,	
Column:AlphaField;Type:Alpha;Length:20;Key:Yes;Change:Add,	
Column:NumberField;Type:Number;Length:9 2;Key:No;Change:Add,	1
Column:DateField;Type:Alpha;Length:10;Key:No;Change:Add,	
Column:DocumentField;Type:Document;Length:NA;Key:No;Change:Add,	
Header:End	
A_BICYCLE,000052520,2019-01-01,,	
A_ARTIST,000450025,2019-01-02,,	
RACE CAR,003451250,2019-01-03,,	
A_HOUSE CAT,033330075,2019-01-04,,	2
A_FOREST,100000050,2019-01-05,,	

Header section

The Header section starts with the **Header:Start** and ends with the **Header:End** key words.

The Header section parameters should have a semicolon-separated structure: **Parameter:VALUE**, where

- **Parameter** - is a parameter name, and
- **VALUE** - is a parameter value.

The Header section contains the following parameters:

- **Table definition** - the parameter that displays settings for the table operations or import process. This parameter should be entered only once in the Header section.

The Table has the following parameters:

- **Table:VALUE**, where VALUE is the table name. For example, "Table:Test1".
- **Drop:VALUE** - the parameter that defines whether the table should be dropped or not. The possible values are **Yes** or **No**. For example, "Drop:No".
- **UpdateDuplicates:VALUE** - the parameter that defines whether the duplicates should be updated or not during the data addition from the data section. The possible values are **Yes** or **No**. For example, "UpdateDuplicates:yes".
- **ColumnChangeRun:VALUE** - the parameter that defines whether the columns should be changed or not. The possible values are **Yes** or **No**. For example, "ColumnChangeRun:Yes".
- **Notify:VALUE** - the parameter that defines whether the notification of the operation execution result should be sent via email. The possible value is **Email**. For example, "Notify:Email".

Skip this parameter if notification is not required.

- **Column definition** - the parameter that displays settings for a column and its operations.

A Column definition should be one per line.

The Column has the following parameters:

- **Column:VALUE**, where VALUE is a column name. For example, “Column:DataField”.
- **Type:VALUE** - the column type. The possible values are **Alpha**, **Number**, or **Document**. For example, “Type:Alpha”.
- **Length:VALUE** - the column type length, valid integer value or **NA**. For example, “Length:10”.
- **Key:VALUE** - the parameter that defines whether the column should be presented in the PK set or not. The possible values are **Yes** or **No**. For example, “Key:Yes”.
- **Change:VALUE** - the type of the operation on the column. The possible values are **Add**, **Delete**, or **Change**. For example, “Change:No”.

If the parameter **ColumnChangeRun** in the table definition section is set to No, the Change:Value parameter will be skipped.

For example, the Header section contains a table and three columns defined as follows:

Header:Start

Table:Test;Drop:No;UpdateDuplicates:Yes;ColumnChangeRun:Yes;Notify:Email,

Column:AlphaField;Type:Alpha;Length:20;Key:Yes;Change:Add,

Column:NumberField;Type:Number;Length:5|2;Key:No;Change:Add,

Column:DataField;Type:Alpha;Length:10;Key:No;Change:Add,

Column:DocumentField;Type:Document;Length:NA;Key:No;Change:Add,

Header:End

Data section

The Data section contains the data below the **Header:End** key words.

Each column in the Data section must contain valid values and types, which are determined by the column definitions specified in the Header section. This ensures consistency and accuracy in data representation and processing.

For the above-described Header section, the Data section can have the following data display:

Text A,12345.12,2022-01-01,,

Text_ABC,12346,2023-04-05,,

Text_B,98765.4,2024-02-25,,

Separating characters

The characters that can be used in the CSV files to separate data in the table are as follows:

- **:** - is used to separate the parameter name and value.
- **;** - is used to separate parameters in the table or a column.
- **,** - is used to separate the lines or cells.

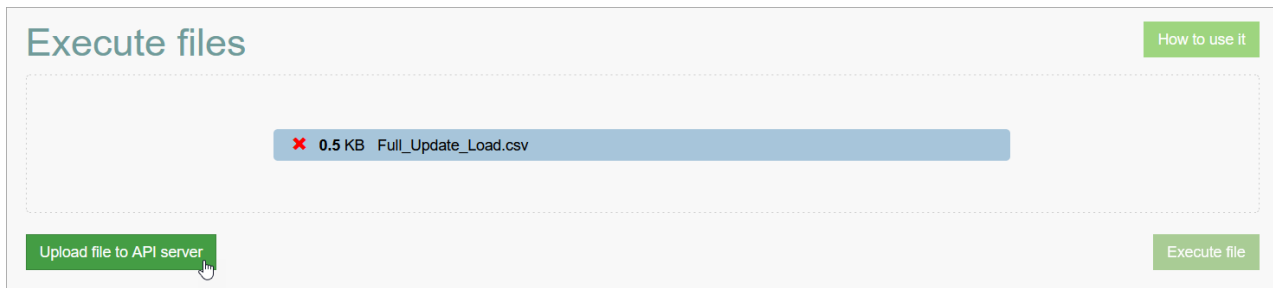
- | - is used to display that the number is non-integral and define the number of decimal places before and after the decimal point. For example, for the column with the “Length:5|2” parameter the data can be as follows “12345.12”.

9.9.4 Import Files Steps

To import files, perform the following steps:

1. Prepare the CVS file that should be imported. You can use the provided template.
2. Drag and drop a file into the file area. Or select a file from your computer by clicking the file area and selecting the file on your machine.
3. When the file is selected, the **Upload file to API server** will be activated.

Click the **Upload file to API server** button to first upload the selected file to API server.



4. When the file is uploaded, the **Execute file** button will be activated.

Click the **Execute file** button to finally import the uploaded file.



i All documents imported here are automatically assigned to the System Document Family.

⚠ In order to work with the Import files feature, user must have full rights to work with the "system" document category. To do this, you need to add records to the c_Device, c_document_family, c_document_group tables.

After successful import execution, the corresponding message will be displayed. In case of an error, you will see the error message with the explanation of the reason.

9.10 Job Scheduler

9.10.1 Access

Click **Features > Job Scheduler** to manage, schedule and monitor jobs in the system.

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9.10.3 Overview

The Job Scheduler functionality allows users to create, manage, schedule and keep track of jobs running in the system.

The configuration and Quartz jobs are managed using it. It allows users to review all currently being executed jobs and to deactivate/activate them. It also displays the Quartz setting parameters.

It's also possible to manually schedule jobs for the execution at any point of time later defining.

Job Scheduler

Job Name	Job Description	Launch Type	Status	
job1_1	single call example	JobLaunchType.At	Inactive	 
job1_2	cascade call example	JobLaunchType.In	Inactive	 
job1_3	multy_root call example	JobLaunchType.In	Inactive	 
job2	zzz	JobLaunchType.At	Inactive	 
job3	descr3	JobLaunchType.Every	Inactive	 
job4	descr4	JobLaunchType.Interval	Inactive	 
job5	descr5	JobLaunchType.Cron	Inactive	 
ScreenTEST	ScreenTEST	JobLaunchType.At	Inactive	 
ReportTEST	ReportTEST	JobLaunchType.At	Inactive	 
sample_job_for_debug	sample_job_for_debug	JobLaunchType.In	Inactive	 

«
1
2
»

Create

9.10.4 Search

To search for a menu or filter the search results, use the following search filters and enter any or all the search criteria:

- Job Name
- Job Description
- Launch Type
- Status

After filling in the filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching as well.

9.10.4.1 Sort Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

9.10.4.2 Navigate

Use the navigation bar at the bottom of the Jobs Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

9.10.5 Create Job

Click the **Create** button on the Overview page to create a new job. This opens the Create Job Scheduler page.

Create Job Scheduler

JOB SCHEDULE

JOB NAME *
csv_import

JOB DESCRIPTION *
csv_import

LAUNCH TYPE ⓘ
At

☐ DATE ☐ TIME ☒ BOTH
DD/MM/YYYY HH:mm:ss

STATUS *
☒ ACTIVE ☐ INACTIVE

RUN JOB AS

USER *
VAdmin

PROCESS

PROCESS TYPE
Direct

LAUNCH PARAMS
CodiakSDK.NewModule;extensionCreatePost;

FIELD **VALUE**

Add field

NOTIFICATION

NOTIFICATION
Notify Email Simple

Back Submit

Fill in the parameters in the following sections:

9.10.5.1 Job Schedule

- **Job Name** – enter a name for a job. The field is required.
- **Job Description** - provide an informative description for a new menu. This field is required.
- **Launch Type** - the way of job execution:
 - **At** - the one-time job execution at the specified date/time
 - **Cron** - this is the tool that helps you to schedule the job execution using the standard cron-expressions. A cron expression is a string that describe individual details of the schedule:
 - **Cron Type** - define the interval of the repeated job execution:
 - Every Day
 - Every Week Day
 - Every Weekend
 - Every month

- Custom
 - Cron Settings - click the gear icon to open the Cron Settings and set up the required schedule for the job.
 - **Every** - defines the interval (in seconds) for the job execution. The job will run every defined seconds.
 - **In** - specifies that the job will run over the specified time period (in seconds).
 - **Interval** - specifies that the job will run with the specified interval.
 - **External** - this launch type is special as this launch type. See the details in the section below.



Take your time zone and the difference into account when filling the launch type for the job conditions.

- **Launch Condition** - define the job launch conditions. The options are displayed based on the selected Launch Type.
- **Status**
 - Active
 - Inactive

9.10.5.1.1 External Launch Type

The **External** launch type makes it possible for an external command-line application (provided by AppMill) to execute a specific job that is already set up in the AppMill system.

Pay attention that the **External** launch type has specific attributes and settings:

- **Launch Condition** is always set to “0”. This means that the job will be execute immediately after calling it.
- **Status** is set to “inactive”. This means that job set as External will never be executed by the AppMill service, it can be executed with the provided command-line application only.
- When the External launch type is selected, the **View Parameters** button is available at the bottom of the page. Click the **View Parameters** to generate the JSON parameters for calling the specific job. Later, these parameters can be used as argument for the command-line application.

9.10.5.1.2 Command-line application (Job Scheduler)

The command-line application that is included in the AppMill service installation is in the top-level directory of the service. On the Windows operating system the executable file is named **JobsScheduler.exe**.

The application depends on a configuration file that is also located in the top-level directory of the service, the configuration file name is **Jobs Scheduler.config**. This file must contain the correct information for the command-line application to work correctly.

The purpose of the “**JobsScheduler.exe**” is to allow the user to immediately execute the **External** launch type job through the command line. The job is configured and saved in the AppMill system but instead of using the AppMill service the command-line application can execute the job with the command-line arguments as parameters for the job. This tool is mainly intended for users that already have a job

scheduler tool and are not ready to completely migrate to AppMill's Job Scheduler.

9.10.5.1.3 Configuration File

The "JobsScheduler.config" configuration file must contain the following information:

- *"service_address"* – The address of the service where the command-line application should connect to. This would usually be the same address as the one in the "Codiac.HTTPService.config" configuration file.
- *"service_port"* – The port of the service where the command-line application should connect to. This would usually be the same port as the one in the "Codiac.HTTPService.config" configuration file.
- *"user"* – The user which will be used to login to the service, meaning the user that will execute the job.
- *"password"* – The password for the user (hashed).

All of the items listed above are XML attributes located in the "config.scheduler" XML element:

9.10.5.2 Run Job As

- **User** - select the user name from the drop-down list. The job will be executed with the permissions and access rights of the selected user.

9.10.5.3 Process

- **Process Type** - define, which type of process will be started when job is executed. Currently, we support the following process types:
 - **Screen** - the job can be linked to the particular screen and the value selected on the screen.

Important Considerations:

 - The selected screen must have an execution function configured.
 - If the screen has multiple execution functions, only the first execution function will be saved and used for the job.
 - If the screen includes a field of type "List With Extension Function", the action associated with this field will be ignored during execution.



Ensure that the screen meets these requirements before scheduling the job to prevent unexpected behavior.

- **Report** - defines that upon execution of this job will trigger the report creation.
 - **Report** - select the report template from the list of available reports.
 - **Report Type** - define the way of report generating:
 - **Search** - based on the selected search result record,
 - **Batch** - several report in a one report.
- **Direct** - means that when job is triggered, any extension function can be executed based on the defined field (alias) and value parameters.
- **File Import** - defined that the CSV file can be imported on the job execution.
 - **Directory** - specify the directory where the file will be stored.

- **File to Process** - Input the file names to be imported.
- **SMB File Transfer** – defines that upon execution of this job, a file transfer will be initiated using the SMB (Server Message Block) protocol. This allows transferring files between systems within a network. The following parameters are required for successful configuration:
 - **SMB Server** – specify the server address hosting the shared folder. This is a mandatory field.
 - **Shared Folder** – input the name of the shared folder on the SMB server where the file will be transferred. This field is required.
 - **User** – enter the username with appropriate access rights to the shared folder. This field is required.
 - **Password** – input the password associated with the user account. This field is required.

 The **SMB File Transfer** feature transfers all files from the specified shared folder. The files must follow the defined naming convention and must not exceed 2GB in size. After the transfer is complete, all transferred files and any empty folders will be removed from the shared folder.

The required naming convention for the files is:

FileName__DocumentFamily__DocumentCategory__KP1__KP2__KP3__KP4__KP5

Each key part (KP1 to KP5) can vary in length and is separated by two underscores (__).

For example: Test_File__Documents__main__5.pdf

9.10.5.4 Notification

- **Notification** - select the notification that will be sent when job is executed.

After filling in all mandatory and optional fields click the **Submit** button to save the created Job parameters. Click the **Back** button to go back to the Overview page without saving the data.

9.10.6 Update Job

To update a job, click the **Edit** (pencil) icon for the selected Job Scheduler entry in the search results table. The Update Job Scheduler page opens for editing.

After making the necessary changes, click the **Submit** button. To return to the Jobs Overview page, click the Back link.

9.10.7 Delete Job

To delete a job, click the **Delete** icon on the Jobs Overview page for the selected Job Scheduler entry. The confirmation pop-up will appear where you can confirm or cancel the action.

9.11 Scheduler Builder

9.11.1 Access

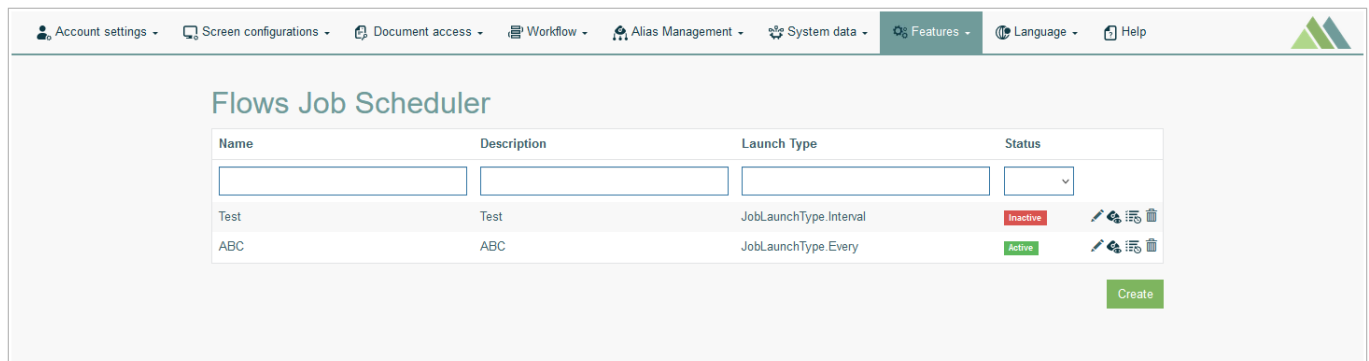
Click **Features > Scheduler Builder** to manage the jobs flows.

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9.11.3 Overview

The Scheduler Builder functionality allows you to create and manage the sequence of the jobs' executions using a visual diagram editor. Using standardized shapes and links in the builder, you can create the job flows to show the jobs should run, one by one, from the start job to the end job.



Name	Description	Launch Type	Status
Test	Test	JobLaunchType.Interval	Inactive
ABC	ABC	JobLaunchType.Every	Active

Create

9.11.4 Search

To have an overview of all flows diagrams, search for a particular job flow or filter the search results, enter **Name**, **Description**, **Launch Type**, **Status** and click the Enter key or on any screen place. The

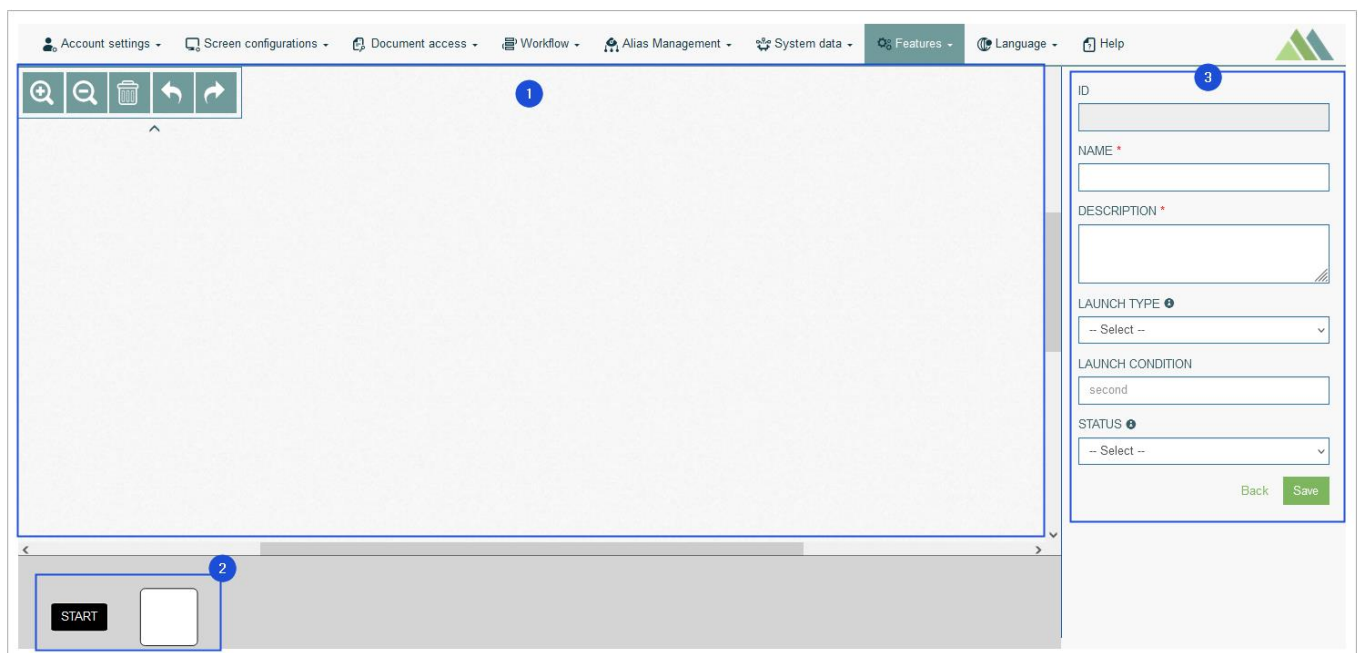
screen displays search results if found.

9.11.4.1 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the search result pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

9.11.5 Create Jobs Flow Diagram

Click the **Create** button on the Overview page to open the builder in the creation mode and create a new flow.



The Builder consists of 3 areas:

1. Drawing area
2. Shape library
3. Jobs Flow area

Let's take a closer look at each part of the editor.

9.11.5.1 Drawing Area

In the Drawing Area, you can build the diagram using shapes, arrows and a set of the additional settings.

You can use the toolbar options by clicking the icons in the expandable/collapsible section in the top left corner of the drawing area:

- **Zoom In** - to make the diagram picture bigger.
- **Zoom out** - to make the diagram picture smaller.
- **Clear** - to clear the working area and delete all diagram elements from the drawing area.
- **Undo** - to cancel the previously done action.
- **Redo** - to return/restore the cancelled action.

9.11.5.2 Shape Library

Shape Library contains shapes for the steps that build the Jobs flow.

A set of steps defines the sequence of jobs. Each step is connected to a particular job.



Currently, the following shapes can be used in the diagram:

- **Start (Begin) step** - the first step of each diagram.
- **Job (Process) step** - a single step representing a particular job.

Note that the Start step can be used only once per flow.

9.11.5.3 Jobs Flow Area

A Jobs Flow Data section that is displayed on the right side of the drawing area shows the details and options of the flow or certain components of the diagram.

The section displays data and options depending on what element you select and highlight on the diagram.

So, this section can show the following information:

- Jobs Flow Details - details about the flow.
- Flow Steps Handling - the flow steps (jobs) data.
- Links Handling- the parameters to set up the links between flow steps.

When creating a new flow diagram, you should first enter the data related to a diagram in the flow data section.

9.11.5.3.1 Jobs Flow Details

Fill in the following data:

- **ID** - the unique identifier of the diagram. It is generated automatically.
- **Name** - the name of the diagram that will be displayed on the Overview page and can be used for searching. This field is required.
- **Description** - the short and clear description of the diagram.
- The value will be displayed on the Overview page and can be used for searching. This field is required.
- **Launch Type** - the way of job execution:
 - **At** - the one-time job execution at the specified date/time
 - **Cron** - this is the tool that helps you to schedule the job execution using the standard cron-expressions.

A cron expression is a string that describe individual details of the schedule:

- **Cron Type** - define the interval of the repeated job execution:
 - Every Day

- Every Week Day
- Every Weekend
- Every month
- Custom
- **Cron Settings** - click the gear icon to open the Cron Settings and set up the required schedule for the job.
 - **Every** - define the interval (in seconds) for the job execution. The job will run every period defined in seconds.
 - **In** - the job will run over the specified time period (in seconds).
 - **Interval** - the job will run with the specified interval.
- **Launch Condition** - specify the conditions and interval in seconds that should be taken into account for the execution of the first job.

Pay attention that the Launch Condition specified here does not affect the Launch Condition defined for every single job included in the flow.

For example, the Launch Condition for job1 is 60 seconds. The job1 is included in the test1 and test2 job flows. The Launch Condition for the text1 job flow is 100 seconds. The Launch Condition for the text2 job flow is 200 seconds. In this case, the job1 will be run:

1. every 60 seconds, as it is defined in the job1 Launch Condition.
 2. every 100 seconds, as the job1 is included in the text1 job flow and will have the same Launch Condition as the text1 job flow.
- and
3. every 200 seconds, as the job1 is included in the text2 job flow and will have the same Launch Condition as the text2 job flow.
- **Status** - the job flow status.
 Note that the Status for job flow will have the higher priority than the Status defined for every single job included in the flow.
 To enable/disable the job flow, select the status from the drop-down list:
 - **Active** - to enable the job flow.
 - **Inactive** - to disable the work flow.

9.11.5.3.1.1 How to Build Jobs Flow

To build a new flow, perform the following actions in the Diagram editor:

1. Define the sequence of jobs executions that should be represented in the diagram.
2. Start with the Start step (BeginStep) and add it to the drawing area.
 For that, drag and drop a Start shape from the shape library onto the drawing area.
 This first step should be a starting point of any diagram.
3. Drag and drop other flow steps from the shape library onto the drawing area that will represent the selected jobs.
4. Associate each flow step with the particular job by filling in the required data in the process step data section on the right side of the drawing area.
5. Link the steps to each other following the established sequence of jobs.

For this, drag connectors (arrows) from one shape and drop them on another shape to connect each step (job) in the diagram.

Pay attention that the jobs can run only in succession, one by one.

For example, the jobs flow contains 3 jobs: job1, job2, and job3.

All jobs are connected in the following way in the job flow diagram:

Start step > job1

Start step > job2 > job3

I.e., after the Start step is run, the job1 and job2 steps will be run simultaneously. The job3 step can be run only if the job2 step is finished successfully.

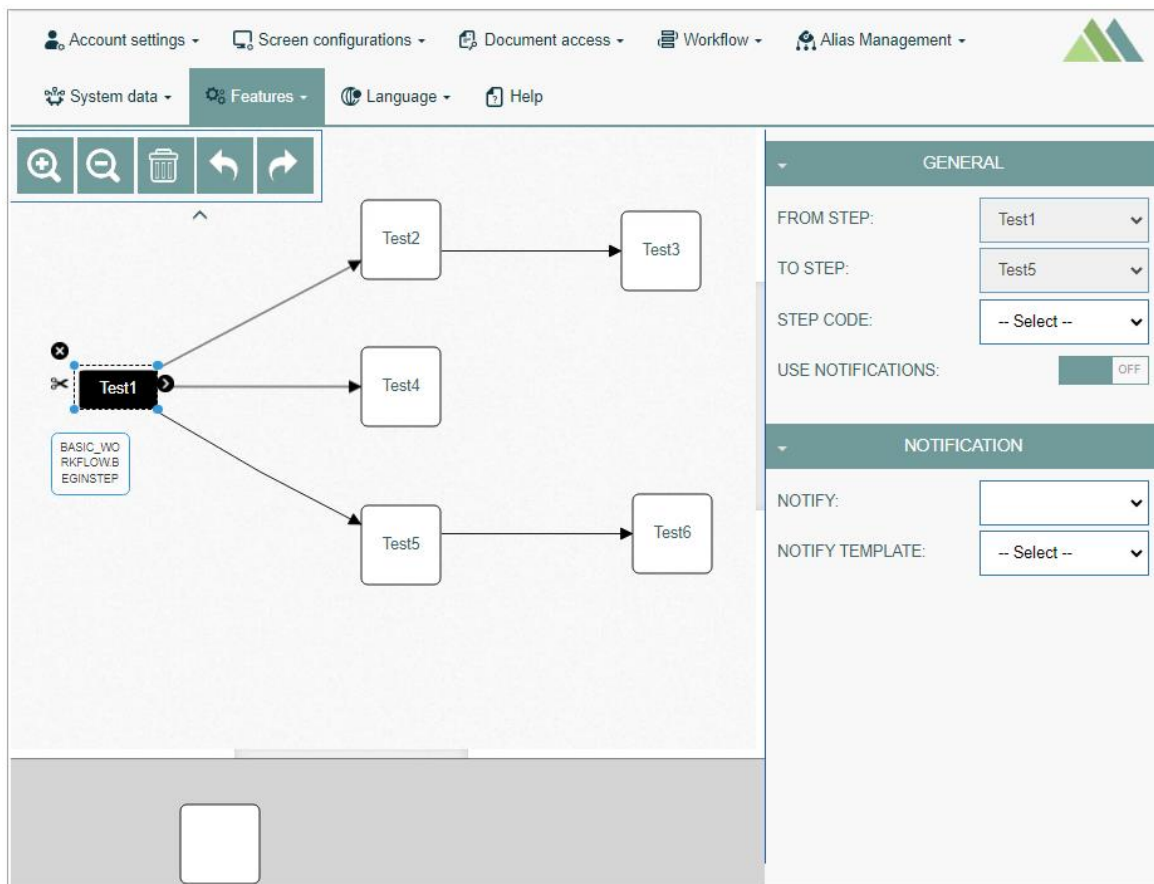
6. Edit steps using available settings and tools if needed.

9.11.5.3.2 Flow Steps Handling

This section contains information about flow steps (jobs) general data and tools.

9.11.5.3.2.1 Flow Step General Data

The start and every process step used in the diagram should be associated with the definite job.



The corresponding job will run according to the flow step configured.

To assign the job as well as to specify other step details, fill in the data form on the right side of the drawing area.

This form is displayed when the flow step is selected.

For the **Start** (BeginStep) step, the following parameters should be filled in:

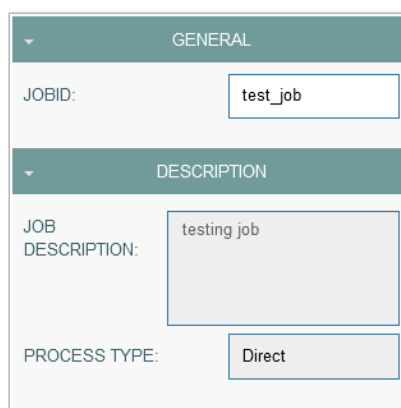


GENERAL	
STEP NAME:	START
STEP ORDER:	1
JOB ID:	test

DESCRIPTION	
JOB DESCRIPTION:	test
PROCESS TYPE:	Screen

- **General**
 - **Step Name** - the start step name. This field is predefined.
 - **Step Order** - the start step name. This field is predefined.
 - **Job ID** - select the required job ID from the list of existing jobs. The job list contains all jobs from the Job Scheduler. Regardless of the job status, whether it is active or inactive, users can select any job from the job list.
- **Description**
 - **Job Description** - a short and informative description of the job. This field will be automatically filled in with the description according to the selected Job ID.
 - **Process Type** - the Process Type of the job. This field will be automatically filled in with the process type according to the selected Job ID.

For the **Job** (ProcessStep) step, the following parameters should be filled in:



GENERAL	
JOB ID:	test_job

DESCRIPTION	
JOB DESCRIPTION:	testing job
PROCESS TYPE:	Direct

- **General**
 - **Job ID** - select the required job ID from the list of existing jobs. The job list contains all jobs from the Job Scheduler. Regardless of the job status, whether it is active or inactive, users can select any job from the job list.
- **Description**
 - **Job Description** - a short and informative description of the job. This field will be

automatically filled in with the description according to the selected Job ID.

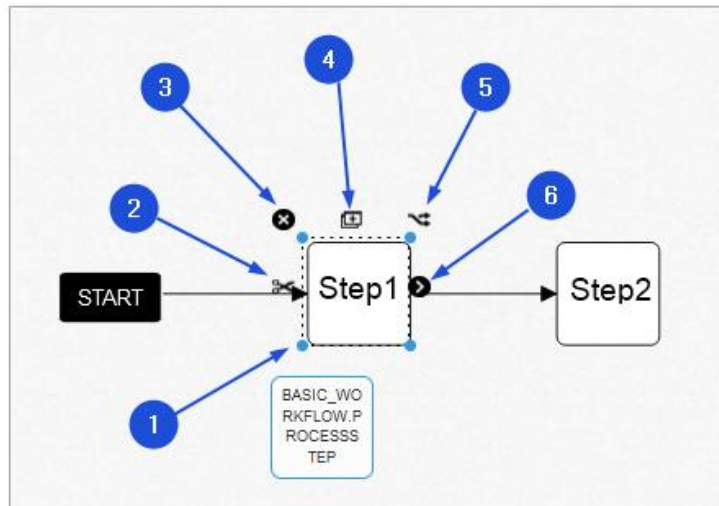
- **Process Type** - the Process Type of the job. This field will be automatically filled in with the process type according to the selected Job ID.

You can find more information about the Job parameters in the Create Job section on the [Job Scheduler](#) page (Features > Job Scheduler) of the User Manual.

9.11.5.3.2.2 Flow Step Tools

The following operations can be performed on the process step shapes. Please use the corresponding tools to:

1. Resize a shape.
2. Delete all links (arrows) that are connected to the current shape.
3. Delete a shape.
4. Duplicate a shape.
5. Connect and copy a shape. Pay attention that the step name is copied, too.
6. Link to another process step using an arrow.



9.11.5.3.3 Links Handling

The steps (jobs) are connected to each other via arrows. Each link (arrow) can be additionally set up.

9.11.5.3.3.1 Link Basic Data

To open the Link Options section, click on the link between two shapes and then click the Settings (wheel gear) icon. The Link Options section opens in the Job Flows area.

GENERAL

FROM STEP:

test

TO STEP:

test_job

STEP CODE:

-- Select --

USE NOTIFICATIONS:

OFF

NOTIFICATION

NOTIFY:

NOTIFY TEMPLATE:

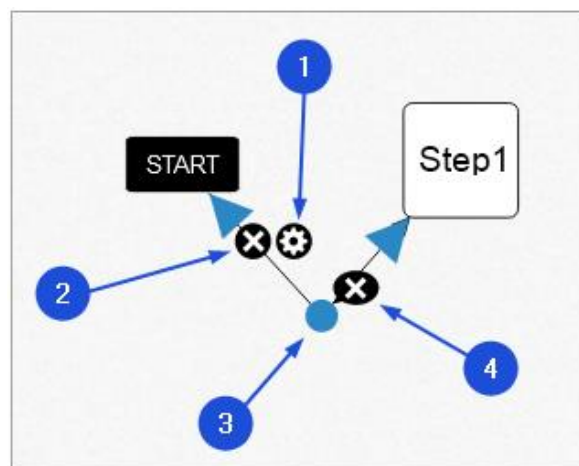
-- Select --

Set up the link filling in the following fields:

- **General**
 - **From Step** - automatically filled in with the name of the step from which the link is connected.
 - **To Step** - automatically filled in with the name of the step to which the link is connected.
 - **Step Code** - select a step code from the drop-down list. The Step Code is used as an extension function that will be executed during the transition between steps.
 - **Use Notifications** - enable/disable a notification by switching on/off.
- **Notification**
 - **Notify** - select the type of notification: SMS or email.
 - **Notify Template** - select a template for the notifications.

9.11.5.3.3.2 Link Tools

The link tools are used to set the link connecting two shapes.



The following operations can be performed on the link connecting two shapes. Please use the corresponding tools to:

1. Open the Link Options section.
2. To delete a link.
3. Click on any place of the link, drag the way-point appeared on the link to make a broken line.

4. Click the cross icon to remove the break.

9.11.6 Update Jobs Flow

To edit a flow diagram, click the Edit (pencil) icon for the selected entry on the Overview page. The Scheduler Builder page opens for editing.

After making the necessary changes, click the **Submit** button. To return to the Overview page, click the **Back** link.

9.11.7 Delete Jobs Flow

To delete a flow diagram, click the **Delete** icon on the Overview page for the selected entry. The confirmation pop-up will appear where you can confirm or cancel the action.

9.12 Tables

9.12.1 Access

Click **Features > Tables** to have an overview of existing database tables and manage them.

9.12.2 Table of Contents

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 - [Sort Results](#)
 - [Navigate](#)
- [Create Table](#)
- [Update Table](#)
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9.12.3 Overview

The Tables functionality provides the possibility to review and manage database tables. All database tables (including system tables and tables created via Simple Table Maintenance) are listed on the Table page. You can review any table details (structure, fields, other parameters), create new tables, update the existing tables and their parameters, or delete unnecessary data or the entire tables.

Table

Table Name

aa	 
aaa1	 
ABC123	 
ABC1234	 
ABC12345	 
ABC123456	 
ABC1234567	 
ABC12345678	 
AccountingDaily	 
AccountingDescription	 

« 1 2 3 4 5 6 7 8 9 10 »

Show service tables

Show All

Create

9.12.4 Search

To search for a particular table on the Overview page, use the search filter. Enter a table name in the Table Name field and click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be considered while

searching as well.

By default, service tables (c_<table name>) are not displayed in the search results.

To include them, click the **Show Service Tables** button located at the bottom left of the search results table. To exclude the service tables from the search results, click the **Hide Service Tables** button.

9.12.4.1 Sort Results

You can sort search results in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Click the column name to sort search results.

9.12.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

9.12.5 Create Table

Click the **Create** button on the Overview page to create a new table. This opens the Create Table page:

Create Table

DATABASE NAME

SCHEMA NAME

TABLE NAME

test

FIELDS/COLUMNS DETAILS

NAME ⁱ	TYPE	NULLABLE	SCALE	LENGTH ⁱ	
c1	INTEGER ▾	True ▾			
c2	NUMERIC ▾	True ▾			✗
c3	VARCHAR ▾	True ▾			✗
c4	INTEGER ▾	True ▾			✗

Add More

CONSTRAINT TYPE

Primary Key ▾

CONSTRAINT NAME

test_pk

COLUMNS

c1
c2
c3
c4

CONSTRAINT TYPE

Unique Key ▾

CONSTRAINT NAME

test_uk

COLUMNS

c1
c2
c3
c4

Add More

AUTOINCREMENT ⁱ

COLUMN

c1 ▾

Add Autoincrement

Back

Submit

Fill in the following fields:

- **Database Name** – enter the database name. In case you want to use the currently installed and connected database, the field can be empty.
- **Schema Name** - enter the schema name if needed.
- **Table Name** - enter the table name you are creating. Note that the leading and trailing spaces in the Table Name will be removed automatically, and the spaces inside the name will be replaced with the underscore (“_”).
- **Fields/Columns Details** - in this section, set up the fields and columns of the table.
 - **Name** - enter field/column name.

Please do not use the field name “id” as a primary key to be searched. This name is used in some internal processes and may result in incorrect behavior. For instance, instead of “id”, you can use “table_name_id”.

- **Type** - define the type of data by selecting it from the drop-down list. The list of data types and their naming depend on the database type.



Please consider the specifics of your database. For example, for Oracle SQL, your table can contain only one field with the type "Text" (LONG).

- **Nullable** - define whether the field can be empty.
- **Scale** - define the number of digits to the right of the decimal point in a number.
- **Length** - define the allowed quantity of characters for the field value.

It is recommended to specify a length for the VARCHAR and CHAR columns as it is required for some database. For example, the default row length for MySQL is 16,383, which can lead to issues when creating tables with multiple VARCHAR columns. For more details, please refer to the MySQL manual.

- **Constraint** - specify rules for the data in a table and the unique
 - **Constraint Type** - select the type of constraint from the drop-down list. The following types are supported:
 - **Primary Key** - select the Primary Key. Primary Key does not allow NULL value.
 - **Unique Key** - select the Unique Key type, that helps to make sure no duplicate values are entered in specific columns that do not participate in a primary key. Unique Key allows one NULL value.
 - **Foreign Key** - is currently not supported.
 - **Constraint Name** - enter a name for constraint. Please consider that some database may ignore the Constraint Name value. For example, the MySQL database has predefined values "PRIMARY" and "UNIQUE".
 - **Columns** - select the column(s) that will be defined as Primary or Unique Key. Such columns contain values that uniquely identify each row in the table.
- **Autoincrement** - this parameter can be defined only for fields/columns of the **Numeric** or **Integer** type. Click the **Add Autoincrement** button and select the corresponding field/column name from the drop-down list. For fields/columns with this parameter enabled, the system will automatically assign the next sequential number.

Note that some databases do not support editing autoincrement values.

Please note that the System tables have the name started with "c_", e.g. c_AliasDependency. Please do not use this "c_" prefix for naming User tables.

Also, the system tables should not be edited as it can cause unexpected problems with the data.

Click the **Add More** button in the Fields/Columns to add a new field/column or in the Constraints section to add a new rule respectively.

After filling in all mandatory and optional fields click the **Submit** button to save the created Menu. Click the **Back** button to go back to the Menu overview page without saving the data.

9.12.6 Update Table

To edit a Table, click the **Edit** (pencil) icon for the selected Table entry in the search results table. The Update Table page opens for editing.

Update Table

DATABASE NAME

SCHEMA NAME

TABLE NAME

accred

FIELDS/COLUMNS DETAILS

NAME 	TYPE	NULLABLE	SCALE	LENGTH 	
accredid	INTEGER 	False 	0		
name	TEXT 	False 			×
attachment	TEXT 	True 			×
expiration	DATE 	True 			×
accredtype	TEXT 	False 			×
stateaccredid	VARCHAR 	False 		2	×
createdon	TIMESTAMP 	True 			×
createdby	INTEGER 	True 	0		×

Add More

CONSTRAINT TYPE

Primary Key 

CONSTRAINT NAME

accred_pkey

COLUMNS

-- Select --
accredid
name
attachment

×
| CONSTRAINT TYPE | CONSTRAINT NAME | COLUMNS | |
| Unique Key | name | -- Select -- accredid name attachment | × |

Add More

AUTOINCREMENT 

NAME

accred_accredid_seq

COLUMN

accredid

×
| Add Autoincrement | |

Download data to csv

Add data in csv

Back

Submit

There are 2 new buttons available on the page in the update mode:

- Download data to CSV - click to download a CSV file with the current table.
- Add data in CSV - click to upload a CSV with the table.

After making the necessary changes, click the **Submit** button. To return to the Overview page, click the Back link.

9.12.7 Delete Table

To delete a Table, click the **Delete** icon on the Overview page for the selected table entry. The confirmation pop-up will appear where you can confirm or cancel the action.

9.13 Simple Table Maintenance

9.13.1 Access

Click **Features > Simple Table Maintenance** to have the possibility to create and manage tables in a simple way.

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9.13.3 Overview

The Simple Table Maintenance functionality provides the possibility to create, review and manage database tables in a simple way. Only database tables created on the Simple Table Maintenance are listed on the Table page. The tables created via Table functionality (including system tables) are not displayed here.

You can see any table details (structure, fields, parameters), create new tables, update the existing tables and their parameters or delete unnecessary data or the entire tables.

Simple Table Maintenance

Table Name

appmill_anv	 
appmill_BILLEXAMPLE	 
appmill_Billtest	 
appmill_BLAZE1	 
appmill_customer	 
appmill_demotext	 
appmill_demotext2	 
appmill_loaded	 
appmill_MAY3EXAMPLE	 
appmill_NEWDEMO	 

« 1 2 3 »

Show All

Create

9.13.4 Search

To search for a particular table on the Overview page, use the search filter. Enter a table name in the Table Name field and click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching as well.

9.13.4.1 Sort Results

You can sort search results in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Click the column name to sort search results.

9.13.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

9.13.5 Create Simple Table

Click the **Create** button on the Overview page to create a new table. This opens the Simple Table Maintenance page in creation mode:

Simple Table Maintenance Create

TABLE NAME *

FIELDS/COLUMNS DETAILS

FIELD NAME *	FIELD TYPE *	MAX DATA SIZE	IF NUMBER - DECIMAL	THIS MAKES RECORD UNIQUE
test_id	Number	999	0	Primary Key, Autoincrement
column 1	Date			☒ ✗
column 2	Text	500		☐ ✗
column 3	-- Select --			☐ ✗

Fill in the following fields:

- **Table Name** - enter the table name you are creating.

Please note that the special prefix “appmill_” will be automatically added to the name of the table after submitting the creation form, e.g. appmill_address.

- **Fields/Columns Details** - in this section, set up the fields and columns of the table.
The first column of the table is populated automatically. This column is assigned the **Primary Key** and **Autoincrement** attributes.
The column name is automatically generated based on the table name - it consists of the table name **without the “appmill_” prefix**, followed by the suffix “**_id**”.
Users cannot modify the first column through the UI.
The **second column and all subsequent columns** can be manually configured by the user.
Users can define the **column name**, **data type**, **default value**, and other parameters according to the data structure requirements:
 - **Field Name** - enter field/column name.
Please do not use the field name “id” as a primary key to be searched.
This name is used in some internal processes and may result in incorrect behavior. For instance, instead of “id”, you can use “table_name_id”.
 - **Field Type** - define the type of data by selecting it from the drop-down list. The list of data types and their naming depend on the database type.
 - **Max Data Size** - define the allowed quantity of characters for the field value.
 - **If number - decimal** - define the number of digits to the right of the decimal point in a number.
 - **This makes record unique** - select the check box to define the field as unique and a part of Primary key. Uniqueness is applied to the **entire combination of selected columns**, rather than to each column individually.

Click the **Add More** button in the Fields/Columns to add a new field/column or in the Constraints section to add a new rule respectively.

After filling in all mandatory and optional fields click the **Submit** button to save the created Menu.

Click the **Back** button to go back to the Menu overview page without saving the data.

9.13.6 Update Simple Table

To edit a Simple Table, click the **Edit** (pencil) icon for the selected Table entry in the search results table.

The Update Table page opens for editing.

There are 2 new buttons available on the page in the update mode:

- Download data to CSV - click to download a CSV file with the current table.
- Add data in CSV - click to upload a CSV with the table.

After making the necessary changes, click the **Submit** button. To return to the Overview page, click the Back link.

9.13.7 Delete Simple Table

To delete a Table, click the **Delete** icon on the Overview page for the selected table entry. The confirmation pop-up will appear where you can confirm or cancel the action.

9.14 Auto Sequence

9.14.1 Access

Click **Features > Auto Sequence** to configure the Auto Sequence for the database table.

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9.14.3 Overview

The Auto Sequence functionality provides the possibility to automatically increment the column and add the number to the values in the database table. You can configure the Auto Sequence for the columns to generate unique values.

9.14.4 Search

To search for an auto sequence or filter the search results, use the following search filters and enter any or all the search criteria:

- Table Name
- Field Name

Auto Sequence		
Table Name	Field Name	
ABC123	test1 updated2	 
AccountingDaily	AccountingDaily	 
AndTest1	Id	 
AndTest1	id_null_appender	 
appmill_customer	uniqueid	 
cmrb_policy	policy_key	 
Demo_Agent	AgentNumber	 
Demo_Agent	AgentNumber	 
Demo_Agent	AgentNumber	 
Demo_Agent	AgentNumber	 
		« 1 2 »
		Create

After filling in the filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching as well.

9.14.4.1 Sort Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

9.14.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

9.14.5 Create Auto Sequence

Click the **Create** button on the Overview page to create a new Auto Sequence configuration. This opens the Create Auto Sequence page:

Create Auto Sequence

TABLE NAME

AccountingDaily

FIELDS DETAILS

FIELD NAME	INCREMENT BY	LINKED FIELD	LINKED MASK	LINKED VALUE	LINKED START	LINKED END	SEQUENCE APPEND
contract	1	BalanceType			0	0	

Add Field

Back

Submit

Select the Table Name and specify the following fields details:

- **Field Name** - enter a field name that should be incremented.
- **Increment By** - enter a number by which the value will be incremented.
- **Linked Field** - you can select the field that can be linked to the main field (to be incremented) and will define whether the main field will be incremented or not. This condition can be set up in the next parameters.
- **Linked Mask** - provide the mask value that will define the fields to be incremented. In case the field value contains the specified here mask value, the auto sequence will be applied.
- **Linked Value** - enter the value that will filter all values and exclude other variants.
- **Linked Start** - you can specify the range of values that will be consider for auto sequence of the main field. For this select the Linked Start in this field. And the end in the next field.

- **Linked End** - select the Linked End for the range of values for the auto-sequence.
- **Sequence Append** - the value that will be added to the final result.

After filling in all mandatory and optional fields click the **Submit** button to save the created Auto Sequence. Click the **Back** button to go back to the Overview page without saving the data.

9.14.6 Update Auto Sequence

To edit an Auto Sequence, click the **Edit** (pencil) icon for the selected Auto Sequence entry in the search results table. The Update Auto Sequence page opens for editing.

After making the necessary changes, click the **Submit** button. To return to the Overview page, click the Back link.

9.14.7 Delete Auto Sequence

To delete an Auto Sequence, click the **Delete** icon on the Overview page for the selected Auto Sequence entry. The confirmation pop-up will appear where you can confirm or cancel the action.

9.15 Advanced Audit

9.15.1 Access

Click **Features > Advanced Audit** to access an overview of the all changes done in the database tables.

9.15.2 Overview

The **Advanced Audit** or **Full Audit List** functionality provides the possibility to automatically check the changes in the database tables (including the adding a new table and deleting an existing one). You can filter the list of tables by using the Table Name field.

Full Audit List

This will check for database changes and add/delete tables in Advanced Audit table.

Initialize Audit

Table Name	
aa	☐
aaa1	☒
ABC123	☒
ABC1234	☒
ABC12345	☒
ABC123456	☒
ABC1234567	☐
ABC12345678	☐
AccountingDaily	☒

Select the tables you want to track the changes for by selecting the corresponding check boxes in the list of tables. You can select all the tables by selecting the check box in the header line.

To save your selection, click the **Update** button at the bottom of the page.

To start the audit for the selected table(s), click the **Initialize Audit** button above the list.

As a result, the table containing the specific audit data will be displayed. You will be able to check the following information: what data has been created, updated, deleted, users that did the modifications, the previous value, etc.

9.16 Audit History

9.16.1 Access

Click **Features > Audit History** to access the history of changes that were done in the database tables.

9.16.2 Table of Contents

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9.16.3 Overview

The **Audit History** functionality provides the possibility to automatically collect and display the changes that were done in the database tables (including the adding a new table and deleting an existing one).

The page provides the history of changes for those tables that were selected for tracking on the Advanced Audit (Full Audit List) page (Features > Advanced Audit). For more details about the tables selected for tracking, refer to the [Advanced Audit](#) page of the User Manual.

Audit History

Screen data will be loaded after entering data in the search fields. Advanced Search

Table Name	Account Name	PK Before Changes	PK After Changes	Date and Time
c_user_accounts				
c_user_accounts	---	[id: "1"]	[id: "1"]	2023-09-07T15:05:54.41704
c_user_accounts	---	[id: "247"]	[id: "247"]	2023-09-07T14:50:42.85909
c_user_accounts	---	[id: "167"]	[id: "167"]	2023-09-07T14:50:22.404046
c_user_accounts	---	[id: "247"]	[id: "247"]	2023-09-07T14:48:06.911493
c_user_accounts	---	[id: "167"]	[id: "167"]	2023-09-07T14:47:54.781965
c_user_accounts	---	[id: "167"]	[id: "167"]	2023-09-07T14:46:04.928982
c_user_accounts	---	[id: "167"]	[id: "167"]	2023-09-07T14:46:04.010262
c_user_accounts	---	[id: "167"]	[id: "167"]	2023-09-07T14:46:03.075591

1 2 ... 3 ... 1511 1512 »

Note that the data will be loaded after filling in the search fields.

To display the data on the Audit History page, you can enter the following data in the search filters fields:

- **Table Name** - enter the table for which the history of changes should be displayed.
- **Account Name** - enter the user account name who supposed to be the author of the changes.
- **PK Before Changes** - define the primary key before the changes were done.
- **PK After Changes** - define the primary key value after the changes.
- **Date and Time** - enter the assumed date and time when the changes were done.

9.16.3.1 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page or the previous page of the search results list accordingly.

9.16.4 View Audit History

Click **Advanced Search** button to open the **Audit History** page.

The page containing the Advanced Search form will be opened.

The search results will be displayed below the search form. The page consists of two main sections:

- **Advanced Search** - to display the audit history details, you need to fill in the search filters in the Advanced Search section first.

Initiate the search by clicking the **Find** button and the search result section will be displayed below the search form.

- **Audit History Table** - this section contains the results of the search based on the entered search filters.

Let's see the details below:

Audit History

TABLE NAME

ACCOUNT NAME

EXACT MATCH ☒

DATE FROM

DATE TO

PK Before
ID

Back Find

Table Name	Account Name	PK Before Changes	PK After Changes	Date and Time	Operation Name
c_user_accounts	---	{"id": "1"}	{"id": "1"}	2023-09-07T15:05:54.41704	update
c_user_accounts	---	{"id": "247"}	{"id": "247"}	2023-09-07T14:50:42.85909	update
c_user_accounts	---	{"id": "167"}	{"id": "167"}	2023-09-07T14:50:22.404046	update
c_user_accounts	Anna Account	{"id": "247"}	{"id": "247"}	2023-09-07T14:50:16.601222	update
c_user_accounts	---	{"id": "247"}	{"id": "247"}	2023-09-07T14:48:38.99037	update
c_user_accounts	---	{"id": "247"}	{"id": "247"}	2023-09-07T14:48:06.911493	update
c_user_accounts	---	{"id": "167"}	{"id": "167"}	2023-09-07T14:47:54.781965	update
c_user_accounts	---	{"id": "167"}	{"id": "167"}	2023-09-07T14:46:04.928982	update
c_user_accounts	---	{"id": "167"}	{"id": "167"}	2023-09-07T14:46:04.010262	update
c_user_accounts	---	{"id": "167"}	{"id": "167"}	2023-09-07T14:46:03.075591	update

1 2 ... 3 ... 1511 1512 »

9.16.4.1 Advanced Search

Here you can use the search filters to get the particularized information:

- **Table Name** - enter the table for which the history of changes should be displayed.
- **Account Name** - enter the user account name who supposed to be the author of the changes.
- **Exact Match** - select the check box to indicate that exactly search phrase a search filter value.
- **Date From - Date To** - specify the date range when the changes were done.
- **PK Before** - enter the previous value of primary key in case it was changed. The data selected on the Overview page will be predefined in the fields.

9.16.4.2 Audit History Table

In the search result table below the search form, all the changes are displayed.

For each row, you can view the changes data that you are interested in. In the operation column, click the following icons to display the corresponding information:

- **Data Before** - shows the data before the changes.
- **Only Data Changes** - shows only the changes done on the data.

- **Previous Changes** - shows the changes on the previous change action.

The pop-up windows with corresponding information will open.

9.16.5 Manual Audit History Addition

The **Manual Audit History Addition** functionality allows programmatic addition of audit history records to the `c_audit_history` table on demand. This is useful for:

- creating audit trails for operations not automatically tracked,
- integrating with external systems that require custom audit logging.

The functionality is implemented through the **RID_ADD_AUDIT_HISTORY_ON_DEMAND** database request, which accepts JSON-formatted parameters and can be called from various programming languages, including PHP, JavaScript, Python, C#, and C++.

9.16.5.1 Database Request Parameters

The `RID_ADD_AUDIT_HISTORY_ON_DEMAND` request requires the following JSON-formatted parameters:

- **request_id** (string) – set this value to "RID_ADD_AUDIT_HISTORY_ON_DEMAND".
- **table_name** (string) – enter the name of the table for which audit history records are added.
- **operation** (string) – specify the performed operation. Accepted values are "insert" or "update".
- **pk_before** (string, semicolon-delimited) – enter the primary key values before the operation. Required only for "update" operations and should be omitted for "insert" operations.
- **pk_after** (string, semicolon-delimited) – enter the primary key values after the operation. Required for "insert" operations and also required for "update" operations if primary key columns have changed.
- **session_handle** (string) – provide the current session handle, required to capture the active user. If omitted, the user in the audit history record will be set to -1.

JSON Structure Example

```
{
  "request_id": "RID_ADD_AUDIT_HISTORY_ON_DEMAND",
  "table_name": "Demo_Agent",
  "operation": "update",
  "pk_before": "000B000012",
  "pk_after": "000N000012",
  "session_handle": "your_session_handle_value"
}
```



Follow the correct operation sequence when implementing manual audit history addition:

- For **"insert"** operations, add the record into the target table first, then execute the `RID_ADD_AUDIT_HISTORY_ON_DEMAND` request.
- For **"update"** operations, execute the `RID_ADD_AUDIT_HISTORY_ON_DEMAND` request first, then update the record in the target table.

9.16.5.2 Programming Language Examples

The following examples show implementations of the `RID_ADD_AUDIT_HISTORY_ON_DEMAND` request in different programming languages.

PHP Plugin Function Example

```
function AuditHistoryExample($json_params) {  
    $json_body = array(  
        'request_id' => 'RID_ADD_AUDIT_HISTORY_ON_DEMAND',  
        'table_name' => 'Demo_Agent',  
        'pk_before' => '000B000012',  
        'pk_after' => '000N000012',  
        'operation' => 'update',  
        'session_handle' => $json_params['session_handle']  
    );  
  
    $response = $this->poolLoader->executeFunctionProcessJson(json_encode($json_body));  
    var_dump('RESPONSE: ' . $response);  
  
    return array(  
        'resultbody' => array(  
            'requestresult' => 'successfully',  
            'extendedinfo' => 'OK'  
        )  
    );  
}
```

```
}
```

JavaScript Plugin Function Example

```
AuditHistoryExample(json_params) {  
    var json_body = {  
        'request_id': 'RID_ADD_AUDIT_HISTORY_ON_DEMAND',  
        'table_name': 'Demo_Agent',  
        'pk_before': '000B000012',  
        'pk_after': '000N000012',  
        'operation': 'update',  
        'session_handle': json_params['session_handle']  
    }  
  
    var response = this.poolLoader.executeFunctionProcessJson(JSON.stringify(json_body));  
    cmodule.print('RESPONSE: ' + response);  
  
    return system.prepareResponse(true, 'OK');  
}
```

Python Plugin Function Example

```
def AuditHistoryExample(self, json_params):  
    json_body = {  
        'request_id': 'RID_ADD_AUDIT_HISTORY_ON_DEMAND',  
        'table_name': 'Demo_Agent',  
        'pk_before': '000B000012',  
        'pk_after': '000N000012',  
        'operation': 'update',  
        'session_handle': json_params['session_handle']  
    }
```

```
response = self.pool_loader.execute_function_process_json(json.dumps(json_body))

print('RESPONSE: ' + str(response))

return json.dumps(BasePlugin.get_success_response('OK'))
```

C# Plugin Function Example

```
public JObject AuditHistoryExample(JObject jsonParam)
{
    var jsonBody = new JObject
    {
        ["request_id"] = "RID_ADD_AUDIT_HISTORY_ON_DEMAND",
        ["table_name"] = "Demo_Agent",
        ["pk_before"] = "000B000012",
        ["pk_after"] = "000N000012",
        ["operation"] = "update",
        ["session_handle"] = jsonParam["session_handle"]?.ToString()
    };

    string response = DataLoader.ExecuteProcessJson(jsonBody).ToString();
    Log($"RESPONSE: {response}");

    return DataLoaderHelpers.PrepareResponse(status: true, message: "OK", data: null);
}
```

C++ Plugin Function Example

```
cp_char_t AuditHistoryExample(cp_char_t pJsonParams)
{
    web::json::value jsonParams = web::json::value::parse(pJsonParams);

    web::json::value jsonBody;
```

```
jsonBody[TEXT("request_id")] =  
web::json::value(TEXT("RID_ADD_AUDIT_HISTORY_ON_DEMAND"));  
  
jsonBody[TEXT("table_name")] = web::json::value(TEXT("Demo_Agent"));  
  
jsonBody[TEXT("pk_before")] = web::json::value(TEXT("000B000012"));  
  
jsonBody[TEXT("pk_after")] = web::json::value(TEXT("000N000012"));  
  
jsonBody[TEXT("operation")] = web::json::value(TEXT("update"));  
  
jsonBody[TEXT("session_handle")] = jsonParams.at(TEXT("session_handle"));  
  
  
web::json::value response = this->poolLoader->  
>ExecuteFunctionProcessJson(jsonBody.serialize().c_str());  
  
std::wcout << TEXT("RESPONSE: ") << response.serialize() << std::endl;  
  
  
return PrepareResponse(TEXT("OK"), true);  
}
```

9.16.5.3 Implementation Notes

Insert Operations

For **insert** operations, the JSON body must be structured as follows:

- Set "operation": "insert"
- Include the "pk_after" parameter with the newly created record's primary key
- Omit the "pk_before" parameter entirely

Example:

```
{  
  "request_id": "RID_ADD_AUDIT_HISTORY_ON_DEMAND",  
  "table_name": "Demo_Agent",  
  "operation": "insert",  
  "pk_after": "000N000013",  
  "session_handle": "your_session_handle_value"  
}
```

Update Operations with Unchanged Primary Keys

For **update** operations where the primary key remains unchanged:

- Set "operation": "update"
- Include both "pk_before" and "pk_after" parameters, using the same value for each

Composite Primary Keys

For tables with composite primary keys, specify the values as semicolon-delimited strings:

```
{  
  "pk_before": "key1;key2;key3",  
  "pk_after": "newKey1;newKey2;newKey3"  
}
```

9.16.5.3.1 Post-Implementation Verification

After implementation, execute the corresponding plugin function and confirm that:

1. A new record has been added to **the c_audit_history table**.
2. All fields are populated correctly, including user information derived from the **session_handle**.
3. The manually inserted records are displayed in the user interface alongside automatically generated audit entries.

9.17 Locked Records

9.17.1 Access

Click **Features > Locked Records** to display the list of the records locked in the Render and provide the possibility to unlock them.

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- [Unlock Records](#)

9.17.3 Overview

To avoid the conflicts when processing and saving the data of the database, there is a special restriction in the Render: it is not allowed to edit the same record by several users at one time.

When the user clicks the Edit (pencil) icon on the screen in the Render, this record is automatically locked for editing by other users. The information about the locked records is displayed on the Locked Records page in the Architect so that the Admin user is able to check the locked records and unlock them, if needed.

Locked Records		
☐ Table Name	Primary Key	Lock Time
☐ JuneTableM1	sally;sally00004	2023-08-11T10:12:09.865352
☐ JuneTableM1	sally;sally00051	2023-08-11T10:12:09.865352
☐ JuneTableM1	sally;sally00002	2023-08-11T10:12:09.865352
☐ JuneTableM1	sally;sally00005	2023-08-11T10:12:09.865352
☐ JuneTableM1	sally;sally00053	2023-08-11T10:12:09.865352
☐ JuneTableM1	sally;billadd1	2023-08-11T10:12:09.865352
☐ JuneTableM1	sally;sally00097	2023-08-11T10:12:09.865352
☐ JuneTableM1	sally;sally00003	2023-08-11T10:12:09.865352
☐ JuneTableM1	sally;sally777	2023-08-11T10:12:09.865352
☐ JuneTest1	sally	2023-08-11T10:12:09.865352

«
1
2
»

Unlock Records
Unlock All

9.17.4 Search

To search for a locked record or filter the search results, use the following search filters:

- Table Name
- Primary Key
- Lock Time

After filling in the filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching too.

9.17.4.1 Sort Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

9.17.4.2 Navigate

Use the navigation bar at the bottom of the Locked Records Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous page of the search results list accordingly.

9.17.5 Unlock Records

You have the following options to unlock the records:

- *To unlock any record*, click the check box to select the needed record and click the **Unlock Records** to unlock the selected item.
- *To unlock several records simultaneously*, click the check boxes to select the items to be unlocked and then click the **Unlock Records** button to unlock them.
- *To unlock all entries listed on the current page*, select the check box displayed in the header line of the results table and then click the **Unlock Records** button. The records listed on the current search result page will be unlocked.
- *To unlock all locked records*, click the **Unlock All** button.

9.18 Report Builder

9.18.1 Access

Click **Features > Report Builder** to manage report templates used for the report generation on the Render screens.

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 - [Reports](#)
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- [Update Report](#)
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9.18.3 Overview

The Reports functionality provides the possibility to manage reports that can be generated in the Render application.

Reports				
Tenant	Report Name	Description	Library	Primary Table
	crunch			
1	CRUNCH REPORT	CRUNCH REPORT	CodiacSDK.Universal	Crunch
1	Test Crunch Report	Test Crunch Report	CodiacSDK.Universal	Crunch
1	Test CrunchF Report	Test CrunchF Report	CodiacSDK.Universal	Crunch
1	Test CrunchF Report - inline data	Test CrunchF Report - inline data	CodiacSDK.Universal	Crunch
1	test_crunch_1	test_crunch_1	CodiacSDK.Universal	Crunch
1	test_crunch_2	test_crunch_2	CodiacSDK.Universal	Crunch
1	test_crunch_3	test_crunch_3	CodiacSDK.Universal	Crunch

[Show All](#)
[Create](#)

9.18.4 Search

To search for a particular report or filter the search results, use the following search filters and enter any or all the search criteria:

- Tenant
- Report Name
- Description
- Library
- Primary Table

After filling in the filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching as well.

9.18.4.1 Sort Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

9.18.4.2 Navigate

Use the navigation bar at the bottom of the Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

9.18.5 Create Report

Click the **Create** button on the Overview page to create a new report. This opens the Create Report page.

LIBRARY
CodiacSDK.Universal

PRIMARY TABLE
Crunch

SIMPLE SEARCH
☒ Search_Crunch: Universal DLL : Search_Crunch

MULTI-SEARCH WITH CUSTOM QUERY
☐ -- Select --

BATCH
☒ CRUCH BATCH REPORT QUERY - CRUCH BATCH REPORT QUERY

☐ SINGLE DOCUMENT BATCH

TENANT
1

REPORT NAME
CRUNCH REPORT

DESCRIPTION
CRUNCH REPORT

DOCUMENT FAMILY
test - test

DOCUMENT CATEGORY
test - test
y77 - y77
y88 - y88

TEMPLATE TYPE
System

TEMPLATE TYPE
CRUNCH REPORT

Back

Save

Fill in the following fields:

- **Library** - is always the same and not editable.
- **Primary Table** - select the primary table you need to use for the report.
- **Search** - select the search type (Simple search or Multi-search) and configure the search parameters. The search configured here will define what will appear in the pop-up when user clicks the Generate Report button on the screen in the Render. User will need to search for data on the Render screen and based on the selected data, the report will be generated.

- **Batch** - represents different queries that will return the same data as search result but multiple values. The batch option provides the possibility to create multiple reports at once. In contrast to the search, where user selects only one value from the available values, in the batch user can input multiple values. In this case the multiple reports can be generated.
- **Single Document Batch** - select this option to define that the multiple reports should be generated not into multiple documents but into one common. This is a special case of the Tenant report generation.
- **Tenant** - enter the Tenant that connected to the report.
- **Report Name** - enter the name for the report to be generated. The report name will be used further to generate report from plugins or to call the specific report. This name will be displayed in the Screen Builder options.
- **Description** - add a short description for the report.
- **Document Family** - select the document family. After the family selection, the list of connected categories will be available.
- **Document Category** - select the document category from the drop-down list.



The Document Family and Category values are very important for the report. Selecting the Document Family and Category user specifies the storage (device), in which the created report will be saved. On the [Document Family](#) page (Document Access > Document Family), we can specify the retention time (in days) to store reports in the storage (device). This can be useful to save space on your device. If the retention time is not defined, all reports will be stored there until the folder is full. Note that if the folder is full of files, new files will replace the old ones.

- **Template Type** - define which template should be used for report generating. Currently the following template types are supported:
 - System
 - XML file
 - Editable
 - PDF Form

9.18.5.1 System Template Type

The System Template type refers to the report templates that already exist in the system. These report templates are created via a designer application and can be just selected and used for the report generation.

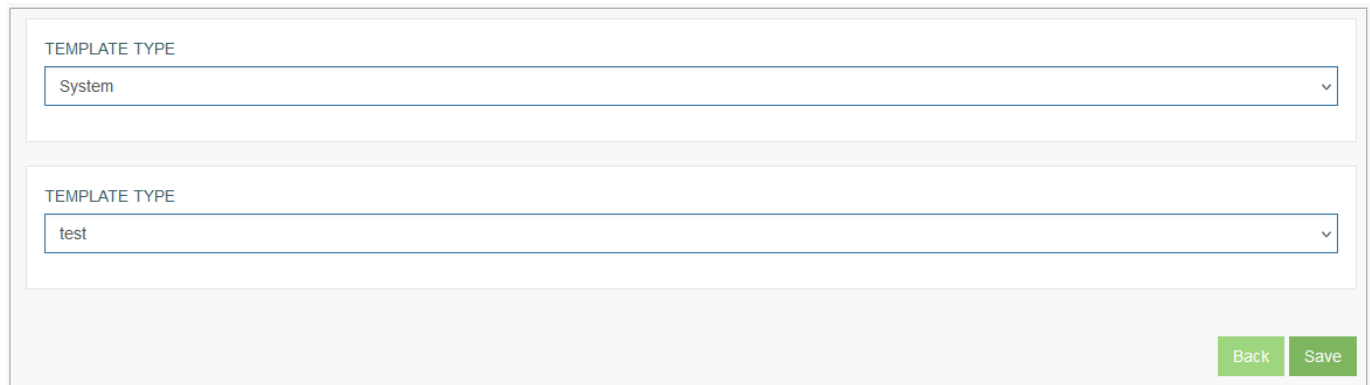
The report templates can be created using both web and desktop versions of the designer application. One report template can be edited using both the web and desktop versions of the designer application. For example, a new report template is created in the application web version and then updated in the desktop version.

The web designer application can be accessed by the link containing the part of the Architect application link with the web designer name. For example, `localhost:88/architect/webdesigner/`.

The desktop application can be accessed by running the *QtRptDesigner.exe* file in the QtRptDesigner folder. The path to the application can be as follows: *C:/Program Files/AppMill/Clients/QtRptDesigner/QtRptDesigner.exe*.

All report templates created via a designer application can be selected from the **Template Type** list.

Select the needed report from the Template Type list of all reports existing in the system.



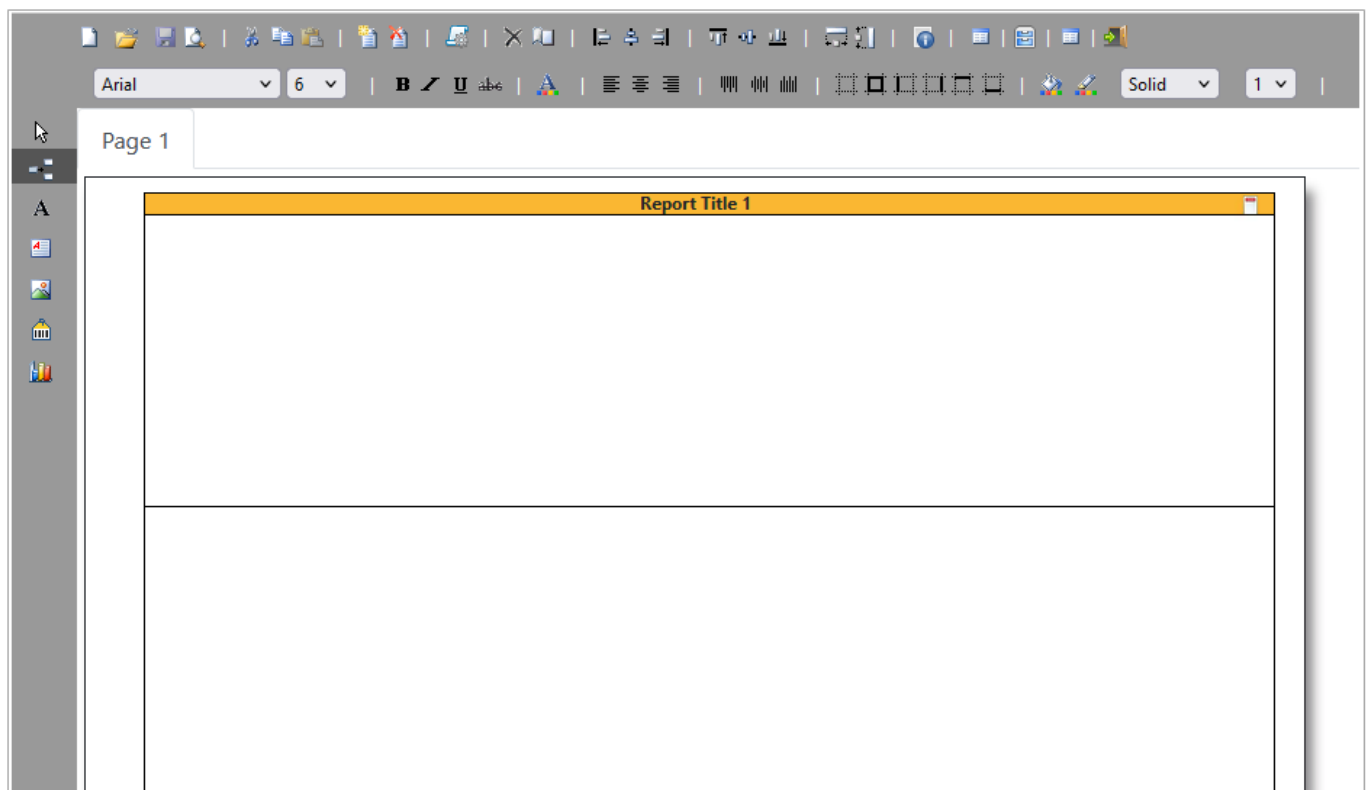
Select the needed report from the Template Type list of all reports existing in the system.

9.18.5.1.1 System Template Usage Example

In the example described below, the report template is created using the web designer application.

Note that the desktop version of the designer application can also be used for creating the report template.

To create the report template using the web designer application, open the web designer application in the internet browser and perform the following operations:



1. Add a PDF file to be used as a report template

Select the **PDF->Report** icon from the Toolbar at the top of the page. In the opened **PDF->Report** pop-up window, select the PDF file to be utilized as a report template. For example, we upload the W-9 form of the Request for Taxpayer Identification Number and Certification. This document may contain the user's personal information, such as their first and last names, email address, phone number, and so on.

2. Reduce the file size

Reduce the report template size to have access to the free space on the page. This should be done to insert a new report template element into the existing one.

3. Add aliases

Add aliases to the report template to connect the report template with the data from the database tables. For that, click the **Add new text** icon from the Toolbar on the left.

In the opened **Field editor** pop-up window, search the alias in the **Aliases** field. Select the corresponding alias from the search results.

The alias name should be in the square brackets. Otherwise, the alias will not apply the correct data and will be displayed as regular text. If there is any text outside the square brackets, just delete it. Ensure that the text area contains only the alias in the square brackets.

In this example, to display the user's first and second names, we add the aliases containing the user's first and second names to the area where the user's first and second names should be placed.

Also, the marked check boxes can be set to be displayed in the generated reports. For that, the alias should contain the checkbox value.

As a result, the created template can be displayed as follows:

The screenshot shows a W-9 form template being edited in a design application. The form is titled "W-9 Request for Taxpayer Identification Number and Certification". It includes fields for name, business name, tax classification, address, and TIN. The form is displayed within a design application window with a toolbar at the top and a sidebar on the left.

4. Define a primary table

Select the **Table** icon from the Toolbar at the top of the page. In the opened **Tables** pop-up window select a primary table.

5. Preview a template

To preview a report template, click the **Preview** icon from the Toolbar at the top left corner of the page.

Note that to preview the report template in both web and desktop designer applications, the following parameters are required to be defined on the **Document Groups** page:

- **Document Family** - select the **system** document family.
- **Document Category** - select the **system** document category.
- **Access Rights** - select the **Full Access** option.

6. Save a template

To save a created report template, we need to select the **Template** icon from the Toolbar at the top center of the page. In the opened **Templates** pop-up window, to save a new report template, enter the report template name into the **Template saving** field and click the **Save as new** icon.

If you click the **Save** icon from the Toolbar at the top left corner of the page, that will save the changes of the PDF file but will not save a new report template.

 Note that clicking the **Close** button will save the report template and close the **Templates** pop-up window. To cancel the data saving and close the **Templates** pop-up window, click the **Close** icon at the top right corner of the pop-up window.

After that, the created report template will be added to the list with report templates for the report of System type on the Report Builder page.

To create the report of System type, define the following parameters on the Report Builder page:

- **Template Type** - select the **System** template type from the drop-down list.
 - **Template Type** - in the appeared field, select the above-created report template.

Save the report of System type by clicking the **Save** button.

To enable the possibility to generate reports on screens in the Render application, set up and add the button of the Generate report type to the screen in the Architect application. In the Render application, clicking the button of the Generate report type will generate a report. For more details about button configuration, refer to the [Button Configuration](#) page.

In the Render application, the generated report of the System type can be displayed as follows:

Form W-9
(Rev. October 2018)
Department of the Treasury
Internal Revenue Service

**Request for Taxpayer
Identification Number and Certification**

► Go to www.irs.gov/FormW9 for instructions and the latest information.

Give Form to the
requester. Do not
send to the IRS.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.

JANE HANSON

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes.

☒ Individual/sole proprietor or single-member LLC ☒ C Corporation ☐ S Corporation ☒ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ►

Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

☐ Other (see instructions) ►

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):

Exempt payee code (if any) _____

Exemption from FATCA reporting code (if any) _____

(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.

6 City, state, and ZIP code

7 List account number(s) here (optional)

Requester's name and address (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

--	--	--	--

or

Employer identification number

--	--	--	--

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

9.18.5.2 XML File Template Type

The XML File Template type provides the possibility to upload an XML file. The file will be added to all the templates and user will be able to use it for the report generation.

TEMPLATE TYPE

XML file
▼

USE XML TEMPLATE

File select

File no chosen

Back

Save

9.18.5.3 Editable Template Type

There are several report templates that are predefined as XML files. So, users do not need to create the report templates from scratch via the designer applications. The users will only need to adjust existing predefined templates with the required details and information. That could be helpful for some specific

routine tasks.

In the Select Template section, you can select the following options:

- **Document Type**
 - **Form Letter** - this template has the letter form. The generated report is displayed as a regular letter, complete with a title, body details, address, and pagination.
 - **Reports** - is used for the creation of simple reports containing calculations. The generated report is displayed as a table with columns, rows, and total calculations by parameters according to the report template.
- **Available Templates**
 - The report templates in the **Available Templates** drop-down list can vary according to the selected report type in the **Document Type** drop-down list. All templates from the Available Templates drop-down list are uploaded by the system during the AppMill Service installation process and placed in the *AppMill\Service\ReportTemplate\FormTemplateFolder* and *AppMill\Service\ReportTemplate\ReportTemplateFolder* folders for Form Letter and Reports document types correspondingly.

Based on the report template selected from the **Available Templates** drop-down list, the Enter Report Details section will show the various details displayed below. Users can use these details of the predefined template as a starting point and adjust the report according to their requirements.

Users can perform the following operations with report template parameters:

- Upload a new logo (image title)
- Adjust settings for the uploaded image
- Enable and disable the sections visibility
- Change the data formatting entered in the columns and the fields
- Enter the data into free form section

Depending on the selected report template, different report details can be displayed and be adjusted. Actually, users can build a completely custom report based on the predefined set of functionalities.

9.18.5.3.1 Form Letter

According to the report template selected in the **Available Templates** drop-down list, the Enter Report Details section will contain the different details displayed for the **Form Letter** report templates.

TEMPLATE TYPE

Editable

SELECT TEMPLATE

DOCUMENT TYPE

Form Letter

AVAILABLE TEMPLATE

1 Page W Address.xml

ENTER REPORT DETAILS

PAGE:1

IMAGE TITLE

File select

File no chosen

AppMill

Software Made Easy

IMAGE WIDTH

101

IMAGE HEIGHT

70

LEFT

10

VISIBILITY

☒

IMAGE TITLE

File select

File no chosen

AppMill

Software Made Easy

IMAGE WIDTH

101

IMAGE HEIGHT

70

LEFT

650

VISIBILITY

☒

SENDER SECTION VISIBILITY

☒

HEADER VISIBILITY:

☒

PAGE 1

Column	Name	Left	Top	Font Size
dateField		0	117	10
sender1	[sender1]	0	0	10
sender2	[sender2]	0	20	10
sender3	[sender3]	0	40	10
sender4	[sender4]	0	60	10
toaddress1	[toaddress1]	0	176	10
toaddress2	[toaddress2]	0	196	10
toaddress3	[toaddress3]	0	216	10
toaddress4	[toaddress4]	0	236	10

FREE FORM SECTION

12pt

System Font

Paragraph

B

I

U

A

Generate Preview

Back

Save

For the **Form Letter** report templates the following parameters can be edited in the **Enter Report Details** section:

- **Image Title** - select and upload an image from the local device to be used as a letter title.
 - **Image Width** - define the image width.
 - **Image Height** - define the image height.
 - **Left** - define the image placement. By default, the image title is placed at the top left corner of the page.
 - **Visibility** - select the check box to display the image title in the report.
- **Image Title** - select and upload an image from the local device to be used as a letter title.
 - **Image Width** - define the image width.
 - **Image Height** - define the image height.
 - **Left** - define the image placement. By default, the image title is placed at the top right corner of the page.
 - **Visibility** - select the check box to display the image title in the report.
- **Sender Section Visibility** - select the check box to display the sender details (sender and recipient addresses) in the letter. Users can display the Sender section details only in the reports based on the report templates containing the sender and recipient address.
- **Header Visibility** - select the check box to display the Image Titles in the report header. If the report template has more than 1 page, select the check box for page 2 or page 3 to display the Image Titles on the corresponding pages.
- **Free Form Section** - enter the letter body to this section. The body can be in free form including text and aliases. The aliases can be added to the letter body to connect the report template with the data from the database tables.
 Note that the aliases should be placed in the square brackets. Otherwise, they will be shown as regular text. In the Render application, the generated report will contain the data according to the aliases in the report templates.
 If the report template has more than 1 page, the **Free Form Section** for page 2 and page 3 appears correspondingly.

To check how the report with the Form Letter type will look like, use the Report Preview option. For this, click the **Generate Preview** button in the bottom left corner of the page. This will generate the Report in the PDF format.

9.18.5.3.2 Form Letter Template Usage Example

In the example below, the creation and usage of the report template of the Form Letter type in the Render application are described.

But first, the report template of the Form Letter type should be created in the Architect application. As an example, we create the report template with the welcome onboarding letter for new employees containing the regular text and aliases in square brackets. The further generated report will display the regular text and data according to the aliases.

To create the report template of the Form Letter type, fill in the following parameters on the Report Builder page:

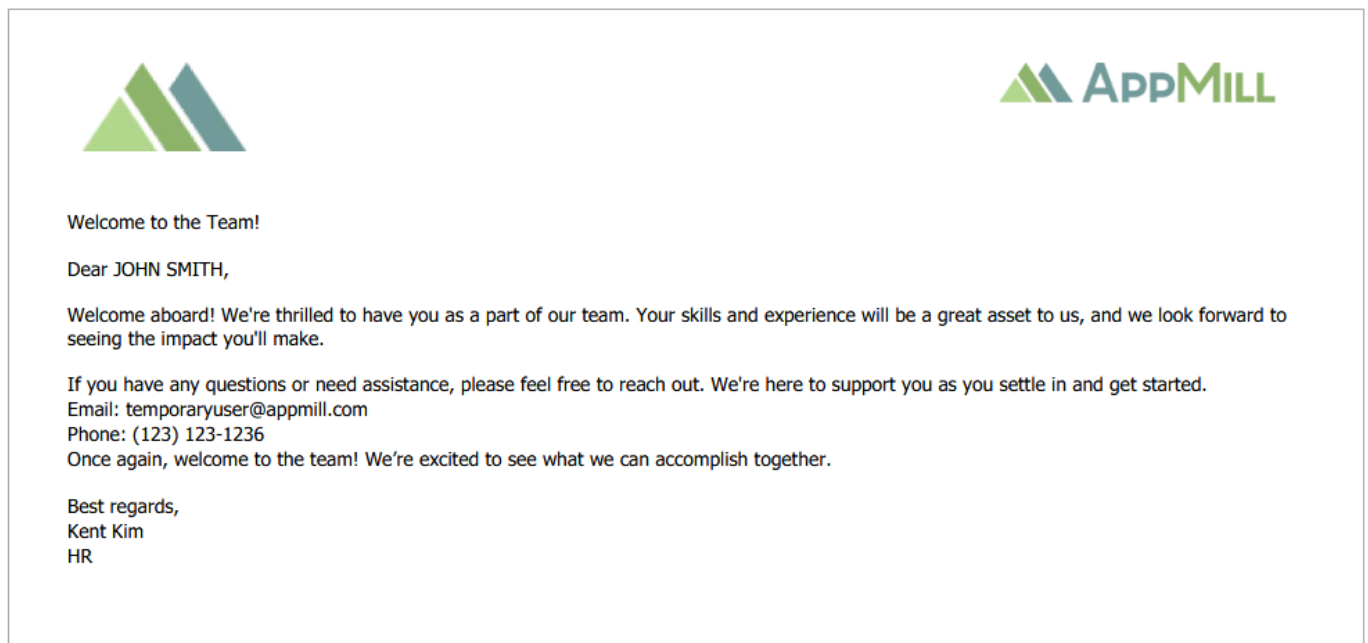
- **Document Type** - select the Form Letter template type.

- **Available Templates** - select the 1 Page Freeform.xml template.
- **Image Title** - upload the image to be displayed as a letter title at the top left corner.
- **Image Title** - upload the image to be displayed as a letter title at the top right corner.
- **Free Form Section** - enter the welcome onboarding letter body containing the regular text and aliases in square brackets.

Save the created report by clicking the **Save** button.

After that, set up and add the button of the Generate report type to the screen in the Architect application. In the Render application, clicking the button of the Generate report type will generate a report. For more details about button configuration, refer to the [Button Configuration](#) page.

In the Render application, the generated report of the Form Letter type can be displayed as follows:



9.18.5.3.3 Reports

According to the report template selected in the **Available Templates** drop-down list, the Enter Report Details section will contain the different details displayed for the **Reports** report templates.

TEMPLATE TYPE

Editable

SELECT TEMPLATE

DOCUMENT TYPE

Reports

AVAILABLE TEMPLATE

StandardTempate3OneGroupsOneTotals.xml

ENTER REPORT DETAILS

REPORT TITLE

Standard Template 3 – One Totals – One Groups

DOCUMENT TYPE

MM.dd.yyyy

IMAGE TITLE

File select

File no chosen



REPORT TITLE FONT SIZE

16

UNDERLINE

☐

VISIBILITY OF LINE AFTER TITLE

☒

IMAGE WIDTH

86

IMAGE HEIGHT

86

ENTER COLUMN DETAILS

DATA SOURCE

DS1

OVERRIDE INLINE

☐

Column	Name	Column Width	Head Size	Head Bold	Head Underline	Head Alignment	Data Size	Data Bold	Data Underline	Data Alignment
1	Column 1	201	9	☐	☒	Center	9	☐	☐	Center
2	Column 2	201	9	☐	☒	Center	9	☐	☐	Center
3	Column 3	201	9	☐	☒	Center	9	☐	☐	Center

Preview and inline data

INLINE DATA

Columns:

Column 1

Column 2

Column 3

Alias:

column1

column2

column3

Add Row

Generate Preview

For the **Reports** report templates the following parameters for the title can be edited in the **Enter Report Details** section:

- **Report Title** - by default, the Report Title field contains the value according to the selected template in the Available Template field. Enter a text to be used as a title in the generated report. The title can contain text and aliases. Note that the aliases should be placed in the square brackets. Otherwise, they will be shown as regular text. In the Render application, the generated report will contain the data according to the aliases in the report templates.
- **Report Title Font Size** - define the report title font size.
- **Underline** - select the check box to underline the title.
- **Document Type** - select the date format from the drop-down list.
- **Visibility of Line after Title** - select the check box to display the line after the title.
- **Image Title** - select and upload an image from the local device.
- **Image Width** - define the image width.
- **Image Height** - define the image height.

In the **Enter Column Details** section, define the Data Source details:

- **Data Source** - by default, the field is predefined with a **DS1** value. Also, the **parent table identifier alias** can be used as the Data Source instead of default DS1.
 - **DS1**
 - **Override Inline** - select the check box. The **Override Inline** check box should be selected for the DS1 data source. If this check box is selected, the report generated in the Render application will contain the correct data from the database. Otherwise, the report will display the data added in the **Preview and inline data** section as an example for the preview.
 - **Parent table identifier alias**
 - To connect the report template to the database table, the **Parent table identifier alias** can be used. Note that if the parent table identifier alias is used as a Data Source in the report template, the data added in the **Preview and inline data** section for the preview will be ignored.

In the **Enter Column Details** section, the following parameters can be adjusted for every column separately:

- **Name** - enter a column name.
- **Column Width** - define a column width.
- **Head Size** - define a column header size.
- **Head Bold** - select this check box for a column to put the column header in bold.
- **Head Underline** - select this check box for a column to underline the column name.
- **Head Alignment** - select the alignment for the column header:
 - **Left** - to align the header left.
 - **Center** - to align the header center.
 - **Right** - to align the header right.
 - **Justify** - to justify the header.
- **Data Size** - define a column data size.
- **Data Bold** - select this check box for a column to put the column data in bold.
- **Data Underline** - select this check box for a column to underline the column data.
- **Data Alignment** - select the alignment for the column data:

- **Left** - to align the data left.
- **Center** - to align the data center.
- **Right** - to align the data right.
- **Justify** - to justify the data.
- **Data Format** - select the column data format:
 - **String** - for data in text format.
 - **Integer** - for data in integer format.
 - **Decimal** - for data in decimal format.
- **Alias Name** - this field is predefined according to the value in the Data Source field:
 - If **DS1** is used as the Data Source, the alias name will contain the DS1 value as the first part of the alias name. For example, **[DS1.Alias.table_name.field_name]**.
 - If the **Parent table identifier alias** is used as the Data Source, the alias name will contain the parent table identifier alias name. Enter the field name from the parent table for the corresponding column. As a result, the alias name will have the following structure: **[Alias.table_name.field_name]**.

To preview data and check the entered aliases to the report template, click the **Preview and inline data** link at the bottom left corner of the page.

To add a new table row with the data to be displayed in the generated report preview in the separate tab, click the **Add Row** button at the bottom left corner of the page.

To check how the report of the Reports type will look like, use the Report Preview option. For this, click the **Generate Preview** button in the bottom right corner of the page. This will generate the Report in the PDF format.

9.18.5.3.4 Reports Template Usage Example

For example, the users need to generate report containing details about equipment assigned to the corresponding user. The report template will include the details about the equipment assigned to the user displayed in the table view.

The report template of the Reports type with 3 columns and 1 total is selected as a report template for report generation in the Render application.

To create the report with the report template of the Reports type with 3 columns and 1 total, fill in the following parameters:

- **Report Title** - add the title that contains the aliases to connect the report template to the database table.
- **Column Details** - define the column parameters as follows:
 - 1st column - is used for the equipment type and named **Type** with the corresponding alias in the **Alias Name** field.
 - 2nd column - is used for the equipment brand and named **Brand** with the corresponding alias in the **Alias Name** field.
 - 3rd column - is used for the equipment price and named **Price** with the corresponding alias in the **Alias Name** field.

After creating the report template, set up and add the button of the Generate report type to the screen in

the Architect application. In the Render application, clicking the button of the Generate report type will generate a report. For more details about button configuration, refer to the [Button Configuration](#) page.

In the Render application, the generated report of the Reports type can be displayed as follows:

		
Equipment list for JOHN SMITH		09.03.2024
Type	Brand	Price
laptop	apple	3,456.78
phone	apple	1,345.67
	Total:	4,802.45

9.18.5.4 PDF Form Template Type

The report template with PDF Form type can be created using any online or desktop PDF editor.

TEMPLATE TYPE

PDF Form

SELECT FORM

☒ UPLOAD PDF FORM

File select

File no chosen

☐ AVAILABLE FORMS

-- Select --

ALIAS VIEW

☐ -- Select --

Back

Save

If the PDF Form is selected as a report template type, the Select Form section appears. Here, users can upload a new or select the available PDF report templates by marking one of the parameters below:

- **Upload PDF Form** - activate this parameter to upload a new report template in the PDF format.
 - **File select** - click the button to select and upload the report template in PDF format from the local device.

or

- **Available Form** - activate this parameter to select the previously uploaded PDF report template from the drop-down list. All templates from the drop-down list that are uploaded by users and placed in the *AppMill\Service\ReportTemplate\PDFFormTemplateFolder* folder.
- **Alias View** - select the Alias View from the drop-down list to connect the Alias View to the report template. The generated report will be filled in with required data from the corresponding Alias View.

9.18.5.4.1 PDF Form Template Usage Example

In the example described below, the report of PDF Form type is created using the report template configured via the online PDF editor.

Note that the desktop PDF editor can also be used for creating the report template.

To create the report template using the online PDF editor, open any online PDF editor in the internet browser and upload the file in the PDF format. For example, we upload the W-9 form of the Request for Taxpayer Identification Number and Certification. This document may contain the user's personal information, such as their first and last names, email address, phone number, and so on. All information concerning the user can be added to the report template using aliases.

Add the alias names using the Textbox or field to the corresponding part of the report template. The alias names should be in the square brackets. Otherwise, the alias will not apply the correct data and will be displayed as regular text.

In this example, to display the user's first and second names, we add the aliases containing the user's first and second names to the area where the user's first and second names should be placed.

Also, the marked check boxes can be set to be displayed in the generated reports. For that, the alias should contain the checkbox value.

The created report template can be added to the Report on the Report Builder page.

To create the report of the PDF Form, fill in the following parameters on the Report Builder page.

- **Template Type** - select the **PDF Form** template type from the drop-down list. In the appeared **Select Form** section fill in the following parameters:
 - **Upload PDF Form** - select this parameter to activate the Upload PDF Form function.
 - **File select** - click this button to upload the report template in PDF format.

Save the report of PDF Form type by clicking the **Save** button.

To enable the possibility to generate reports on screens in the Render application, set up and add the button of the Generate report type to the screen in the Architect application. In the Render application, clicking the button of the Generate report type will generate a report. For more details about button configuration, refer to the [Button Configuration](#) page.

In the Render application, the generated report of the PDF Form type can be displayed as follows:

Form **W-9**
(Rev. October 2018)
Department of the Treasury
Internal Revenue Service

**Request for Taxpayer
Identification Number and Certification**

▶ Go to www.irs.gov/FormW9 for instructions and the latest information.

Give Form to the requester. Do not send to the IRS.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.
JOHN SMITH

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes.

☒ Individual/sole proprietor or single-member LLC

☒ C Corporation

☐ S Corporation

☒ Partnership

☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶

☐ Other (see instructions) ▶

Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner; unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
Exempt payee code (if any) _____
Exemption from FATCA reporting code (if any) _____
(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.) See instructions.

6 City, state, and ZIP code

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number

or

Employer identification number

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.



Please note that if users view generated PDF form reports using the Adobe Acrobat extension for Chrome, form field values might not display correctly. This issue does not occur with the desktop version of Adobe Acrobat or Chrome's default PDF viewer.

For optimal display of form field values in generated reports, it is recommended to use either Adobe Acrobat's desktop version or Chrome's built-in PDF viewer.

9.18.6 Update Report

To edit a Report, click the **Edit** (pencil) icon for the selected Report Template in the search results table. The Update Report page opens for editing.

After making the necessary changes, click the **Submit** button. To return to the Overview page, click the Back link.

9.18.7 Delete Report

To delete a Report, click the **Delete** icon on the Overview page for the selected Report entry. The confirmation pop-up will appear where you can confirm or cancel the action.

9.19 Column Encryption

9.19.1 Access

Click **Features > Column Encryption** to manage the data encryption of the database table columns.

9.19.2 Table of Contents

- [Overview](#)
- [Search](#)
 - [Sort Results](#)
 - [Navigate](#)
- [Create Column Encryption](#)
- [Update Column Encryption](#)
- [Delete Column Encryption](#)

9.19.3 Overview

The **Column Encryption** functionality provides the possibility to encrypt the database column so that any data of this column can be encrypted and protected from the access without a special key.

Column Encryption

Table Name	Column Name	
appmill_Billtest	Example	 
appmill_customer	creditcard	 

Create

9.19.4 Search

To search for a menu or filter the search results, use the following search filters and enter any or all the search criteria:

- Table Name
- Column Name

After filling in the filters, click the Enter key or any screen place. The screen displays search results if found. Please note, that letters or part of the word entered in the search filter fields will be taken into account while searching as well.

9.19.4.1 Sort Results

You can sort search results by the columns in ascending (arranged from the smallest to the largest number and alphabetically for letters) or descending (arranged from the largest to the smallest number and in reverse alphabetical order for letters) order. Columns' names, by which search results can be sorted, are indicated with arrows. Click the appropriate column name to sort search results by it.

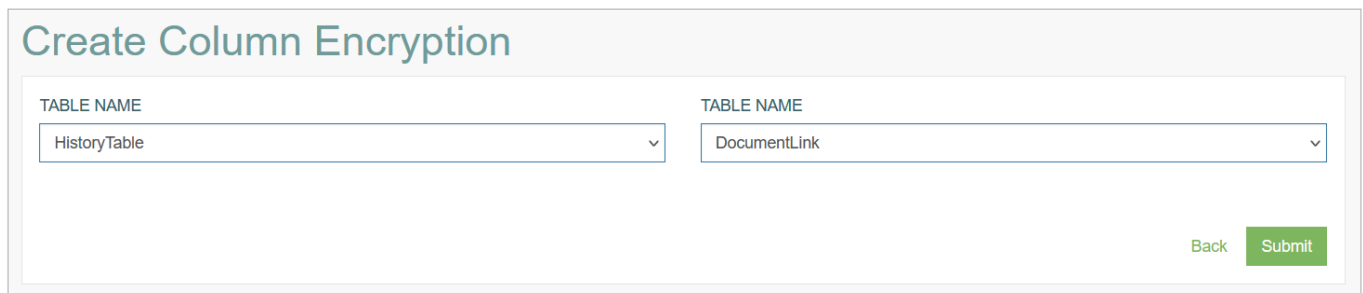
9.19.4.2 Navigate

Use the navigation bar at the bottom of the Menu Overview page to navigate through the pages. Click the appropriate page number to open it. Use the Arrow icons to go to the next page of the previous page of the search results list accordingly.

Click the **Show All** button to display all the results on one page.

9.19.5 Create Column Encryption

Click the **Create** button on the Overview page to create a Column Encryption. This opens the Create Column Encryption page.



The screenshot shows a web form titled "Create Column Encryption". It contains two dropdown menus, both labeled "TABLE NAME". The first dropdown menu has "HistoryTable" selected, and the second has "DocumentLink" selected. At the bottom right of the form, there are two buttons: "Back" and "Submit".

Specify the following data:

- Table Name - select the database table from the drop-down list.
- Column Name - select the table column that should be encrypted.

After filling in the fields click the **Submit** button to save the created entry. Click the **Back** button to go back to the Overview page without saving the data.

9.19.6 Update Column Encryption

To edit a Column Encryption, click the **Edit** (pencil) icon for the selected Column Encryption entry in the search results table. The Update Column Encryption page opens for editing.

After making the necessary changes, click the **Submit** button. To return to the Overview page, click the Back link.

9.19.7 Delete Column Encryption

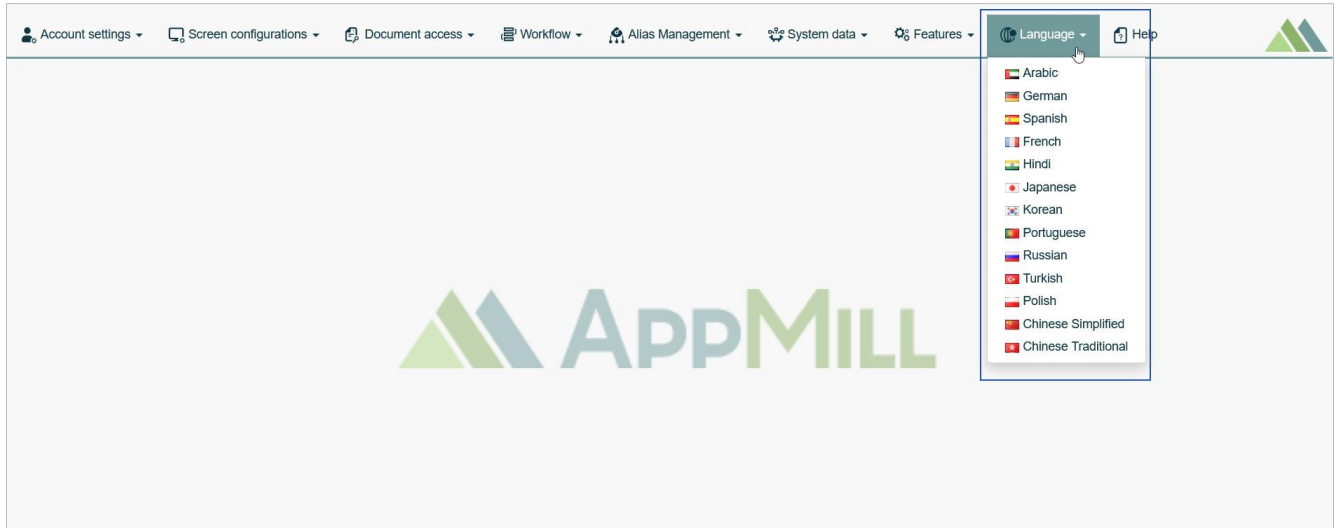
To delete a Column Encryption, click the **Delete** icon on the Overview page for the selected Column Encryption entry. The confirmation pop-up will appear where you can confirm or cancel the action.

10 Language

10.1 Overview

Architect application is available in different languages. You can change the language used in the application to your preferred language at any time.

To change the display language, click the **Language** menu item in the main menu.

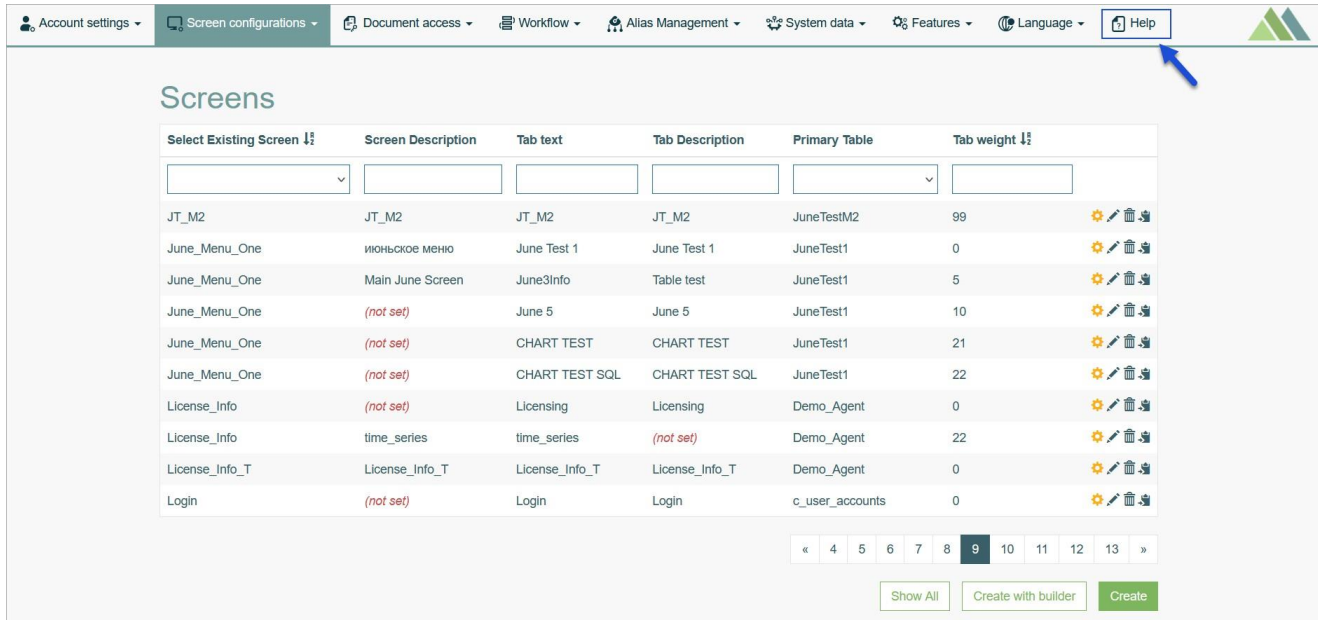


Select the preferred language in the list of available languages. The Architect User Interface will be translated according to the selected locale.

11 Help

At any time while you are using the Architect application, you can access and display context-sensitive help that relates to the screen content and functionality currently displayed and used.

To access the context-sensitive Help, clicks the **Help** menu item in the main menu.



The screenshot shows the Architect application's main menu at the top, with the 'Help' item highlighted by a blue arrow. Below the menu is the 'Screens' section, which contains a table of screen configurations. The table has columns for 'Select Existing Screen', 'Screen Description', 'Tab text', 'Tab Description', 'Primary Table', and 'Tab weight'. The table lists various screens such as JT_M2, June_Menu_One, License_Info, and Login, each with its corresponding description, tab text, primary table, and weight. At the bottom of the table, there are pagination controls showing page 9 of 13, and buttons for 'Show All', 'Create with builder', and 'Create'.

Select Existing Screen	Screen Description	Tab text	Tab Description	Primary Table	Tab weight
JT_M2	JT_M2	JT_M2	JT_M2	JuneTestM2	99
June_Menu_One	июньское меню	June Test 1	June Test 1	JuneTest1	0
June_Menu_One	Main June Screen	June3Info	Table test	JuneTest1	5
June_Menu_One	(not set)	June 5	June 5	JuneTest1	10
June_Menu_One	(not set)	CHART TEST	CHART TEST	JuneTest1	21
June_Menu_One	(not set)	CHART TEST SQL	CHART TEST SQL	JuneTest1	22
License_Info	(not set)	Licensing	Licensing	Demo_Agent	0
License_Info	time_series	time_series	(not set)	Demo_Agent	22
License_Info_T	License_Info_T	License_Info_T	License_Info_T	Demo_Agent	0
Login	(not set)	Login	Login	c_user_accounts	0

The User Manual help page with detailed information related to the feature you are currently using within the Architect application. The User Manual pages tree on the left side of the screen provides the additional possibility to browse and search for helpful information.

12 Glossary

12.1 Table of Contents

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- [E](#) E-K
- [L](#) L-O
- [P](#) P-S
- [T](#) T-Z

12.2 [A](#) A-D

Name	Definition	Details on the User Manual page
Access Rights	The functionality (can be displayed as a button or option on the Architect application UI) that defines the View and Update access rights for user groups.	• Button Configuration • Image Configuration • Label Configuration • Field Configuration
Account Name	1. A field used for entering a user name. 2. A user name.	Login Screen Configuration
Account Protection	1. The login screen parameter that enables the Account Protection section with the list of secret questions. 2. The section with the list of secret questions.	Login Screen Configuration
Account Settings	The functionality that provides a possibility to manage the data related to Users such as Users' details, User groups, tenants, logos used in the application, security filters, etc.	Account Settings
Account Status	The login screen parameter that defines the account status of a user after registration.	Login Screen Configuration
Account Type	The login screen parameter that defines what account type will be saved to user settings.	Login Screen Configuration
Active/Passive Screen	The screen type that does not have a basic template, but contains some limitations. This option is used to display and edit data in related third-level tables.	Active/Passive Screen Configuration

Activity Audit	The functionality that provides the possibility to collect audit data from the screens and databases and monitor users' activity.	Activity Audit
Add button column	The functionality that allows to add a column that will contain the buttons.	Section Type: Table Type
Add Rule	The functionality that allows to add a rule to any selected alias. The configured rule will be applied to the alias during the validation.	Alias View
Add static image column	The functionality that allows to add a column with the static images.	Section Type: Table Type
Ad-hoc table loading	The parameter of the Table type section that enables table view with pagination.	Section Type: Table Type
Advanced Audit	The functionality that provides the possibility to automatically check the changes in the database tables (including the adding a new table and deleting an existing one).	Advanced Audit
Advanced Search	The Audit History section, the search filters of which should be filled to display the Audit History details.	Audit History
Alias	A user-defined object connected to a database that helps to use and show the connected data on any screen or report.	Alias Management
Alias Code	A code of an alias that is based on the selected Database Table and Field name. The Alias Code is named according to the Alias naming convention.	• Database Field • Arrays • Custom Generated Fields • Custom Multi
Alias Dependency	Dependencies for database aliases (Alias and Array).	Alias Dependency
Alias Field	The input field name, where users can type the alias that should be used to retrieve the field values.	• Section Type: Table Type • Section Type: Chart Type

Alias Formatting	The option that provides the possibility to define the format of the alias value, in which the value will be returned from the service and displayed.	Alias View
Alias Framework PK Configuration	The feature that is used in special cases when the tables are connected via a composite key.	Section Type: Table Type
Alias Include/Exclude	The functionality that provides the possibility to have an overview of tables that are included or excluded from the aliases (fields and arrays) usage.	Alias Include/Exclude
Alias Items to Pre-load	The section, where users can see all the aliases that will be sent to the Alias Framework in order to be evaluated.	Alias View
Alias Management	The functionality that simplifies the handling of database-stored data with its user-friendly and adaptable approach.	Alias Management
Alias Map(s)	The Alias View data, which the extension function will receive in JSON parameter.	Extension Functions
Alias Naming Convention	The set of rules and guidelines that dictates how aliases should be named. The name convention depends on the Alias Type, Table name, and Column name.	Alias Management Overview
Alias Relationship	The functionality that is designed to manage, create, update the dependencies between two database fields of the Relationship type.	Alias Relationship
Alias Restrictions	The tab name of the Database, Custom Generated, or Custom Multi Fields editor, where users can set up the general access restriction that will be applied to numeric aliases.	• Database Field • Custom Generated Fields • Custom Multi
Alias Type	A type of an alias. The following Alias Types are supported: • Database field • Arrays • Custom generated • Custom multi	Alias Management Overview

Alias View	The functionality that provides the possibility to use Alias Framework in an easier way, to create a pre-defined Alias Framework requests and use them in other functionalities at any time later when it is required.	Alias View
Alias View Description	A description for the alias view that users are creating.	Alias View
Alias View Name	A name for an alias view.	Alias View
Alias Weight	The option that provides the possibility to define in which order each custom and multi alias should be evaluated.	Alias View
Allow full size modal pop-up	The function that defines whether the image can be opened as a modal pop-up window on the screen in the Render.	Image Configuration
Allow Tabs - Tab order	The table parameter that enables the usage of the Tab key from the keyboard.	Section Type: Table Type
Always show field border	The table parameter that defines whether the column borders should be shown.	Section Type: Table Type
Application Menu	The menu bar at the top of the page that provides access to main Architect functionalities.	Homepage
Architect Screen Access	The functionality that provides the possibility to restrict access to the menu items of the Architect application. Here, users can create the access rule that defines what menu items and pages can be available for users.	Architect Screen Access
Arrays	The functionality that is related to a set of values from a specific table column.	Arrays
Audit History	The functionality that provides the possibility to automatically collect and display the changes that were done in the database tables (including the adding a new table and deleting an existing one).	Audit History

Audit History Table	The Audit History section that contains the results of the search based on the entered search filters.	Audit History
Auto Advance	The workflow mode that allows users to create a simple one-way process without conditional steps. In this mode, users cannot assign an executor to a process and specify the next step, and switching between steps and screens occurs automatically after completing the action on the screen.	Workflow Builder
Auto Fill	The functionality that provides the possibility to create search functions that will be available and used by users in the screen builder.	Auto Fill
Auto Sequence	The functionality that provides the possibility to automatically increment the column and add the number to the values in the database table.	Auto Sequence
Batch	The option that provides the possibility to create multiple reports at once.	Report Builder
Chart Type	The functionality that provides the possibility to represent the data in different chart and diagram view on the screens in the Render application.	Section Type: Chart Type
Checkbox	The field type that allows users to select any number of options by clicking check boxes on the screen in the Render.	Field Types and Layouts
Check max value	The Custom JavaScript template that is used to restrict the maximal numeric value entered to the field.	Field Configuration
Check min value	The Custom JavaScript template that is used to restrict the minimal numeric value entered to the field.	Field Configuration
Client Verification	The functionality that controls and manages the level of access that client applications have to the entire service.	Client Verification
Client Name	A unique name that identifies the generated request key.	Client Verification

Code	An identification code, or the source translation code that will be generated automatically when users add translations to the entry.	Internationalization
Column Encryption	The functionality that provides the possibility to encrypt the database column so that any data of this column can be encrypted and protected from the access without a special key.	Column Encryption
Column Label	A label text that will be displayed as a column title for the corresponding alias entry.	Section Type: Table Type
Common JavaScript	The name of the tab, where users can set up and define as common the behavior and CSS styles for UI elements on the screen.	Field Configuration
Compare fields	The Custom JavaScript template that is used to set the field value comparison.	Field Configuration
Constraint	The rules for the data in a table.	Tables
Cron	The tool that helps users to schedule the job execution using the standard cron-expressions.	Job Scheduler
CSV download	The parameter of the Table type section that provides the possibility to download the table in CSV format from the Render screen.	Section Type: Table Type
Custom #ID	This is ID of UI element. It can be used in the scripts, to adjust UI element style. The value is generated automatically when you open the image configuration pop-up.	Image Configuration
Custom Generated Fields	The functionality that is related to single values that can be calculated either with an SQL query or set with Alias Framework using AF Modules.	Custom Generated Fields
Custom JavaScript	The name of the tab, where users can set up and customize the behavior and CSS styles for UI elements on the screen.	Field Configuration

Custom Multi	The functionality that is related to multi values (column, array) that can be calculated either with an SQL query or via Alias Framework module.	Custom Multi
Custom Query	The functionality that is designed to manage, retrieve, and show the data of the connected database table.	Custom Query
Database	A structured collection of data that is organized in a way to facilitate efficient storage, retrieval, and management of information. It serves as a central repository for storing and managing data that can be easily accessed, manipulated, and updated.	
Database Alias	A user-defined object connected to a database that helps to use and show the connected data on any screen or report.	Database Field
Database Field	The functionality that is related to a single cell value from a specific table column and a row.	Database Field
Data Field	The name of the field of the Field Settings functionality, where users define the Alias field that will be used on the screen.	Field Configuration
Datalist	The field type that allows users to select options from the list of values on the screen in the Render application.	Field Types and Layouts
Data Mask	The Migration Tool parameter that allows to hide the transferred values and mask them out in case the data is sensitive or confidential.	Migration Tool
Data Source Description	A short description for the extension function.	Extension Functions
Data Source Function	A name for a new extension function.	Extension Functions
DB Schema Comparison	The functionality that is designed to compare two database schemas - a source database and a destination database.	DB Schema Comparison

DEF	The default dependencies that are created by the AppMill service.	Alias Dependency
Default Group	The default group that was defined as a start screen in the Render appearing for user after login.	Login Screen Configuration
Default Login Screen	A simple Login screen appearing in the Render application by default.	Login Screen Configuration
Device Name	A name for a Document Device that will be displayed on the pages where users select the required document device from the lists.	Document Devices
Dev Ops	The Migration Tool section, based on the date-specific information specified in which, the system will define which records should be transferred during the migration.	Migration Tool
Diagram Description	A short and clear description of the diagram.	Scheduler Builder
Diagram Name	A name of the diagram that will be displayed on the Overview page and can be used for searching.	Scheduler Builder
DImage (Dynamic Image)	The field type that allows users to upload any image file.	Field Types and Layouts
Document	1. A digital file that contains information. This could be a text document (such as a Word document or a PDF), a spreadsheet, a presentation, or any other type of file used to record and communicate information. 2. The field type that allows users to upload and download documents on the screen in the Render application.	Field Types and Layouts
Document Access	The functionality that allows to manage documents and files uploaded by users into the Render application.	Document Access
Document Devices	The functionality that allows to define and manage the document storage.	Document Devices

Document Family	The functionality that allows to manage the document families and the connected categories.	Document Family
Document Groups	1. The functionality that allows to manage access rights and permissions. 2. The groups of documents that will be available for the user.	1. Document Groups 2. Login Screen Configuration
Document Type	The section type that provides the possibility to set up the download documents via the Download from API Server action the documents on the screens in the Render application.	Section Type: Document Type
Doughnut Chart	The chart type that represents the data in the doughnut chart view.	Section Type: Chart Type
Drawing Area	The workflow builder section where users can build the diagram using shapes, arrows and a set of the additional settings.	Workflow Builder

12.3 E-K

Name	Definition	Details on the User Manual page
Editable Template Type	The report template type that is predefined as XML file in the Architect application. The users will only need to adjust existing predefined template with the required details and information.	Report Builder
Edit JavaScript	The functionality that allows to open the editor and set up the behavior and CSS styles for UI elements on the screen.	Field Configuration
Email Verification	The login screen type that is used to double-check the identity of a user via help of code sent to the email address.	Login Screen Configuration
Error Message Body	The error message that will be displayed in the Render.	Error Messages Management
Error Messages	The functionality that provides the possibility to manage the error messages, create new, edit and	Error Messages

Management	delete the existing ones.	Management
Evaluation	The custom alias evaluation, which refers to how the custom alias will be evaluated. Custom Alias can be calculated either with an SQL query or inside an Alias Framework module.	- Custom Generated Fields - Custom Multi
Extension Functions	- Within the AppMill application, this is the functionality that provides the possibility to add extension functions (plugins) that can be created in different languages and stored in the Service. The extension functions (plugins) can be further used in the screen configuration process. - The functions (plugins) that can be written in different programming languages and used in the screen configuration workflow.	Extension Functions
Extension Library	The language, in which the extension function is written. For example, the Extension Library may be C++, Python, etc.	Extension Functions
Family Description	A short and clear description for the Document Family.	Document Family
Family Name	A name for a Document Family.	Document Family
Features	The section that provides wide range of benefits and possibilities for managing the processes and data. Here users can: - develop custom queries to attach to dynamic screen elements and report generation. - built in scheduler to allow functions, reports, and screens to be called on a normalized basis. - transfer data into various databases and cloud databases via migration tool. - collect and review audit information and much more.	Features
Field Type	The type of the field that specifies the data allowed for the field. The layout of the field in the Render application, validation of the entered data, supported data format will differ depending on the selected Field	Field Configuration

	Type.	
Field Width	The table parameter that defines the width of the field.	Section Type: Table Type
Filtering	The Migration Tool section where users can specify the columns and the values that will not be migrated to the destination database.	Migration Tool
Formatting	The functionality that is designed to customize the “look and feel” of the screen elements such as button, label, and field.	• Button Configuration • Label Configuration • Field Configuration
Formatting section fields	The functionality that is designed to customize the formatting and “look and feel” of labels and fields in the table.	Section Type: Table Type
Generate Report	The action that provides the possibility to build the report based on the Report Template and the report data.	Button Configuration
Group	A collection of related elements or objects that are treated as a single unit. For example, User Group, Screen Group, Admin Group, etc.	Groups
Groups	1. Within the AppMill application, this is the functionality that allows to group users based on common responsibilities, tasks and other criteria. 2. A plural form of a <i>Group</i>.	Groups
Group Description	1. A description of a user group. 2. A description of a document group.	1. Groups 2. Document Groups
Group Membership	The user groups that will be assigned to the user. The user will have access to the screens of the selected groups.	Login Screen Configuration
Group Dame	1. A name of a user group. 2. A name of a document group.	1. Groups 2. Document Groups
Group Screens	The functionality that allows users to build and manage the structure of the Main menu displayed in the Render application.	Group Screens

Guest Login	The functionality that provides a guest login with the possibility to further create non-secure items in the Render.	Login Screen Configuration
Hide Search Bar	The function that defines, whether the search bar should be hidden on UI by default.	Screen Master Data Settings
Hide Tabs	The function that defines, whether the tab should be hidden on UI by default.	Screen Master Data Settings
Horizontal Bar Chart	The chart type that represents the data in the horizontal bar chart view.	Section Type: Chart Type
Identify Verification	The login screen parameter that enables the Identify Verification section on the Registration screen.	Login Screen Configuration
Iframe	The functionality that provides the possibility to add a widget to the screen.	Label Configuration
Image	A digital file containing visual information to be displayed and used on the screen in the Render application.	Image Configuration
Image map	The image with clickable areas.	Image Configuration
Import Files	The functionality that provides the possibility to upload the files with the changes to be applied to the database tables. The uploaded files will be stored first in the API Server and then imported to the database.	Import Files
Include Column Filter	The parameter of the Table type section that allows to use Filters in the columns for filtering values.	Section Type: Table Type
Include Extended Search	The parameter of the Table type section that enables adding a separate search field that allows searching for any value of the table fields.	Section Type: Table Type
Increment By	The Auto Sequence configuration parameter by which the value will be incremented.	Auto Sequence
Inline Search	The field type that allows users to see search results without redirecting to a search results page.	Field Types and Layouts

Internationalization	1. The functionality that provides the possibility to add the translation for screen elements, such as tab text, image name, button name, field name, tooltip, etc. 2. The functionality that provides the possibility to make it easier to localize an application without adjusting the source code. You can modify any message in the application UI to support any required locale.	• Button Configuration • Image Configuration • Label Configuration • Field Configuration • Internationalization
Job Description	An informative description for a job.	Job Scheduler
Job Name	A name for a job.	Job Scheduler
Job Scheduler	The functionality that allows users to create, manage, schedule and keep track of jobs running in the system.	Job Scheduler
KP. (Key Part) 1, 2, 3, 4, 5	5 key parts that can build the needed key to define the required Category in the Document Family.	Document Family

12.4 L-O

Name	Definition	Details on the User Manual page
Label	A text element used to identify a form field, button, or other interactive elements. It provides users with information about the purpose or expected input for that particular element.	Label Configuration
Label Orientation	1. The direction of label display relative to the input field. 2. The option that defines the layout of the table header.	• Field Configuration • Section Type: Table Type
Launch Condition	A job launch condition.	Job Scheduler
Launch Type	The way of job execution.	Job Scheduler
Line Chart	The chart type that represents the data in the vertical line chart view.	Section Type: Chart Type

Linked End	The end for the range of values for the auto-sequence.	Auto Sequence
Linked Field	The field that can be linked to the main field (to be incremented) and will define whether the main field will be incremented or not.	Auto Sequence
Linked Mask	The mask value that defines the fields to be incremented.	Auto Sequence
Linked List	The option that allows to set the relation between different fields/values.	Field Configuration
Linked Start	The range of values that will be consider for auto sequence of the main field.	Auto Sequence
Linked Value	The value that filters all values and excludes other variants.	Auto Sequence
Link Type	The functionality that provides the possibility to assign a link to the label, button, image, or field.	• Button Configuration • Image Configuration • Label Configuration • Field Configuration
List	The field type that allows users to select values from a drop-down list.	Field Types and Layouts
Lists	The functionality that provides the possibility to organize and store data in a structured way and further retrieve the data on the Render screens as a list of options.	Lists
List With Extension Function	The field type that allows users to select values containing the extension functions from the drop-down list.	Field Types and Layouts
Locked Records	The functionality that displays the list of the records locked in the Render and provides the possibility to unlock them.	Locked Records

Login	The process of gaining access to an application by providing valid credentials, typically a username and password.	Login Screen Configuration
Login Screen	The screen type that displays the user interface where users can enter their credentials (such as a username and password, etc.) in order to gain access to an application.	Login Screen Configuration
Logo	The functionality that provides a possibility to manage existing logos or create a new logo that will be used in the Render application.	Logo
Logo Image	An image used as a company logo on the Login screen.	Login Screen Configuration
Management	The functionality which consists of several parts that can manage different system parts.	Management
Max Length	1. The maximal allowed field length. The length depends on the values stored in the database. 2. The maximal number of characters allowed to be entered in the field.	1. Field Configuration 2. Section Type: Table Type
Menu	The functionality that provides the possibility to manage the menu items of the highest level displayed as the Main menu items in the Render application.	Menu
Menu Tooltip	The functionality that is used to manage text boxes with the information about UI elements, menu icons when hovering over a screen element or menu icon.	Menu Tooltip
Migration Tool	The functionality that provides the possibility to completely migrate the database schema from the source database to the destination database.	Migration Tool
Multi-level Table	1. The parameter of the Table type section that enables the possibility to display multi-level tables. 2. The table that contains sub-tables that can be opened layer by layer.	Section Type: Table Type
Multi-search with custom query	The search that is based on custom queries.	Screen Master Data Settings

Multi-select list	The field type that allows users to select multiple values from a drop-down list of field options in the Render.	Field Types and Layouts
Need an account	The option that gives the possibility to self-register in case the user does not have an account.	Login Screen Configuration
No Tab Access	The table parameter that specifies whether it is allowed to use the Tab key from the keyboard. If the option is selected, that means that usage of Tab key is disabled for this column.	Section Type: Table Type
Notification	A message that is sent to a user or a system to inform them about a specific event or updatings.	Notifications
Notifications	1. Within the AppMill application, this is the functionality that provides the possibility to create and configure templates for notifications that can be sent to users at some points of workflows, processes on the screens in the Render. 2. A plural form of a <i>Notification</i>.	Notifications
Notification Password Type	The notification type that contains an email template with user password that will be sent to the user after self-registration procedure.	Login Screen Configuration
Notification User Type	The notification type that contains an email template with user login name that will be sent to the user after self-registration procedure.	Login Screen Configuration
Notify Name	A name for a notification template.	Notifications
Notify type	The type of notification.	Notifications
Numeric	The field type that allows users to enter numeric values in the fields.	Field Types and Layouts
Num Rows	The field where users can specify the quantity of rows displayed for the field.	Field Configuration
Only DB data	The Settings section option of the Migration Tool that option allows users to transfer DB data only.	Migration Tool

Only DB schema	The Settings section option of the Migration Tool that option allows users to transfer DB schema only.	Migration Tool
Out Params	The custom query parameters that will be returned and displayed in the search results.	Custom Query

12.5 P-S

Name	Definition	Details on the User Manual page
Param Type	The parameter type of the data that will be processed in the table column.	Section Type: Table Type
Password Reset	1. A button with the Password Reset button action. 2. The login screen type that provides the possibility to change the current password.	Login Screen Configuration
PDF Form Template Type	The report template of the PDF Form type that can be created using any online or desktop PDF editor and further used for report generation.	Report Builder
Pie Chart	The chart type that represents the data in the pie chart view.	Section Type: Chart Type
PKS (Primary Key Substitution)	The Alias Dependency type which defines that the values of the aliases in the list defined by users will be used to populate the Primary Key fields in the “Alias Table” table. For this type, users need to create a list of dependencies.	Alias Dependency
Primary Table	The field in the Screen Builder that specifies the database table that will be used as a primary table. The data from this table will be used and displayed on the screens in the Render.	Screen Master Data Settings
Query Params	The parameters that are taken into account for the query execution.	Custom Query
Query PKS	The query Primary Keys.	Custom Query
Query Name	A name for a new query.	Custom Query

Query Value	A custom query to retrieve the data from the required table.	Custom Query
Radio	The field type that allows users to select one option. This field type is often used for absolute simple yes or no answers.	Field Types and Layouts
Readonly	The parameter of the Table type section that enables the read-only mode for the table.	Section Type: Table Type
Recipient type	The notification recipient type.	Notifications
Registration	The login screen type that provides the possibility to register in the Render by filling in a Self-Registration form.	Login Screen Configuration
REL (Relation)	The Alias Dependency type with which users do not need to create a list of dependencies as the dependencies are created automatically based on the relationship data.	Alias Dependency
Relation Datalist	The field type that allows users to select options that are defined with custom query.	Field Types and Layouts
Replace if exist	The Settings section option of the Migration Tool which allows to specify that in case the destination table contains some data in primary fields, this data should be updated.	Migration Tool
Repopulate Tables	The functionality that deletes all functions that are connected to the selected tables, and creates new functions from the scratch.	Auto Fill
Report Builder	The functionality that provides the possibility to manage reports that can be generated in the Render application.	Report Builder
Required	The parameter that enables the possibility to mark the field value in the table as required in the Render.	Section Type: Table Type
Retention Time (in days)	The document family parameter that specifies the time (in days) for the documents storage.	Document Family

RK Validity (hours)	The client verification parameter that indicates the duration for which the request key will remain valid after its generation.	Client Verification
Rule Type	The type of a rule that should be applied to the alias value.	Alias View
Scatter Chart with Linear Regression	The chart type that represents the data in the scatter chart with linear regression view.	Section Type: Chart Type
Scheduler Builder	The functionality that allows users to create and manage the sequence of the jobs' executions using a visual diagram editor. Using standardized shapes and links in the builder, users can create the job flows to show the jobs should run, one by one, from the start job to the end job.	Scheduler Builder
Screen	The visual interface where users interact with applications. This can include the desktop, windows, icons, and other graphical elements.	Screen Master Data Settings
Screen Backup	The functionality supports versioning, allowing users to maintain a history of different states of screens over time.	Screen Backup
Screen Builder	The functionality that provides an ability to create and manage screens, tabs and create content displayed there.	Screen Builder
Screen Configurations	The functionality that provides the possibility to manage the menu, screens and fields appearing for users in Render UI. With this functionality users can define CRUD (create, read, update, delete) screens within point-and-click menus, set up the custom extension functions to extend platform, dynamically create search content to display in the Render, select screen styles via screen-builder, etc.	Screen Configurations
Screen Header	The header sector of the screen that placed at the top of the page.	Header and Section Configuration
Screen Rollback	The functionality enables users to undo modifications made to a screen, restoring it to a state captured during a previous backup or version.	Screen Rollback

Screens	1. Within the AppMill application, this is the functionality that provides the possibility to manage screens and tabs that are displayed in the Render. 2. A plural form of a <i>Screen</i>.	Screens
Screen Section(s)	The section(s) sector of the screen that placed below the screen header on the page.	Header and Section Configuration
Screen State	The parameter that defines the operation state applied to the screen data when the screen is loaded and opened.	Screen Master Data Settings
Screen Transfer	The functionality that provides the possibility to update screens or transfer them between the source and target (destination) databases.	Screen Transfer
Screen Type	The data displaying way on the screen. Within the AppMill application, the screen types can be as follows: • active/passive • search screen • login screen	Screen Master Data Settings
Search Condition Section	The custom query editor section, where users can configure the additional conditions for the search query.	Custom Query
Search Screen	The screen type that is designed to allow users searching for the required data in database tables and displaying the search results that are found on the screen in the Render application.	Search Screen Configuration
Secret Question Authorization	1. The login screen type where users need to enter the secret answer to complete the login procedure. 2. An Authorization Type in the Security Filters.	Login Screen Configuration
Sequence Append	The value that will be added to the auto sequence final result.	Auto Sequence
Security Filters	The functionality that provides the possibility to manage security level for users in the Render, to restrict the data accessibility and search results based on the predefined parameters, to set the authentication methods based on their security level.	Security Filters

Select JS template	The list with the existing JavaScript template to be added to the editor.	Field Configuration
Servers	The functionality that provides the possibility to manage the list of existing servers.	Servers
Shape Library	The library in the workflow builder that contains shapes for the steps that build the process workflow.	Workflow Builder
Simple Table Maintenance	The functionality that provides the possibility to create, review and manage database tables in a simple way.	Simple Table Maintenance
SMS Verification	The login screen type that is used to double-check the identity of a user.	Login Screen Configuration
Sort	The table parameter that defines the ascending or descending sort for the column content. The defined sort will be used by default when displaying the data in table view in the Render application.	Section Type: Table Type
Sort Fields	The parameter of the Table type section that defines the field(s), by which the table value should be sorted in alphabetical order.	Section Type: Table Type
Show type	The option that defines how to display the table content on the page - using pagination or infinite scroll.	Section Type: Table Type
Simple Search	The search that contains the list of queries created automatically based on the Primary Key.	Screen Master Data Settings
Single Document Batch	The Report Builder parameter which defines that the multiple reports should be generated not into multiple documents but into one common. This is a special case of the Tenant report generation.	Report Builder
Special Access Restrictions	The tab name of Database or Custom Multi Fields editor, where users can define the access rights for users, user groups or alias values.	Database Field Custom Multi
SQL Query Window	The functionality that executes a set of arbitrary SQL statements. SQL statements can be executed within the relevant database, without having to revert to other external database query systems.	SQL Query Window

Static Image Action	The list with the corresponding actions on the screen when the image is activated (clicked on).	Image Configuration
Sub-table Filling Type	The parameter of the Table type section that enables the filling type of sub-table.	Section Type: Table Type
System Data	The functionality that provides the possibility to • access the database table data, • create database tables from uploaded excel spreadsheets, • build alias views and validate the created dependencies in aliases, • use extension modules and plugins using JavaScript, Python, PHP, C#, and C++ to extend the platform, • build custom notification templates to use within functions for email, SMS, • use internationalization features and much more.	System Data
System tables only	The Settings section option of the Migration Tool that allows users to transfer only the system tables.	Migration Tool
System Template Type	The report template type that refers to the report templates that already exist in the system. These report templates are created via a designer application and can be just selected and used for the report generation.	Report Builder
Swap Tables	The functionality that provides the possibility to clone the existing table and use all data captured on the moment of table cloning.	Swap Tables

12.6 T-Z

Name	Definition	Details on the User Manual page
Tab	Within the AppMill application, this is a separate, independent browsing screen within the same screen group.	Screen Master Data Settings

Tab Description	A short informative tab description that displays when hovering over it on the screen in the Render.	Screen Master Data Settings
Tab Devices	The screen parameter that defines which devices are allowed to render the screen content.	Screen Master Data Settings
Table Override	The Migration Tool section, where users can select the Tables that need to be migrated.	Migration Tool
Tables	The functionality that provides the possibility to review and manage database tables.	Tables
Table type	The section type that provides the possibility to represent the data in table view on the screens in the Render application.	Section Type: Table Type
Tab Text	The text for the tab that will be displayed as a tab title in the Render.	Screen Master Data Settings
Tab Weight	The number that determines the placement of the screen within menu in the Render application. In the Render application, according to the tab weight all screens are sorted and placed from the left to the right from the tab with the lowest tab weight to the tab with the highest tab weight.	Screen Master Data Settings
Task Description	A description for a task that will help users to quickly find the needed task in the whole list of tasks on the Overview page.	Tasks
Tasks	Within the AppMill application, this is the functionality that provides the possibility to have an overview of the workflow tasks and edit them.	Tasks
Task History	The list with all actions performed on the workflow tasks.	Task History
Task Notes	An additional information added to the workflow tasks.	Task Notes
Tenant	The functionality that provides the possibility to manage tenants, departments, divisions in the organization so that the whole business structure can be completely included in all business processes set up for the Render.	Tenant

Tenant Code	The tenant code that will be saved to user accounts after registration.	Login Screen Configuration
Text	The field type that allows users to enter a single line of text on the screen in the Render application.	Field Types and Layouts
Textarea	The field type that allows users to enter multiple lines of text on the screen in the Render application.	Field Types and Layouts
Time Series Chart	The chart type that represents the data in the time series chart view.	Section Type: Chart Type
To lower case	The Custom JavaScript template that is used to define that entered data to the field must be written in small letters.	Field Configuration
Tooltip	The text that displays information about image, button, label, or field when hovering over it on the screen in the Render.	
Total for the column	The parameter of the Table type section that enables the additional row displaying the Total count for the whole column.	Section Type: Table Type
Total for the row	The parameter of the Table type section that enables the additional column showing the Total count for the whole row.	Section Type: Table Type
To upper case	The Custom JavaScript template that is used to define that entered data to the field must be written in capital letters.	Field Configuration
Update Only	The parameter of the Table type section that allows changing the data in the table only but not editing or adding new rows.	Section Type: Table Type
Use 50% section width	The login screen parameter that reduces the section at 50% of the normal section size.	Login Screen Configuration
Use Current Date/Time	The table parameter that provides the possibility to use the current date and time to fill in the date fields.	Section Type: Table Type

Use Image Map	The functionality that provides the possibility to use the image as a map with clickable sectors.	Image Configuration
User	An individual, entity, or system that interacts with a computer system, software application, or service.	Users
User name	Within the AppMill application, this is a Login name, a string (sequence of characters) that uniquely identifies a User.	Users
Users	1. Within the AppMill application, this is the functionality that provides an ability to create and manage Users' accounts in the system. This allows you to control the application and data access level for every user in the system. 2. A plural form of a <i>User</i>.	Users
User Type	The user type that will be saved to user accounts after registration.	Login Screen Configuration
Validate Alias View	The functionality that validates view and checks whether the Alias View is set up correctly and all aliases have the dependencies that are supposed to have.	Alias View
Vertical Bar Chart	The chart type that represents the data in the vertical bar chart view.	Section Type: Chart Type
VK Update Interval (hours)	The client verification parameter that specifies how often the request keys should be updated.	Client Verification
With dependent field	The field type that allows users to define the conditions for the case when value of one date field should be calculated based on the values of other fields (dependent fields).	Field Types and Layouts
Workflow	The functionality that provides the possibility to manage and automate repeatable business processes and tasks, minimizing the risk of errors and increasing overall efficiency.	Workflow
Workflow Builder	The functionality that provides the possibility to create and manage the process workflows.	Workflow Builder

Workflow Diagram Name	The name of the diagram that will be displayed on the Overview page and can be used for searching.	Workflow Builder
XML File Template Type	The report template that provides the possibility to upload an XML file. The file will be added to all the templates, and users will be able to use it for the report generation.	Report Builder