

WEBCON **BPS 2023 R1**

history of changes for version 2023.1.1.41

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1. Before upgrading WEBCON BPS

1.1. Important information

- If the changelog contains a section titled "Changes to existing features", please verify whether the changes will impact your implemented system in any way.
- In WEBCON BPS 2023 R1 **the WEBCON BPS Authorization Service authentication provider will be completely unavailable**, as was announced previously.

If the WEBCON BPS system uses this service, it will be necessary to change this. The system's built-in authentication providers (OpenID Connect or ADFS) should be used instead.

The original announcement can be found in CL 2022.1.3.47 under chapter 2.2.

- This update changes the Solr search database structure. During the update, it will be necessary to provide the Solr database admin's password in order to update the database and correctly complete the update process.
- **Data sources** that are used by **Picker fields** and **Choice columns** must contain at least two unique columns, one for each of the required column types: **ID** and **Name**. After updating WEBCON BPS, it will not be possible to use data sources that contain only one column in the configuration of picker fields.

If such a configuration exists, it will not be possible to update WEBCON BPS. Before updating, it is necessary to change the configuration of data sources and choice fields so that the data source contains at least two columns, and so that no column is used more than once in the configuration of form fields.

The installer will verify the configuration of form fields. If issues are found, it will be necessary to manually change the configuration of the form fields shown.

- To avoid interruptions in the system operation, make sure that WEBCON BPS licenses are up to date. To do this, verify the availability of the **WEBCON BPS Server 2023** license in the license report. This report is available from **WEBCON BPS Designer Studio** → **system menu in the upper left corner** → **Licenses**. Current licenses must be downloaded if necessary.

- Installation of the new WEBCON BPS version involves migration of active tasks to the new **ActiveTasks** table. The data copying operation requires sufficient disk space, and its duration depends on the number of transferred instances.
During the update, information on estimated execution time and required disk space is displayed.

2. Information

2.1. General

- The location where several static WEBCON BPS files available publicly are hosted has been changed. This includes the IT Hit Edit Document Opener plugin installer which is used to edit attachments directly from the form. This plugin can now be found at:

<https://files.webcon.com/bps/webdavclient/plugins/>.

The plugin is installed for users when they first attempt to edit an attachment. In order for it to work correctly, please make sure that this address is not blocked on client computers.

- Added calculated columns to the **WFElements** table which will allow identifiers of choice fields to be loaded more efficiently. Until now, the **dbo.ClearWFElemID** function was used. Queries will now use new calculated columns e.g. **WFD_AtChoose[Number]_ID**. This should increase the loading speed of Reports, BPS internal view data sources, and SQL COMMAND functions in Business rules.
- The **[dbo].[GetTaskForElement]** function has been removed from the database.
- During the update, a migration script will delete empty values for translations from the database. These could have accumulated in previous versions of the system.
- Additional indexes will be created in the **WFElementTasks** table to improve the archiving performance. Depending on the amount of data stored in **WFElementTasks**, it will be necessary to provide additional disk space to store the new indexes. If the number of records in **WFElementTasks** exceeds 100,000, then, before starting the system upgrade, the installer's requirements verification step will display a message containing the estimated script execution time and the required additional disk space.
- Solr queries will now be executed asynchronously.
- Updated DTK Barcode Reader component to version 5.0.28.

2.2. Form

- Improved the operation of the **Handwritten signature** special form field (also on mobile devices) so that the quality of signatures is higher.

2.3. Actions

- **On timeout** automatons can now use the following actions:
 - **Create a site**
 - **Create a list**
 - **Add a new list element**
- The **Read a barcode** action no longer requires Visual C++ Redistributable.

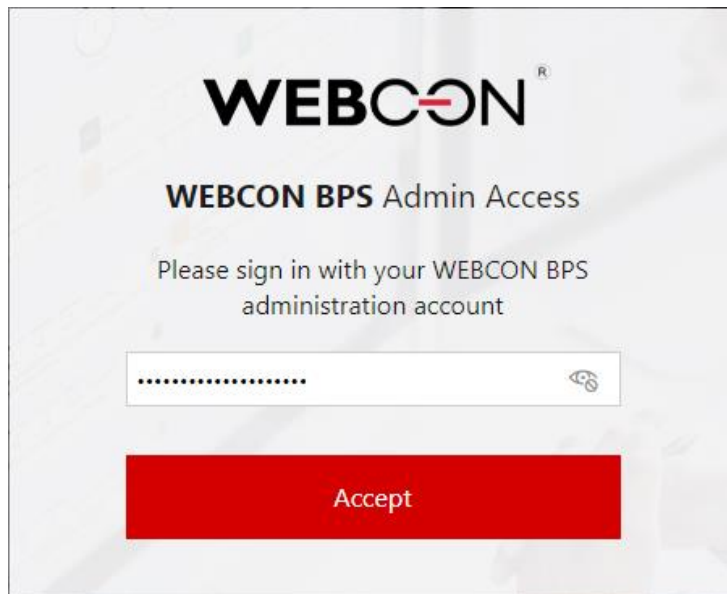
2.4. Rules

- Optimized memory consumption in WEBCON BPS Designer Studio when using **Business rules** and **Form rules**.

3. Changes to existing features

3.1. General

- To ensure greater efficiency, two separate data tables are introduced to store active and historical tasks. Only historical tasks are now stored in the former **WFElementTasks** table (that used to store all tasks) and its name is changed to **HistoryTasks**. Active tasks are transferred to a newly created **ActiveTasks** table.
- Changed the type of the **WEL_Details** column that contains error logs from varchar to nvarchar. Old logs will be available in the **WEL_Details_Deprecated** column, which will be deleted automatically once it doesn't contain any logs with data.
- Adjusted the behavior in cases where the time zone on the server is changed.
 - **Service** – logs a warning about changing the time zone and shuts down. If the "Restart the service" option is set in the Recovery configuration (default setting after system installation), then the service will be restarted.
 - **Portal** – logs a warning about changing the time zone and shuts down. Restarts itself in IIS manager.
 - **Designer Studio** – logs a warning about changing the time zone and warns the user. Restarts itself without saving unsaved changes.
- Changed the SQL view name from **V_WFElementTasks** to **WFElementTasks**. The view gathers all system tasks (active and historical).
- The step for configuring user list synchronization has been removed from the installation wizard of the new WEBCON BPS environment. This configuration should be done from WEBCON BPS Designer Studio (System settings → Global parameters → Users and groups synchronization → Synchronization configuration) after all components have been properly installed and after logging in to Designer Studio using the built-in **Admin Access** administrator account.

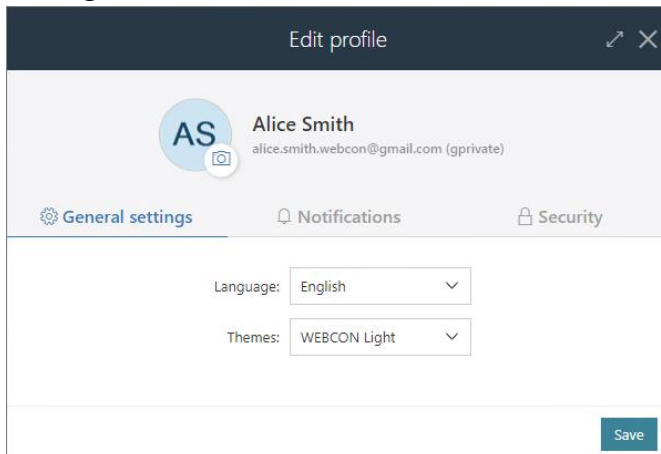


Configuration of user list synchronization can still be done using the **System management tools** available in the system installer.

- The mechanism for activating license packages and downloading licenses online will now use only one single License activation Service: **activation.webcon.com**.
- Changed the operation of on-behalf substitutions. Currently, the system verifies the license of the substituting person, not the substituted user. As a result, the administrator is now tasked with verifying whether the substituting person has the privileges required to execute the tasks of the substituted user.
- Changed the default method of communication between WEBCON BPS Portal and WEBCON BPS Workflow Service. Communication between these two system components will now be secured with relevant certificates.

3.2. Portal

- Optimized operation of the **choice field** form field with enabled the **autocomplete** mode.
- A loader was added when saving the configuration of report views.
- Changed the appearance of the tab panel available after going to **Profile settings**.

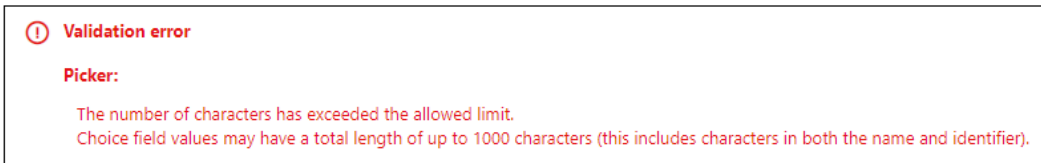


The introduction of new features entailed a change in the appearance of the main menu as well. The operation of features available in previous versions remains as before.

- Calculated columns, system fields, and Item lists will not be exported to Excel from **Dictionary reports**.
- Changed the arrangement of names of process, form type, and document workflow when they are longer than single line of text. Currently, all lines of text are aligned with the first line.
- A user that has been granted access to a **Report**, but does not have privileges to any application, will not be able to access Portal.

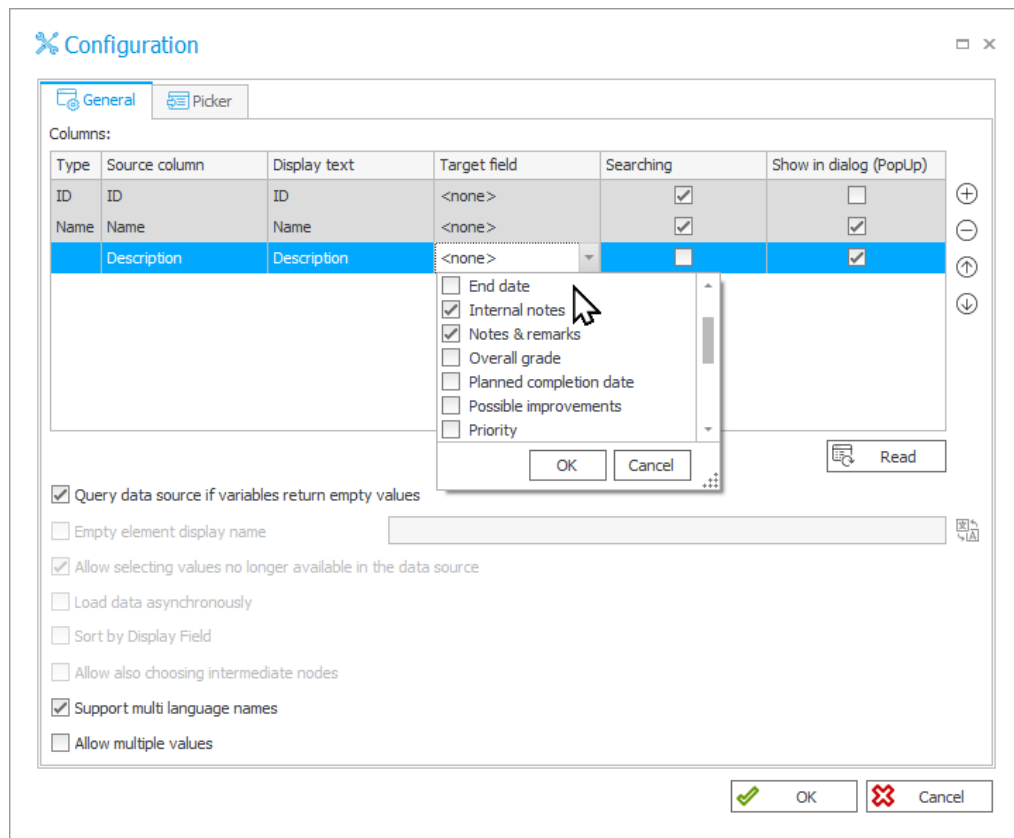
3.3. Form

- If the attachment preview is opened when the form is loaded – the first added attachment will be displayed (instead of the first one alphabetically).
- Unified the value returned by **Yes/No** picker fields, their "true" or "false" values will always be lowercase.
This change may affect data sources and actions that invoke REST and SOAP Web services, specifically if their configuration passed a **boolean** value as text.
- Exporting data to Excel from a **Data table** form field can now also be done in **View mode** on the form – i.e. a user does not need to edit the form to use this export feature.
- Fixed the layout of the **Choice field** window when choosing multiple values – it will no longer cover up the search field.
Added verification which will check the length of the data to verify whether it will fit into the target column – instead of cutting off the value, the user will receive a notification about exceeding the limit.



- Changed the behavior and method of caching **Item list** data.
Initialization of the Item list will be treated as its default value and executed in the sequence of counting default values on the form, as in the case of other form fields.
The data of hidden columns of the Item List will not be retrieved at its initialization.
- If the instance signature contained diacritical marks, such as "q", searching for it in a **Choice field** configured in **Autocomplete** mode was possible only after replacing such a character with a letter from the Latin alphabet (e.g. "q" with "a"). The feature is no longer available, and now signatures can be searched by their original wording.
- **Data sources** that are used by **Picker fields** and **Item list** choice fields must now fulfill two new conditions:
 - The data source must contain at least two columns that will be assigned to the two required column types: **ID** and **Name**.
 - Source **columns** cannot repeat within the configuration of one choice field or column.

As for the second condition, to handle scenarios where the value from one source column needs to be copied to many form fields, the configuration of the **Target column** now allows for multiple fields to be selected.



When updating WEBCON BPS, configurations of choice fields and columns that contain duplicated source columns will be converted into this new model so as to keep the source columns unique – but also to keep the original function of the form field.

- Changed the behavior of the ##currentloginname## variable in the case of **All/Direct subordinate's views**. When switching to the view of all subordinates, the value of this variable will contain user identifiers separated by semicolons.

- Changed the behavior of the **Single line of text** form field configured as a **Hyperlink field**. After the change, only the **Address** field will be displayed and available for editing by default on the form. The **Name** field will only appear when the user clicks on the pencil icon.

The screenshot shows a form with two sections. The first section is labeled 'Website:' and contains an 'Address:' field with the text 'www.google.com'. A red box highlights a pencil icon in the top right corner of the 'Address' field. Below the 'Address' field is a 'Name:' field which is currently empty.

Clicking on the icon again will cause the filled-in Address field to be displayed in read-only mode, the value entered in it to be replaced by a hyperlink, and the Name field to be hidden.

The screenshot shows the same form field after clicking the pencil icon. The 'Address' field now displays 'www.google.com' as a blue hyperlink. The pencil icon is now blue and located in a blue box. The 'Name' field is no longer visible.

- Disabled the preview of MS Excel files directly on a form. Currently, when attempting to preview the contents of a file (clicking on the file icon), it will be downloaded locally to disk.
- Changed the validation of values entered for **Choice fields**. Only values entered manually by the user will be validated, as opposed to those entered automatically by system actions. It will not be possible to save a form if the value entered by the user is invalid. Should a reference be created to an unvalidated Choice field value, the returned value will be empty.
- The **cash-dom** library has replaced the former **jQuery** library. The change may affect how form rules work in JavaScript mode if the rules used the functionality provided by jQuery. For a description of the differences in the operation of the two libraries, see: https://github.com/fabiospampinato/cash/blob/master/docs/migration_guide.md.
- Changed the appearance of the cursor that appears when hovering over the name of a group of form fields on a workflow instance – a "pointer" type cursor will be displayed in this case.

3.4. Designer Studio

- The **BPS users list** option, which was previously available from **System settings** → **Global parameters**, has been replaced by the **Users and groups synchronization** option. The new node contains all previously available features, except that the list of BPS users and groups has been moved to the additional node named **BPS users and groups list**. The new window contains two dedicated tabs: **BPS users** and **BPS groups**.
- Fixed an issue with form field configuration migration. The error caused the **Empty element display name** option in **Choice fields** in Dropdown mode to be cleared if its value was a space (or other whitespace characters). In previous versions, simply entering a value into the Empty element display name would activate the option. After this fix, the option will need to be activated via a new checkbox in the choice field configuration.
- Reading and saving of attachments with custom categories have been unified in all dedicated actions, rules using **GET ATTACHMENTS** function, and for automations configured using **For each** operator with **Attachments** as the indicated collection type.

In the configuration windows for all of the above, the **Custom** category of attachments has been replaced with the **Dynamic** one.

It is now possible to dynamically match the entered name of the attachment category with the categories available in the data source. If the indicated category does not exist in the source, a custom category (from outside the source) will be matched.

- Designer Studio no longer supports **--sql** and **--legacyExpressionTree** parameters.
- **Form field Groups** can no longer be renamed or deleted in LITE mode.

3.1. Instance ID changes

Instance ID has been removed from the list of system form fields. This identifier is now available among the **Standard areas** of the form. User can decide whether instance ID will be visible on the form by checking the box assigned to it on the **Field matrix**:

Areas	Start	Counterparty registration	Missing information
Areas			
Status panel	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Information	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Instance ID	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Steps	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Details	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Assignment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Parent instance	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Subworkflows	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Process supervisor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
User manual	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CC tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Form menu			
New	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Save	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Delete	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Refresh	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Path list	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delegate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

or, when editing a step, in the **Area visibility** section of the **Forms** tab:

Register counterparty - Step edit: Start

General | **Forms** | Paths | Actions | Analysis | Flow control | Subworkflows settings

Task forms: Form: Default form [New] [Edit] [Delete]

Main form | Main form - behavior | Compact form | Compact form - behavior

+ New Save Delete Refresh Path list Delegate

Full screen mode

Form preview

Break settings inheritance

Form type filter: All

Form properties

Edit mode: Dynamic

Form subtypes: Hidden

Path panel location: Floating at the bottom of the

Area visibility

- Status panel
- Information
- Instance ID
- Steps
- Details
- Assignment
- Parent instance
- Subworkflows
- Process supervisor
- User manual
- CC tasks

Counterparty registered by

- Counterparty data
 - Counterparty name
 - Tax ID
 - Street
 - Postal code
 - City
- Counterparty - list of related invoices

Task details

ALL ATTACHMENTS

ATTACHMENTS | EMAIL CONVERSATIONS

Name:

Created:

Comments

Counterparty costs

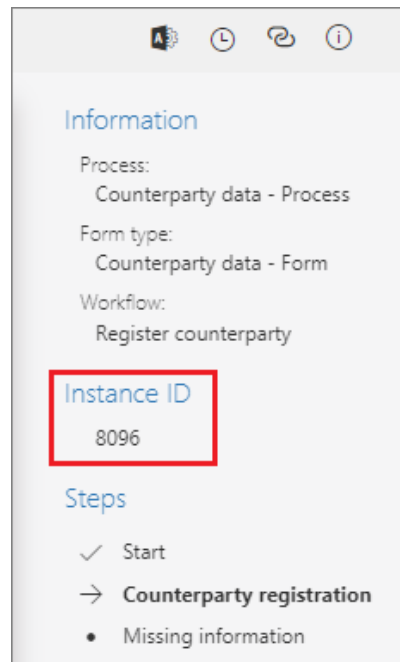
Register Save

Attachment preview

Visible Read-only Read-only (cannot be modified except by JavaScript) Required

Previous step | Next step | Save & publish process | Close

If the user has chosen that Instance ID will be visible on the form, then in WEBCON BPS Portal it will no longer be displayed in the **Information** section, but in a separate, dedicated section of the **info panel**.



3.2. Actions

- Added an alert in the **Invoke REST Web Service** action that uses JSON Grid controller warning users about deleting subordinate nodes when changing collection type to **valuesCollection**.
- If the **Printout a barcode label** action fails to print any barcode in synchronous mode, the entire path transition will be aborted.
- The **Manage BPS user licenses** action can now also be used in on-prem installations that use the subscription licensing model.
- Changed the manner in which attachment names containing special characters are recognized and modified with the **Update attachment** action.

3.3. Unification of Error handling in Automations

Error handling in automations will now work differently in cases where there is a series of automations triggered in one continuous transaction e.g.: **On exit** from a step → **On path** between steps → **On entry** to the next step.

Until now, an error in one automation would engage the error handling flow for that specific automation.

In version 2023 this works analogously, but the error handling flows of all automations previously completed in the same transaction are also activated.

The error handling flows of other automations will be executed in reverse order, i.e. from the most recently completed to the first automation.

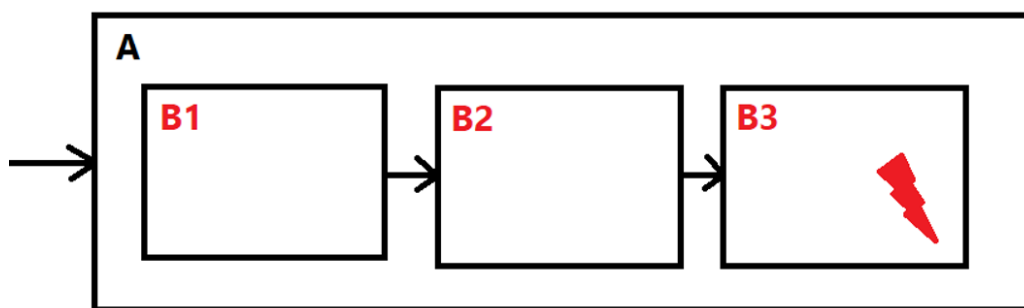
This change also includes automations whose configuration contains nested automations.

For example: Automation A contains automations B1, B2, and B3, as seen on the diagram below.

These automations are triggered in order $A \rightarrow B1 \rightarrow B2 \rightarrow B3$.

If an error occurs in automation B3, its error handling flow is activated, and then the error handling flows of all previous automations are also engaged from most recent to the first, which means that the error handling flows are triggered in order:

$B3 \rightarrow B2 \rightarrow B1 \rightarrow A$.



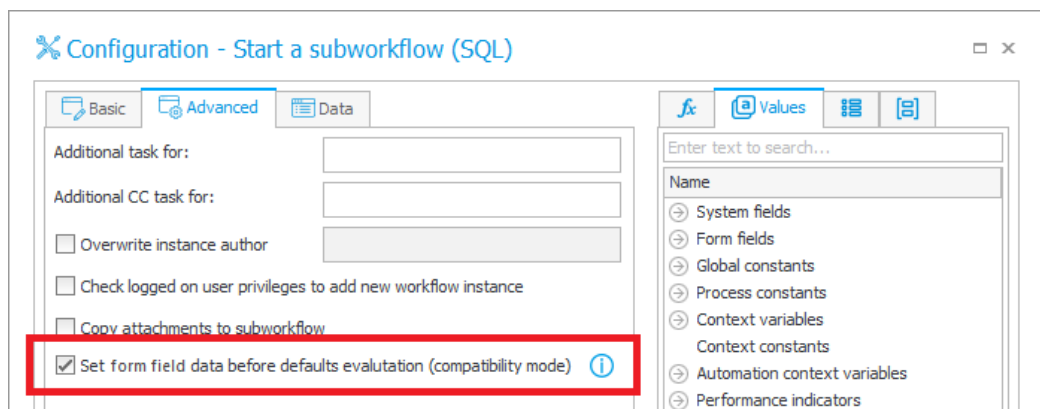
The state of parameters, variables, form fields, and attachments used for error handling will be remembered from the moment when the automation was originally triggered. Attachments will be returned to the state from before the group of automations was triggered.

Note: If an instance of a parent workflow leaves the **Wait for subworkflows** step and encounters an error, the error handling will only include the automations from that parent workflow. The subworkflow instance that caused the parent instance to leave the step will not be affected – its automations were completed in a previous transaction.

3.4. Rules

- Changed the order in which rules are executed when starting a workflow instance. After the change, the order is as follows: 1) **restrictions**, 2) **default values**, 3) **other values set by: users, actions that change the instance, URL parameters**.

The change has a particular effect on the actions **Start a subworkflow** and **Start a subworkflow (SQL)**. Therefore, the configuration windows of these actions have a new option, **Set form field data before defaults evaluation (compatibility mode)**, which enables maintaining the current system operation when using these actions.



3.5. Data sources

- Changed the JSON deserialization settings for **REST Web service** type data sources. Dates saved as strings (ISO format) will be deserialized into the specific format chosen in the REST data sources configuration (String, Date, DateTime).

Example date in JSON: "2022-06-11T00:00:00" will be deserialized as follows, according to the response type:

- **String:** "2022-06-11T00:00:00"
- **Date: DateTime** "11.06.2022" for "pl-PL", "06/11/2022" for "en-US"
- **DateTime: DateTime** "11.06.2022 00:00:00" for "pl-PL", "06/11/2022 00:00:00" for "en-US"
- The **PickerVal** tag will return the value from the first searched column (if more than one column of the choice field is searched).

- If the configuration of a **Rest Web Service** data source contains a field that was previously mapped but is now missing from the service response, it will be shown as empty. Previously, such a scenario would result in an error.
- IDs in **Fixed value list** data sources can have a value of "0".

3.6. Mobile app

- The mobile app for Android will now be available in the Google Play store for devices without cameras.

3.7. Service

- Expanded the **LogCleaner** module functionalities with removing active tasks from the **ActiveTasks** table and changed its name to **LogAndDataCleaner**. Additionally, accepting a task assigned to a group by any person belonging to the respective group by means of the **MailApproval** functionality results in changing its status to accepted.

3.8. Designer Desk

- The English-language name of the default report created for the application prototype has been changed from "All documents" to "All items". In addition, the option to display the **Link** to an **Instance number** will be checked by default in the report configuration in the **Views** tab.
- The **Unlimited Solutions Access** license is no longer required when working in Designer Desk.
- Each step now has more ports for drawing paths in **Workflow designer**.

3.9. API & SDK

- An API application must have an assigned license to carry out requests associated with e.g. starting a workflow instance.
- The 200-character limit has been removed for places in Designer Studio where URLs could be configured (e.g. in REST and SOAP connections and data sources).
- Added encoding for URL values passed through variables. Use RAW variables if the values should not be encoded. When passing a value e.g. "Domain\user", the "\" will be replaced with "%5C".

4. Security fixes

4.1. Form

- Fixed an issue in WEBCON BPS Portal that allowed a non-administrator user to assign different types of privileges to other users.

4.2. Updated components

- Updated component JSON 5 to version 2.2.3 due to CVE-2022-46175 – <https://github.com/advisories/GHSA-9c47-m6qq-7p4h>
- Updated component tinymce to version 5.10.7 due to CVE-2022-23494, CWE-79 – <https://security.snyk.io/vuln/SNYK-JS-TINYMCE-3166281>
- Updated component Newtonsoft.Json to version 13.0.2 Due to CWE-755 – <https://security.snyk.io/vuln/SNYK-DOTNET-NEWTONSOFTJSON-2774678>
- Updated component NuGet.CommandLine to version 6.3.1 due to CVE-2022-41032 – <https://security.snyk.io/vuln/SNYK-DOTNET-NUGETCOMMANDLINE-3043007>
- Updated dependencies in the **Active.Directory.Utilis** project in relation to CVE-2022-34716 <https://security.snyk.io/vuln/SNYK-DOTNET-SYSTEMSECURITYCRYPTOGRAPHYXML-2977914>
- Updated component **BouncyCastle.Crypto** to version 1.9.0.0 due to it being erroneously treated as a threat: <https://www.virustotal.com/gui/file/de1c0dd2bbcdf8a3af539a8de351d55a01a9dde5d1bc5dc564ec70cc0784a2/detection>
- Updated component **System.Data.SqlClient** to version 4.8.5 due to vulnerability CVE-2022-41064, CWE-200: <https://security.snyk.io/vuln/SNYK-DOTNET-SYSTEMDATASQLCLIENT-3110424>

5. New features

5.1. WEBCON BPS Analytics

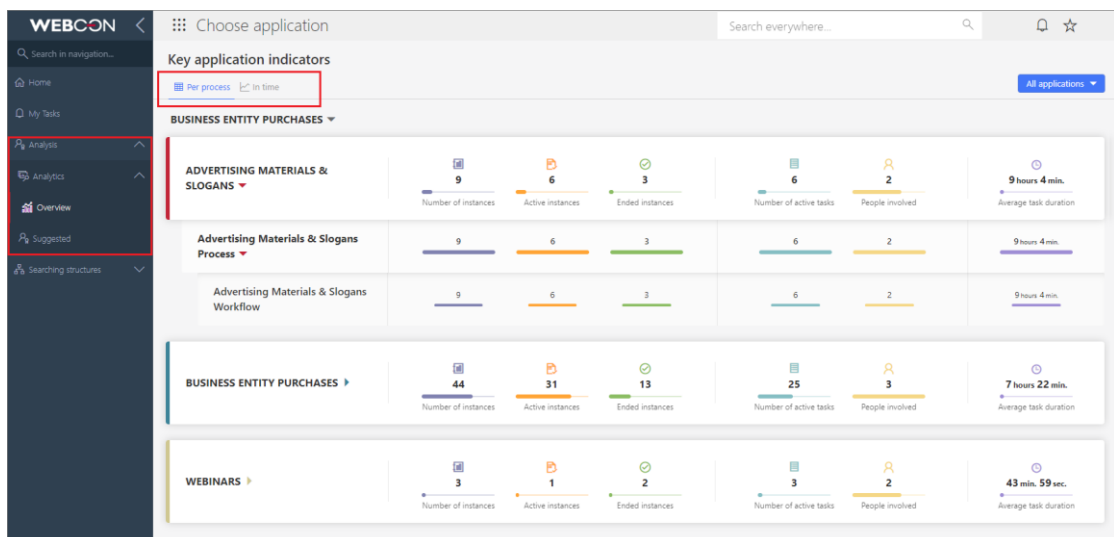
WEBCON BPS has gained a new feature for displaying statistical information about an application / a process. In Portal, users now have a dedicated **Analysis** node with tabs that compile key figures and time series in the context of available applications. Also introduced is the ability to track trends on working with the system, as well as display a **Heatmap** for a selected application.

Key application indicators

The **Analysis** node is a highly developed version of the previously available **Insights** node. The change affected not only the node's name, but also its contents – as before, users will find **Suggested** workflow instances here, but now they also have a new **Analytics** option, including the **Overview** subnode.

Indicators per process

After clicking on **Overview**, users will see **Key application indicators**, and more precisely, the **Per process** tab, whose content will vary depending on the applications used and privileges granted.



The data of individual applications in the report are grouped and displayed according to the current state, in alphabetical order, just like in WEBCON BPS Designer Studio. When you click on an application, a list of its processes is expanded, and when you click on a process, a list of related workflows is displayed. Each such data set contains the following information:

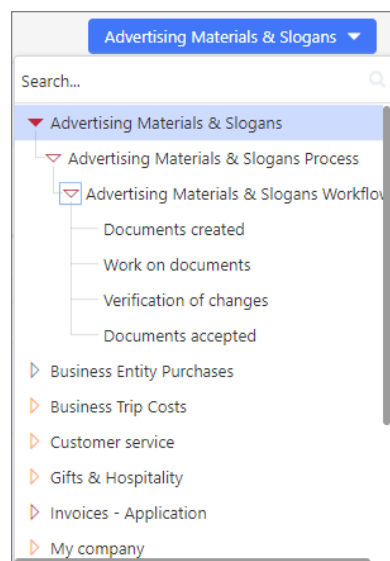
- **Number of instances**
- **Active instances**, i.e. instances outside the final step
- **Ended instances**, i.e. instances in the final step, either positive or negative
- **Number of active tasks**
- **People involved**, i.e. users who completed at least one tasks on their own and whose tasks are not canceled
- **Average task duration** (applies only to completed tasks).

By default, global business administrator will see in the report the data of all processes and applications.

Similarly, business administrator of a process will see the data of only those processes to which they have access.

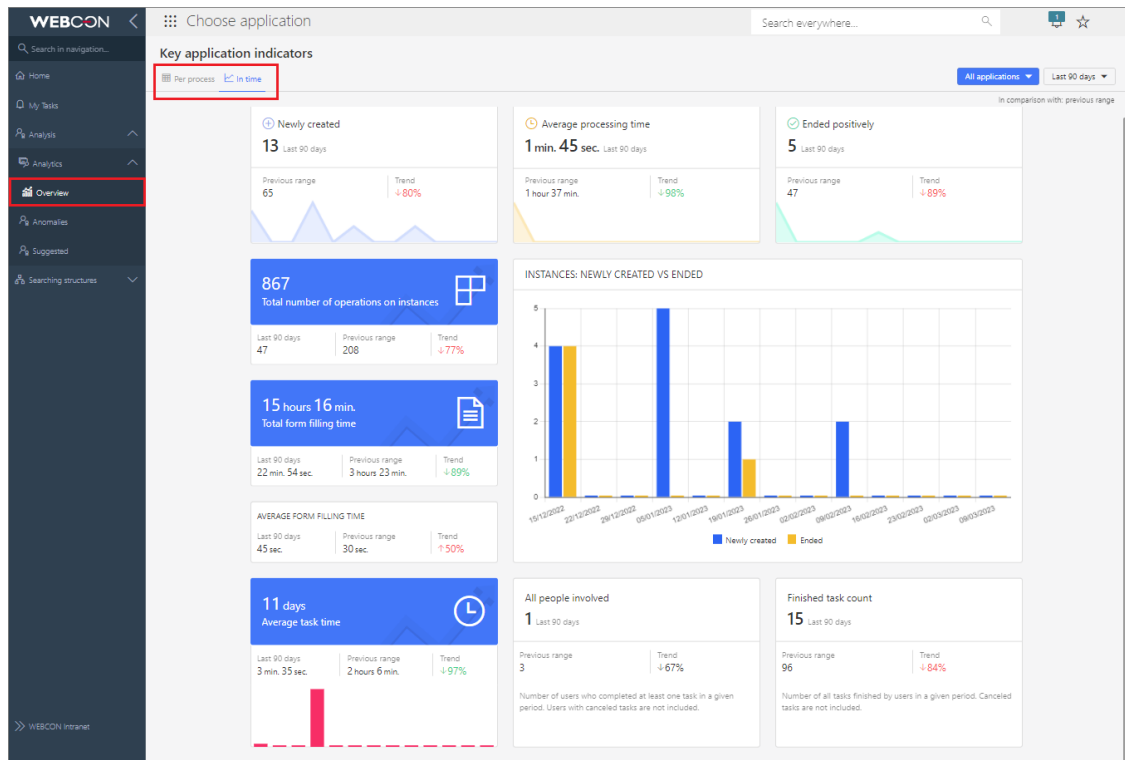
If a user does not have business administrator privileges to any process, **Key application indicators** report will not be visible to them.

In the upper right corner of the screen, there is a filter to narrow down the report view to the data of a selected application, process, workflow, or even a step.



Indicators in time

The **Overview** subnode also has another tab named **In time**. It is a report that provides a visual representation of the most important information about working with applications, processes, workflows, and workflow instances in WEBCON BPS, organized over time. Here, users can check the number of individual instances, operations, and tasks, as well as the time spent on their processing and execution.

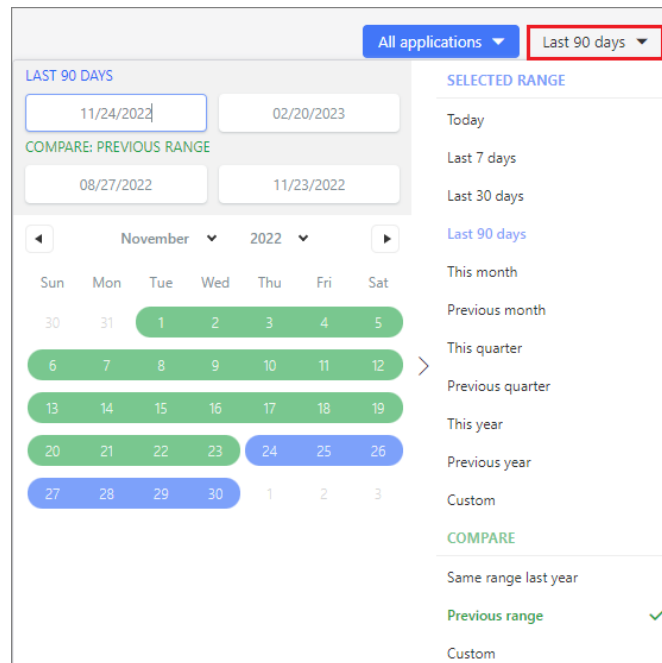


If the user has applied a filter that narrows down the displayed information in the first tab, for example, to a selected workflow, the filtering settings will be automatically inherited on the other tab. And vice versa – after setting the filter for **In time**, the data on the first tab will also be narrowed down accordingly.

The tab consists of the following indicators:

- **Newly created**
- **Average processing time**
- **Ended positively**
- **Total number of operations on instances**
- **Total form filling time**
- **Average form filling time**
- **Average task time**
- **Instances: Newly created vs Ended**
- **All people involved**
- **Finished task count**

By default, data from the last 90 days are presented. The user can independently define the period for which statistics will be displayed or choose one of the predefined ranges expressed in days, months, quarters, or years. A dedicated filter in the upper right corner of the tab is used for this purpose.



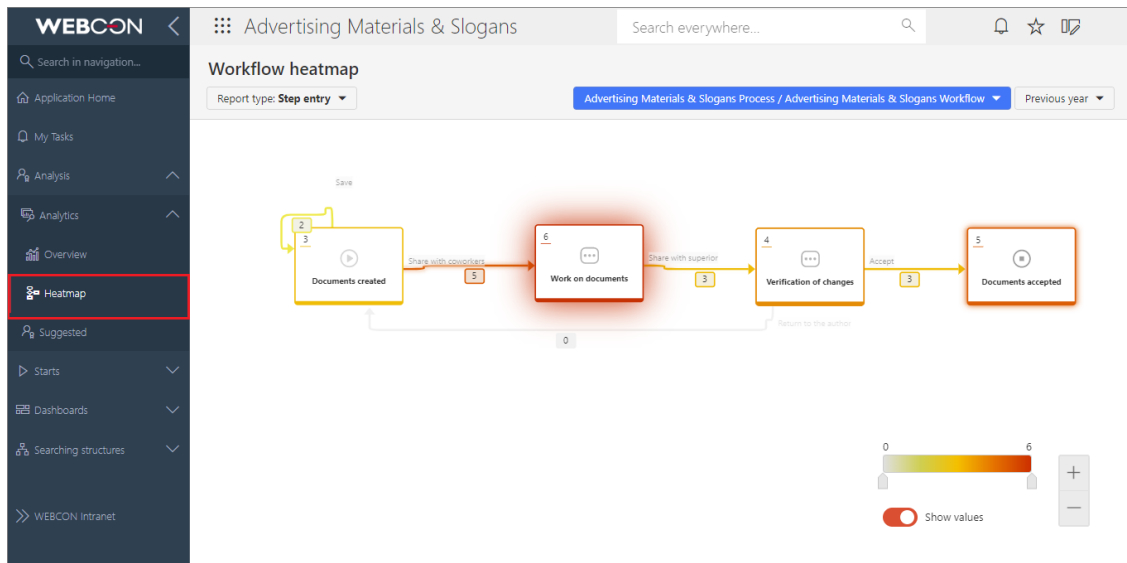
Additionally, it is possible to compare data from the corresponding **Previous range** (e.g. year-on-year), thus obtaining information on **Trends** for all presented parameters, i.e. related to the tasks performed and the time spent on them or working with the form, etc.

After indicating the preferred time period in the filter, the data presented in all sections on the tab will be changed accordingly.

All the above features are also available from within the application. The filtering on both tabs is then automatically limited to that specific application, and the indicators prepared only on the basis of related statistical data.


Heatmap

If user would like to analyze the statistics of a specific application, they can use an additional option, the so-called **Heatmap**. When this node is selected, the related workflow is displayed, with "hot" and "cold" points marked on it. Steps and paths are highlighted according to the frequency of their selection by the form user and the time spent on tasks, as shown in the legend below. The arrangement of steps and paths of such a workflow is as configured in WEBCON BPS Designer Studio – it is possible to alter it, but the changes made cannot be saved.




Users can choose from the following report types:


- **Step entry**
- **Step re-entry**
- **Time spent in step** (total/average)
- **Task waiting time**
- **Form filling time** (total/average)
- **Overdue tasks**




Step entry
Total number of entries to the step, workflow, and the number of times users have gone through the path.




Step re-entry
Number showing how often instances returned to the same step.



Time spent in step
Time representing how long instances stayed in a given step.



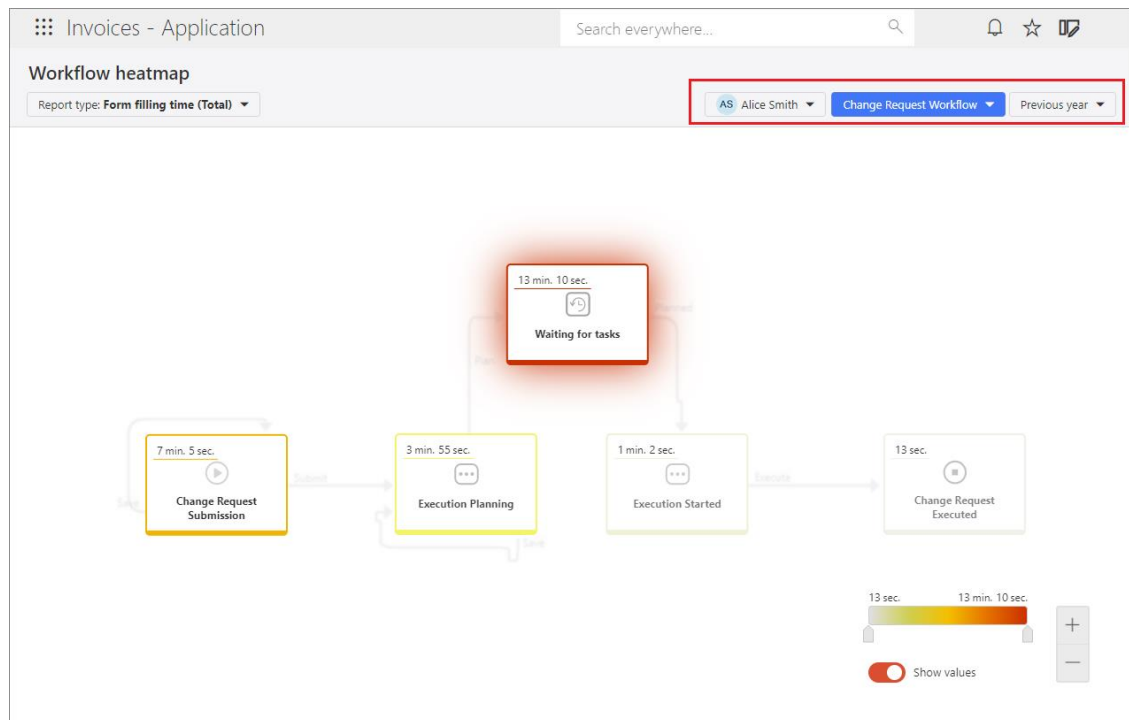
Task waiting time
Average waiting time for task completion by the user to whom the task was assigned.



Form filling time
Time users spent on filling out a form.

Depending on the selected report type, an integer or timestamp (to the nearest 1 hour, minute, or second) value is displayed in the upper left corner of the step and next to the path.

The report can be filtered by: **users** who had tasks assigned in the process (applies only to the last three report types in the list), **workflow** (the first workflow of the first application process is displayed by default), and by **period**.



Note: if necessary due to country-specific legal restrictions, filtering by users can be disabled by setting "0" for the **TopUsersEnabled** global parameter in the configuration database (the default value is "1").

By moving the slider on the legend, users can change the range of values presented on workflow steps and paths. Additionally, by properly setting the **Show values** button, it is possible to display the workflow according to individual preferences – with or without numerical data.

Please note that ONLY users with WEBCON Advanced Analytics Framework license have access to analytical reports and indicators as part of this new feature.

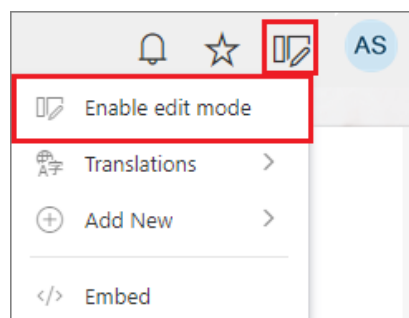
5.2. Edit mode in Portal

Users are now able to view and partially change the process configuration from WEBCON BPS Portal. The new feature allows for editing the names of form fields, steps, as well as the content of translations and descriptions of paths and steps directly in Portal. Additionally, it is possible to view the configuration of workflows, automations, and rules from there.

Note that if a process is checked out or has been modified via the export-import mechanism, its configuration in Portal will always open in read-only mode. The user will be informed about this with a relevant message.

Enabling the edit mode

After enabling edit mode, privileged users can modify process configuration to a certain extent, and the changes they make do not require additional validation or publication by admin. To enable edit mode, they should click on the icon right next to their profile picture and select **Enable edit mode**.



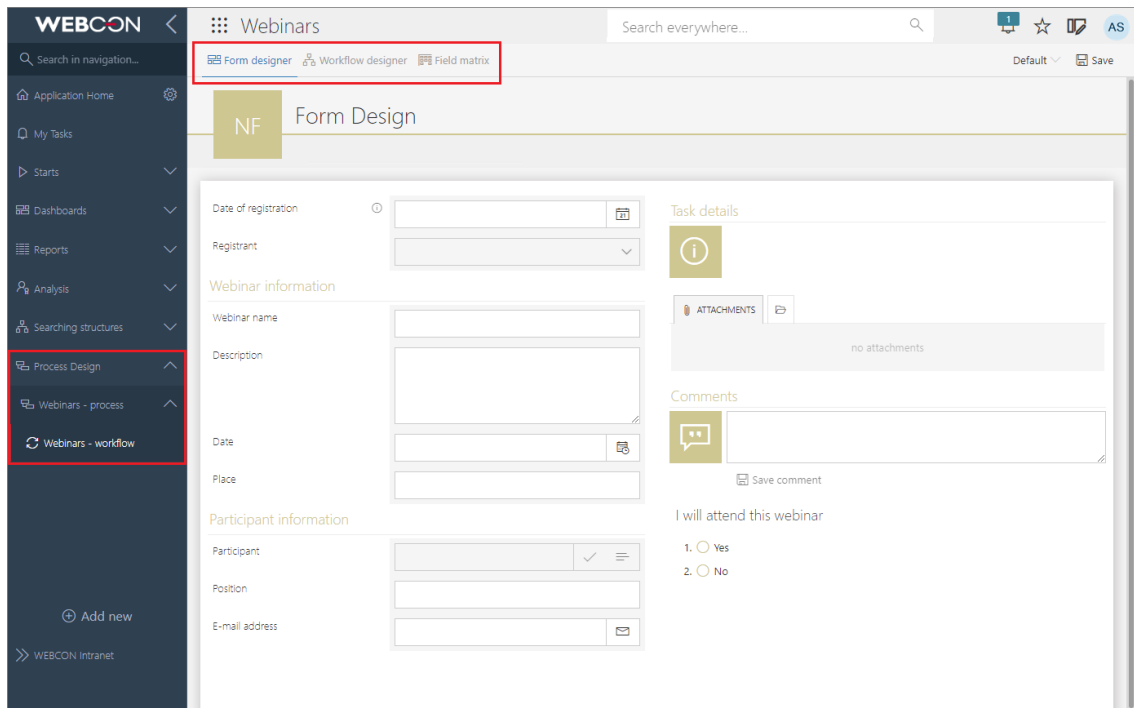
The **Process Design** node will then appear on the left-hand panel where all processes within or related to the current application are available – users can edit them based on their privileges.

The following are authorized to edit a process:

- global system admin,
- application admin, and
- users who have been granted the privilege **Designer Desk edit in Portal** directly in process configuration.

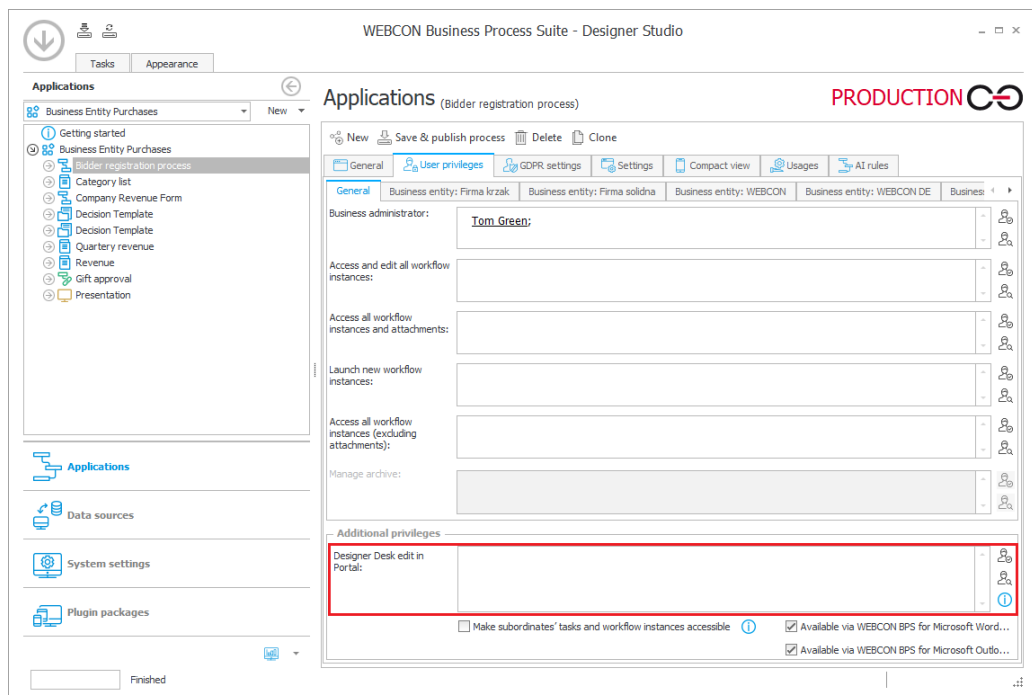
By expanding the node of a given process users can display its workflows. After selecting a workflow, a component with the following three tabs appears:

Workflow designer, Form designer, Field matrix.



The appearance of all these designers is similar to those available in WEBCON BPS Designer Desk. **In case a user does not have Designer Desk licenses, all designers will open in read-only mode** and the user will be prompted accordingly.

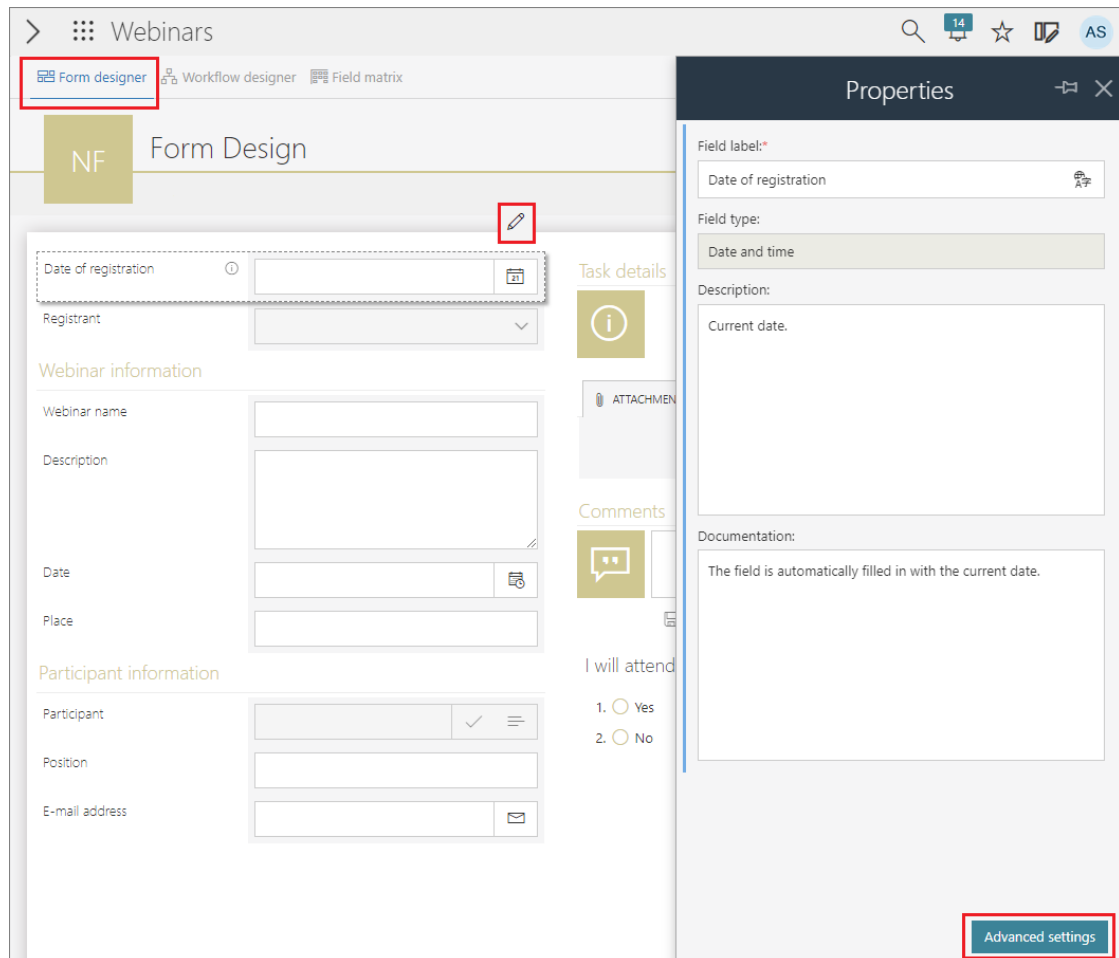
The last privilege level mentioned above, **Designer Desk edit in Portal**, is also a novelty and can be assigned to users and groups when configuring a process in WEBCON BPS Designer Studio.



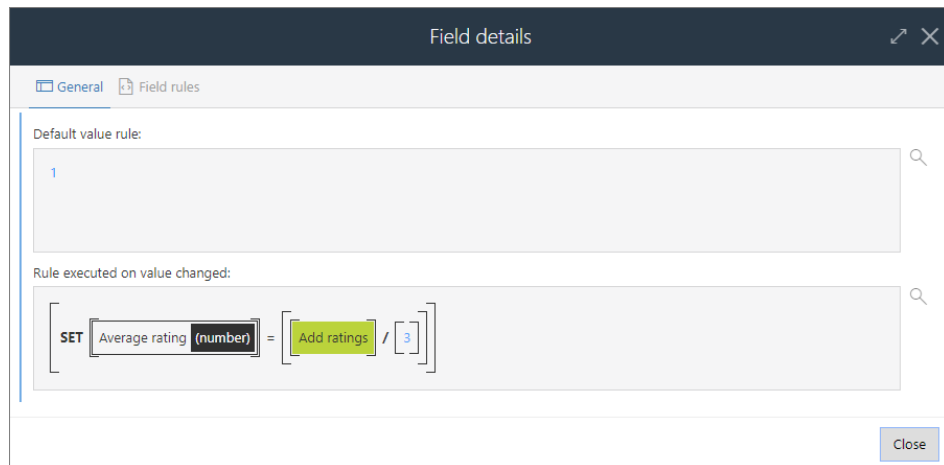
Form designer

Form designer is a component that allows users to preview the layout and configuration of form fields. Additionally, authorized users can edit basic form field data, i.e. change the contents of the **Name**, **Description**, and **Documentation** fields.

When a user clicks on the desired form field, a characteristic frame appears around it, with a pencil icon above. After clicking on this icon, the **Properties** window is displayed with an option to edit the relevant data.



What is more, by selecting the **Advanced settings** button, users will see an additional **Field details** window consisting of two tabs: **General** and **Field rules**, where they can view any configured default value rules, rules executed when the value is changed, as well as visibility, editability, and requiredness rules. The content of this window varies depending on the type of form field / **Item list** column, and the information therein is available in read-only mode.

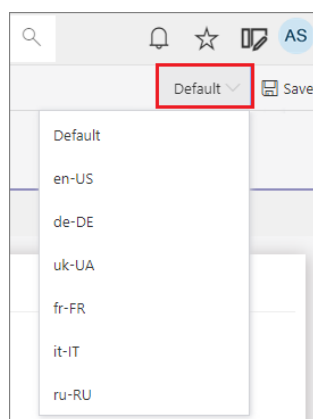


The user should click **Save** in the top menu, just below the profile picture, so as not to lose their settings. All changes made will be immediately visible in the production environment.

Translations of form field and column names

In addition to editing their **Properties**, it is also possible to enter translations of the names of form fields and item list columns in languages defined in the system configuration.

Selecting the **Form designer** language in the top menu allows users to edit the names of form fields and columns in the selected language directly from the designer.

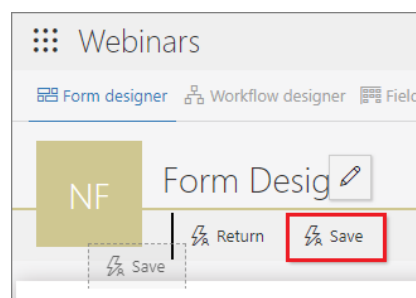


Translations of a form field name can also be edited in the **Translations** window displayed by clicking the dedicated icon in the form field properties.

Language	Text
Original text:	Nazwa projektu
en-US	Project name
de-DE	Projektname
uk-UA	
fr-FR	
it-IT	
ru-RU	

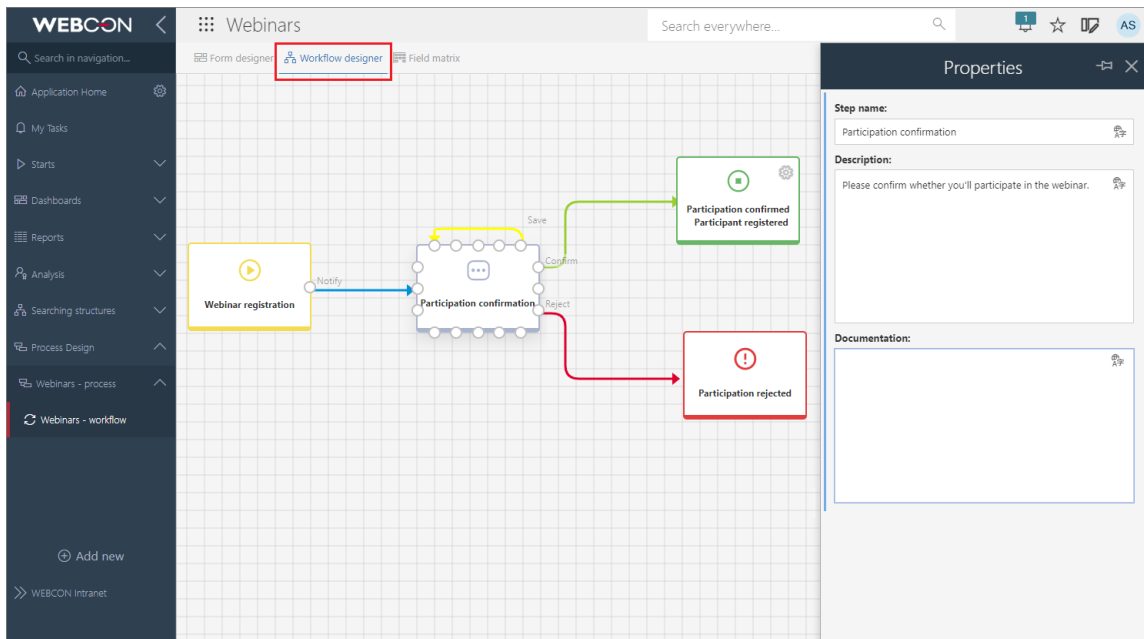
Editing names and reordering global action buttons

With **Form designer**, users can also edit the names and change the order of global action buttons, if defined. Renaming a button is analogous to renaming form fields. However, setting the buttons in a different order than the default requires clicking the desired button and dragging it to the appropriate place in the menu. Such a change is made only at one level – it is not possible to create groups and place buttons in them.



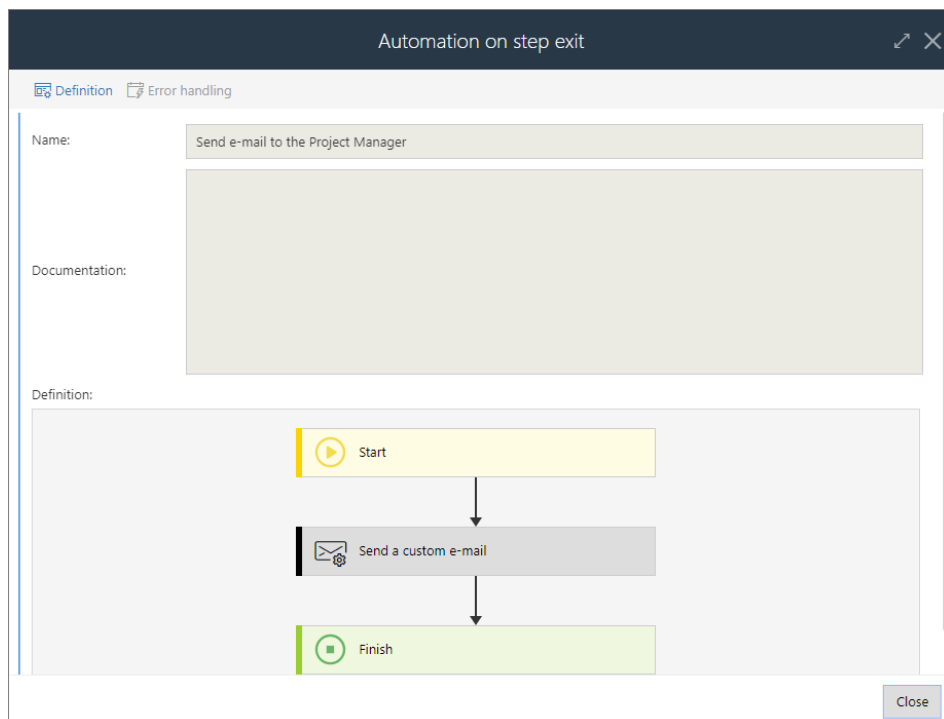
Workflow designer

Workflow designer is one of the tabs available in the process edit mode. After navigating to this tab, a graphic diagram of the workflow is displayed. By clicking on the selected path or step, users can edit the names and descriptions of steps and paths in the dedicated **Properties** window.

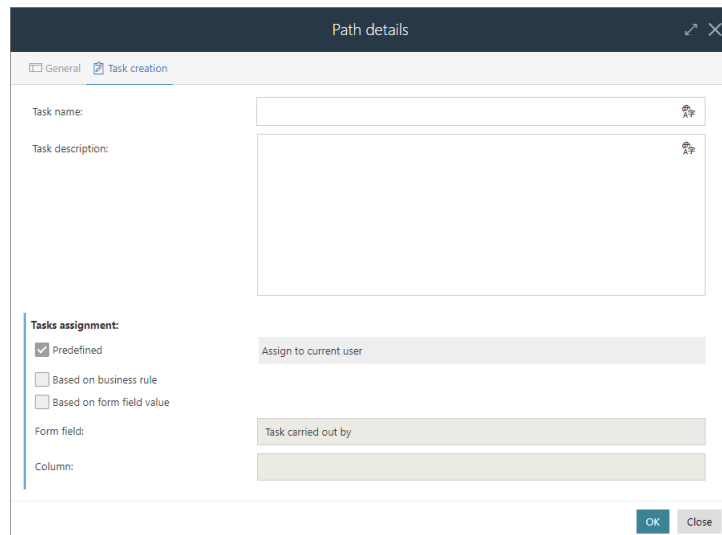


Using the dedicated icons in this window, the user can also enter translations for all editable text fields.

If an automation or a business rule is configured for the selected workflow, the designer allows users to preview it – all they need to do is click on the cogwheel icon on the step or near the path.



In addition, users can view the detailed configuration of a path by selecting **Advanced settings** in the path properties. This will bring up the **Path details** window which is divided into two tabs: **General** and **Task creation**.



The window contains information about assigned tasks as well as business rules and automations configured on paths. As in the case of form fields, all this information is available in read-only mode, but users can add/edit task name and description.

Field matrix

When the edit mode is enabled and a workflow selected, authorized users can also view the **Field matrix**. This tab contains information on the visibility of form fields at each step of the workflow, but in Portal it is available in read-only-mode. If user attempts to change it, a message will appear informing them that modifications to the Field matrix are only possible for WEBCON BPS Designer Studio users.

FIELDS	WEBINAR REGISTRATION	PARTICIPATION CONFIRMATION	PARTICIPATION CONFIRMED - PARTICIPANT REGISTERED	PARTICIPATION REJECTED
Date of registration	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
Registrant	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
Webinar information	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Webinar name	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
Description	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
Date	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
Place	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
Participant information	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Participant	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
Position	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>
E-mail address	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>

5.3. License management and External User Access

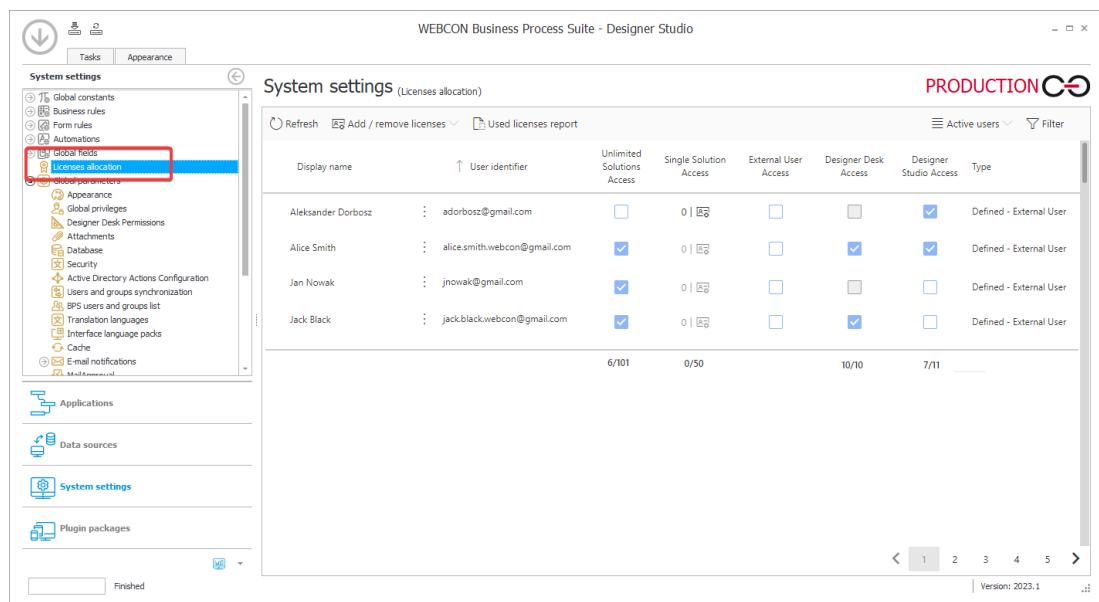
Added a series of improvements to the interface for managing licenses:

- Enhanced the existing **Users management** node in the Admin Panel on Portal. Added a new page for settling **External User Access licenses**.
- Added a version of this node in Designer Studio.

In the **System settings**, the **License allocation** node was added – this acts as a simplified version of the **Users and licenses** report in the **Admin Panel** on Portal.


This report is used to allocate all 5 types of licenses to users:

- **Designer Studio Access**
- **Designer Desk Access**
- **Unlimited Solution Access** (previously CAL)
- **Single Solution Access** (for a single process, only used in the subscription model)
- **External User Access** (new type of license for external users, only used in the subscription model)



Licenses can also be edited from the Edit user panel, which is accessed by clicking on the chosen row on the Report.

Edit user
✕



Alice Smith
Defined - External User

E-mail:*
alice.smith.webcon@gmail.com

Name:*
Alice Smith

BPS ID:*
alice.smith.webcon@gmail.com

Superior:
Tom Green

Licenses:

Unlimited Solutions Access
 Single Solution

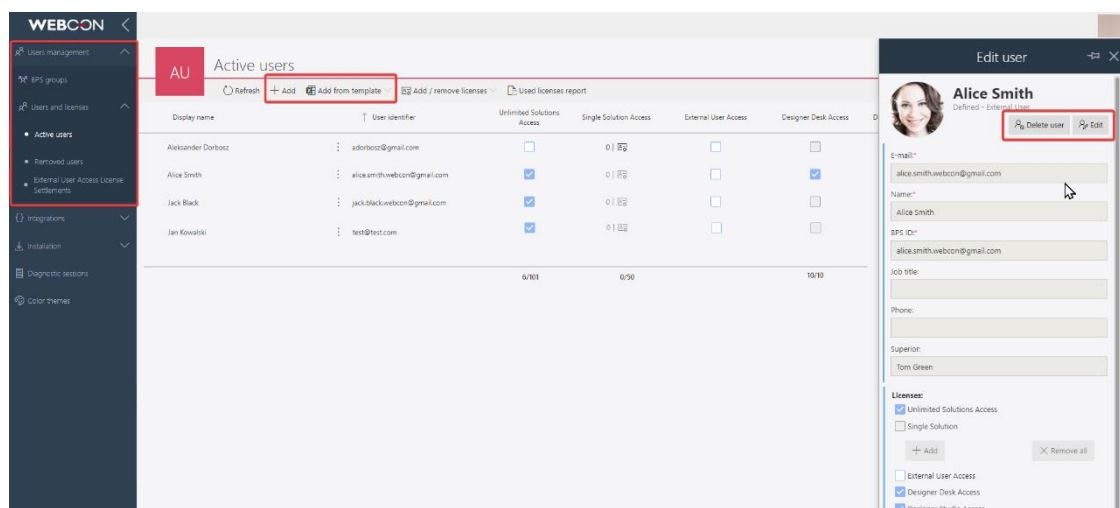
+ Add ✕ Remove all

External User Access
 Designer Desk Access
 Designer Studio Access

Designer Desk permissions:

Creating new projects
 Publishing to Studio

The **Users and licenses** report in the **Admin Panel** on Portal had certain features added (that are not available in the Designer Studio version of this Report). This includes buttons for exporting/importing the licenses template in Excel, as well as the ability to add/remove/edit user data.



Display name	User identifier	Unlimited Solutions Access	Single Solution Access	External User Access	Designer Desk Access
Aleksander Dorboz	adorbosz@gmail.com	<input type="checkbox"/>	0 10	<input type="checkbox"/>	<input type="checkbox"/>
Alice Smith	alice.smith.webcon@gmail.com	<input checked="" type="checkbox"/>	0 10	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Jack Black	jack.black.webcon@gmail.com	<input checked="" type="checkbox"/>	0 10	<input type="checkbox"/>	<input type="checkbox"/>
Jan Kowalski	test@test.com	<input checked="" type="checkbox"/>	0 10	<input type="checkbox"/>	<input type="checkbox"/>

In the **Settings** tab of a process, there is now an option to toggle the use of **External User Access** and **Single Solution Access** licenses (the latter is only visible for the subscription model).

The screenshot shows a 'Licensing' section with the following options:

- Production process
- External User Access license
- Single Solution license

On the right side of the panel, there is a button labeled 'Show and assign' with a user icon.

For **Single Solution Access** – choose the users that will have access to this process based on this license (the licenses will be subtracted from the Single Solution Access pool for each added user).

For **External User Access** – it is enough to toggle the option, access to workflow instances is granted based on a link being sent to the user's e-mail.

A license is subtracted from the pool when a user with External User Access licensing performs an operation on the form (e.g. path transition, saving the instance, adding an attachment). Such a user can then perform any number of operations on the same instance in the same month.

If a user with External User Access licensing uses a total of 20 licenses in one month, each next operation in the same month will not use further licenses.

5.4. Public access to a workflow instance

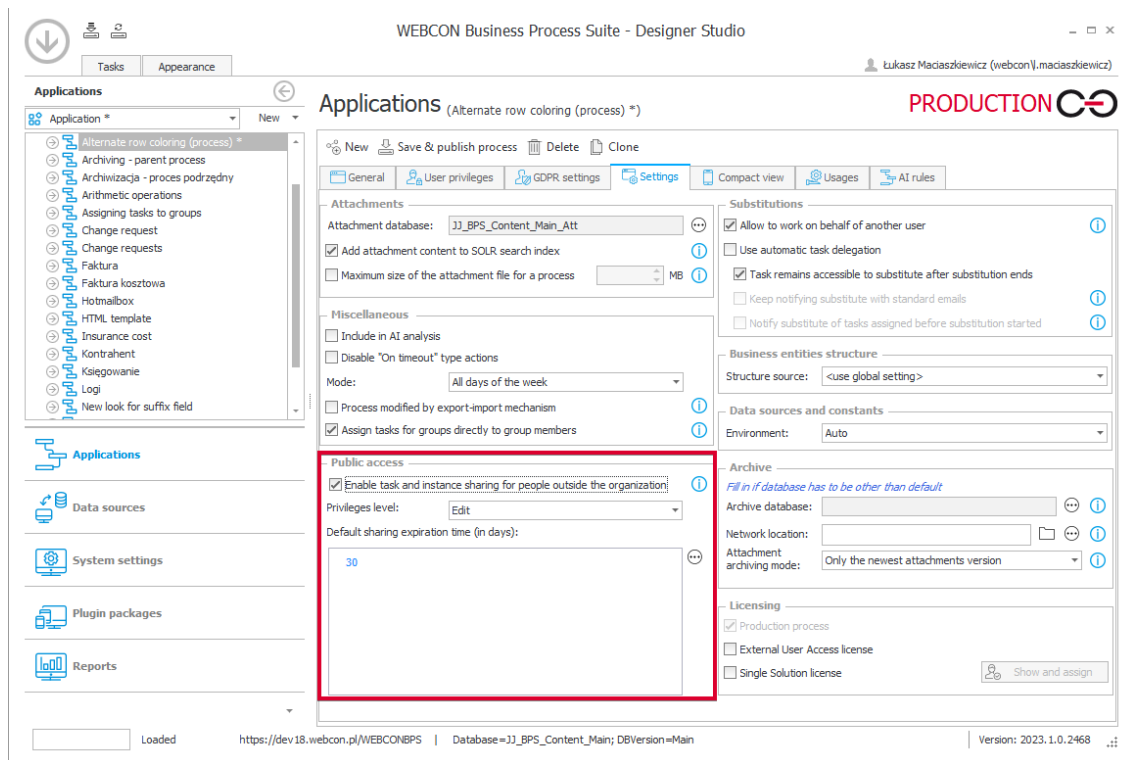
Added the ability to share an instance or a task with users outside the company. Sharing is done by generating a link to an instance or a task for any specified e-mail address. An instance can be shared in edit or read-only mode. The functionality allows users with access to an instance to view the status of an instance, edit it, add attachments, etc., and/or execute an assigned task.

Note: the functionality is available in the perpetual and subscription-based licensing model without additional limitations.

WEBCON reserves the right to change that approach. In future, the access to the functionality will require purchasing a dedicated subscription-based license and will not be available in the perpetual licensing model.

New section in process configuration

A new section Sharing is added in the process configuration window in Designer Studio. The section includes a button **Enable task and instance sharing for people outside the organization** that activates the sharing functionality. Selecting the button makes sharing actions available in process global and on-step/on-path automations, as well as action templates. Additionally, after checking the button it is possible to specify the time after which the sharing expires in the **Default sharing expiration time (in days)**.



New actions

Three new actions that automate sharing management are added to the system. Instances or tasks can be shared with multiple persons by entering e-mail addresses in the action configuration window. A separate link to an instance or a task is generated for each specified e-mail address.

Share workflow instance – the action allows users to share selected workflow instance in the BPS system to read or edit for a specific, defined time (though it is possible to end sharing before that time).

Share task – the action allows users to generate and share a task directly with a person from outside the company. Once a task is executed, the sharing instance is deactivated. There is no time limit in this case for task sharing.

Stop sharing – the action ends sharing of a specified instance for all users. The action also ends sharing of tasks, yet tasks themselves (depending on their status) remain in the process workflow.

New form button

A new **Share** button is added to a form as an alternative to sharing through actions. The button enables users to share an instance manually directly from the form.


The button (located next to the **Admin** button) allows users to share a respective instance to edit or read-only. You can manage the availability of the button by means of a form rule or field matrix. The button opens a sharing window where you can enter at least one e-mail address of a person who will obtain access to the shared instance. Once all data are filled out, a unique link to an instance is generated. The link can be copied or sent to the specified e-mail address.

Share link to SCSR/123/2022

Share workflow instance with (email address):

Allow editing

Expiration date



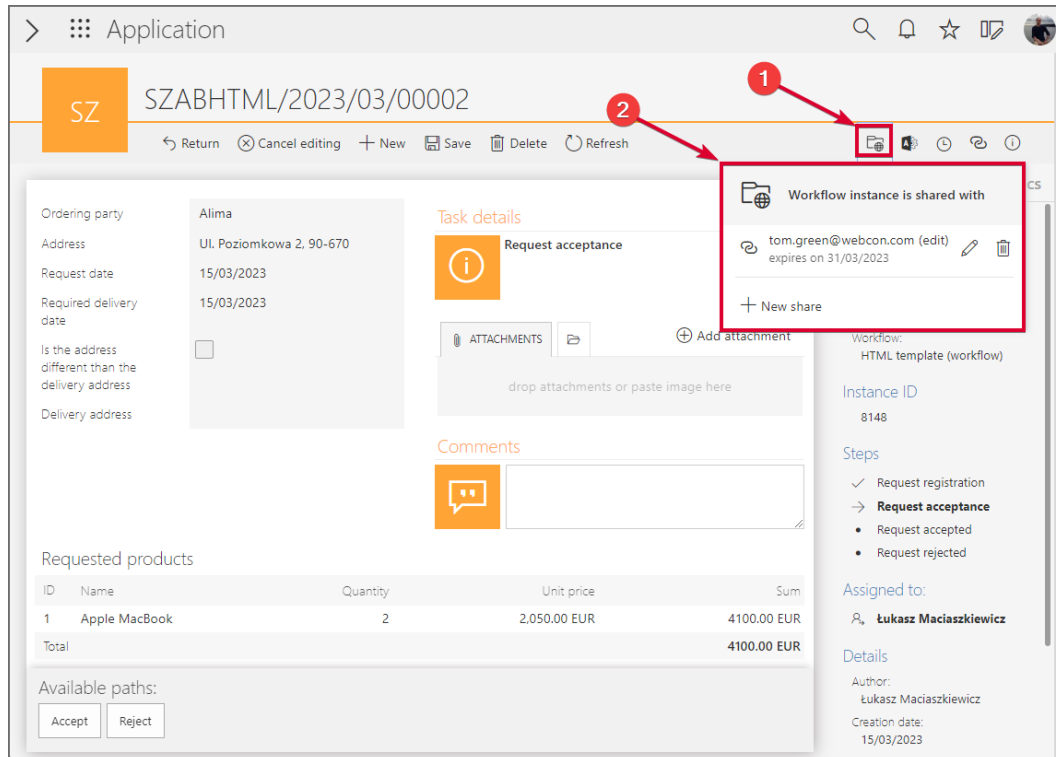
Share Close

Note: in all cases (sharing through actions or a form button) sharing the same task again results in overwriting the current sharing and resending e-mail notification. When an instance is shared again, the previous sharing is closed and a new sharing is created. The person receiving the new sharing is informed via a resend e-mail notification.

When sharing an instance, the system checks if there is an active shared task on that instance for all the specified e-mail addresses. If an active shared task already exists for one of the specified e-mail addresses, a message is displayed that informs an instance cannot be shared as there is already an active task shared. For actions, an error is displayed with the same message.

Administrator privileges

When working in administrator mode, the instance administrator can press the Share button to display all users with whom the instance is shared directly on the form. From there, they can modify the sharing settings (such as changing the expiration date or authorizations) and disable sharing if needed.



In addition, the aforementioned information on sharing is available in the admin mode in the workflow instance privileges window. The section also allows administrator to view information on task sharing.

Workflow instance privileges
✕

Global privileges:

Aleksander Bruks	Administrator
Jacek Język	Administrator
Marcin Kapusta	Administrator
Piotr Pakuła	Administrator

On a process level:

Łukasz Maciaszkiewicz	Administrator
-----------------------	---------------

On instance level:

Łukasz Maciaszkiewicz	Modify without deleting	Assignments	✕
-----------------------	-------------------------	-------------	---

Workflow instance is shared with:

łukasz.maciaszkiewicz@webcon.com	Modify without deleting	Shared by Łukasz Maciaszkiewicz on 16/02/2023	✕
----------------------------------	-------------------------	---	---

Add access privilege:

✓
☰

Read-only
▾

+ Add

Close

On-path transition

On-path transition or task execution ends sharing of a respective task for each user. This sharing is then recorded in the historical data table of the content database, and a new instance sharing is generated with read-only privileges and a 1-year expiration period for all respective users.

Similarly, transiting a path in the case of instances shared with edition rights ends such sharing. A respective entry in the historical data table is then made, and the instance is shared with read-only rights and the same expiration period for the same users.

Archiving

When a shared instance is archived or deleted, the sharing is ended and a historical record is created in the **HistorySharedInstances** table in the content database. The relevant entry is also deleted from the **SharedInstances** table which contains information about shared instances.

New context variables

New elements are added to the business rule editor. A new expression: **Is instance shared?** is added to the **Information** group in the **System fields** node. In addition, a new group: **Form display modes** is added to the **Context variables** node. The group includes a new expression: **Is share mode active?** and two expressions taken from other groups, i.e. **Is admin mode active?** and **Is this a mobile device?**

5.5. GUID as an identifier in HTML templates

The latest version of WEBCON BPS now allows for the use of the **GUID** identifier in HTML template tags. The change allows for easy transferring of HTML templates between different environments (DEV/TEST/PROD) which are used, .e.g. in **Generate a PDF file**, **Generate an HTML printout**, or **Send a custom e-mail** actions.

Functionality description

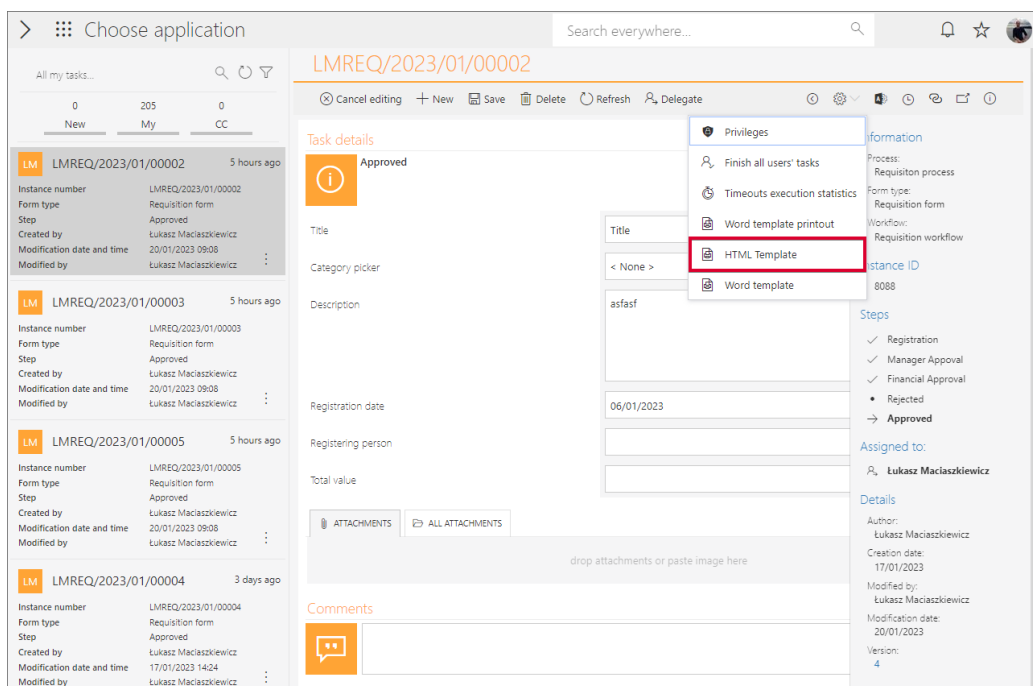
The GUID is an identifier of a configuration element, such as a form field, workflow, or process, whose value remains constant irrespective of the type of environment. So far, the GUID identifier could be used only for the **data row** form field. The new WEBCON BPS version provides this possibility also for the **item list** and **data table** form fields whose inclusion in HTML template required dedicated tags and reference to the ID identifier.

The new method of identifying form fields in an HTML template does not replace the old one, but offers an alternative to it, thus ensuring compatibility with earlier system versions.

Changes to the use of the GUID identifier for listed form fields have been incorporated into actions that utilize HTML templates, i.e.

- Generate a PDF file,
- Generate an HTML printout,
- Send a custom e-mail.

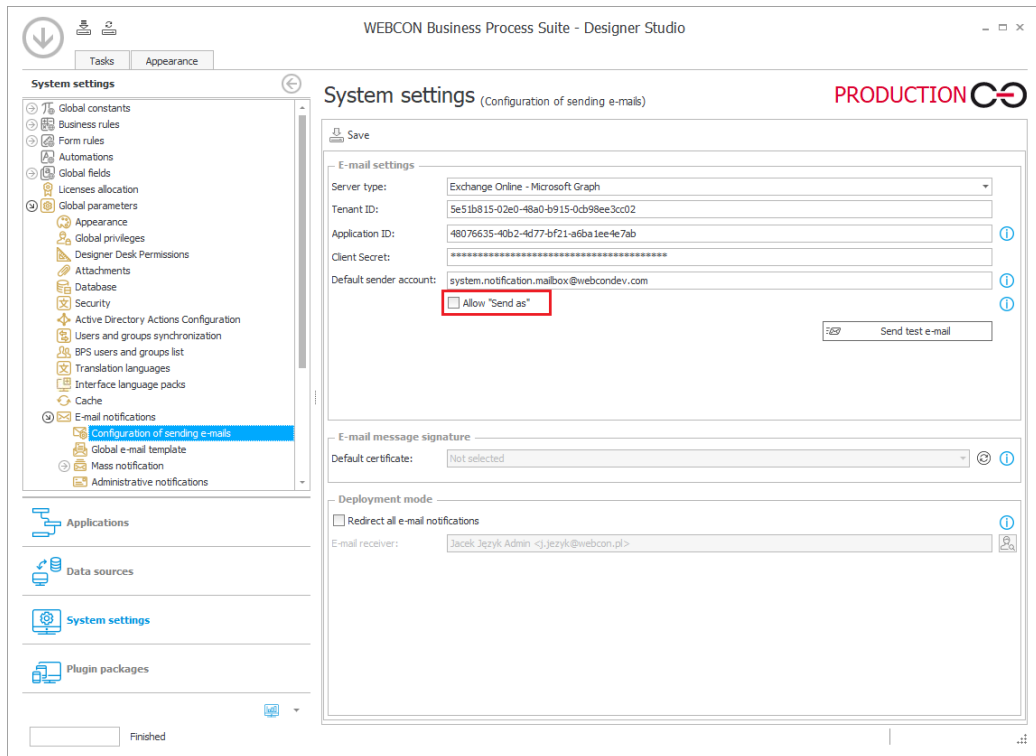
In addition, the changes also apply to HTML templates generated by administrator actions in Portal.



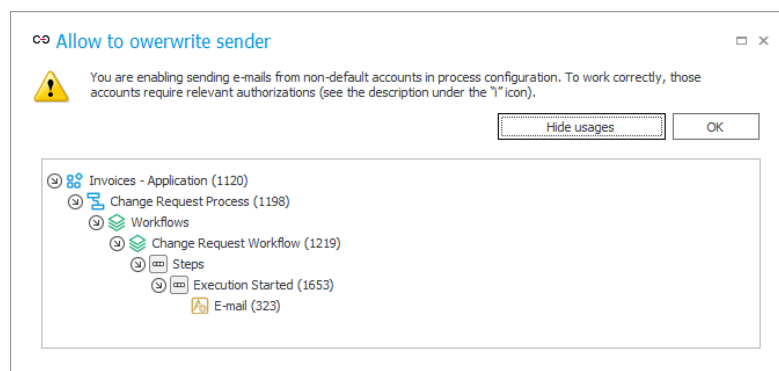
5.6. “Send As” for Microsoft Graph

It is now possible in WEBCON BPS to use the “Send As” option when sending e-mails via Exchange Online – Microsoft Graph.

The **Configuration of sending e-mails** window, available under System settings → Global parameters → E-mail notifications, has been updated to include the checkbox **Allow “Send As”**. When this box is checked, the system verifies whether the **Sender** parameter is entered for all e-mail actions and templates.



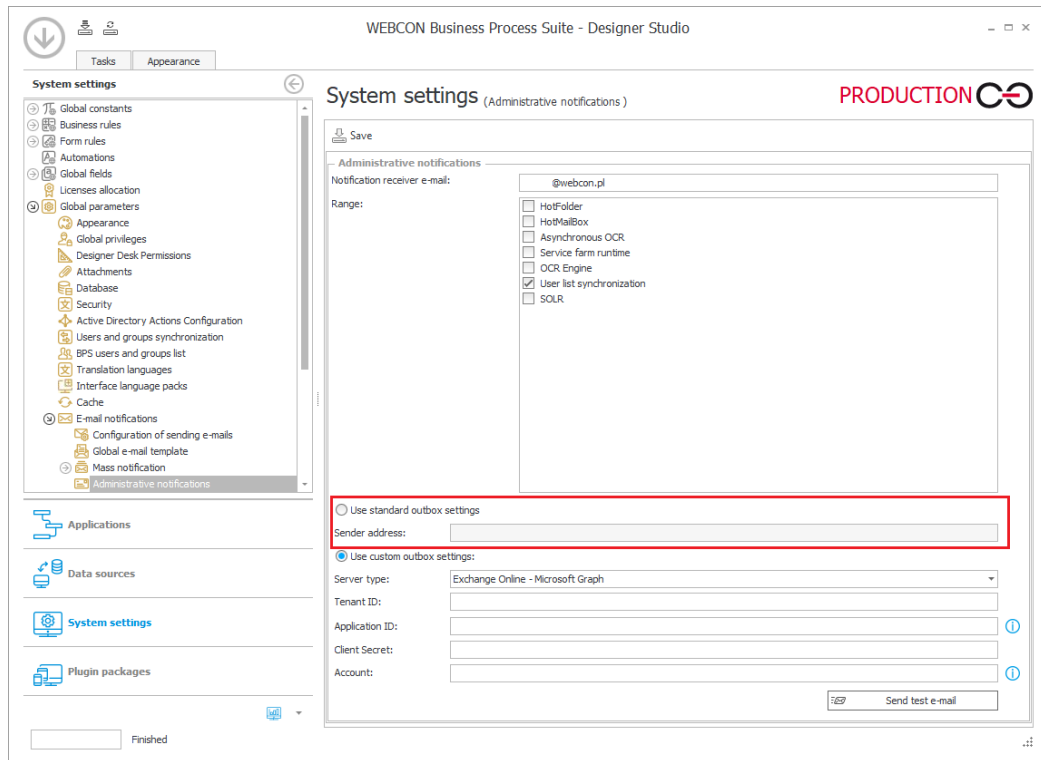
In addition, after pressing **Show usages**, the system displays a preview of places where a custom sender address has been entered.



If the box **Allow “Send As”** is unchecked, then e-mails will be sent from the **Default sender account** according to the global system configuration.

Administrative notifications

Changes also affected the organization of the **Administrative notifications** configuration window. The **Sender address** parameter has been moved to the **Use standard outbox settings** group, and its availability depends on the state of the checkbox next to the group name – if the box is unchecked, it will not be possible to provide an additional sender address.



5.7. Assigning tasks to a group of users

Added a new functionality that allows tasks to be assigned to groups as a whole, rather than to each individual member of the group.

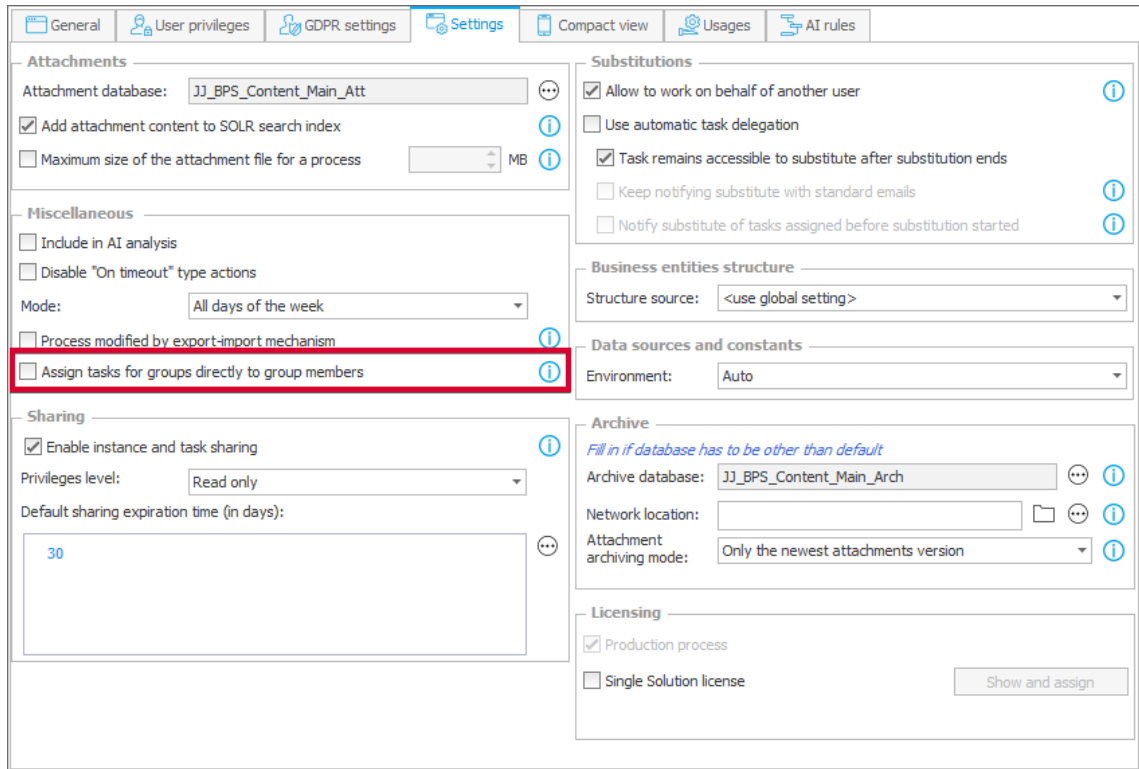
So far, in the case of groups tasks were assigned directly to each group member. In this approach, the task remained active until its execution (or ending by an administrator), so a user assigned with the task could execute it even after leaving the group (e.g. after transiting to a different department). The new functionality enables the system to react dynamically to changes in the group membership. For example, if a user is no longer a member of a group, they will not be able to perform tasks that had been assigned to the group. This principle also applies the other way around, i.e. when a new person joins a group, they are able to access the tasks assigned to it. When a task is assigned to a group, it is marked as completed as soon as any member of the group performs it. Information about the person who performed the task is stored in the historical data.

Note: the system migration to the new version does not cause changes to the configuration of assigning tasks in the existing processes. This means that, although after the update assigning tasks to groups as such is a new, default approach, the tasks in the existing processes will still be assigned in accordance with the old approach, i.e. directly to each group member.

Tasks assigned to groups are presented in reports with **SearchIndex** or **SQL** source.

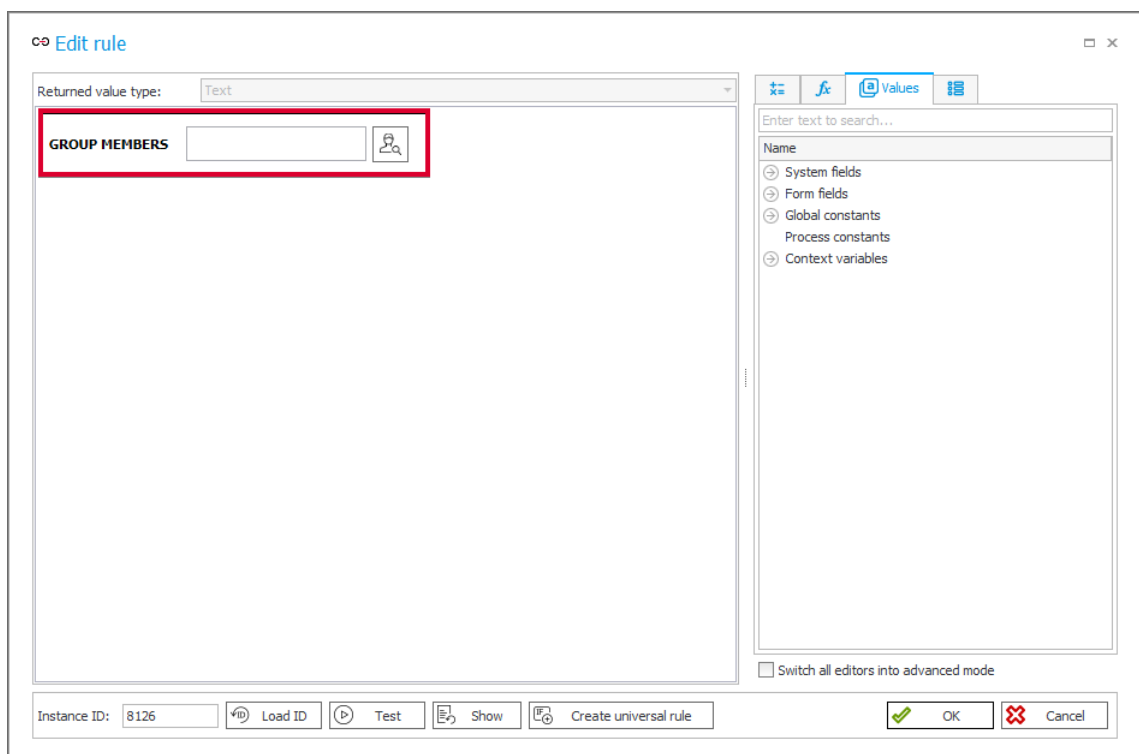
Changes in the process Settings tab

A new button **Assign tasks for groups directly to group members** is added to the process Settings tab. Checking the aforementioned button results in assigning tasks for groups directly to their members, i.e. the system operates according to the procedure that was standard prior to the introduction of the discussed functionality. As a consequence, a task assigned to a group member stays active until its execution, even if such a member leaves the group. Apart from the substitutions with automatic task delegation functionality, selecting the above-mentioned option modifies all fields in the process configuration where rules for creating and assigning tasks to users are defined.



New business rule: GROUP MEMBERS

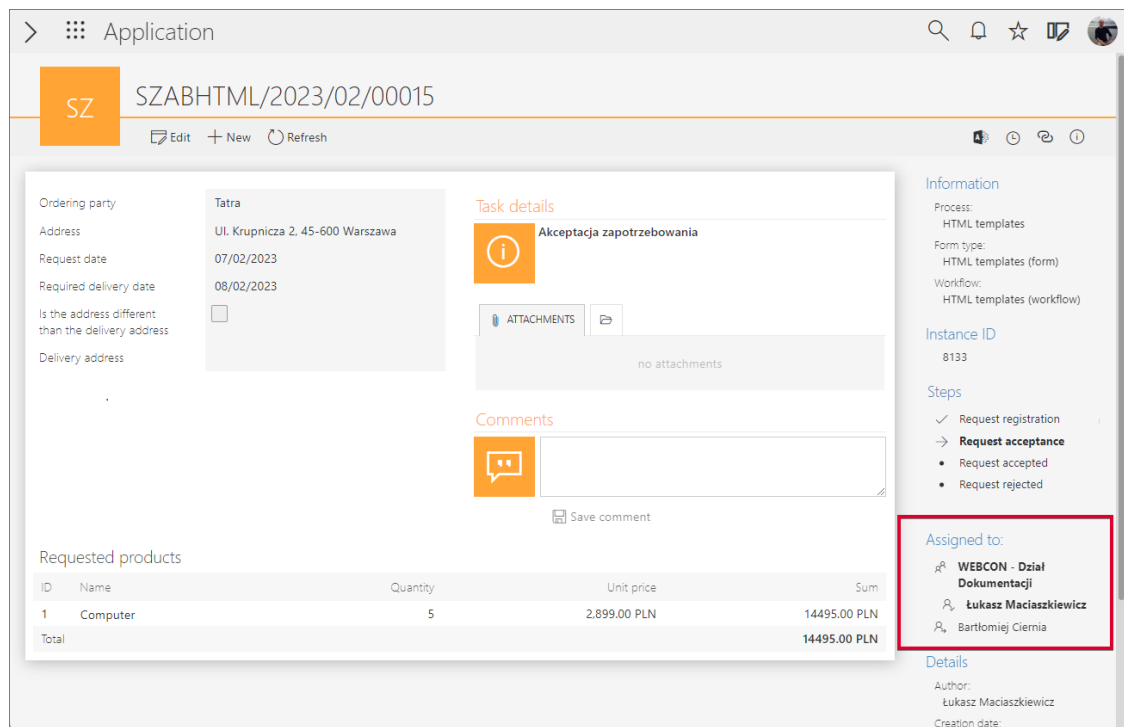
A new business rule **GROUP MEMBERS** is added. The rule returns a collection of users who are members of the intended group based on the BPS_ID identifier. The rule lets you choose all group members, including embedded groups.



Changes in Portal

Tasks assigned to groups are reflected in the **My tasks** list and task counters presented to the user. If a user is a member of a group assigned a task, the task will appear both in the task counters and in the user's My Tasks list.

New version introduces changes to the form appearance related to assigning tasks to groups. The form displays name of the group to which a task is assigned. The name can be additionally put in bold if the current user belongs to the group. Below such name there are indented names of users who executed tasks. Additionally, if the current user executed the task, their name is put in bold.



Archive

Information on assigning a task to a group is now added to instances stored in the archive. The system also displays information on execution of such a task by a group member.

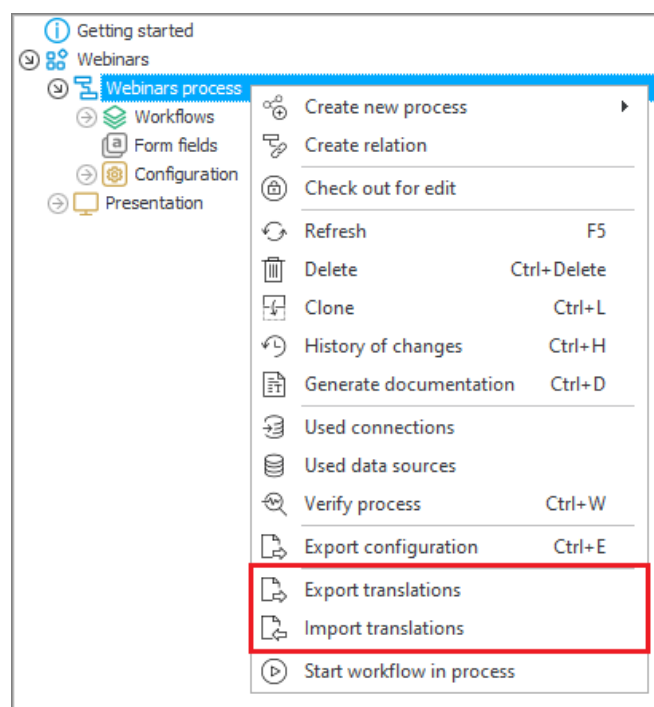
5.8. Export and import of translations to/from MS Excel file

New options have been introduced to export translated names of application elements, created by the person responsible for configuring the application, and then to import the completed translation document into the system.

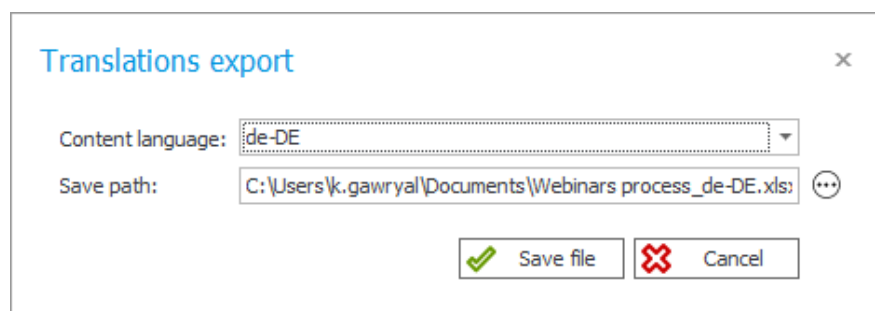
Translations can be imported/exported within one environment and one main version of WEBCON BPS.

WEBCON BPS Designer Studio

To export a translation file in Designer Studio, right-click on a process and select **Export translations** from the context menu.



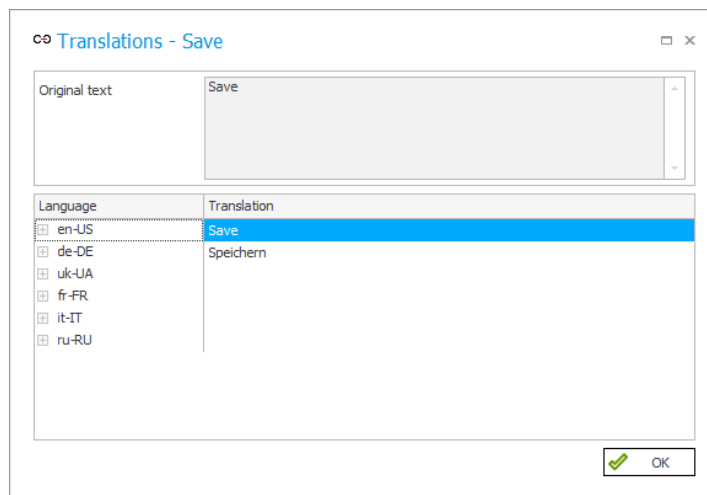
After a while, a window will appear where you can indicate the **Content language** and the destination for downloading the .xlsx file with translations.



The export covers translations for the selected process and the presentation layer of the application to which the process belongs.

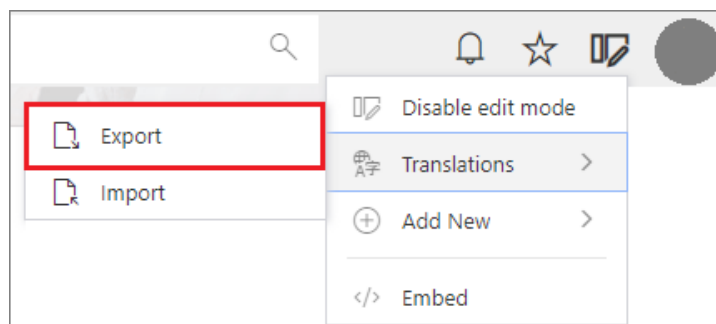
Once the translations have been successfully exported, you can edit the downloaded file and add missing translations to it. **Changes should only be made in the target language column**, e.g. "de-DE". **Changing data in other columns may prevent the import of translations into the system.**

To import a file with translations, select **Import translations** from the process context menu, indicate the location of the MS Excel file, and click **Load**. A message will then be displayed that the translations have been successfully imported. If you click on the dedicated control next to the item for which the translation was entered in the Excel spreadsheet, you can see that the translation has been correctly added in the system.

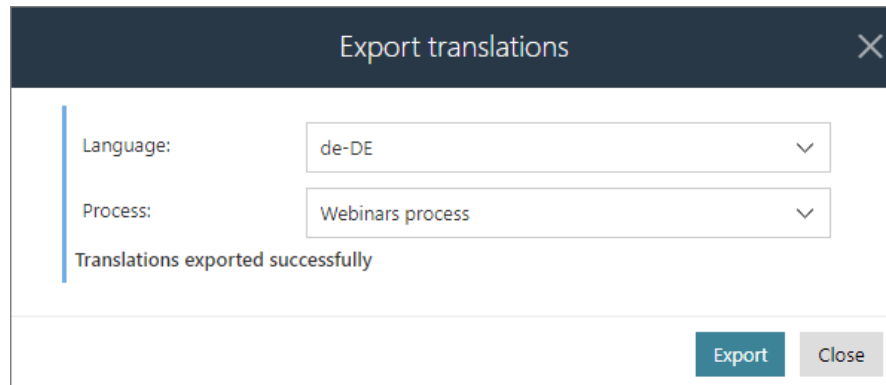


WEBCON BPS Portal

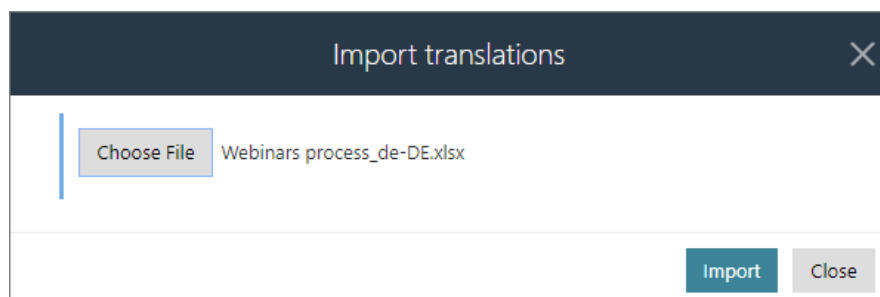
Administrator of an application can also export its translations from Portal. This can be done by clicking on the icon right next to the profile picture and selecting **Translations** and then **Export** from the drop-down menu.



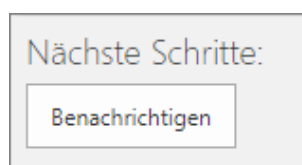
The **Translations** window will then appear, and after confirming the export, an .xlsx file with translations will be saved to the default location on disk.



You can import the file with completed translations by selecting **Translations** → **Import** from the menu and choosing the relevant MS Excel document.



After successfully importing the file and changing the language of Portal, you can see that the item names have been changed according to the translations you entered.

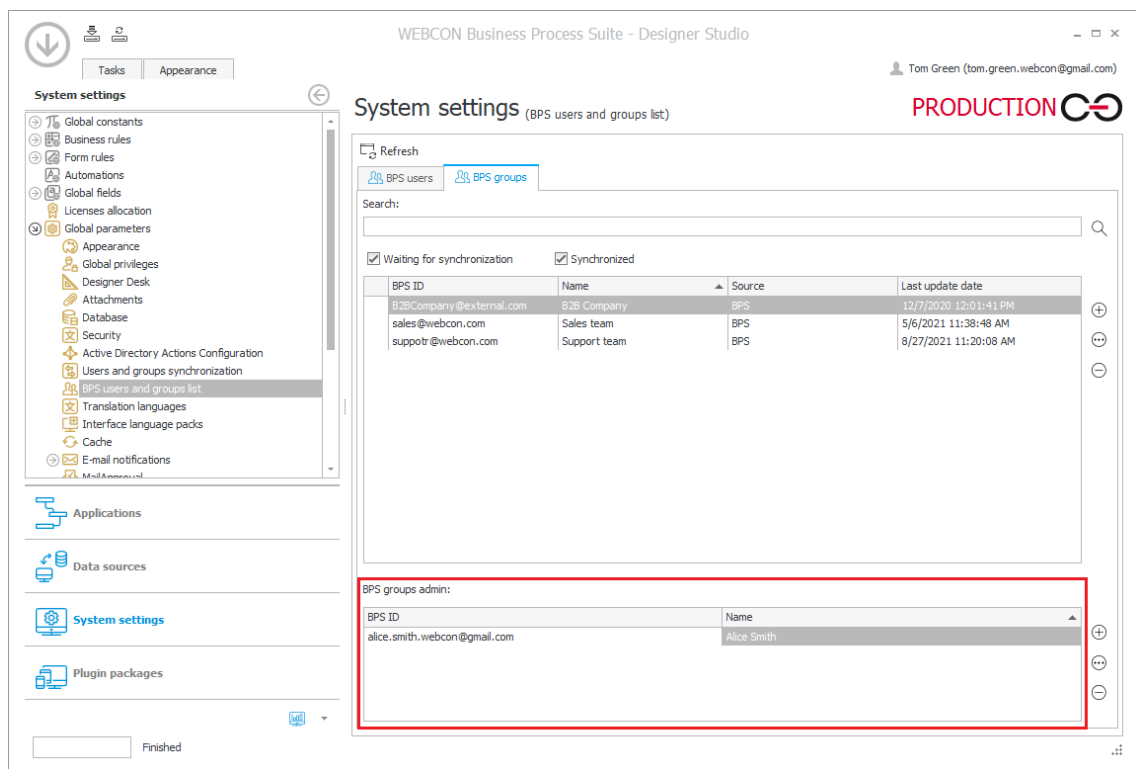


5.9. Privileges to manage BPS groups

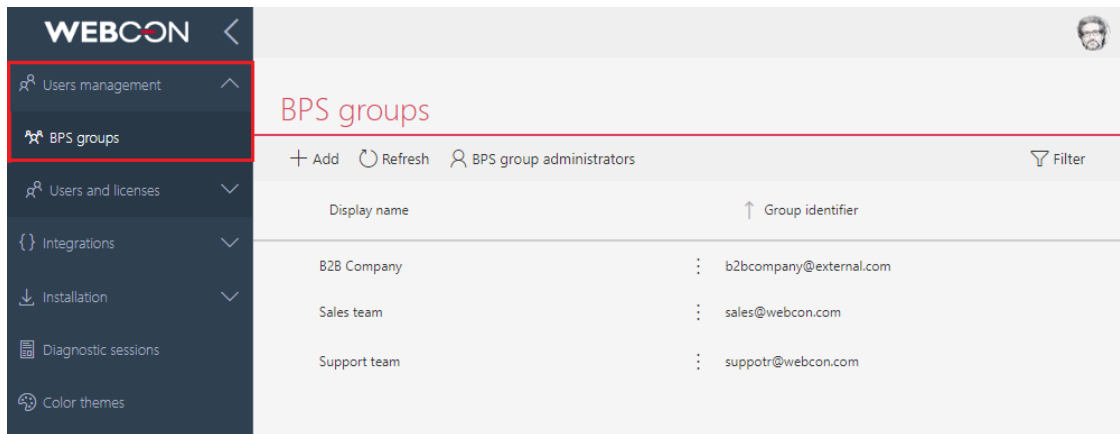
WEBCON BPS has been enhanced with a new mechanism that allows users with no global administrator privileges to manage BPS groups. Expanding the system with additional roles of **BPS groups administrator** and **BPS group owner** constitutes a significant change in this regard.

BPS groups administrator

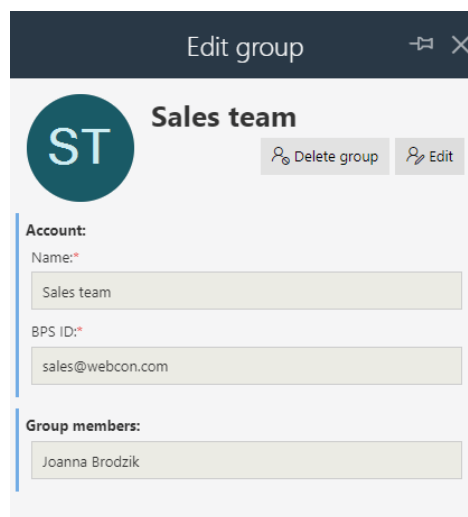
This privilege is granted to individual users by the system administrator. BPS group administrators can be added by selecting **System settings** → **Global parameters** → **BPS users and groups list** and opening the **BPS groups** tab in WEBCON BPS Designer Desk.



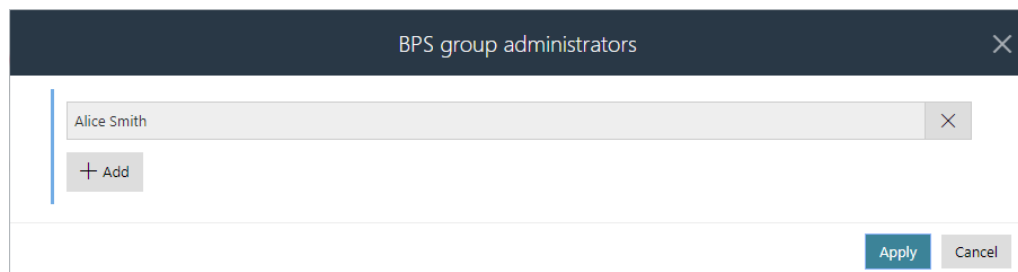
A user who has been granted that privilege can freely manage BPS groups from WEBCON BPS Portal. This is possible by going to the **Admin Panel** and selecting the node **User management** → **BPS groups**.



BPS group administrator can add, delete, and edit new/existing groups. All they need to do is click on the desired group or select the **Add** button from the top menu.



Only system administrators can view BPS groups administrators via the dedicated control in the top menu. They can also add new BPS groups administrators from here.



Any changes in this regard are directly visible in WEBCON BPS Designer Studio after the synchronization and refreshing the window.

BPS group owner

In the context of a BPS group, the ability to define not only its administrator, but also owner has been added. The group owner can edit the group (e.g. rename it), add and delete its members, add more owners, but – unlike the administrator – they cannot create or delete groups.

Group owner configuration is available from the aforementioned **BPS groups** tab in WEBCON BPS Designer Studio. Any system user can be granted this privilege.

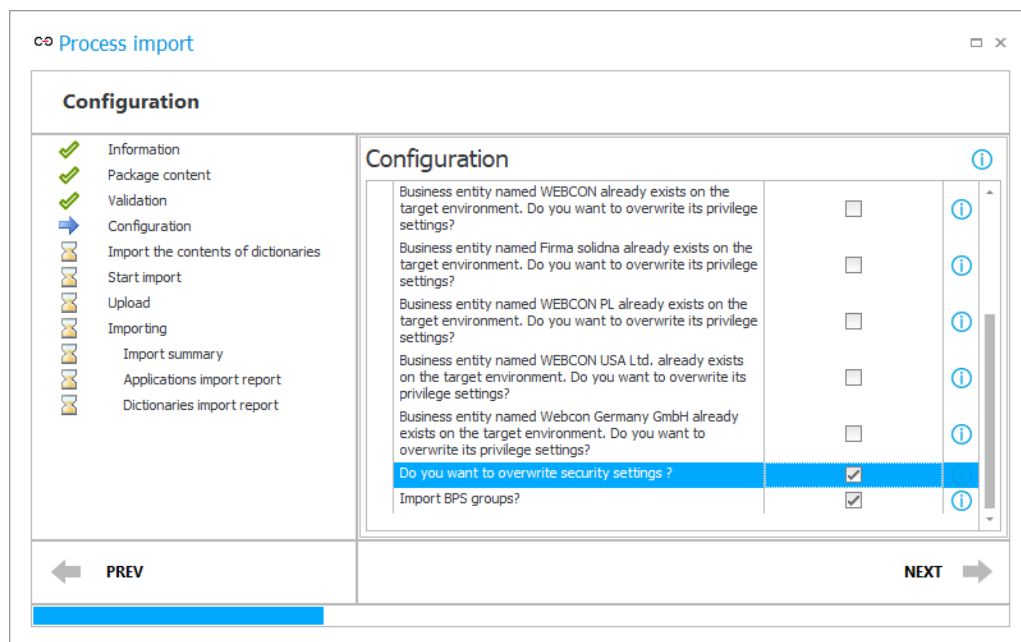
BPS group owner can also be defined by system administrator or BPS group administrator from Portal. This configuration is available by following the path: **Administration** → **User management** → **BPS groups**. The Group owner will be the person indicated in the corresponding section of the **Edit group** window.

Exporting/Importing BPS group owners

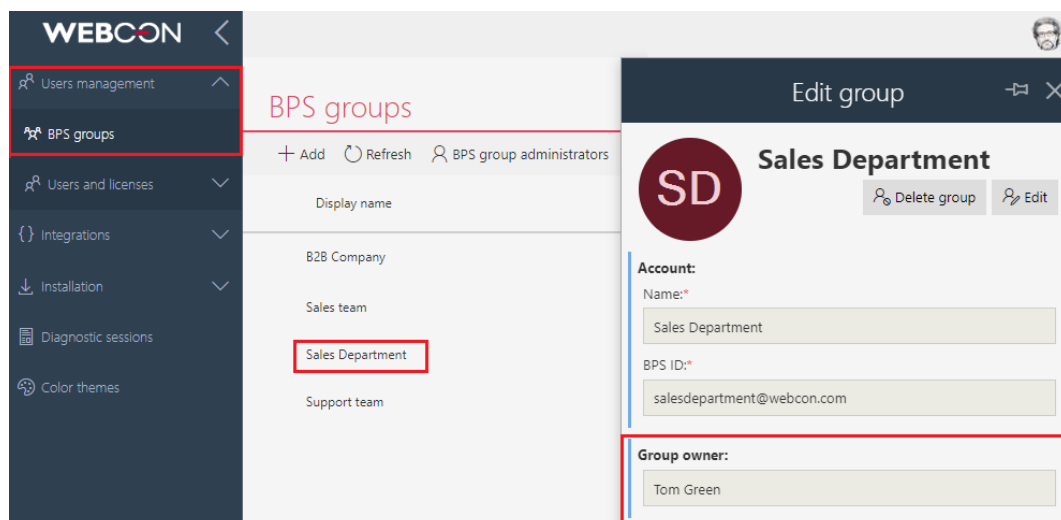
One of the new features is the possibility of exporting and importing **BPS group owners**.

If a BPS group has certain privileges to a process, and such a process is exported and subsequently imported into the target environment, information about the BPS group, including its **Owner**, will also be transferred.

For this to happen, the following two boxes must be checked in the dedicated wizard: **Do you want to overwrite security settings?** and **Import BPS groups?**.



Once the process has been correctly imported in the target environment, the imported group will appear in WEBCON BPS Portal under **Admin Panel** → **Users management** → **BPS groups**, along with information about its **Owner**.

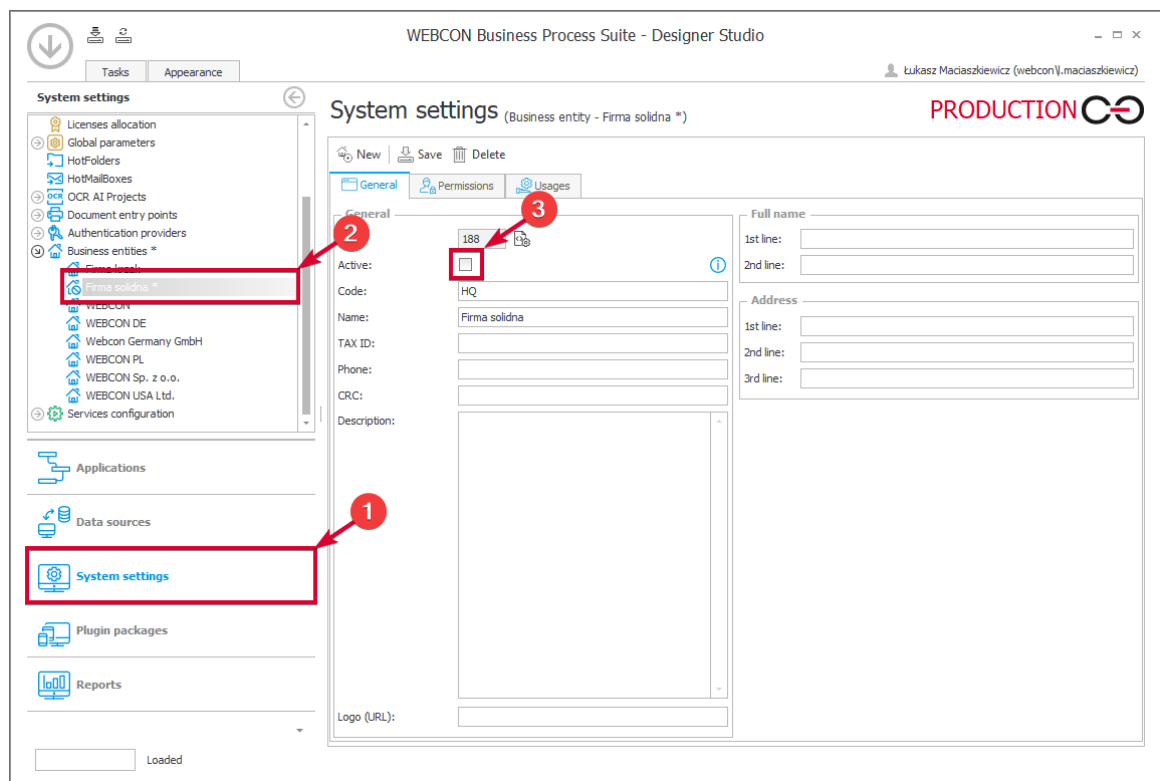


Note: information about **BPS group members** is not imported into the target environment, even if these members were previously defined.

5.10. Setting business entities inactive

The WEBCON BPS 2023 version introduces deactivation of business entities with registered instances in the system. Following deactivation of an entity in the **Designer Studio** or **Portal** configuration, the entity is no longer shown in suggestions, including in the expression editor. This means that e.g. it is not possible to start a new workflow for such an entity.

You can deactivate an entity in Designer Studio by unchecking the “Active” checkbox (the **System settings** section → the **Business entities** item in the selection tree → business entity name → the **Active** checkbox). This also entails changing the icon of the business entity in the selection tree.



A table grouping information on entities is added to the “Business entities” node (the **System settings** section → the **Business entities** item). The table also includes the **Active** column informing whether an entity is active or not.

Drag a column header here to group by that column

ID	Name	Code	TAX ID	CRC	Active
1	WEBCON Sp. z o.o.	HQ			<input checked="" type="checkbox"/>
17	WEBCON DE	HQ			<input checked="" type="checkbox"/>
94	WEBCON	HQ			<input checked="" type="checkbox"/>
188	Firma solidna *	HQ			<input type="checkbox"/>
189	WEBCON PL	HQ			<input checked="" type="checkbox"/>
190	WEBCON USA Ltd.	WEBCON USA			<input checked="" type="checkbox"/>
191	Webcon Germany GmbH	WEBCON DE	676-001-65-53		<input checked="" type="checkbox"/>

Information on deactivation is transmitted via the import-export mechanism.

5.11. Changing the width of Item list and Data table columns

Users can now dynamically change the width of **Item list** and **Data table** columns. To do so for a selected column, place the mouse cursor on the right side of its header – a vertical dash will appear there, which can be dragged to the left or right, decreasing or increasing, respectively, the column width.

Invoice items *

ID	Product/Service	Quantity	Unit	Price	Net amount	VAT	Gross amount
1				PLN	0.00 PLN	23.00 %	0.00 PLN
Total					0.00 PLN		0.00 PLN

+ Add

Changing the width of the selected column affects the width of all columns to the right of it – they are proportionally narrowed or widened. The width of the remaining columns (on the left) is effectively blocked, i.e. it is fixed.

If the change in width is significant and there is not enough space on the form, a horizontal scroll bar appears below Item list or Data table.

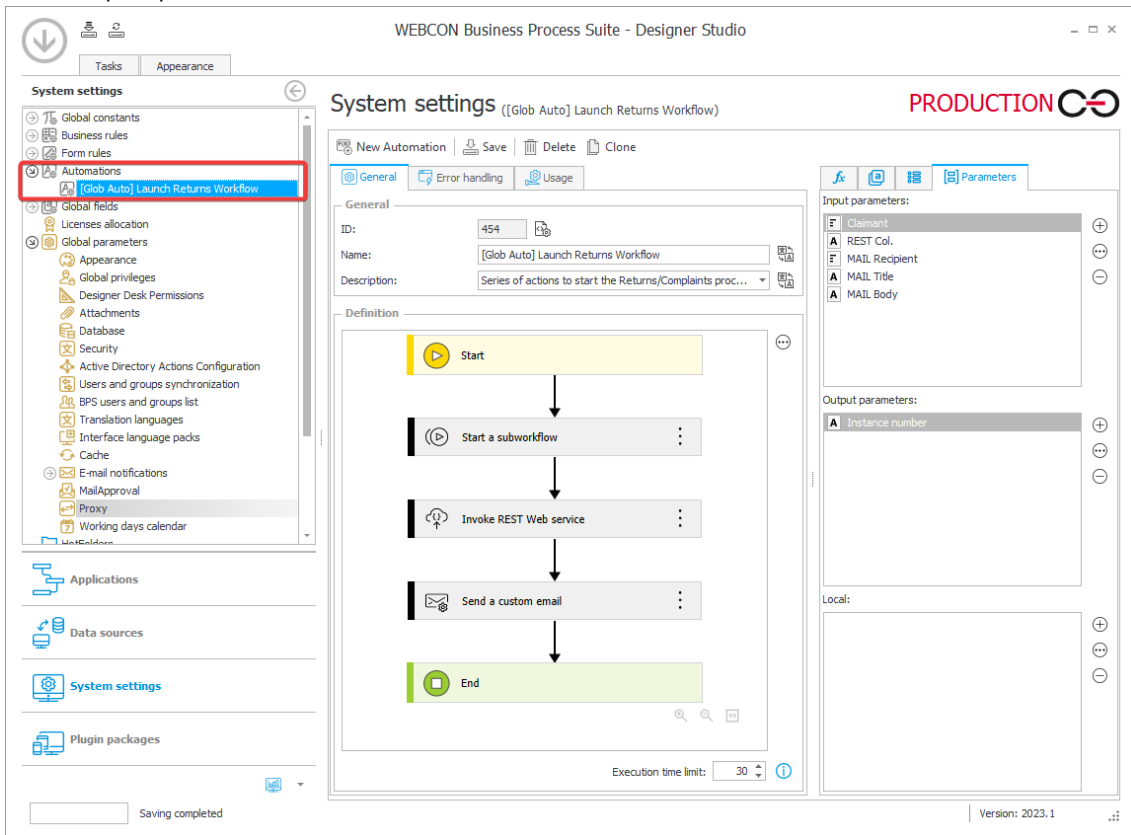
Invoice items

ID	Product/Service	Quantity	Unit	Price	Net amount	VAT	Gross amount
1	Cleaning services	4	hour	200.00 PLN	800.00 PLN	23.00 %	984.00 PLN
Total					800.00 PLN		984.00 PLN

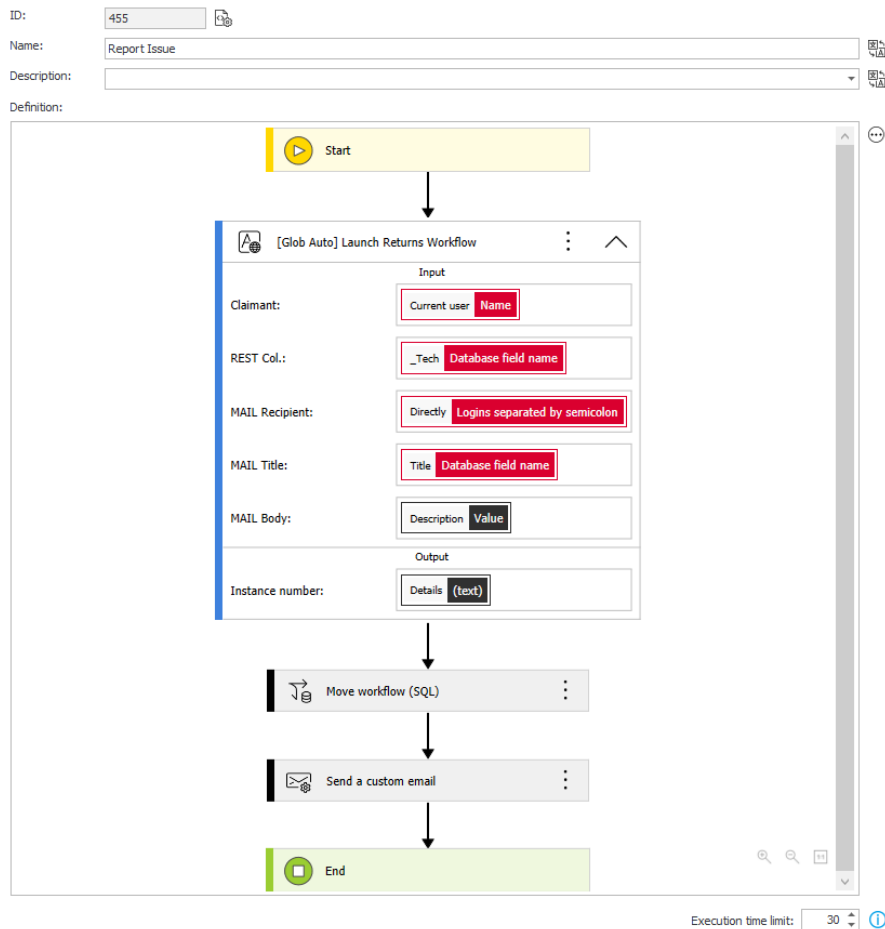
This feature is only available for non-mobile devices and works in both edit and read-only modes, but width changes made are not saved and reset when the form or browser window is refreshed.

5.12. Global Automations

Added the ability to create **Automations** in the **System settings** that can be used in multiple processes.



From the process configuration level, the global Automation configuration cannot be modified. However, automation parameters can be used to map specific values from the process (e.g. values of form fields) to parameters used by actions of the automation.



The global automation cannot use process constants/rules.

The **Change items list values** action is unavailable.

The **For each** operator may not refer to item lists.

5.13. Containerization of WEBCON BPS

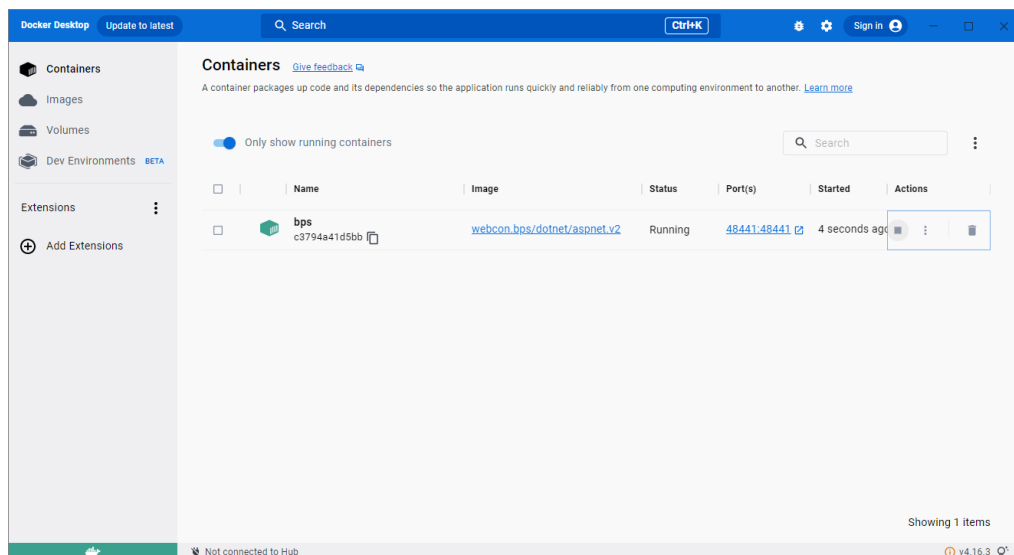
The latest release comes with an option to containerize selected WEBCON BPS components. With the new feature, it is possible to prepare images and create **isolated runtime environments** (containers) for the integral parts of WEBCON BPS: Portal, Search Server (Solr), and Workflow Service.

Containerization is an alternative to the standard installation of WEBCON BPS, where independent containers are created for each of the three system components. As a result, users will be able to operate the system on any infrastructure.

Containerized Portal

The introduced feature allows to prepare WEBCON BPS Portal images and then run them in a dedicated container. The solution is performance-driven and is particularly applicable when using cloud services that have ready-made mechanisms to support containerization.

Creating a locally running instance of Portal images reduces the amount of resources used, making it "lighter" comparing to multiple hosts or multiple virtual machines. The advantage in this case is the **increased scalability of the system** – the container will act as an additional node taking over some of the load that previously rested only on the host machine. If the load is smaller, the number of Portal containers used can be limited.

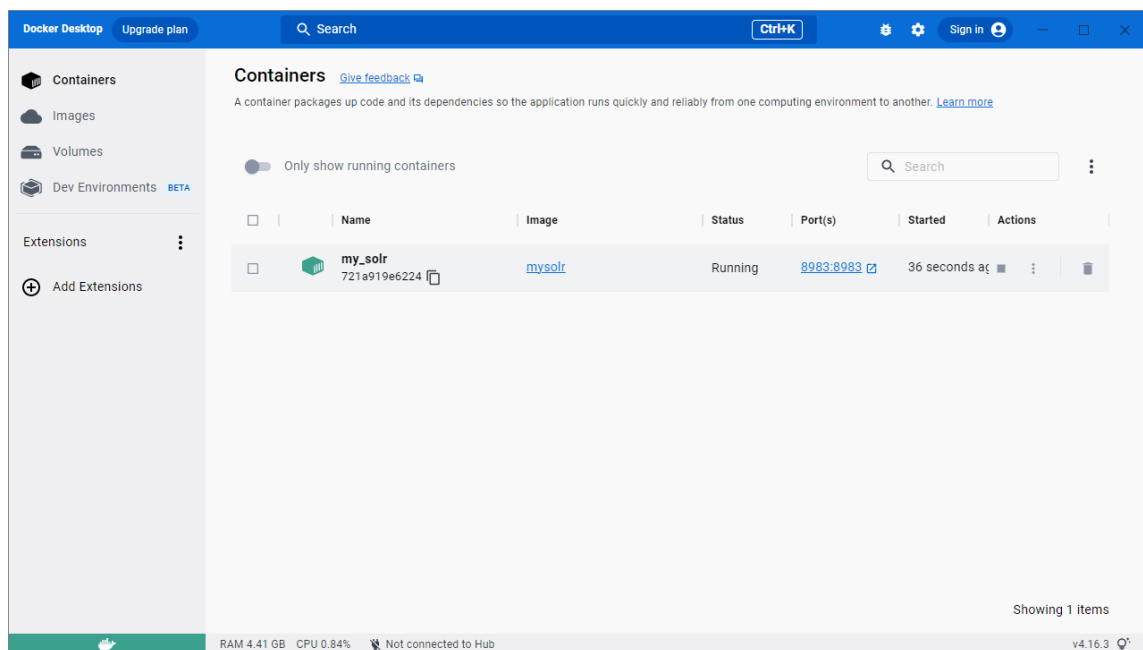


Preview of a running WEBCON BPS Portal container in Docker Desktop

Containerized Solr

A similar containerization mechanism has been provided for the Apache Solr search platform – user downloads the image and runs it in a container. For Solr, the official image is available in the Linux version.

When it comes to index storage, containerization affects only the engine of the Solr database on which WEBCON BPS is based, and in principle, container is a non-persistent object. Therefore, it is important to ensure that data is not lost when the container is disabled. In Docker, this is ensured by the Docker Volume component that allows to create dedicated volumes responsible for storing data generated and used by Docker. Using this solution to store index files guarantees the correct operation of Solr in the created container.

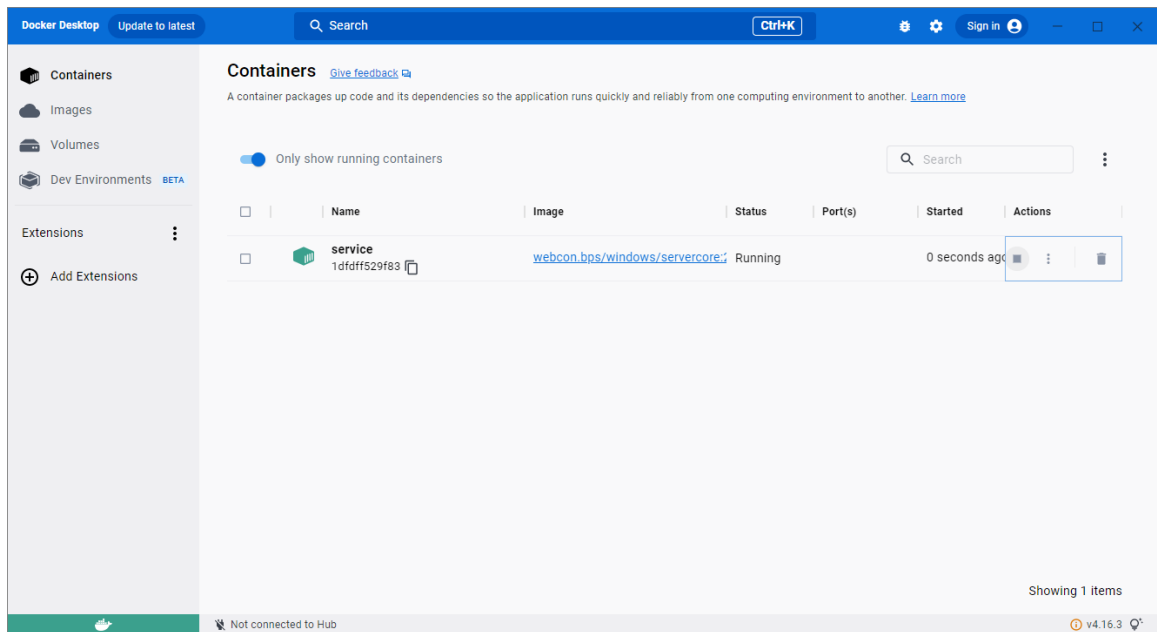


Preview of a running SOLR container in Docker Desktop

Containerized Workflow Service

The containerization process has also been extended to WEBCON BPS Workflow Service, with the option to indicate configuration data. Using the appropriate parameters, users create an image of the service, build a container, and run it, so the installer stage can be skipped. This solution enables efficient handling of network traffic – it can be used in conditions of increased demand for resources. The number of service containers created depends on user preferences and the number of system licenses held.

However, note that Workflow Service in a container works only on the basis of communication with Portal, through a dedicated certificate.



Preview of a running Workflow Service container in Docker Desktop

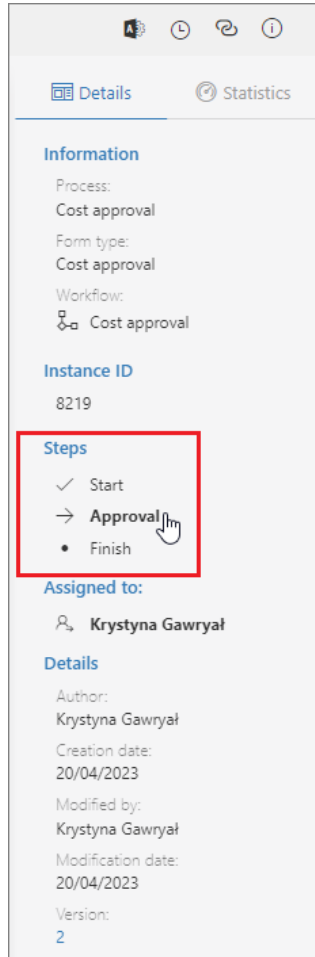
All containers are isolated from each other, but they can communicate, as each of them constitutes an integral part of one system. Additionally, depending on users' needs, it is possible to containerize only selected elements of the platform in any combination.

Note: work with WEBCON BPS elements in containers is possible only for users with subscription licenses. Starting another container will involve the use of another license. If the container has been properly disabled, the license is released. A report on the licenses used is available in WEBCON BPS Designer Studio. **Note also that external authentication provider, such as Azure Active Directory or OpenID Connect, is required as Windows authentication provider is not working in containers.**

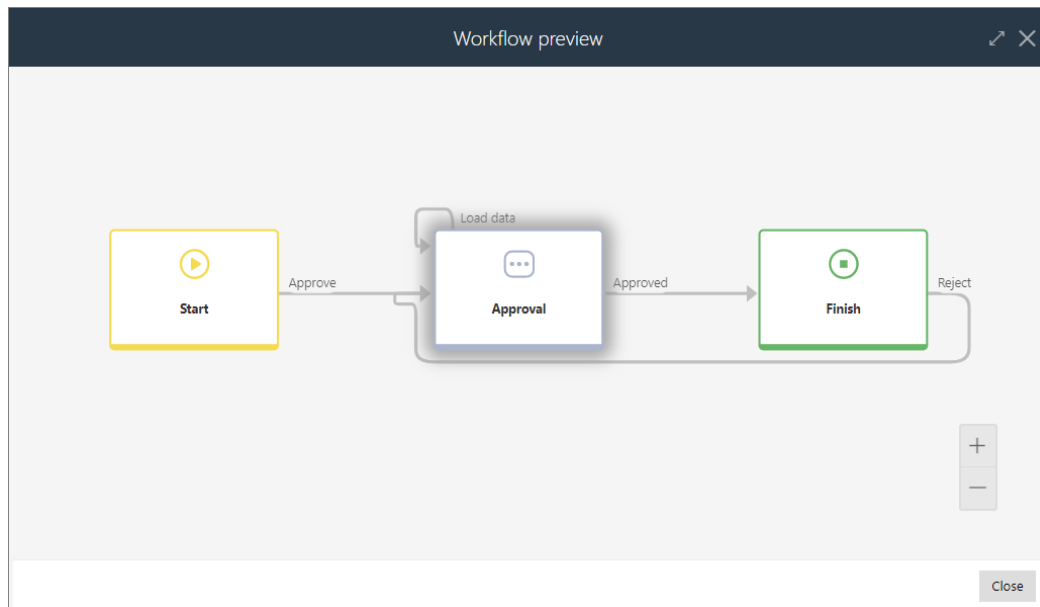
Detailed information on how to create images and containers of individual WEBCON BPS components can be found on our technical blog.

5.14. Workflow preview from the Information panel

Introduced the ability to preview the workflow diagram from the **Information panel**. By clicking on the name of a selected step, user working with a form can now check the layout of workflow steps and paths.



A window is then displayed with a preview of the workflow which can be scaled and moved as desired using the available buttons.



The current step of the workflow is additionally highlighted on the preview.

The functionality is available in Portal after checking the appropriate boxes of the new option **Workflow diagram preview** in the **Standard areas** tab of the **Field matrix** in WEBCON BPS Designer Studio.

Save & publish process

Global form template | **Field matrix** | Behavior

Form type filter: All

Filter by form field name:

Top panel | Left panel | Right panel | Bottom panel | **Standard areas**

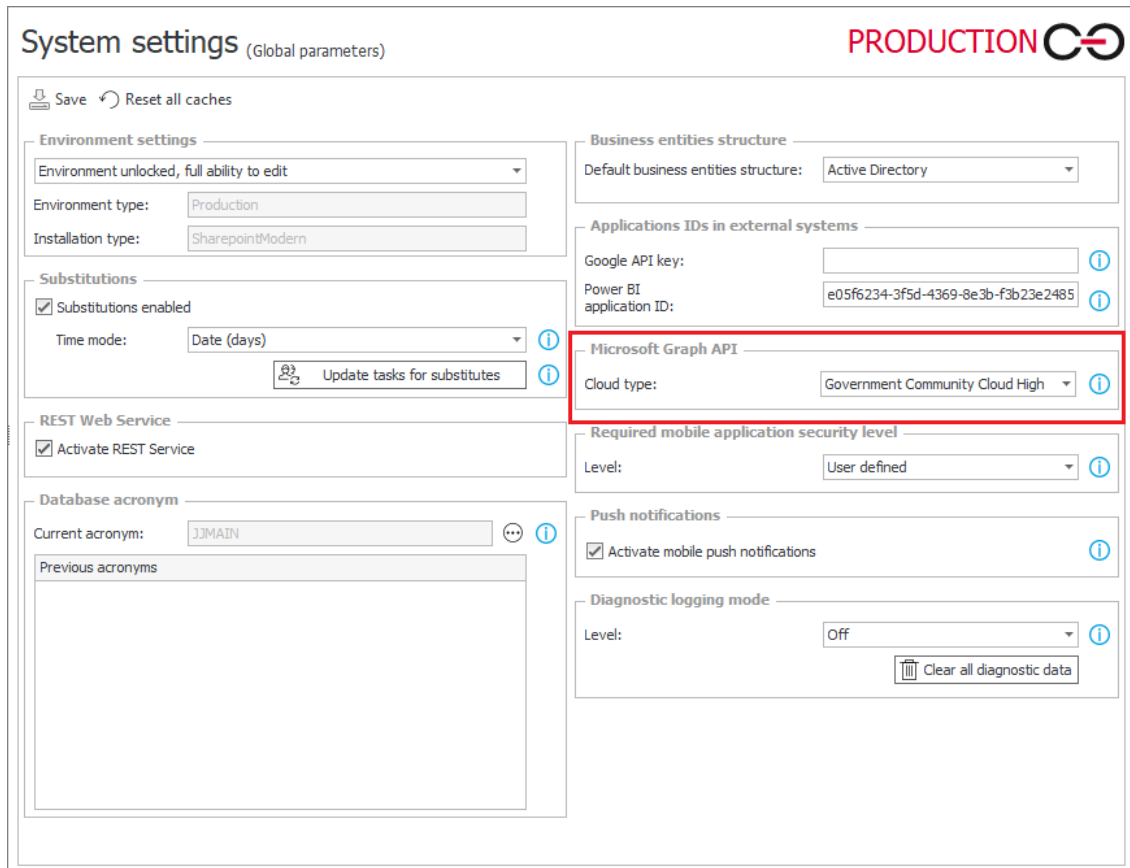
Areas	Start	Approve	Finish
Areas			
Status panel	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Information	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Element ID	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Steps	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Details	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Assignment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Parent instance	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Subworkflows	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Process supervisor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
User manual	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Workflow diagram preview	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CC tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Form menu			
New	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Save	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Delete	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Refresh	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Path list	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delegate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If the form is in a step for which the availability of a workflow preview has not been selected on the Field matrix, this preview will not be available for any of the steps in that workflow.

5.15. Azure Microsoft Graph – GCCH support

WEBCON BPS can now be integrated with the Government Community Cloud High (GCCH) environment of the Azure AD for US Government national cloud.

The **Global parameters** node in the **System settings** has therefore gained a new section that allows for selecting the supported **Cloud type**, and thus the associated **Microsoft Graph API** parameters of standard system functionalities that use connections to Azure Microsoft Graph.

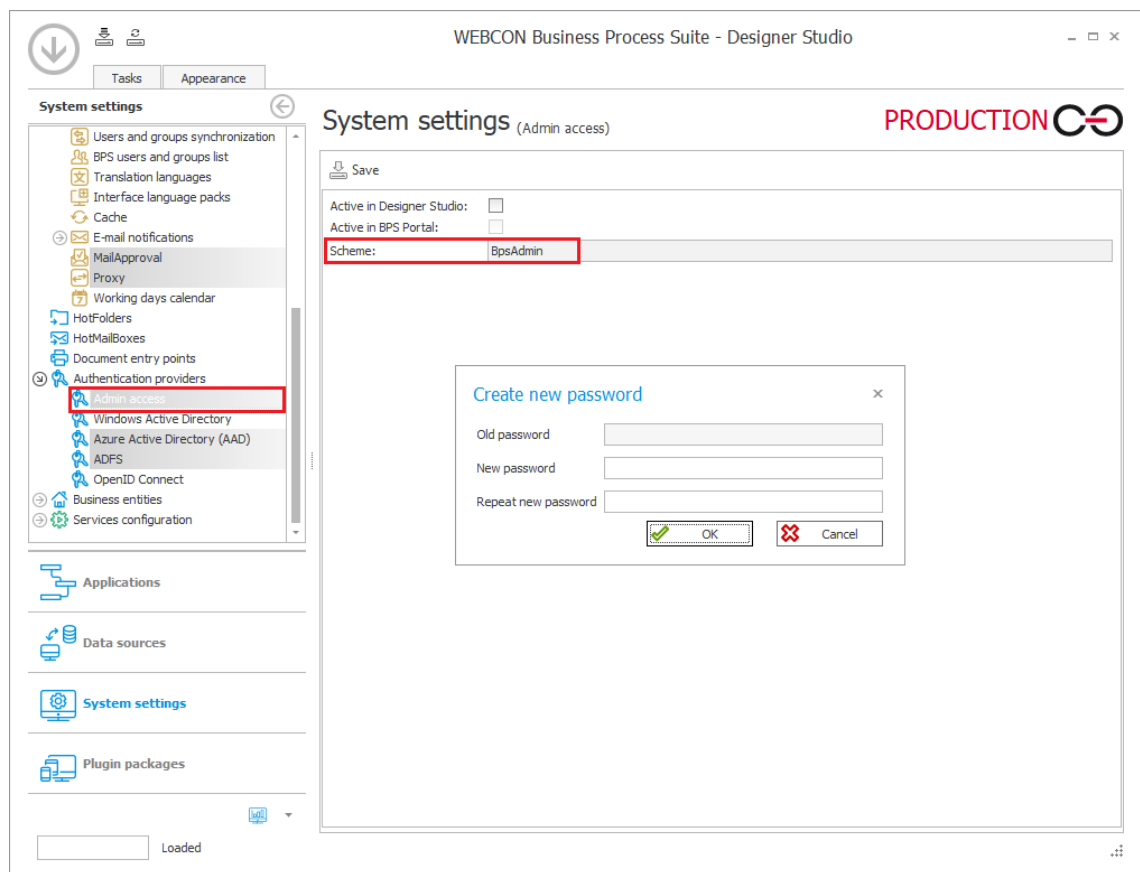


5.16. New authentication provider – Admin Access

WEBCON BPS has a new authentication provider, **Admin Access**, that enables logging in to an account with global BPS administrator privileges right after the system installation in order to complete the configuration of the environment. The global administrator can then configure system settings, but does not have privileges to modify applications and processes.

The provider credentials are defined during system installation. Once a new environment is installed, Admin Access running in the **BpsAdmin** scheme is the default authentication provider. Logging in based on such credentials is also recommended in case of emergencies and unexpected system errors.

The configuration parameters of the Admin Access provider can be changed in WEBCON BPS Designer Studio under **System settings** → **Authentication providers** → **Admin access**.



5.17. Performance indicators

Added configurable **Performance indicators** that are used for timekeeping various tasks in the workflow.

The time is calculated based on actions that start and stop the calculation of an indicator. This allows the indicator to encompass any number of steps.

Indicators are licensed based on WEBCON Advanced Analytics Framework.

Configuration

Indicators themselves can be created the **Configuration** node of each **Process**.

The main parameter of each indicator is its **Operating mode**, which determines how the time is tallied:

Calculate based on calendar days, Calculate based on working days, or Calculate based on rule.

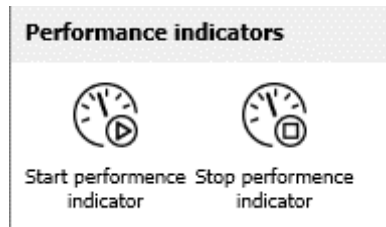
For **Calculate based on working days**, it is possible to establish what working hours will count towards the indicator. The working days themselves are configured using the **Working days calendar** in the **System settings**.

For **Calculate based on rule**, the value returned by the rule will be the final value of the indicator. The rule editor contains several additional variables to aid this calculation.

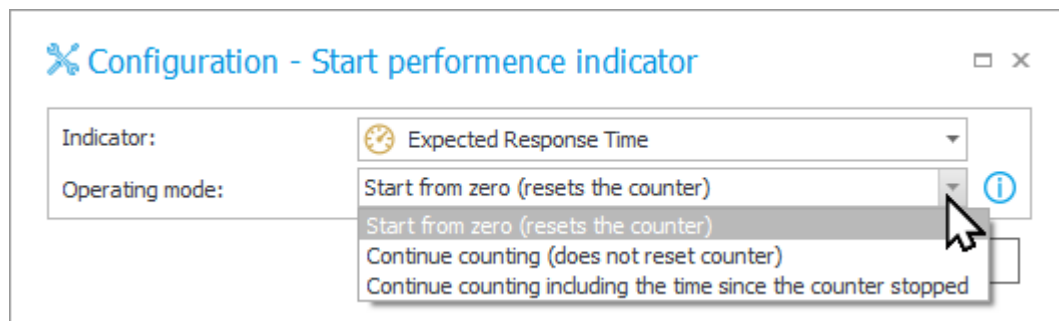
The screenshot displays the configuration interface for a new performance indicator. At the top, there are action buttons: 'New performance indicator', 'Save & publish process', 'Delete', and 'Clone'. Below these are two tabs: 'General' (selected) and 'Usage'. The 'General' section includes an 'ID' field with the value '-3', a 'Name' field with 'Expected Response Time', and a 'Description' field with 'We are expected to respond to a ticket within 48 hours'. There is an 'Archived indicator' checkbox which is unchecked. The 'Parameters' section features an 'Expected value' dropdown set to '02d : 00h : 00min' and an 'Operating mode' dropdown menu currently open, showing options: 'Calculate by calendar days', 'Calculate by working days', and 'Calculate by business rule'. The 'Working time on a work' section has two checkboxes for 'Work start time other than default' and 'Work end time other than default', both unchecked. Below these are 'Start hours' (09:00) and 'End hours' (17:00) dropdowns. The 'Indicator calculation business rule' section is a large empty text area. At the bottom, there is a 'Working day length' dropdown set to '00d : 00h : 00min'.

Actions

To determine what steps are to be included in the performance indicator, two new actions were added: **Start performance indicator** and **Stop performance indicator**.



The action configuration determines which indicator is affected by it.

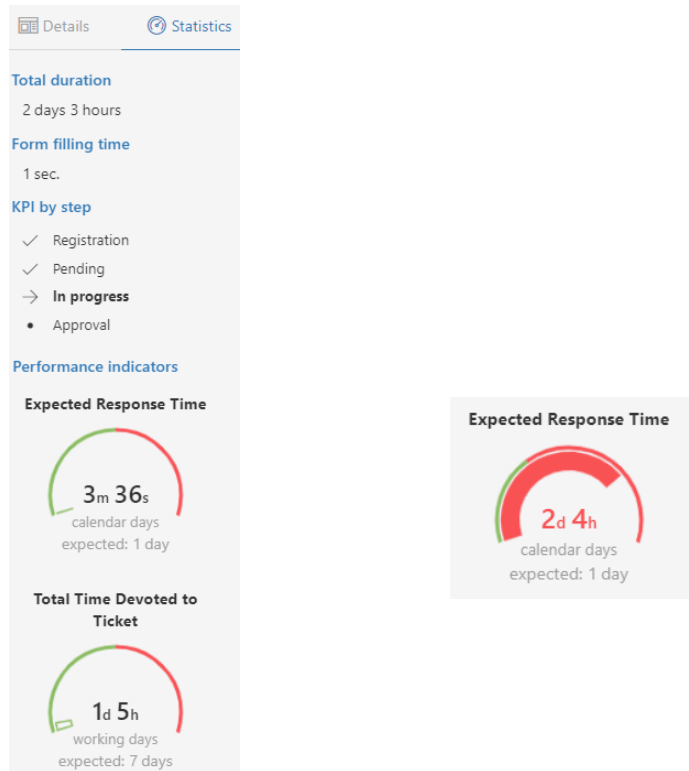


For the Start performance indicator action, it is possible to define its Operating mode: Start from zero, Continue calculating, or Continue calculating while considering elapsed time.

The second and third option allow a stopped indicator to be resumed.

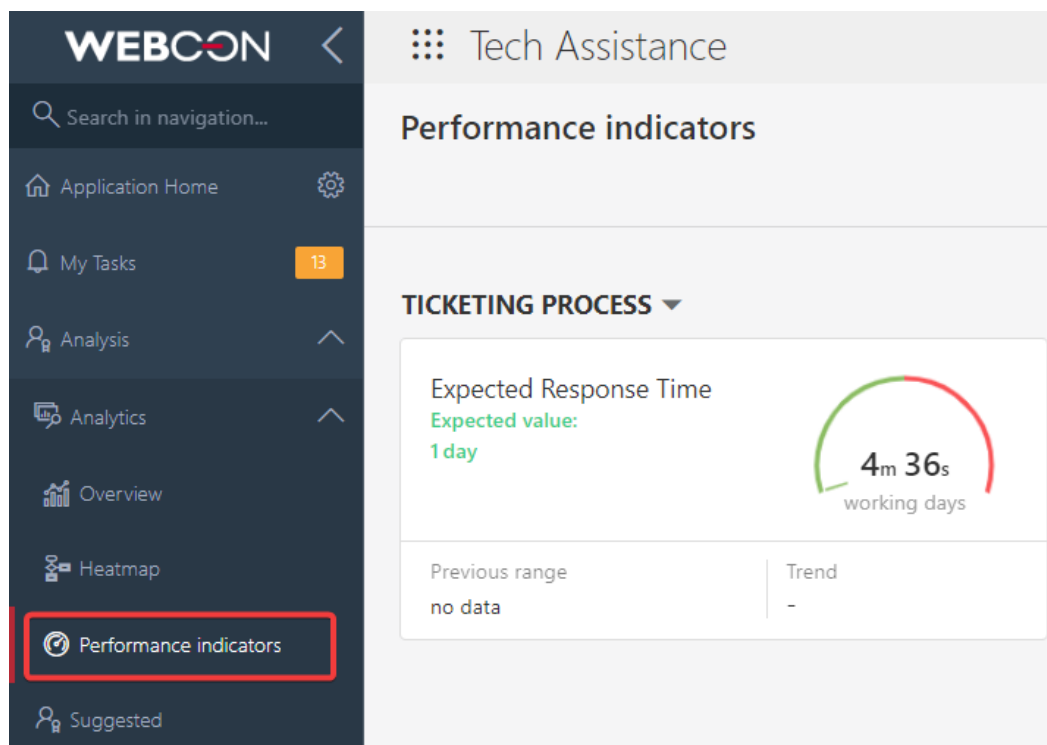
Presentation

While the configuration of the indicator and placement of actions enable accurate and flexible timekeeping, the presentation of this collected data is key. Indicators are presented in a new **Statistics** tab in the **Information panel** on each workflow instance.

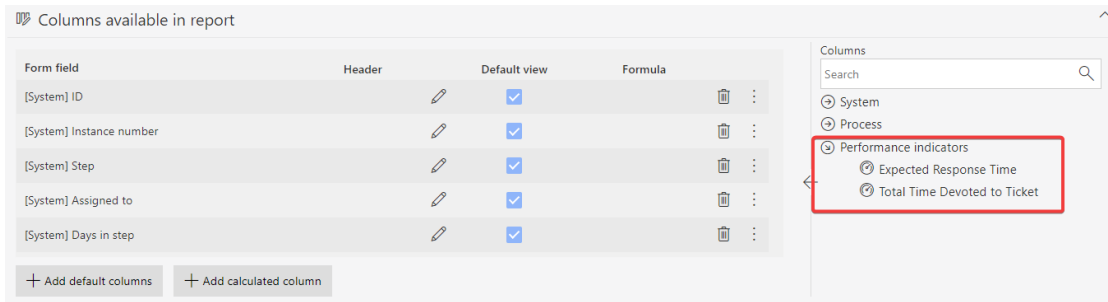


The dial represents the elapsed time as a proportion of the calculated time to the expected time configured in the indicator.

Performance indicators can also be found in the **Navigation** panel on Portal, in the **Analysis** section.

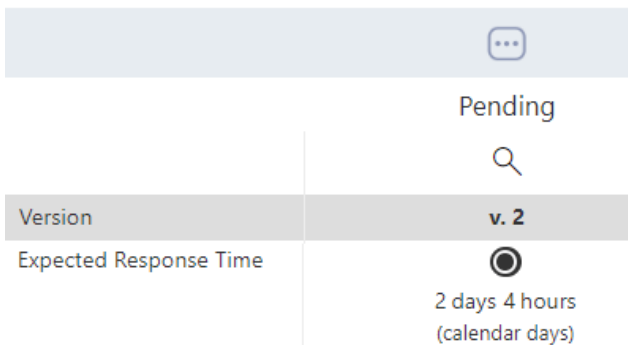


Configured indicators may also be placed on **Dashboards**, and indicator columns can be added to **Reports**.



Configured performance indicators will appear in the **Instance history**. These will be show differently depending on if the calculation is ongoing, was paused and restarted, or has finished.

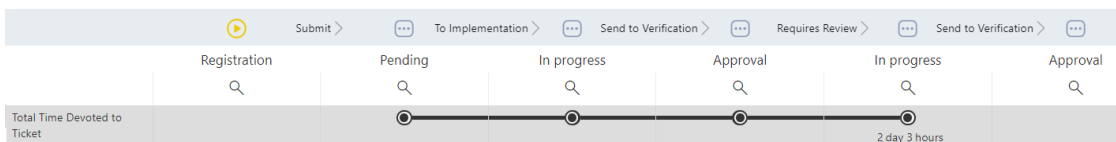
History showing time in one step:



History showing ongoing indicator:



History showing time across multiple steps:



5.18. Visibility of action columns when editing a form

Action columns are now always visible when the form is edited, irrespectively of the width of the other **Item list** columns and the presence of a horizontal scroll bar.

ID	Product/Service	Quantity	Unit	Price	Net amount	VAT	Gros
1	Outsourced accounting services	1	month	6,000.00 PLN	6,000.00 PLN	23.00 %	7,380
Total				6,000.00 PLN			7,380

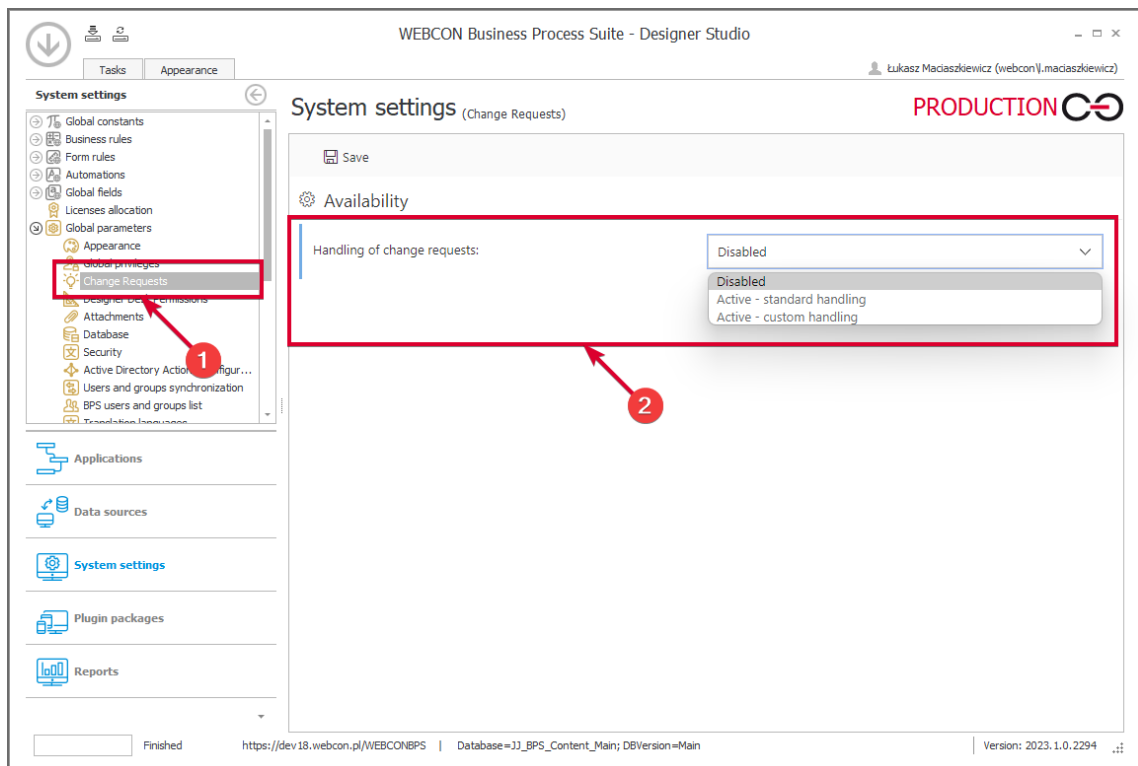
When the browser window resolution is less than 768 px, the action columns are moved to the context menu available under the ellipsis icon.

ID	Product/Service	Quantity	Unit	Price	Net amount	VAT	Gros
1	Outsourced accounting servi	1	month	6,000.			
Total							6,000.00 PLN

5.19. Change requests

The new version of WEBCON BPS introduces change request functionality to involve a broader group of system users in enhancing the system. The new functionality now allows application users to report errors and suggest improvements directly from the **Portal**.

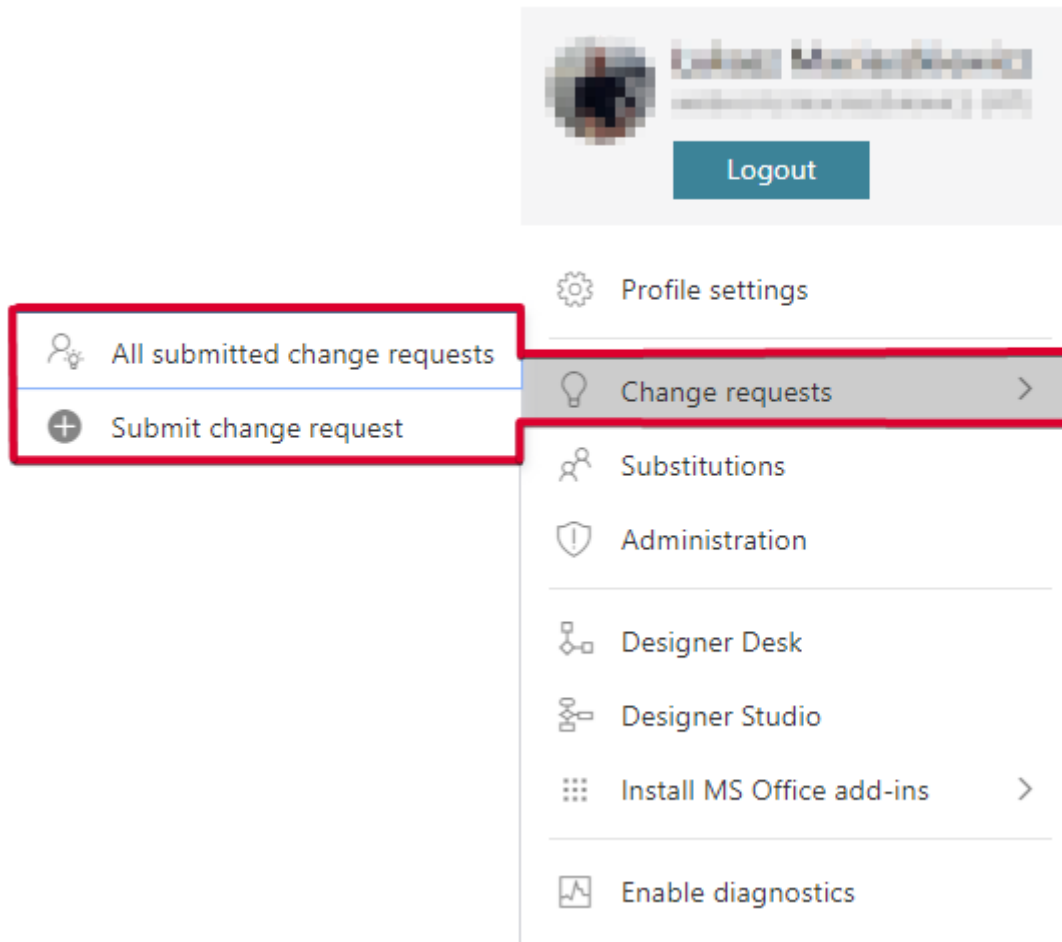
The functionality is available after enabling it in the **Designer Studio** configuration or admin panel in the Portal (it is disabled by default). For this purpose a new item in the Designer Studio's selection tree is created: **Change Requests (System settings → Global parameters → Change Requests)** with three possible options to choose from: **Disabled** (deactivates the functionality), **Active – standard handling** (default setting), or **Active – custom handling** (allows users to specify the address of external form for change requests and use user-created process for collecting change requests).



A new item: **Change requests** is added in the admin panel in the Portal. The item enables changing configuration of change request functionality in the **Handling of change requests** field.

A new **Change requests** node is added to the user menu in the Portal. The node groups two items: **All submitted change requests** and **Submit change request**. The Submit change request option allows users holding access to the application (except for users working in the **Allow to work on behalf of another user**) to send change requests in a new window. Beside the fields allowing for describing the

change request and locate the specific location the change request refers to, the window provides a checkbox **Change request visible to all**. When checked, the request is visible to all users with access to the application. Unchecking the checkbox makes the change request visible only to the administrator and its author.



The All submitted change requests option shows all publicly shared requests along with their status (**Pending, Accepted, Done, or Rejected**). The requests are displayed using paging, with 20 requests per page, and sorted by modification date by default. However, there are other sorting categories available, such as date of creation, status, or user interest. Added the ability to filter change requests by user and application, allowing users to view requests submitted by a particular user or related to a specific application. Additionally, an advanced search function has been added to help locate specific requests more easily.

Added the ability for any user with access to the relevant application to view and interact with publicly shared change requests, including commenting (with the ability to edit or delete comments) and liking (adding or removing likes is considered a request modification). Introduced the ability to copy the link to a change request which can be opened in a web browser window to display the request in full screen. In addition, the request author can edit or remove it provided its status is Reported.

The administrator privileges (system administrator, business administrator, or application administrator) include displaying requests to the application to which they have access, irrespective of the request's visibility set by its author, the ability to edit its status, changing the request availability, and deleting comments and the request itself irrespective of its status. An added option now allows the registration of additional requests based on change requests to the Designer Studio configuration (**Allow registering external requests**). This option enables the administrator to easily register requests that are based on existing change requests.

An identical mechanism of reporting change requests is implemented in **Designer Desk**. In this case, the functionality can be accessed – after entering a specific prototype – through a new node: **Change requests** added to the navigation menu. The node groups two previously mentioned options: **All submitted change requests** and **Submit change request**. A list of requests contains only changes requested within a specific application.

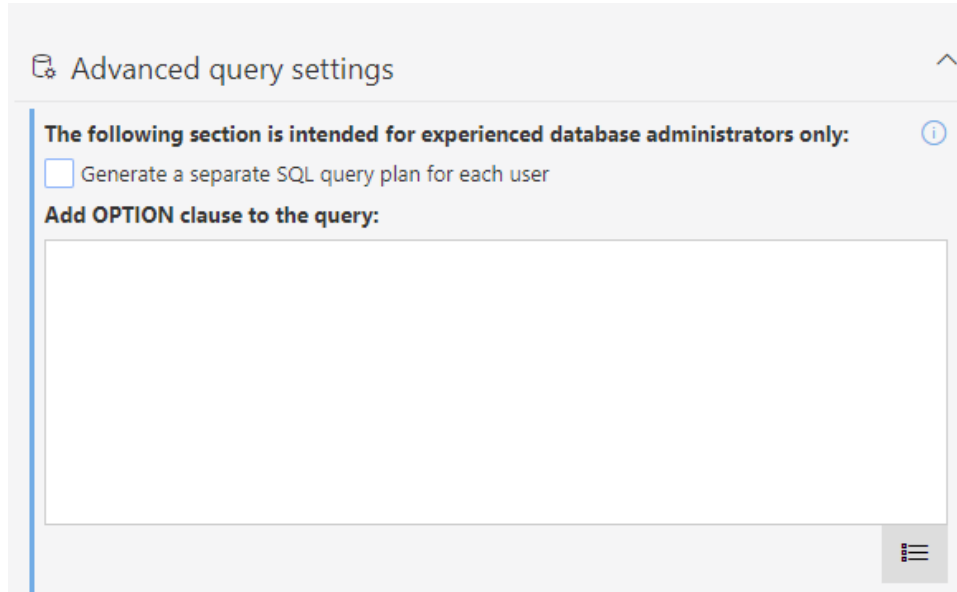
5.20. General

- A solution supporting the OpenTelemetry standard has been introduced, which greatly facilitates monitoring and diagnostics of the system (WEBCON BPS Portal and WEBCON BPS Workflow Service).
- Added a report for managing WEBCON BPS licenses. It is available in the **System settings** under **License allocation** and from Portal level in the **Admin panel** under **Users and licenses**.

Display name	User identifier	Unlimited Solutions Access	Single Solution Access	Designer Desk Access	Designer Studio Access	Type
Danny Ings	danny.ings@webcon.pl	<input type="checkbox"/>	2 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Defined - External User
Eve Mendes	eve.mendes@webcon.pl	<input type="checkbox"/>	0 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Defined - External User
Isabel Green	isabel.green@webcon.pl	<input type="checkbox"/>	0 1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Defined - External User
John Doe	john.doe@webcon.pl	<input checked="" type="checkbox"/>	0 1	<input type="checkbox"/>	<input type="checkbox"/>	Defined - External User
		1/10	3/5	2/5	2/5	

5.21. Portal

- **Reports** can now have the ("OPTION(...)") clause added to the query.



Added the ability to execute the SQL query with a hash unique for each user, which allows for more optimal query plans to be saved to the SQL server (excluding KPI reports).

5.22. Actions

- Added the ability to send attachments exceeding 3 MB in e-mails sent via MS Graph.
- The **Invoke REST Web service** action now has the option to handle empty values.
The **Empty values** column will replace the old **Required** column, and has the following three options: **Skip**, **Send**, and **Return error**.
When updating to the newest version, in order to maintain backward compatibility, fields that were previously required will now automatically be set to **Return error**. Fields that are not required will be set depending on their data type: simple type to **Send**, complex type to **Skip**.

5.23. Data sources

- A new option named **Validate Connection** was added for **Oracle database** connections.
Toggling this checkbox will add the "ValidateConnection=true" parameter to the Oracle connection string.
Thanks to this, connections from the connection pool will be validated before being used. In cases where the connection is lost (e.g. through proxy) it will not cause an error, but a new connection will be opened

instead.

- In **REST Web Service** connections, added Basic to the available authentication types.

Added handling of errors when querying the REST source.

Added notifications for users allowing them to search for error details by GUID.

Added new operation types for REST invocations (Get_with_body, Delete_with_body).

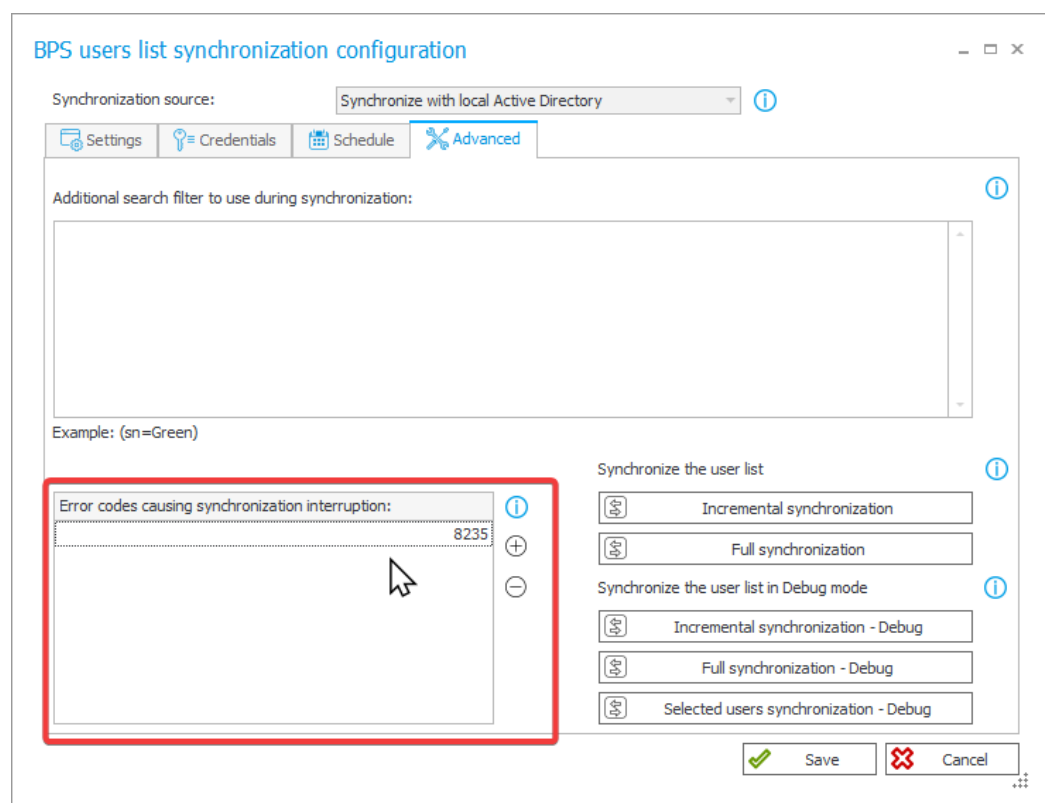
Choosing one of these types allows the request body to be sent in JSON format, like for other types.

5.24. Service

- Added the ability to define a list of all error codes that will interrupt the user synchronization.

All other error codes will not interrupt the user synchronization – it will be completed, albeit with errors (information about them will be included in the log).

Full list of error codes can be found here: <https://learn.microsoft.com/en-US/windows/win32/debug/system-error-codes--8200-8999->



- Introduced the ability to run WEBCON BPS Workflow Service on a non-domain account (in non-UPN format). Communication with WEBCON BPS Portal in this case will be based on a generated certificate. The recommended format for the service account name is netBios.
- A global **ExchangeSynchronbpUrl** parameter has been added to the configuration database, which stores the URL used for Workflow Service to retrieve exchange rates from the National Bank of Poland.

5.25. Designer Desk

- **Menu button** actions in Designer Desk can now be dragged and dropped between button groups.

5.26. API & SDK

- Added the **isFinished** property (informing whether an instance is in an end step) to the `/api/data/{ver}/db/{dbld}/elements/{id}` endpoint in API 4.0 and Beta.
- BaseField expanded with FieldType property: FormFieldTypes.
BaseColumn expanded with ColumnType property: FormColumnTypes.
- API version 5.0 and beta now include two new modes for passing choice field values: Search and SearchAndSetTargetFields. They are used for finding an exact match in the configured columns and setting the value of the choice field.
- Added the ability for form fields in **Read-only (editable by JavaScript)** mode to be edited through the API – endpoints `get /elements` and `get /formlayout` can now differentiate and return the two types of Read-only.
- Expanded endpoint `/api/data/beta/db/{dbld}/formlayout` in API version 4.0 and higher.
Added the **dbColumn** property which returns the field name from the database, and the **editability** property which returns information about field editability.
- In version 3.0, REST API has an extended model of BPS group endpoints to assign (**POST**) and return (**GET**) a list of owners of a given group.

On the other hand, version 4.0 of this very architecture has been upgraded to include **group/owners/remove** endpoints which are used to add and remove owners of a given BPS group.

- Added API version 5.0.
Removed version 2.0, while version 3.0 was marked as outdated.

- Added TemporaryEntitiesManager – used for storing data in between multiple action executions.
- Introduced the asynchronicity in SDK API methods and replaced static tool classes with instance classes. Details of the changes made will be available in the migration document.
- Added handling of **External User Access** type licenses to API 5.0 and Beta endpoints.
- REST API has been extended with the SDK mode – a new group of scopes and endpoints has been added, the so-called "HighTrust", allowing to perform operations on elements with full privileges. This will make it possible, for example, to edit invisible fields and set the **Picker field** to a value from outside the data source.
 SDK mode will only work in "app context" applications.

6. Bug fixes

6.1. General

- Fixed an issue with the procedure for calculating substitutions to take into account changes in the ActiveTasks table.
- Removed an outdated .NET migration script from the list of scripts. The script could cause problems in environments with a very large number of elements.
- Fixed an issue where it was possible to add attachments despite defining restrictions. Renaming of temporary files added by the WebDEV protocol is now blocked.
- Fixed an error involving cache refreshing that occurred on environments containing related processes (i.e. processes from other applications). The error caused e.g. looping On Timeout actions, and the "An item with the same key has already been added" error which caused Portal to become unresponsive.
- Fixed an error of the installer script that updates the PublishedAttachments table. The error occurred when the default database schema was other than DBO.
- Fixed an issue that prevented connection to Microsoft Dynamics 365 used by selected sources and actions in the system.
- The login parameter in SQL queries will have a fixed length (255 characters).
- Improved the efficiency of loading search structures for environments with many content databases.
- During import, if the target environment does not contain an archive or attachment database specified in the import package, the default archive or attachment database will be used instead (as long as they have been configured on the target environment).
- Added missing DTK component to the documentation of components used by the **WEBCON BPS** system.
- Unified the behavior of the **ExpectContinue** header (status 100) for Portal and the workflow service. Authentications that download a token will have this value set to "True" by default in order to facilitate a connection. REST actions and data sources will have this value set to "False" by default. It can be changed in the action configuration via the XML file only.

- Improved the display of the "Collation" parameter when creating a database using the installer tools and standardized the language for displaying its properties. The order of parameters in the installer windows before and after database creation has been unified.
- During installation in a domain environment, the user will receive a message suggesting they use a domain account.
- Fixed the SQL query used to load the user list in the **Admin Panel**. The issue was caused by a reference to a SQL function unavailable in SQL Server 2014.
- Fixed the "Migrate column names to ID tags in item lists' configurations" error which occurred when updating from WEBCON BPS version 2019.
- The window for choosing a content database will not appear after switching Portal addresses if there is only one content database to choose from.
- A pop-up message in the installer will now suggest statistics will be updated daily instead of weekly.

6.2. Portal

- Fixed an issue caused by rapidly switching between instances in **My tasks**.
- Added validation to Calendar type views on **Reports** – the required columns will be verified, and the error message will specify both the view and the Report.
- Fixed an issue with conditional coloring on **Reports** – the problem occurred when making a coloring condition involving values of **Choice fields**.
- Fixed an issue that caused the **Recent activities** view to display the activities of other users.
- In the **Themes** configuration of Portal, a notification will be displayed if the main page image is not chosen.
- In the **Removed users** view in the **Admin panel**, the name of the mass action button was changed from **Add/Remove licenses** to **Remove licenses**.
- Fixed an issue preventing a **Report** from being saved if the first view was a chart.
- Fixed an issue preventing adding **KPI Report** tiles to a **Dashboard**.

- Improved scaling of chart-type views on **Reports** – the legend and chart will fit without an unnecessary scroll bar.
- The current day and the selected day on the calendar view of a **Report** will now look different to easier tell them apart.
- **Reports** with enabled grouping that have been placed on dashboards will have the grouping panel expanded by default.
- Improved the efficiency of SQL queries in **Reports** containing the **Assigned to** system column.
- The order of columns in the Excel file exported from a **Dictionary Report** will correspond to the column order on the view from which the export was initiated.
- Enhanced appearance of version column in instance history.
- Fixed a problem causing no response after clicking the **NO** button in the modal window of a notification shown upon completion of a menu button action. Currently, the notification window displayed after action execution includes only one button for closing it.
- Fixed item displaying in the **Recent activities** section of application when applying the **All** filter.
- Fixed an issue causing an incorrect change of data format in a **Single line of text** form field. The problem appeared when a string entered in the form field was a date in a specific format, making saving a particular data string in a database impossible.
- Fixed the effect of global privileges on **Reports** using Searchindex as their source of data.
- Added message „Element was modified on another workstation. Refresh browser window.“ displayed when trying to save an instance modified on a different workstation. The message is displayed in a modal window that requires pressing the **OK** button.
- Fixed a concurrency error on Portal caused by duplicate users in the UserName column in the IdentityUsers table.
- Fixed an issue occurring when attempting to add an unsaved **Report** to a **Dashboard** in Designer Studio.
- Fixed a behavior of Portal that would make it display a message about lack of privileges to an application for a split second when loading a page.
- Fixed an issue with loading data in chart-type views.

- Fixed an issue that occurred during process import and prevented the transfer of the chart report configuration, namely its **Label description** and **Grouping** settings, to the target environment.
- Fixed an issue with filtering reports using Searchindex as their source – the error was caused by the incorrect letter case being used when passing the login.
- Fixed an issue on **Reports** that caused the scroll bar not to appear.
- Fixed an issue on **Reports** that caused columns to disappear from the search panel when selecting the view that was already active a second time.
- Fixed overlapping search panels on **Reports**.
- Fixed an issue with links in **Report** cells not working correctly when opened in a new tab.
- Fixed an error preventing attachments with MSG extensions from being added.
- Improved the progress bar so as to not overlap elements to the right/under it.
- Editing **BPS Groups** will no longer cause the **BPS ID** to be validated – it cannot be changed anyway.
- The Find instance widget on Dashboards will display a message about not finding an instance instead of "Bad request" error.
- Fixed an issue occurring after removing a filter on a report and refreshing – the filter will now be removed correctly.
- Improved the visual marking of the leave report basic view in the side panel when the view was selected again. Previously, after switching to another report view and reselecting the basic view, the view name was not highlighted in the side panel.
- Fixed an issue that caused zeroes after the decimal point to be ignored when exporting from a **Report** to Excel.
- Fixed an issue that consisted of constant loading of tasks in the task counter in Portal. The problem resulted from incorrect saving of dashboard configuration after transferring it with the import-export mechanism.
- Fixed a bug that occurred after changing the language in Portal with a default theme set. The problem occurred when the previously set user-created theme had been deleted.

- Fixed an issue that caused the business administrator to sometimes see elements favorited by other users.
- Fixed an issue that caused the number of rows shown on **Reports** embedded in **Dashboards** to be calculated incorrectly – for some zoom levels, only 1 instance was shown per page.
- Fixed a bug where the filter settings for a report in the application's default **Dashboard** were not retained.
- Fixed an issue where **Translations** and **Add New** options were visible in WEBCON BPS Portal with the **Edit mode** disabled.
- Fixed an issue preventing the **Dashboard** from being edited.
- Improved the position of the **Chart** type report view on the **Dashboard**.
- Improved the display of the defined **Range filter** in the dedicated menu of the table report.
- Fixed incorrect marking of items in the navigation menu.
- Fixed an issue with rounding average time on **Reports**. Too many decimal places were being shown.
- Fixed an issue with the loading icon so that it displays in the correct theme color – it would sometimes display the default color before the theme settings loaded.
- Fixed an error that suggested incorrectly that a **Report** has unsaved changes. Saving such a faulty Report would reset its column configuration.
- Fixed an issue with date/time conversion from UTC on **Calendar** Reports using Solr as their source.
- Improved the counting of instances with indicated values in the Solr report for which two **Grouping** levels have been defined – by **Picker field** and step. Previously, instances with renamed values were not counted and their total number was displayed as "<Blank value>".
In addition, the names of the values by which the instances are grouped will be displayed similarly to those in the SQL report (without commas).
- Improved the display of a vertical scroll bar on the drop-down list for selecting a report **View**.
- Fixed the look of the **Replaced person** field in the **Substitutions** module. This field should always be read-only.

6.3. Form

- Fixed an error that occurred when trying to click again on the link to follow a path, received in an **E-mail notification**. After the change, the system will first validate whether the path under the link is still available.
- Fixed a bug allowing the initialization of an **Item list** that was in **Read-only** mode.
- Fixed a bug occurring when expanding the **Item list**. The bug was removed by adopting a new method for creating model names for item list.
- Changed the position of the red asterisk relative to the name of the **Item list** column, which suggests that this field must be filled in on the form. After the change, the position of the asterisk is the same as for other form fields.
- Fixed a bug where the order of the **Item list** columns was incorrect after importing an application from another environment.
- Fixed an error that occurred when importing **Item list** columns from MS Excel, if a **Default value** was set for this form field.
- Improved the efficiency of operations on the **Item list**.
- It is now possible to copy the **Item list** column total to a form field configured as **Read only**. In addition, column totals will be copied on path transitions through the public API and service.
- Fixed a bug that occurred when adding attachments bigger than 4 MB to the column **Local attachments** in the **Item list** form field. As a result, an attachment was added to the **Attachments** field, but the item list included information that it was deleted.
- Fixed a bug that caused the IDs of the **Item list** columns of the **Local attachment** type to duplicate in the data base when overwriting these columns.
- Fixed an issue that caused excessive recalculations in the values of **Item list** rows.
- In Diagnostic mode on the form, when an **Item list** column is set using the **Target field** configuration, it will not be erroneously logged with an "inline rule" header (which implies that it was set using a rule).
- Fixed an issue that caused the headers of **Item list** columns to overlap with the values. This occurred when the background of the list was colored with **Form rules**.

- Added color verification for coloring **Item lists** based on form field/column values.
- **Acceptance** on **Item lists** configured on the form in a specific step will now work even if the column configured for acceptance does not have the **Show in dialog** option enabled.
- Fixed an issue with **Item list** columns of the **Date and time** type that were set as required using a **Form rule**. The red dot indicating that they are required will appear next to all relevant cells.
- Fixed incorrect filtering of **Item list** columns with calculated value including Polish diacritics. The issue resulted in removing Polish diacritics in the filter values returned by the query to the internal API. After choosing the filter with such values, the system was unable to find the respective value. The problem occurred only for the database with **en-US** language.
- Fixed an issue with calculating the value of a **Hyperlink** column on **Item lists**. The issue caused the hyperlink to be built based on the first row of the item list and displayed in all rows.
- Improved the alignment of the summary row on **Item lists**.
- Unified rounding of column summaries of **Item lists** and the form fields to which its value is copied. Rounding will behave everywhere like in Excel – rounding up from (and including) 5.
- Fixed an error on the form which occurred when attempting to perform some operation on an **Item list** after an unsuccessful **Validate form** action.
- Fixed an issue that caused **Item list** columns set using the **Change item list values** action to not also set relevant target fields.
- Improved the coloring of **Item list** columns using semi-transparent colors.
- Fixed an issue with the height of **Data row** type columns on **Item lists**.
- Fixed the centering of **Yes/No** choice fields (i.e. checkboxes) on **Item lists**.
- Fixed the centering of **Yes/No choice** fields. Checkboxes will be aligned the same in editable and read-only modes.
- Fixed a bug that prevented all **Data tables** from displaying correctly on a form if the configuration of one of them was incorrect.
- Fixed an error that occurred when attempting to import **Global field** translations into a process form field and changing its type in the configuration.

- Fixed clearing erroneous values from **Choice fields** using **Popup search window** behavior.
- Fixed a bug occurring after clicking a menu button invoking an action.
- Letter case should have no impact on searching in fields that return people (i.e. they should be case insensitive).
- Fixed a bug that prevented going through a path when a **Custom instance number** with an exceeded allowed number of characters was defined in a workflow.
- Changed the function by which phrases are searched in the **BPS internal view** data source configured for the **Choice field (Popup search window)**. After the change, the searched values will be correctly matched on a form.
- Fixed an issue that prevented starting instances in a new tab using the middle mouse button.
- Fixed a bug that appeared when invoking the **JS API SubelementInitialization** rule with the wrong form field ID. Added a condition that checks if an form field with the specified ID exists and if it is of **subelement** type. Failing to meet the condition results in displaying a warning and ceasing to process the request further.
- Fixed a bug that appeared when invoking the **MarkSubelementRequired** and **MarkSubelementNotRequired** rules with the wrong column name specified. Now, a warning is displayed in such a situation.
- Fixed an issue with button spacing on the attachment panel.
- Unified how path buttons are displayed on the form in view mode (i.e. not in edit mode) – fixed an issue that caused path buttons to appear twice.
- Fixed an issue where text typed into the **Multiple lines of text** form field in **Append mode** would not wrap properly and would extend outside the field. The problem was solved by adding a dedicated scroll bar.
- Improved the arrangement of quick action icons on files attached to the form so that they are aligned for all attachments.
- Fixed an issue with the **Multiple lines of text** form field – the Rich Mode would sometime not activate when moving between the **My Tasks** view and the fullscreen form.
- Fixed an issue with excessive developer logging that could prevent the correct display of a form.
- Improved the visibility of the version number in the start step.

- Fixed a formatting issue in **Data row** form fields – numbers will now be aligned to the right.
- Optimized the **Attachments panel** on the form. Excessive SQL queries were activated when loading related attachments and e-mail conversations.
- Fixed an issue with highlighting the attachments panel – the **Add attachment** button will be highlighted correctly when selected.
- Fixed an issue with the scroll bar in **Choice fields** in **Autocomplete** mode that was caused by long values.
- The user will be notified if the provided color is invalid.
- Fixed how the row grouping function on **Item lists** works, especially in the case of business rules that operate on the current row.
- Fixed an issue resulting in displaying the message **Invalid Checksum**. The problem occurred after adding a new row in the **Item list** and selecting a value from the **Autocomplete** column.
- Fixed an issue that caused column headers in **Data Tables** to be translated incorrectly.
- Fixed incorrect display of percentages in the progress bar on the form. After the upgrade, percentages are correctly vertically aligned.
- Fixed how the column name is displayed in the **Data row** form field in a **Group** that displays form fields horizontally.
- Fixed an issue involving values from a **Choice field/column** disappearing when the browser window was resized.
- Fixed an issue that sometimes caused copying text to fail when copying into a **Multiple lines of text** field in rich text mode (HTML).
- Updated the version of the IT Hit WebDAV library for editing PDF files through the form.
- Fixed incorrect view changing in holiday reports displayed in a **Dashboard**. Previously, despite correct configuration, it was not possible to change the view in the holiday report.
- Fixed an issue that resulted in displaying the message **Cannot read properties of undefined (reading 'operationid')**. The problem appeared when a **Choice field** was filled out with a default value.

- Optimized requiredness update mechanism for form fields and item list columns based on business rules. The update now takes place only when there are existing dependencies between form fields in requiredness rules.
- Fixed an issue that caused choice field expanding menus to not close after selecting another field.
- Fixed incorrect operation of the change detection mechanism. If a form included global form fields, changes in the process configuration always required refreshing the form.
- Fixed incorrect comment requiredness validation. The issue occurred in the form Read-only mode and blocked the on-path transition.
- **Form validation** will be disabled in Read-Only mode and when viewing archived instances – the users will not be shown errors concerning data they cannot change.
- Improved the way in which the focus is set when switching the form into edit mode. **Data Table** and **Data row** form fields will not be focused first when switching into edit mode.
- Fixed an issue involving data not being saved on the form. The issue occurred when the form was first opened in read-only mode, then switched to edit mode, and was left open in the browser for ~10 minutes.
- Fixed an error that occurred on Item lists after changing the process configuration in Designer Studio.
- Fixed an issue that caused displaying a false message informing that a file is edited by a different user, which precluded its edition.
- The **Data row** form field displaying a percentage with no value will now show "0%" using the control font color.
- Fixed an error that made it impossible to add an e-mail conversation as an attachment to a workflow instance when the e-mail conversation contains files exceeding 4MB.
- Fixed an issue with a duplicate login column in **Person or group** fields and other choice fields that use BPS users as a data source.
- The attachment preview window on the form will now fit the screen better. This will leave less space above and below the window.
- Fixed an issue with the attachment preview that was caused by its placement on the form being other than the default.

- Fixed an issue that caused the "target field" function in **Choice fields** to treat text as dates.
- Fixed an issue that occurred when entering from an OCR project a value to a form field which is a number greater than or equal to 1,000,000.00 and whose thousands separator is a period.
- The **Horizontal arrangement of form fields in group** option will cause the names (labels) of form fields to be displayed in one static place – above the specific field.
Other options that modify the position of form field names will not overwrite this option.

6.4. Designer Studio

- Added missing context help for the advanced configuration of choice fields.
- Fixed a bug occurring when transiting to a step on a path with **HAS ANY ROWS** function inserted in the **Availability restriction on form** field in **Designer Studio**.
- Fixed an issue with the edit button for accessing the expression editor in various places in Designer Studio – it would sometimes cause an error if an empty configuration field was focused beforehand.
- Fixed incorrect deletion of space character at the beginning and the end of the text entered in the **TEXT** business rule.
- Fixed an issue that obstructed changing the sequence of form fields in **Global form template**.
- Optimized the speed of launching Designer Studio.
- Fixed an issue that blocked certain areas of Designer Studio (e.g. REST API) when the number of other available licenses was exceeded (even if the person using Designer Studio had the correct license).
- Fixed an issue with refreshing the **Workflow Designer** – in some cases, deleting paths from the designer would prevent saving.
- Fixed an issue that caused incorrect plugin package creation and application import. The problem occurred in the environment with two WEBCON BPS Portal instances and load balancing through Reverse Proxy with **cookie-based affinity** enabled.

- Fixed an issue that precluded entering superior for an already added external user. As a result, the field **Superior** was visible only when adding a new external user.
- Fixed an error involving **Automations** with a **For each** operator blocking Designer Studio in cases where a data source existed that had a filter on a no-existing column.
- Fixed an issue resulting in incorrect coloring of variables in **Designer Studio** when entering them in lower case.
- Fixed an issue that precluded sending an e-mail with confirmation of successful path transition through **MailApproval**.
- Fixed an issue that prevented the list of workflows in a **HotMailBox** configuration from refreshing.
- Fixed an issue resulting in failure to import process. The failure was due to an invalid migration script that did not remove records from the **Translations** table referring to non-existent instances.
- Fixed an error that caused paths on the **Workflow diagram** to change positions after saving.
- Fixed incorrect display of login window when starting WEBCON BPS Designer Studio in administrative mode. As a result, the login window was displayed behind the Designer Studio banner.
- Fixed an issue that caused transferring configuration values in Hotmailbox when changing server type. Now, the configuration values are cleared when changing the server from **MS Exchange 2013/2016/2019** to **Exchange Online – Microsoft Graph** and the other way around.
- Fixed incorrect formatting of date and time returned by the business rule **SELECT VALUES**. The problem consisted in returning the date with an offset in relation to the time zone. Now, the rule returns dates in ISO format compatible with the system.
- Fixed incorrect displaying of the **Hyperlinks** function (**Start Element (...)** and **Open Element (...)**). The issue consisted in displaying the function in advanced mode each time.
- Improved error logging in Designer Studio.
- Added missing instance number nodes in the **Expression editor** window. The problem appeared when editing form custom instance number (Application name → **Configuration** → **Form types**).

- If the default start button is the only one in the application, it will no longer erroneously show an asterisk next to its name (i.e. inform about unsaved changes which are not there).
- Fixed an error that caused the default port 25 to be used to send e-mails signed with attachments – the port set in the SMTP configuration will now correctly be used instead.
- When creating a vacation process, in the step for selecting an Exchange connection, if a new connection is created it will be automatically selected.
- It is now possible to edit **MailApproval** help commands in Designer Studio. The names of the help commands will be translated into the installation language of the database.
- Fixed an issue with mapping parameters in Designer Studio for Rules, REST actions and data sources, as well as HTML and SDK form fields.
- Fixed an issue that caused the `proc_GrantLowPrivileges` procedure to skip the `CacheOrganizationStructureGroupRelations` table.
- Fixed the error occurring when using the MailApproval test button.
- In the filter editor, fixed missing values in the **Data source columns** node.
- Fixed an issue related to checking the usages of an element to be deleted – the message containing all usages of a deleted element will now appear correctly.
- Fixed an issue with variables available in the editor of the **Mass notification** templates – added suffixes to differentiate variables used in the template.
- When choosing the **Dynamic** option in the task assignment configuration on a path, it will not be possible to save a process until the Field/Column input fields under this option are filled out. When the option is disabled, these fields will be cleared.
- Fixed an issue with saving that caused the save progress bar (or rather circle) to freeze on the final step.
- Optimized importing by improving the efficiency with which variables are replaced.
- In the configuration of e-mail notification templates, fixed the placement of the cursor and the way it moves when using the Tab button.
- Fixed an issue with copying an **Item list** that contained a default value – an error occurred when trying to save the changes.

- Fixed an issue related to incorrect translation of the **Choice field** columns in the **Advanced configuration** window after importing an application prototype from WEBCON BPS Designer Desk.
- In the configuration of **Choice fields**, the **Additional link** option will always be available even when the **Allow adding values not in data source** option is toggled off.
- Fixed an issue with logging out of Designer Studio.
- Fixed an issue occurring during the transfer of privileges when importing an application.
- Fixed an authentication bug that occurred on opening the **Response** tab in the **Invoke REST Web Service** action configuration.
- Fixed an error that occurred when using the **Verify process** tool after switching Content databases.
- Fixed a bug that could cause the message "The internal array cannot expand to greater than Int32.MaxValue elements" to be displayed for very large environments. The fix was to optimize the performance of the application import/export mechanism.
- The correctness of the URI address will be validated in the proxy configuration.
- Fixed an error that occurred when trying to import an application into a target environment due to duplicate indexes of **Item list** columns.
- Fixed the incorrect scaling of the **Workflow designer** diagram.
- Fixed the lack of confirmation e-mails in scenarios where the **Use custom outbox settings** option is used in **MailApproval** configuration.
- Fixed an issue with importing the ConfiguredWebServices Table when importing an Application.
- Fixed a bug in downloading the profile pictures of users when synchronizing them with Azure Active Directory.
- Fixed incorrect displaying of the ellipsis icon next to the **Temporary files directory** option in the service configuration (the **Configuration** tab).
- Improved the validation of path **Usages** – previously, it was possible to drag the path to another step in the **WorkFlow designer**, even though the path was used elsewhere in the system.

- Fixed an issue with refreshing related processes when saving a different application.
- Fixed an issue causing mass notifications to be sent on non-working days regardless of configuration.
- Added missing info to the LogCleaner context info in **Schedules**.

6.5. Actions

- Fixed an error that appeared when trying to execute the **Manage users** action configured on a menu button and with the **Unlock/Lock** options checked for account availability.
- Fixed an issue that blocked the operation of the **Generate/Update a Word file** action if it was configured in an automation using **For each** operator with SQL data source defined as **Collection type**.
- Fixed a bug occurring when attempting to process certain PDF files. The bug occurred in some cases when users checked the **Skip PDF files with text layer** and **Skip PDF files with signatures** options in the configuration of the **Add a text layer** action. Improved logging into the **OCRSpace** service.
- Fixed the lack of logs concerning assigned privileges using actions from the **OneDrive** group.
- Fixed an issue that prevented the **Delete a list element** action from working.
- Fixed a bug that prevented **Send a custom email** action from working properly when Exchange Online – Microsoft Graph was specified as **Server type** in **Configuration of sending emails**. After the update, users will receive **Delivery notification** and **Read notification** as configured for the action.
- If the WSDL file used in the **Invoke SOAP Web service** action is too large, the user will receive a warning (same as with data sources).
- Fixed an issue with loading **Double** type values when using the **Invoke SOAP Web service** action.
- Fixed an issue that occurred when copying the **Invoke REST Web service** action. After copying, certain sections of the action configuration became inaccessible.
- Fixed an issue preventing the **Invoke SOAP Web service** action from being configured after constants were used in its configuration.
- Fixed an issue with the **Invoke SOAP Web service** action that occurred when importing a process from a package exported as a template.

- Fixed an issue that caused the mapping of **Item list** columns to be lost when configuring the **Invoke REST Web service** action and reloading the response for JSON Grid. As a result, the values of these columns were not entered on the form. In addition, improved the cleaning of tree fields in the **Values mapping** table when complex field types are changed.
- When using **Business rules** in the configuration of **Invoke REST Web service** actions, the action will now correctly save the type of data returned by the rule.
- Fixed an issue with signing PDF attachments in Adobe with IT Hit Edit Doc Opener.
- Fixed ID encoding used for requests to MS Graph. There was an issue where the IDs passed to Graph were not parsed correctly and returned a "RequestBroker--ParseUri" error.
- Fixed an issue that would sometimes undo the copying of actions.
- Exchange actions configured to set the status in MS Graph when creating/modifying **Exchange Events** will now work correctly.
- The "Out of office" option in the exchange calendar will be displayed as "Unavailable/Out of office".
- In actions that generate files, if the correct file extension is not included in the output file name, it will be added at the end of the file name. This behavior will take place even when the file name has dots in it, e.g. "first.file" will become "first.file.docx".
- Fixed an issue with the order of triggering **On timeout** automations. Timeouts will be triggered in the order in which they appear on the action list, i.e. alphabetically.
- Fixed an error in **On timeout** automations that would occur in cases with many subworkflows.
- Improved error logs for actions involving SharePoint.
- Exchange events created using MS Graph will include HTML in the event description.
- The button for testing in Exchange actions will now open a pop-up window for entering the user for which the test Exchange action will be carried out.
- Corrected the way of reading the **Generate a PDF file** action configuration – it previously caused an error in executing the action after updating the system to version 2022.1.4.84.

- Fixed an issue that caused the instance history to omit certain actions.
- Fixed an issue in the **Hyperlink** action which caused it to display its configuration in the advanced mode constantly.
- When using an **Action template**, the documentation was not copied into the place where the template is used – this has been fixed.
- Fixed an issue with checking if the target folder for the **Add an attachment to a list** action exists – checking the folder names will not be case sensitive.
- Fixed an issue with duplicate/invalid keys in copied actions. The issue was propagated by copying actions on steps and global actions. The migration script will remove all invalid keys, and actions copied in the future will be assigned valid foreign keys.
- Fixed an issue with setting the end-time of all-day events set up using the **Exchange events** action – the action would not work correctly when using Microsoft Graph.
- Fixed an issue with the **Generate/Update a Word file** action – the issue occurred when the template used in the action was edited at the form level, this led to some fields used in the template not working correctly during document generation.
- In the case of missing licenses, **Menu button** actions on the form will be inactive.
- Fixed missing **Item lists** in the mapping of the **Generate Excel file** action.
- Improved handling of image generation (i.e. 2D codes) in **Generate/Update a Word file** and **Convert Word to PDF** actions.
- Adding privileges to a SharePoint list element via the **Add SP privileges** action will add privileges to the selected element only – an error caused the privileges to be added for the entire list.
- **On Timeout** triggers will now be ordered alphabetically (instead of by ID).
- Fixed an error in the **Update attachment** action – changing the name of the attachment to include a dot "." would add two instead.
- Fixed an issue that occurred when the **Generate an Excel file** action was configured to create an .xlxs file **From url**. In that case, the user received a message that the indicated file does not exist. After the change, with that configuration, Excel files are generated correctly.
- Fixed issues and improved handling of barcode printouts realized via SignalR – which is used to connect cloud installations with local printers.

6.6. Rules

- Fixed the context menu in **Rules** that is accessed via the Ctrl + Space shortcut. The values in the menu will be displayed in the correct order. Certain sub-nodes were displayed as main nodes.
- Fixed an issue with the **STRING REPLACE** function. An error would occur if a business rule was used inside this function.
- Fixed an issue that occurred after defining a **Form rule** on a page load with respect to the **Item list** whose visibility on the **Field matrix** was hidden. A similar issue occurred when the Item list was visible and one of its columns was not.
- Fixed the comparison operations in In form rules that were using business rules (i.e. rules in asynchronous mode). Comparing form fields containing numerical values would return incorrect results.
- Fixed an error that occurred when using an unsaved **Business rule**.
- Fixed an issue that allowed variables to be used in places where they should not be available.
- Fixed an issue with a form rule based on a business rule where the **EMPTY** value was treated as "0" when compared to a numeric form field value.
- Fixed incorrect recognition of value types in **Form rules** used in actions configured with the **For each** operator. Previously, an error message was displayed when a rule was to perform arithmetic operations like multiplication, addition, etc.
- Fixed missing nodes in the Rules editor.
- Fixed a bug that prevented the correct work of **Form rules** configured with two or more **FORMAT DATE** functions.

6.7. Data sources

- Fixed an issue caused by using a column alias containing a space in **Oracle database** data source definitions. In such cases, the alias containing a space will be placed in quotation marks in the final query (similarly as with MSSQL databases where they are placed in square brackets).
- Fixed an exception that would occur when editing the filter in **BPS Users** type data sources.
- Fixed an issue that occurred when migrating to 2022 R3 or newer versions due to which the account accessing the database did not have privileges

to the **dbo.Split** function. Added privileges to the **dbo.Split** function to the **proc_GrantLowPrivileges** procedure.

- Fixed a bug that prevented the selection in WEBCON BPS Designer Studio in the **Data source filter** of a column of this source that contained a colon (:) or a hash (#) in its name.
- Parameters that are not handled by WEBCON BPS: table of tables or complex types within a table of complex types will not be visible in the configuration even if included in the WSDL file definition.
- Fixed an issue that made it impossible to filter the **SharePoint list** data source column using the value from the **Yes/No choice** form field.
- Invoking **SharePoint list** type data sources will also work through a proxy if the use of a proxy has been enabled in the system configuration.
- Fixed an error that occurred when changing the data source type for a **Choice field**. The problem was due to the failure to change the form field settings in **Advanced configuration**, as required for the new type of data source.

The following changes have been made:

- added a mechanism to check whether the columns of the new cache data source are consistent with the form field configuration. If they are not, the user will receive a message: "The chosen data source contains a different set of columns than those configured in the form field. Please reconfigure the form field to use the updated data source."
- disabled the option to save a **Choice field** with the above incompatibility. When attempting to save such a form field, the user will receive a message as above, additionally preceded by the phrase: "Required configuration of the form field: [Form field name]"

This validation mechanism will work only for sources whose columns are available in the cache. Otherwise, validation will not occur.

- Fixed an issue related to using variables in REST data source configuration that return characters forbidden in XML.
- Fixed the substitution of the **CurrentLoginName** variable in the filters of **Reports** using Searchindex as their source.
- Updated how links to instances of a **Document Template Process** are generated. The URL to the instance will now additionally contain the GUID of the Process.
This will ensure more efficient queries in systems with multiple content databases. The system will pinpoint the database containing the instance

based on the Process GUID.

Configurations that use the old URL format will continue to work correctly.

- Fixed a migration issue with the XML configuration of the **Data table** type form field. The issue occurred for data source columns whose names consisted only of spaces.
- Improved handling of date-type data (dates without time) in **REST Web Service** type data sources.
- Fixed a bug hindering synchronization of users between domains when the number of users resulted in generating a query exceeding the maximum allowed length.
- Fixed missing values in the **Edit parameters mapping** of **SOAP** and **REST Web Service** data sources.

6.8. Add-In

- The **Outlook Modern** Add-in will show correct info about not supporting Outlook 2019.
- Fixed an issue preventing the user from logging in to the **Outlook Modern** add-in.
- Fixed the definition of the manifest file for the **Outlook Modern** add-in.
- Improved the loading of translations into the **Outlook Classic** Add-in.
- Improved the validation of URL addresses provided in the "returnUrl" parameter when "Trusted domains" were defined in the system. Previously, the validation returned an error that prevented logging in to **Word** and **Outlook Classic Add-ins**.
- Fixed an issue that prevented the Outlook Add-In to connect to WEBCON BPS Portal in Cloud installation mode.
- Fixed an issue that occurred when attempting to delete configuration elements (e.g. paths, steps) that were used in the configuration of Outlook Add-in files.
Deleting such an element will cause the given value to be cleared in the file configuration.
- Fixed a typo in the comment added to instances started with the German version of the Outlook Add-in.

6.9. Mobile app

- Fixed a bug that prevented changing prototype name in Designer Desk on narrow screens and mobile devices.
- Fixed a bug that caused the dropdown list for administrator actions to be displayed incorrectly on iPad devices.
- Fixed an error that would sometimes occur on the mobile form in Safari when attempting to save immediately after entering data into the **Multiple lines of text** field in rich mode.
- Fixed an error that appeared when creating a new profile in the mobile app. The error was related to WEBCON BPS license checking.

6.10. Service

- Fixed an issue involving incorrect date conversion by **HotMailBoxes**.
- E-mails processed by a **HotMailBox** configured to use **Exchange Online – Microsoft Graph** will be marked as read in the archival mailbox.
- Fixed an issue with the attachment processing history logs of **HotFolders**. The problem was too many logs in the Designer Studio reports. Excessive logs will now be displayed as service activity.
- Improved information logging from the **MailApproval** function.
- Improved the notification that the user will get from **MailApproval** if they attempt to move an instance that is no longer in the correct step.
- Fixed an issue with the license activation packs. Attempting to update the license packs could result in an error if the service was activated in a version older than 2022.1.4.
- Fixed a transaction error which was the result of failed attempts to send admin notifications from the service.
- Optimized queries to the action queue of **On timeout** actions.
- Fixed an issue related to not taking into account historical database acronyms in 2D codes.
- Fixed an issue that cause service modules to be activated multiple times – this would cause e.g. the same e-mail to be sent more than once.
- Fixed an issue and behavior in case the currency exchange rate synchronization fails.

- Improved the efficiency and stability of Designer Studio in the configuration of mass notifications.
- Fixed an issue that caused user synchronization and mass notifications to be triggered immediately after restarting the service. This problem occurred when an activation time was defined in the schedule, and the service was restarted after this activation time (on the same day).
- Added validation for the **Active Directory properties** column. It may not contain special characters or spaces.
- Fixed incorrect attachment processing during full Solr indexing. The problem derived from an external component running in the same process as the service, which resulted in the crash of the whole process.
- Fixed an issue with BPS user synchronization in cases where the installation was carried out on a local user.
- Queue handling has been optimized in **WEBCON Workflow Service**.
- Improved the efficiency of a full Solr indexation.
- Fixed an issue with Incremental AAD synchronization, the issue caused the COS_ManagerBpsID, COS_ManagerDisplayName, COS_ManagerLogin properties to be set to NULL despite there being no change in COS_ManagerID.
- Fixed an error that occurred when syncing user photos with AAD.
- Updated the address for loading currency exchange rates from NBP (National Bank of Poland).
- Fixed the handling of invalid e-mail messages by **HotMailBoxes** configured to use Microsoft Graph.

6.11. Designer Desk

- Fixed a bug that prevented prototype testing when an invalid **Global form rule** was defined in WEBCON BPS Designer Studio in JavaScript mode. As a result, global form rules will not run when opening a Designer Desk test from.
- Fixed an issue that occurred when adding multiple paths between steps in **Workflow designer** and trying to save an application prototype.
- Fixed an issue where an undefined system area, **Business entity**, appeared on the form. The issue occurred when all form fields on the right panel were marked as visible in a given step in the **Field matrix**.

- Fixed a bug that appeared after editing the prototype **Description** and saving it on a mobile device – such a description was then erroneously replaced with the prototype **ID** value.
- Fixed the lack of visibility of **Item lists** on the **Field matrix** in Designer Desk.
- Fixed the positioning of form field edit buttons in Designer Desk.
- Fixed an error preventing attachment preview in instances started with Designer Desk.
- Added a migration script that deletes unused automations in published Designer Desk applications.

6.12. API & SDK

- Fixed an issue with custom controls for **Integer** type form fields.
- Fixed an issue that occurred when providing an incorrect **Item list** ID in the **SubelementDelete** command in JS API.
- Fixed an issue resulting in long user synchronization time. The endpoint returning incorrect user synchronization status was fixed in API 3.0 and 4.0.
- Blocked the ability to use API to clear a choice field in dropdown mode, if such an operation is impossible from the form.
- Fixed an issue causing incorrect comment validation in API. The problem occurred when using a path with the **Comment required** checkbox marked.
- Places, where it is not required for privileges to the form to be checked, will also not check for privileges to attachments.
- Fixed a bug occurring after invoking endpoint **GET /api/data/v5.0/admin/licenses** for a deleted user. In API 5.0 and beta versions the license model has been expanded with the **usersDeleted** field and support for accounts that are deleted, but have assigned licenses.
- Fixed a bug where SDK plugin reference files were being skipped when exporting an application that used the plugin.
- Fixed an issue with the creation of SDK packages containing form field extensions by adjusting them to npm 8 and Node.js v16 as well as newer versions.
Also improved the mechanism for importing external libraries.