WEBCON BPS 2024 R1

history of changes for version 2024.1.1.130

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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.

2. Security fixes

2.1. Updated components

- The dompurify component has been updated to version 3.1.6 due to the vulnerability patches:

  - CVE-2024-45801, CWE-1321
    https://security.snyk.io/vuln/SNYK-JS-DOMPURIFY-7984421.

- The path-to-regexp component has been updated to version 6.3.0 due to the vulnerability patches:
  - CVE-2024-45801, CWE-1321
    https://security.snyk.io/vuln/SNYK-JS-PATHTOREGEXP-7925106.

- The System.Text.Json component has been updated to version 8.0.5 due to the vulnerability patches:
  - CVE-2024-43485, CWE-407
    https://security.snyk.io/vuln/SNYK-DOTNET-SYSTEMTEXTJSON-8168848.

- The System.Runtime.Caching component has been updated to version 8.0.1 due to the vulnerability patches:
  - CVE-2024-43483, CWE-407
    https://security.snyk.io/vuln/SNYK-DOTNET-SYSTEMRUNTIMECACHING-8168846.

3. Changes to existing features

3.1. Portal

- Added a warning to the BPS Portal console and **Event Viewer** that appears when attempting to view a file with unavailable fonts in Portal.

4. Bug fixes

4.1. General

- Fixed an issue with the installer that occurred when updating from version 2023 to 2024. Increased the size limit for Rules when saving, and removed the time limit for queries in this migration script. Error logging has also been improved.

- Fixed an issue with logging into Portal when a prefix was defined in the address (running address). The problem was caused by the forward slash being placed incorrectly, therefore the address was not built correctly.

4.2. Portal

- Fixed a bug that occurred when attempting to add a large attachment file (600 MB). The bug caused a timeout at the end of the file upload, which was divided into chunks.

- Fixed a bug that caused the removal of additional filters in the configuration of **Report Tile**. The bug occurred after saving an unmodified dataset configuration.

- Fixed a bug that prevented the correct loading of **Archive** data in **Searching structures** after disabling the previously set sorting.

4.3. Form

- Fixed a bug where using a **Form rule** with **DELETE ALL ROWS** function would unintentionally focus on the "Add" button of the **Item list**.

4.4. Designer Studio

- Fixed an issue that occurred during application import. The error occurred while saving the import history.

4.5. Actions

- Fixed a bug where, after archiving an instance using the **Archive workflow instances** action, the instance still appeared in the **Recent activities** section of Portal. The bug was caused by incorrect queuing of operations in the archiving process.

- Improved creation of a content database and Unicode attachments from the Installer to streamline the **OCR AI recognition** action.

- Fixed an issue with setting values in **Choice fields** in **Dropdown** mode and **Choice trees** via the **Change value of single field action**. The action would not work if the form field was in read-only mode.
  The values of these form fields will be loaded regardless of their editability, as long as the form is in edit mode.

- The **Generate/Update a Word file** action has been enhanced so that the text generated based on the form fields and rules in the template contains only characters that will not cause changes to the text layout and will display correctly in the header, footer, and main area of the document print preview.

- Fixed a bug where the HTML template displayed a value different from the one provided in the form. This issue occurred in templates generated by the **Generate an HTML printout** action in Polish and affected the summation of numerical values.

- Fixed a bug that caused the instance **History** logs to contain duplicate information about the processed attachments when executing the **Generate/Update a Word file** action. After the change, one log entry is added for each attachment in this case.

4.6. Rules

- Fixed a bug that prevented the correct execution of the **Send custom email** action if a **Business rule** with a configured **Parameter** was used in the message body.

- Fixed a bug where adding, removing, or cloning an **Item list** row did not refresh the configured rules for managing form field requiredness.

4.7. Service

- Improved handling of the attachment indexing queue in SOLR. Items will now be removed from the queue if they are no longer available at the time of processing.

4.8. API & SDK

- Fixed a bug that occurred when attempting to retrieve data through the OData protocol. The issue arose when the process included configured performance indicators.

- Fixed an SDK library bug that occurred when using **ConfigEditableGrid** and **ConfigEditableItemList** form fields in a group if the configuration window was not displayed in WEBCON BPS Designer Studio.

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history of changes for version 2024.1.1.114

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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.

2. Security fixes

2.1. Updated components

- The System.Security.Cryptography.Pkcs component has been updated to version 7.0.3 due to the vulnerability patches:
    - CVE-2024-38095, CWE-20
      https://security.snyk.io/vuln/SNYK-DOTNET-SYSTEMFORMATSASN1-7443633.

- The MimeKit component has been updated to version 4.7.1 due to the vulnerability patches:

    - CVE-2024-29857
      https://www.cve.org/CVERecord?id=CVE-2024-29857
    - CWE-770
      https://cwe.mitre.org/data/definitions/770.html.

- The following components have been updated:
    - Azure.Identity to version 1.11.4,
    - Microsoft.Identity.Client to version 4.61.3
    due to the vulnerability patches:

    - CVE-2024-35255
      https://www.cve.org/CVERecord?id=CVE-2024-35255
    - CWE-362
      https://cwe.mitre.org/data/definitions/362.html.

3. Changes to existing features

3.1. General

- Changed the handling of prohibited special characters in addresses used in OData endpoints. Currently, those characters are replaced with an underscore (_).

3.2. Portal

- Added a warning to the console and **Event Viewer** that appears when attempting to view a file with unavailable fonts in Portal.

3.3. Actions

- Modified the behavior of the actions **Add a barcode** and **Print a barcode label** with respect to the 1D codes. Currently, when the number of instances in the system approaches 10 million, the **Event Viewer** tool and the instance **History** display a warning about reaching the limit for generating 1D codes and indicate the need to switch to 2D codes. If the limit is exceeded, the execution of the aforementioned actions will result in an error. It is then necessary to select the **2D** option in the configuration to perform a path transition if the **Linear (1D)** option is selected. Alternatively, if both **Linear (1D) and 2D** option is selected, the action will be stopped, but the path transition will still be possible.

- Changed the behavior of the **Add attachment** action. Now, the action allows path transition even when a user does not add an attachment.

4. New features

4.1. Service

- Implemented a mechanism to cancel long-running path transitions executed by the service. Currently, if the time limit specified in the **Service operations timeout in seconds** field (found in the **Configuration** tab of the service settings window) is exceeded, the path transition executed by the service is canceled. This operation also results in the cancellation of any actions that have been executed on the path or were scheduled to be executed.

5. Bug fixes

5.1. General

- Improved the SQL query that triggered a timeout during the execution of migration scripts while updating the WEBCON BPS platform.

5.2. Portal

- Fixed a bug that prevented an instance from being found in the SOLR report. The issue occurred when the instance was accessible to a group with an "&" character in its name.

- Fixed a bug that prevented the correct display of the **Absence chart** when its data applied to more than one person, such as when the default filter **Me and my subordinates** was selected.

- Improved filtering of **Report** items (configured based on **Searchindex source**) using the predefined filter **All where I participated or created by me**.

- Fixed an error that occurred when opening the instance History in a language that uses the minus sign (U+2212) as a prefix for negative numbers instead of the regular hyphen-minus (U+002D). This applies to languages such as Swedish, Finnish, Croatian, Norwegian, and Lithuanian.

- Improved filtering of **Report** items by **Person or group** form field. When a person is selected from the list in the filter configuration, sorting will be automatically enabled. Person list will be displayed and sorted correctly also when multiple users are selected/unselected.

5.3. Form

- Fixed a bug due to which the data in the **Data table** form field did not change dynamically based on the respective rule after selecting value in a different form field.

- Restored the ability to use HTML elements in calculated columns on **Item lists**.

5.4. Designer Studio

- Fixed a bug where no asterisk character was displayed next to the **Main form** item in the selection tree after a modification was made in the **Field matrix**. The bug occurred when a step column was dragged to the right and the moved step had been preceded by at least two **Workflow control steps**.

- Fixed a bug that occurred during the import of an application. The bug appeared when the checkboxes **Business entity named […] already exists on the target environment. Do you want to overwrite its privilege settings?** and **Do you want to overwrite security settings?** were selected.

- Fixed a bug that occurred when importing an application from the **DEV** environment to the **TEST** environment. The bug appeared if the translation of the form field name contained only a space character.

5.5. Actions

- Corrected the error message for the **Add/Remove multiple users to BPS group** action when an invalid BPS ID is specified.

- Fixed a bug that caused the execution of a global automation, which set an output parameter, to obstruct the setting or transfer of subsequent variables or parameters in a process automation where that global automation was used.

- Fixed incorrect behavior of the **Invoke REST Web service** action. Previously, when this action modified values in the **Choice field**, **Choice field (picker)**, and **Autocomplete** columns, the changes were saved unvalidated in the content database. Now, these values are saved in the validated form whenever possible.

- Fixed a bug that occurred during the configuration of the **Generate an Excel file** action. The issue arose when the GUID identifier of the document template started with the "def" prefix and the template was dynamically calculated.

- Fixed a bug that occurred after cloning a workflow containing an automation with the FOR EACH operator. The bug appeared when attempting to open the configuration window of the cloned automation.

- Fixed a bug that occurred when attempting to delete a non-existing meeting through the **Exchange events** action. Currently, when trying to delete such a meeting through the aforementioned action embedded **On entry** or **On path**, the message "Meeting does not exist" is displayed in the instance **History**.

- Fixed a bug that prevented the insertion of values recognized through the **OCR AI recognition** action into the **E-mail** form field, as well as global form fields like **Single line of text**, **Choice field**, and **Date and time**.

5.6. Rules

- Fixed the incorrect sending of parameter values used in asynchronous form rules to business rules. Previously, sending a date through a parameter resulted in an error when attempting to use that parameter in operations requiring a date. Additionally, fixed the conversion of data types in asynchronous form rules containing the functions **SET** and **SUBSTRING** so that the received data types can be used correctly in business rules.

5.7. Data sources

- Fixed a bug that caused the **Report Tile** filter value to load incorrectly. The bug occurred when the tile's data source contained calculated columns with IDs that were not in sequential order (e.g. 1, 3, 4).

- Fixed a bug that occurred when attempting to save the default **Users and groups** data source. The bug appeared when a user profile with read-only privileges to the data base was used in a given environment.

5.8. Service

- Reduced memory consumption of WEBCON BPS Workflow Service when synchronizing users with Active Directory.

- The checkbox **Interrupt synchronization on any Active Directory error** has been added to the configuration for synchronization with the Active Directory service. This checkbox cancels the entire synchronization if an error related to the connection or data retrieval from AD occurs in any Organizational Unit. As a result, when an error occurs and synchronization is halted, all changes made during the process are reversed, and the system is restored to its state prior to the synchronization.

- Fixed an incorrect metrics configuration for the Prometheus exporter in the service. The issue stemmed from a missing dedicated Uri field, which hindered the operation of the metrics endpoint.

- The configuration of the **WEBCON Workflow Service** has been corrected, as a result of which errors could occur when running SDK plugins, including "Could not load file or assembly 'System.Collections, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b03f5f7f11d50a3a' or one of its dependencies. The system cannot find the file specified."

- Improved retrieval of plain text email content based on the **%BodyContent%** variable in the **HotMailBox** configuration.

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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.

2. Security fixes

2.1. Updated components

- The System.Text.Json component has been updated to version 8.0.4 due to the vulnerability patch:
  CVE-2024-30105, CWE-400 – https://security.snyk.io/vuln/SNYK-DOTNET-SYSTEMTEXTJSON-7433719

3. Information

3.1. General

- Changes introduced in this version will break the compatibility of the Export-Import mechanism. Exported process packages created in versions **2024.1.1.48** and older cannot be imported to the newest system version. In order for an import to be possible, update the environment to the newest version and export the processes again.

3.2. Add-In

- As per the "Platform compatibility roadmap", the **Outlook Classic** plugin will only work on the 64-bit version of Outlook.

4. Changes to existing features

4.1. General

- When updating to Solr 9, if the option to skip the export of user activity was chosen, the installer will not attempt to export the user activities in during future updates. Skipping the export is noted in the AdminDBScriptInfos table.
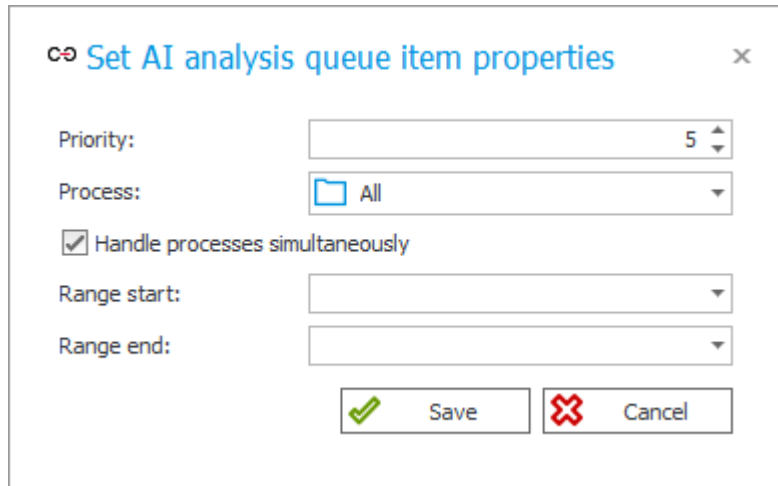
4.2. Portal

- Changed the approach to the type of response returned when entering Portal operating in the maintenance mode. Currently, in such cases, the 503 code is returned for all the endpoints whose address begins with the "/api/" prefix. For other endpoints, the page informing about active maintenance mode is displayed.

4.3. Form

- Changed the naming convention for image files when pasting them into the **Attachments** section. If a file that already exists in the system is pasted within this section, its system name is preserved. However, when a user pastes a screenshot, the file name is defined by the currently opened internet browser. Additionally, if a user attaches a file with a name that has already been added to the section, a sequence number in parentheses is added to its name.

- Changed the approach to recalculating values in the **Item list** form field. Currently, recalculation is not performed when values are changed in the cells of a column that has been configured as invisible in the **Field matrix**.

- Changed the moment when the **Update item list values** action sets the value of target fields dependent on **Choice columns**. Currently, after setting the value in a Choice column, this value is immediately copied into the target field and then potentially replaced by the aforementioned action.

- Changed the behavior of the **Choice field** when operating in **Autocomplete** mode. Now, after expanding the dropdown associated with the form field, the focus is automatically set to the input.

4.4. Designer Studio

- Changed the approach to the presentation of numerical values after pressing the **Test** button that verifies whether an SQL query is correct. Currently, the numerical data is displayed with all trailing zero digits of a given number (previously, those zero digits were omitted).

- In the **AI Analysis Report** configuration, the meaning of an empty value in the **Range start** parameter was changed.

Until now, an empty **Range start** was treated as the current date minus one year.

After this change, an empty **Range start** will be treated as the creation date of the process.

An empty **Range end** will still be treated as the current date.

- If an error occurs when parsing **Form rules**, the error log available in **Administration tools** will contain the name and ID of the form rule that failed.

5. New features

5.1. Preview of Excel files

Added an option to preview Microsoft Excel files that are attached to a form (also in the mobile app), in **History** and **Template** reports.

The option can be configured in the **Main form Properties** in WEBCON BPS Designer Studio.
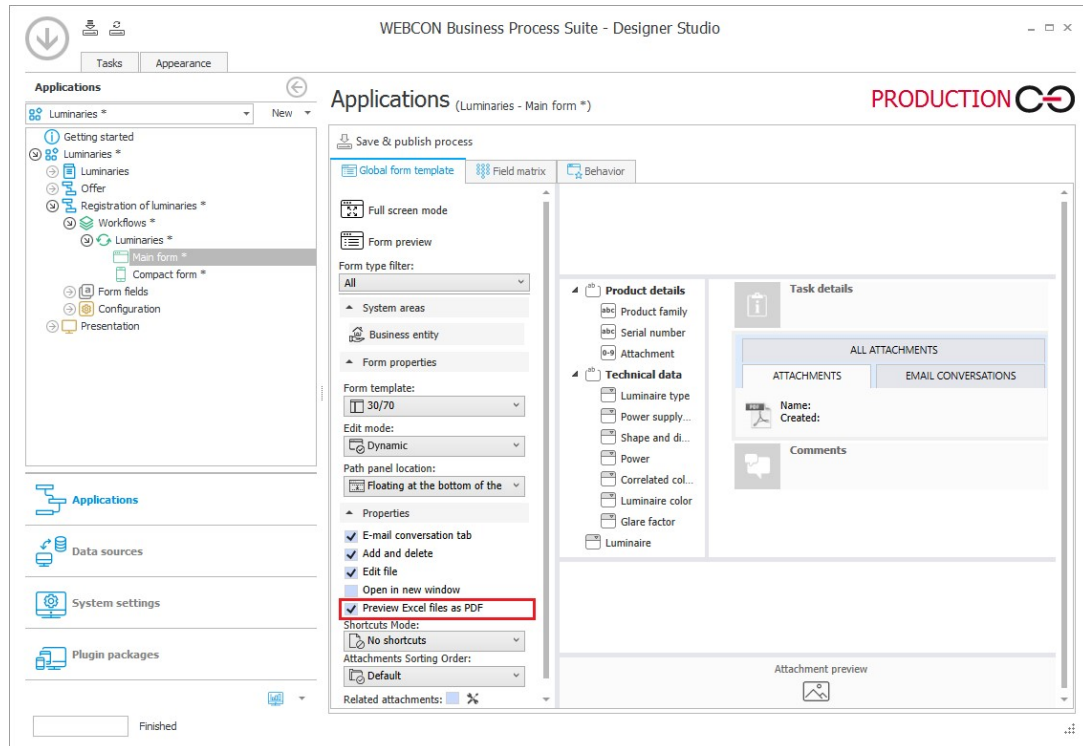
If checked, spreadsheets can be displayed as .pdf files directly in Portal.
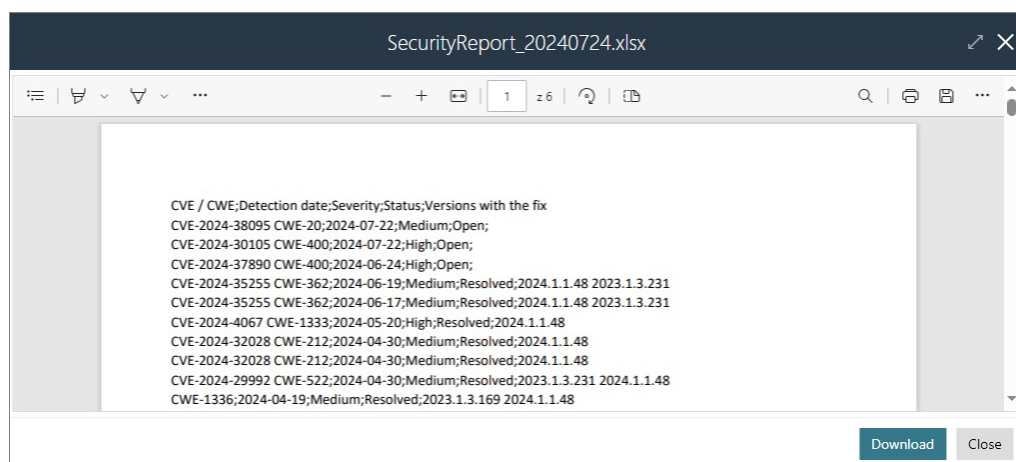
The option is unchecked by default. In this case, clicking the Excel file in Portal will download it to the local disk as before.

5.2. Designer Studio

- In the case of the Entra ID (AAD) service, added the possibility of synchronizing Member-type users whose UPN identifier includes the phrase "#EXT#". In such cases, the user's main e-mail address is utilized as the BPS ID. Additionally, for all synchronization types, the system now skips users whose BPS ID contains the "#" character.

5.3. Actions

- In the **Add attachment** action configuration, a button was added next to the category selection used to refresh and load categories defined in the **Attachment details** node of a process.

5.4. Service

- Implemented a mechanism to cancel long-running path transitions executed by the service. Currently, if the time limit specified in the **Service operations timeout in seconds** field (found in the **Configuration** tab of the service settings window) is exceeded, the path transition executed by the service is canceled. This operation also results in the cancellation of any actions that have been executed on the path or were scheduled to be executed.

5.5. Designer Desk

- Added the new option **Encode dangerous HTML tags** which allows users to specify whether dangerous HTML tags are to be deleted or are permitted. The new option is available and selected by default for the form fields **Data row** and **Data table** whose **Advanced configuration** now includes respective column with checkboxes. Additionally, the option is available for the **Item list** columns **Data row** and **Calculated text value** in the form of respective checkbox in their Advanced configuration which selected by default.

  NOTE: after updating the existing installations to the newest version, the Encode dangerous HTML tags option is by default selected for all columns of the Data row and Data table form fields. For the Item list columns Data row and Calculated text values, the respective checkbox remains unchecked after updating the installation to the newest version.

6. Bug fixes

6.1. General

- Changed the execution condition for the script that alters report configuration during the platform update to the 2021 version. Previously, the script was executed unnecessarily when updating the content database from version 2021.1.4.9 or higher to the 2022 version.

6.2. Portal

- Improved the width scaling of the attachment preview section, so that attached e-mail previews correctly show larger images placed in the e-mail content.

- Optimized search for users whose data is no longer available in the system but who have been assigned tasks. In this case, once the form is accessed, such users will be searched by **BpsId**.

- Fixed a bug that caused a message informing on the possibility to force a workflow instance check out to be displayed every 10 seconds. After the change, this message is displayed 10 minutes after another user releases workflow instance check out.

- Fixed a bug that occurred for reports with the **SearchIndex (SOLR)** source set when searching for report items from a defined range and one of the range values was not specified.

- Fixed a bug that prevented a Portal page from refreshing in Firefox. The bug occurred when the page was inactive, meaning the user was operating within a different application at the time.

- Improved logging of report information in the .json file from the executed **Diagnostic session** by including SQL parameters.

- **OpenTelemetry** packages have been updated to the latest versions so that metrics are now exported in the correct format.

- Fixed an issue with filtering on **Reports** when the data is filtered according to users. Sorting will be automatically enabled after selecting a person. After selecting multiple people and deselecting them, they will not be displayed in an incorrect order, multiple times, or falsely selected.

- Fixed a bug that caused discrepancies between the values shown in the **Absence chart** form field within an instance and the corresponding report in the Portal. Due to the bug, absences occurring at the turn of the month were not visible in the form field.

- Fixed the incorrect alignment of numerical values to the right side of the column in a tabular report. The bug occurred when the user selected a checkbox in the

Action menu within the **Views** tab of the report configuration for the column containing numerical values.

- Improved the efficiency of the Analytics module. Increased the speed of generating element aggregates.

6.3. Form

- Fixed a bug causing incorrect behavior of paths returning to the previous step. Due to the bug, the path with the value **Back to the previous step** selected in the **Destination step** field transferred users to the start step.

- Fixed a bug that occurred when attempting to display a report whose **Attachments** column included file names containing the semicolon character.

- Corrected the behavior of the **Item list** when changing the default value in one of its cells, which caused the entire list to be updated instead of the specified dependent fields.

6.4. Designer Studio

- Improved saving of translations of newly created **Message templates**.

- Fixed a bug that displayed a blank message when importing elements from an Excel sheet took too long. Now, an error message is shown when the allowed import time is exceeded.

- Fixed a bug that occurred when importing dictionary templates from .zip file into production environment.

- Fixed a bug that prevented the transfer of filter values between environments using the export/import mechanism. The bug was caused by the incorrect saving of filter configurations, where tags were omitted.

- Fixed an error that occurred after entering incorrect data in the **Active Directory Actions Configuration** node.

- Fixed a bug that resulted in the incorrect transfer of the **Multiple lines of text** field value by the **Start a subworkflow** and **Change value of single field** actions. The bug occurred when the form field configuration had both compatibility mode and **Append mode** enabled.

6.5. Actions

- Fixed a bug where the **Generate/Update Word file** action incorrectly referenced the SQL query, even when the **SQL query** option was not selected in the action configuration.

- Fixed a bug due to which as a result of the **Add a text layer** action the number of consumed pages available for text recognition under the FIneReader 11 license was larger than the actual one.

- Fixed a bug causing deletion of **Item list** rows that were hidden on the form in **Acceptance** mode.

- Improved the performance of the **Add a text layer** action by modifying the default parameters for creating a text layer engine and aligning them with ABBYY documentation.

- Fixed a bug that caused incorrect retrieval of connection parameters when editing/viewing a file that was checked out in OneDrive through the **Start editing a file using OneDrive** action.

- Modified the behavior of the rule that processes the received value in the **Invoke REST Web Service** action. When the input value was empty and the **Date** type was selected for the rule, inserting the value into the date form field resulted in an error. The value of the field will now clear in such a case.
  Similarly, the behavior of the rule for the **Floating-point number** type has been changed. Instead of setting the value to "0," the value of the form field will clear.

6.6. Rules

- Fixed a bug that prevented utilization of values returned by the **MIN** and **MAX** functions in comparison rules. As a result, in the case of dates, the values returned by the aforementioned functions were of string type, which prevented their comparison with the values retrieved directly from form fields. Now, the MIN and MAX functions return values of specific type.

- Fixed a bug where a business rule defined within the **Validate form** action only operated correctly on the second attempt to transition a path.

6.7. Data sources

- Improved the warning message content that appears when loading a WSDL in the configuration of a **SOAP Web Servic**e data source. The warning should never be empty.

- Fixed an issue with the mechanism for changing any SQL connection to SQL ADServicePrincipal through the public API. Due to this bug, the system used incorrect credentials (**User** and **Password** instead of **Client Id** and **Client Secret**) when changing the connection.

6.8. Service

- Fixed a bug that occurred during the execution of a query containing the Get_WIth_Body request in the course of a cyclical action.

- Fixed a bug where the service did not activate the **OCR AI** role after service hours. In order to do this, the fix streamlines the activation of modules that register a missing connection to the service with the **License service** role after service hours.

6.9. API & SDK

- Fixed an issue in the SDK, that prevented the configuration from being updated if the group contained a grid.

- Fixed the issue with updating SDK packages containing files for Portal and service environments. Now, files that do not exist in a package are correctly removed, regardless of the environment.

- Fixed a bug that occurred when changing the SQL connection type, where properties not required by the target connection type were being validated.

WEBCON BPS 2024 R1

## history of changes for version 2024.1.1.48

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.

- The **.NET 6.0** framework has been updated to **.NET 8.0**. As a result, starting with the 2024 R1 release, it is necessary to have the .NET 8.0 platform and the appropriate hosting bundle for the successful installation of WEBCON BPS.

- As was announced, starting with version 2024 R1, the minimum version of the SQL server is **SQL Server 2016**. The databases used by WEBCON BPS will have their compatibility level set to 110.
  The installer will check the SQL server version during the update.

- In version 2024 R1, the approach to distributing the **Microsoft Edge WebView2** runtime environment necessary to run **Designer Studio** and **Outlook Classic** Add-In has been changed. Until now, the environment was distributed as installation packages for both components. It will now require the Microsoft Edge WebView2 runtime environment to be installed, with its minimum version of 105.0.1343.22.
  In the overwhelming majority of cases, the Microsoft Edge WebView2 runtime environment comes with the operating system. Nonetheless, the availability of Microsoft Edge WebView2 depends on the operating system and its configuration. If WebView2 is not available on computers that will run Designer Studio and Outlook Classic, the installation package can be found here:
  https://developer.microsoft.com/en-us/microsoft-edge/webview2?form=MA13LH#download

- Fixed a bug that prevented the **Date and time** form field value from being set correctly using the **Invoke REST Web Service** and **Change value of single field** actions. The bug was caused by incorrect date formatting in **Business rules**.
  In addition, in the configuration of the Invoke REST Web Service action, when **Mapping response values**, the **Type** column is used to convert the returned value before the Business rule is executed. It is therefore important to ensure that the value mapping type is set correctly. This is particularly important if the value mapping type is set using a Business rule, or if the type specified in the .json file does not match the form field type.

- It is now mandatory to encrypt communication between SQL server and **Portal** and **WorkFlow Service**. The SQL Server certificate will be verified when establishing the connection. This change was implemented to ensure the highest level of installation security.
  Therefore, it is recommended to use trusted certificates installed on the SQL server. In the event that a trusted certificate is not installed on the SQL server or if the certificate is of the "self-signed" type, users will be prompted to confirm whether they wish to trust the server certificate when components and **Portal** are

upgraded to the latest version of the system.
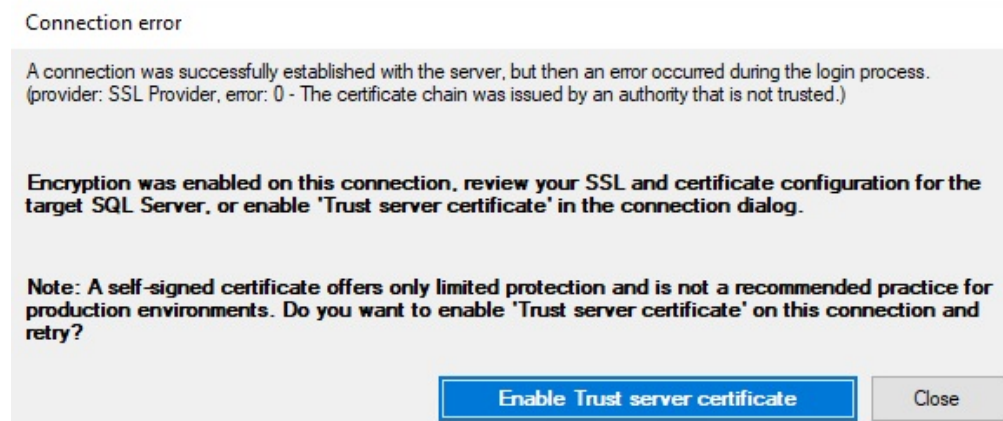
Selecting "Enable Trust server certificate" will establish a connection to SQL server with the "self-signed" certificate installed and add the **TrustServerCertificate=true** flag in the connection string section of the appsettings configuration file of Portal and Workflow Service components, so that any subsequent connection to the SQL server will also trust the server certificate.
Selecting "Close" will reject the connection to SQL Server. In this case, establishing a connection to Portal will require additional SQL Server configuration and the installation of a trusted certificate.

- Updated the **SOLR Search Server** component to version **9.6**.
  Updating Search Server will cause all **SearchIndex** data to be deleted. During the update, a full reindexing of the database will be queued in the **SOLR indexing queue** to replace the removed data. Depending on the size of the database, this full reindexing may take from several minutes to several hours. When the indexing is underway, users may still use the system normally, with the exception of reports that use SearchIndex as their data source – such reports may contain incomplete data before the data is reindexed.

  Because it is not possible to reindex data regarding user activities and recently viewed areas, a backup copy of this data will be created during the update. The backup copy will be restored in the installer, after the **SOLR Search Server component is updated.** The backup contains data from the last 30 days. WEBON has also made the **SolrActivitiesMigrationCli** tool available which can be used to create and restore a backup copy separately from the update process.

- Starting with version 2024 R1, the required component to be installed on the server running SOLR is **Java 11** or later (the recommended distribution is OpenJDK). This component will be installed as part of a standard system update in the C:\Program Files\Java\jdk-22.0.1 folder.

  It is permissible to install the Java component independently, outside the standard WEBCON BPS installation. In this case, it is necessary to set the environment variable **JAVA_HOME** with the path to the directory where the Java component is installed.

1.2. General

- Word document templates created with the add-in from version 2017.1 will no longer be supported. Before upgrading the system, the templates used in the **Generate/Update a Word file** actions should be replaced with templates created with the latest version of the **Word Modern** add-in.

- The **RemoveDiactrics** database function has been removed.

- Removed unused SQL function **GetUserComment**.

1.3. API & SDK

- Changed the method of license control when using SDK extensions.
  The change applies to **perpetual** license environments where SDK extensions are actively used. Currently, the license that allows the use of SDK extensions is verified before the plugin is run. Before upgrading the system, it is recommended to verify the availability of the **WEBCON BPS SDK Framework** license in the environment. A list of current licenses is available in Designer Studio under **Reports › Licenses › License usage**.

  Regardless of the availability of the WEBCON BPS SDK Framework license, SDK extensions created by authorized WEBCON partners, who have signed the extensions with their key previously provided to WEBCON, can be run on the environment.

  For environments running under a **subscription-based** licensing model, no action is required – the WEBCON BPS SDK Framework is licensed by default under this model.
  The SDK plugins can also be used freely in time-limited environments (demo license) and in installations based on the **Freemium** version.

2. Security fixes

2.1. API & SDK

- In **REST API** versions **4.0**, **5.0,** and **beta**, operations that add, edit, and remove attachments will now have additional protection against unauthorized checkout of instances by users that do not have privileges for such an operation.
This issue occurred only when the REST API was called in the context of an application that had the parameter forceCheckout=1.
This fix ensures that:
  - admin privileges will be verified before the checkout operation,
  - connections in the context of the user will require the scope: User.Elements.Admin.All lub User.Elements.Admin.<ProcGuid>,
  - it will no longer be possible to force checkout in the context of an application with impersonation enabled.

  In the **REST API beta** version, all operations that force checkout (forceCheckout=1) and connect in the context of the application, will now have an additional scope privilege verification **App.Elements.Admin.All.**

2.2. Updated components

- The System.IdentityModel.Tokens.Jwt component has been updated to version 6.35.0 due to the vulnerability patch:
CVSS – https://security.snyk.io/vuln/SNYK-DOTNET-SYSTEMIDENTITYMODELTOKENSJWT-6148655.

- The following components have been updated:
  - react-native to version 0.73.2,
  - expo to version 50.0.4,
  - react-native-blob-util to version 0.19.6,
due to a vulnerability patch:
CWE-772 – https://security.snyk.io/vuln/SNYK-JS-INFLIGHT-6095116.

- The following components have been updated:
  - @fluentui/react to version 8.115.3,
  - @progress/kendo-licensing to version 1.3.5,
  - @xmldom/xmldom to version 0.8.10,
  - core-js to version 3.35.1,
  - office-addin-dev-certs to version 1.12.1,
  - react-hot-loader to version 4.13.1,
  - uuis to version 9.0.1,
  - json5 to version 1.0.2,
  - semver to version 5.7.2,
  - url to version 0.11.3,

  due to vulnerability patches:

- CVE-2022-23540, CWE-287

  https://security.snyk.io/vuln/SNYK-JS-JSONWEBTOKEN-3180022 CVE-2022-23541

  - CWE-1259

    https://security.snyk.io/vuln/SNYK-JS-JSONWEBTOKEN-3180024

  - CVE-2022-23539, CWE-327

    https://security.snyk.io/vuln/SNYK-JS-JSONWEBTOKEN-3180026

  - CVE-2022-37616, CWE-1321

    https://security.snyk.io/vuln/SNYK-JS-XMLDOMXMLDOM-3042243

  - CVE-2022-39353, CWE-20

    https://security.snyk.io/vuln/SNYK-JS-XMLDOMXMLDOM-3092934

  - CVE-2023-45133, CWE-184

    https://security.snyk.io/vuln/SNYK-JS-BABELTRAVERSE-5962462

  - CVE-2023-26159, CWE-20 – https://security.snyk.io/vuln/SNYK-JS-FOLLOWREDIRECTS-6141137

  - CWE-772

    https://security.snyk.io/vuln/SNYK-JS-INFLIGHT-6095116

  - CVE-2022-46175 CWE-1321

    https://security.snyk.io/vuln/SNYK-JS-JSON5-3182856

  - CVE-2022-37599, CWE-1333

    https://security.snyk.io/vuln/SNYK-JS-LOADERUTILS-3042992

  - CVE-2022-37601, CWE-1321

    https://security.snyk.io/vuln/SNYK-JS-LOADERUTILS-3043105

  - CVE-2022-37603, CWE-1333

    https://security.snyk.io/vuln/SNYK-JS-LOADERUTILS-3105943

  - CVE-2022-3517, CWE-1333

    https://security.snyk.io/vuln/SNYK-JS-MINIMATCH-3050818

  - CVE-2023-44270 CWE-20

    https://security.snyk.io/vuln/SNYK-JS-POSTCSS-5926692

  - CVE-2022-25883, CWE-1333

    https://security.snyk.io/vuln/SNYK-JS-SEMVER-3247795

  - CWE-79 – https://security.snyk.io/vuln/SNYK-JS-SERIALIZEJAVASCRIPT-6147607

  - CVE-2022-25858, CWE-1333

    https://security.snyk.io/vuln/SNYK-JS-TERSER-2806366

  - CVE-2023-26136, CWE-1321

    https://security.snyk.io/vuln/SNYK-JS-TOUGHCOOKIE-5672873

  - CVE-2023-28154, CWE-265

    https://security.snyk.io/vuln/SNYK-JS-WEBPACK-3358798

  - CVE-2023-26115, CWE-1333

    https://security.snyk.io/vuln/SNYK-JS-WORDWRAP-3149973.

- Changed the algorithms used to hash **Secrets for API applications**. Previously generated Secrets will continue to use the previous algorithms, but it is recommended to generate new Secrets to increase security.

- The tar component has been updated to version 6.2.1 due to the vulnerability patches:
  CVE-2024-28863, CWE-400 – https://security.snyk.io/vuln/SNYK-JS-TAR-6476909.

- The dompurify component has been updated to version 3.1.0 due to the vulnerability patch:
  CWE-1336 – https://security.snyk.io/vuln/SNYK-JS-DOMPURIFY-6474511.

- The System.Security.Cryptography.Pkcs component has been updated to version 6.0.3 due to the vulnerability patches:
  CVE-2023-29331, CWE-400 – https://security.snyk.io/vuln/SNYK-DOTNET-SYSTEMSECURITYCRYPTOGRAPHYPKCS-5708426.

- The following components have been updated:
  - react-native to version 0.73.5,
  - micromatch to version 4.0.6,
  - braces to version 3.0.3,

  due to vulnerability patches:
  - CVE-2024-29415, CWE-918
    https://security.snyk.io/vuln/SNYK-JS-IP-7148531
  - CVE-2024-4067, CWE-1333
    https://security.snyk.io/vuln/SNYK-JS-MICROMATCH-6838728 CVE-2024-4068
  - CWE-400
    https://security.snyk.io/vuln/SNYK-JS-BRACES-6838727.

- The Azure.Identity component has been updated to version 1.11.3 due to the vulnerability patches:
  - CVE-2024-29992, CWE-522
    https://security.snyk.io/vuln/SNYK-DOTNET-AZUREIDENTITY-6597976.

- The TinyMCE library has been updated from version v5 to v6. This library is responsible for the behavior of the **Multiple lines of text** form field in Rich mode. Additionally, how the form field is displayed in dark mode has been improved, and it is now possible to view keyboard shortcuts that are available in Rich mode.

- The OpenTelemetry.Instrumentation.AspNetCore component has been updated to the latest version due to the vulnerability patches:
  - CVE-2024-32028, CWE-212
    https://security.snyk.io/vuln/SNYK-DOTNET-OPENTELEMETRYINSTRUMENTATIONASPNETCORE-6613064.

- The OpenTelemetry.Instrumentation.Http component has been updated to the latest version due to the vulnerability patches:
  - CVE-2024-32028, CWE-212
    https://security.snyk.io/vuln/SNYK-DOTNET-OPENTELEMETRYINSTRUMENTATIONHTTP-6613065.

- The tinymce component has been updated to version 6.8.4 due to the vulnerability patches:
    - CVE-2024-38356
      https://github.com/advisories/GHSA-9hcv-j9pv-qmph
    - CVE-2024-38357,CWE-79
      https://security.snyk.io/vuln/SNYK-PHP-TINYMCETINYMCE-7278051.

- The following components have been been updated:
    - System.IdentityModel.Tokens.Jwt to version 6.35.0,
    - Microsoft.Identity.Client to version 4.61.3,
  due to vulnerability patches:
    - CWE-362
      https://security.snyk.io/vuln/SNYK-DOTNET-AZUREIDENTITY-7246762
      https://security.snyk.io/vuln/SNYK-DOTNET-MICROSOFTIDENTITYCLIENT-7246763.

3. Information

3.1. Important information

- Changes introduced in this version will break the compatibility of the Export-Import mechanism. Exported process packages created in versions **2023 R3** and older cannot be imported to the newest system version. In order for an import to be possible, update the environment to the newest version and export the processes again.

3.2. General

- When SQL queries configured in data presentation form fields (such as **Data table**, **Data row**, **Picker fields**) contain syntax that does not meet the assumptions described in the documentation:
  "*Columns must be named (e.g. SELECT column1, CAST(25.65 AS int) AS column2 FROM table_name).*
  When using the ORDER BY clause, it is necessary to use defined column names (e.g. SELECT column1 AS Id, CAST(25.65 AS int) AS column2 FROM table_name ORDER BY Id)",

  an error will be logged that reads:
  "Detected unsupported configuration. Sql query contains keywords that are not supported in subqueries. Consider reconfiguration as this may become an error in future BPS versions".

  In the future, such unsupported configuration may be disabled completely.

- Authentication to the Power BI service has been changed. Currently, authentication will not require the browser to handle third-party cookies. The change will not require any additional action on the part of the user.

3.3. Data sources

- Support for **MSSQL Database** columns has been extended to include the **bigint** type. If the SQL data source contains a column of this type, it is recommended to re-save the data source configuration in WEBCON Designer Studio.

3.4. API & SDK

- Added new **REST API** version **6.0**.
  REST API version 3.0 has been removed, while version 4.0 has been marked as deprecated.
  The endpoint **api/login** used for authentication will be removed in version 2025, it is recommended to use endpoint **/api/oauth2/token** instead.

3.5. Updated components

- The **OpenTelemetry** components have been updated to the latest version, making all metrics introduced in .NET 8 available for Portal.
The list of metrics can be viewed at: https://learn.microsoft.com/en-us/dotnet/core/diagnostics/built-in-metrics-aspnetcore.

- **Outlook Classic** and **Outlook Modern** add-ins have been adapted for use with the new Microsoft Outlook Beta application.

- The **Microsoft.Graph** library and its component, **Microsoft.Graph.Core**, were updated. This update also included related system messages.

4. Changes to existing features

4.1. Important information

- Changed the logic of license utilization when transitioning through a path from the **Wait for sub-workflows** step. Currently, the licenses for a parent process (that utilizes the Wait for sub-workflows step) and a subordinate process (initiated through the subworkflow) are checked independently. The modification aimed at addressing the situation in which the aforementioned processes are licensed under different terms (user license vs. process license). Previously, the license for the parent process (that initiated subworkflow) was always checked when running the subordinate process (workflow).

- From now on, the **Public Access** functionality will be licensed under the **Single-Use Access License**. Before executing the **Share workflow instance** and **Share task actions** as well as before manually sharing the instance from the form level, the availability of **credits** in the pool of credits purchased under the **Single-Use Access License** will be checked. Performing an operation on a workflow instance by an **external user** (e.g. saving, adding an attachment) will involve the consumption of one **credit** from the pool of credits.

  For perpetual licensing environments, the use of **Public access** functionality will not be possible.

4.2. General

- Changed the handling of prohibited special characters in addresses used in OData endpoints. Currently, those characters are replaced with an underscore (_).

- How the system loads the current SQL server time to save the data in the database has been modified. This change does not impact the system's current functions – it makes it possible to move databases between servers operating in different time zones.

- As previously announced, it is no longer possible to configure form subtypes. The form subtypes defined so far will still be visible from WEBCON BPS Designer Studio, and information about them will be available in the database. However, it will not be possible to configure new form subtypes, and information about them will not be available on the form. In the future, the visibility of form subtypes will also be disabled in Designer Studio.

- Due to the update of the **.NET 8.0** framework the way of reading configuration variables has changed.
  This update brings the following changes:
    - the sequence for reading the environment variable has changed. Now, the command-line arguments and DOTNET_-prefixed environment variables override ASPNET_-prefixed
  environment variables when reading **WebApplicationBuilder's** default host

configuration,
  - the **app.config** configuration file currently cannot contain the section "<section name="system.diagnostics" type="System.Diagnostics.SystemDiagnosticsSection, System, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b77a5c561934e089"/>",
  - the mechanism to detect an empty request body during MVC model binding now uses **IHttpRequestBodyDetectionFeature.CanHaveBody**.

4.3. Portal

- As a result of modification to the reports and **Report Tiles** configuration on application dashboards, it is no longer possible to create links to existing application reports on dashboards (application reports and dashboard reports are now created independently). In addition, it is not possible to create **Private report views** from the dashboard.
During the process of upgrading to the latest version, the configuration of all reports and Report Tiles visible on the application dashboards will be changed in such a way that a copy of the original report configuration and the appropriate data source for the report or Report Tile will be created within the dashboard. Note, however, that the Private views configuration will not be copied during the system upgrade.

- The configuration of the **ASP.NET Core Data Protection** mechanism has been expanded to permit encryption of cookies on multiple servers using an identical key.
In order to activate the ASP.NET Core Data Protection on every server where WEBCON BPS Portal is installed, it is necessary to set the **App__SharedAuthAppName** environment variable to the key that will be used for signing.
This can also be done by editing the **appSettings.user.json** configuration file, and setting the **SharedAuthAppName** parameter in the **App** node to the key that will be used for signing.

- Changed the logic regulating the availability of the **Act on behalf** widget on the application page in Portal. Now, for the widget to be accessible, substitutions on behalf of another user must be enabled in at least one application process.

4.4. Form

- The **Download all attachments** button will be visible regardless of whether the **Add and delete** option is enabled in the **Attachment panel**. The button appears in the top right corner of the Attachments panel when more than one attachment is added.

- The file extension for **Voice memos** has been changed to .wav to ensure proper use on all devices and operating systems.

- Changed the form behavior for path transition when a picker field operating in read-only mode is initiated with a default value from outside the field's data source.

Currently, in such situations, a message is displayed informing about the incorrect value provided in the picker configuration, and the path transition is not possible. Previously, the system permitted the path transition despite the incorrect value entered in the picker field.

4.5. Designer Studio

- Changed the way in which the **Single-Use Access License** is checked and used when a subworkflow is initiated by the parent workflow started by an external user. In such cases, two Single-Use Access licenses will be used: the first one as a result of initiating the parent workflow, and the second one due to the initiation of the subworkflow. Previously, the initiation of the subworkflow was interrupted by a message indicating that no license was assigned.

- **WEBCON BPS Designer Studio** now has the capability to establish a connection to Portal that does not have a trusted certificate.
  When logging in to Designer Studio, a window is displayed allowing the user to decide whether to connect to Portal using a trusted certificate or to bypass it. If confirmation is given, the connection will be established as before and it will be possible to view the contents of the certificate.
  In the event that there is no confirmation or a certificate validation error occurrs, the connection to Portal will bypass the trusted certificate.
  The user's decision can be for a single login session or it can be continuous (as long as the **Don't ask again** option is selected).

- The way of configuring **Application Dashboards** from Designer Studio has been changed. Currently, the configuration of this element of the application will be performed by the user in the browser window.

- **Dictionary processes** can no longer be selected in the **HotFolder** configuration.

- Changed the sorting of nodes presented in the **Usages** tab within the data source configuration window. Currently, the nodes are sorted first in accordance with their type (processes, rules, form fields, etc.), and then in accordance with their name.

4.6. Actions

- Added the capability to execute the **Change value of single field** action in automations performed in cycles. In this context, the action can only modify the values of local automation parameters.

- When editing a PDF file from the attachment context menu, the default application associated with PDF files will always be used. The window that asks the user to "Select an app to open this .pdf file" will be skipped.

- The conversion of text values for the **Invoke REST Web service** action has been changed. When a **Business rule** is used in the configuration of an action to map the request body or response, and a **Date** or **Floating-point number** input parameter is defined, the conversion of the text value to the specified parameter

type now follows the conversion logic of the Business rule types, rather than the current culture of the user who invoked the action.

- The description "Additional information" in the header of the email notification sent by the **Add a substitution** action has been replaced with "Delegated task description".

- In the **Generate/Update a Word file** action, if the output file has a configured dynamically-set category, but the process does not have an attachment category source defined, the category of the attachment will be saved in the database anyway – in ID#Name format. Previously, if no defined categories existed, the attachment was saved with an empty category.

4.7. Rules

- Changed the format in which business rules are saved in the database – from XML to JSON. Any existing configuration will be automatically converted to JSON.

- Changed the behavior of the **INITIALIZE** function which initializes **Item lists**. If the target Item list is unavailable or is read-only, the rule containing this function will log a warning in the console and continue executing the rule while skipping initialization.

4.8. Mobile app

- Implemented changes in viewing PDF documents within mobile application. Currently, instead of viewing a PDF file natively inside the application, such a document is downloaded and opened in a suitable PDF viewer software configured in the operating system (Android/iOS) or suggested by the system.

4.9. Service

- Values recognized by **OCR AI** will be additionally validated by the service, immediately before they are entered into the form. This is to ensure that they can be saved in form fields (i.e. in corresponding SQL database columns).
The length and format of the data will be checked in the following column types:
    - **Varchar(255)** (maximum 255 characters),
    - **VarcharChoose** (maximum 1000 characters),
    - **Decimal** (maximum 15 characters combined, before and after decimal separator),
    - **DateTime** (check date format by comparing it to 1 January 1753).
The admin history will contain logs about discarded values.

4.10. API & SDK

- Additional connection validation has been added to the configuration windows of the Invoke **REST Web Service** action and the **REST Web Service** data source. If a connection is not defined, pressing the **Load** button will display a corresponding message.

- The **resolveFieldValue** and **resolveColumnValue** endpoints in the public API will now accept empty request body.

- Unified the default data model used in the interface part of SDK plugins, i.e. the extension **FormFieldExtensionJS** for the following form fields: **Integrer number**, **Floating-point number**, **Date and time**, **Single line of text**, and **Multiple lines of text**. When using SDK plugins that do not have business logic with their own data model, it is necessary to adapt the interface to align with the new model.

5. New features

5.1. Widget

Expanded the list of form fields available in the **Data presentation** group by adding the **Widget** form field. It allows users to attractively visualize selected numerical data on the form and optionally present it against other values.

Depending on the configuration, the form field can be displayed in one of the available forms: **Numeric value**, **Progress bar**, **Circular progress bar**, and **Gauge**. It is also possible to change the color scheme of the Widget, including by implementing **Additional coloring conditions**.
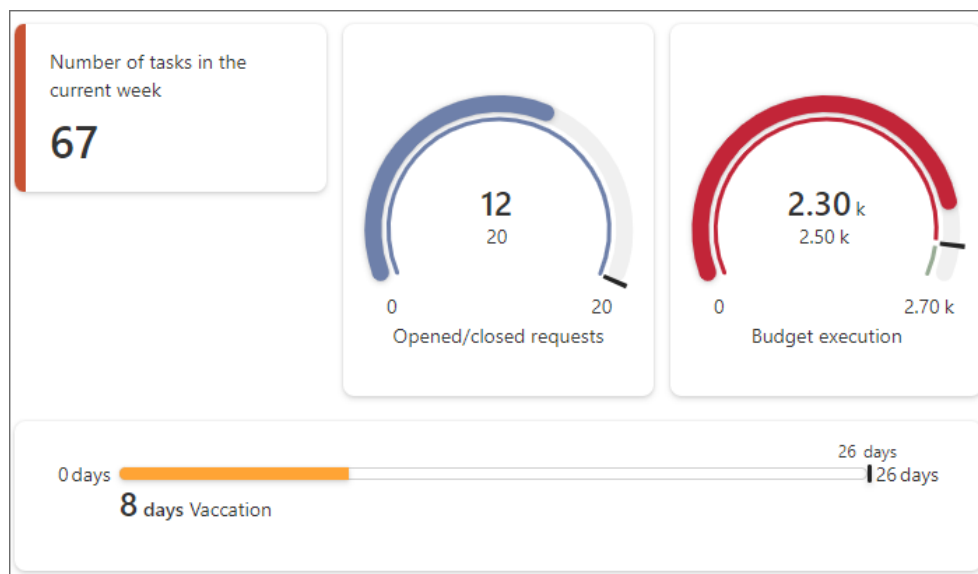
Users can either enter the numeric value to be visualized directly, or provide it through a business rule, an SQL query, or global/process constant (the **Displayed value** field in the **Advanced configuration** window). Additionally, the aforementioned value can be presented against **Expected value**, **Minimum value**, or **Maximum value**.

5.2. Predefined form templates

It is now possible to modify the proportions of the left and right panels of a form in WEBCON BPS. This enhancement enables users to adjust the width of the side panels to better align with the content of their forms, allowing them to make the most of the available workspace while designing forms that are more visually appealing.

Configuration changes

A new **Form template** parameter has been added to the **Form properties** section of the **Global form template** tab in Designer Studio. The list of available options is as follows:

- 50/50 – the left and right panels will have the same width. This is the default form template.
- 30/70 – the left panel will occupy 30% of the form width, while the right panel 70%,
- 70/30 – the left panel will occupy 70% of the form width, while the right panel 30%,
- One column – the form content will have a continuous form and will be displayed in one column with a maximum width of 768 px. This is the default template for newly created **Dictionary processes**.

Once an option has been selected, the form preview on the right will be updated accordingly.

Form templates can also be selected when defining individual workflow steps.

Note: after the system upgrade, the forms previously defined by users will be displayed with a default 50/50 template, regardless of the process type.

Example of a form based on the 70/30 template

WEBCON BPS Designer Desk

The functionality has also been introduced in WEBCON BPS Designer Desk. A drop-down list has appeared on the top menu bar, from which users can select one of the predefined form templates. The list of templates is analogous to the one available in Designer Studio.
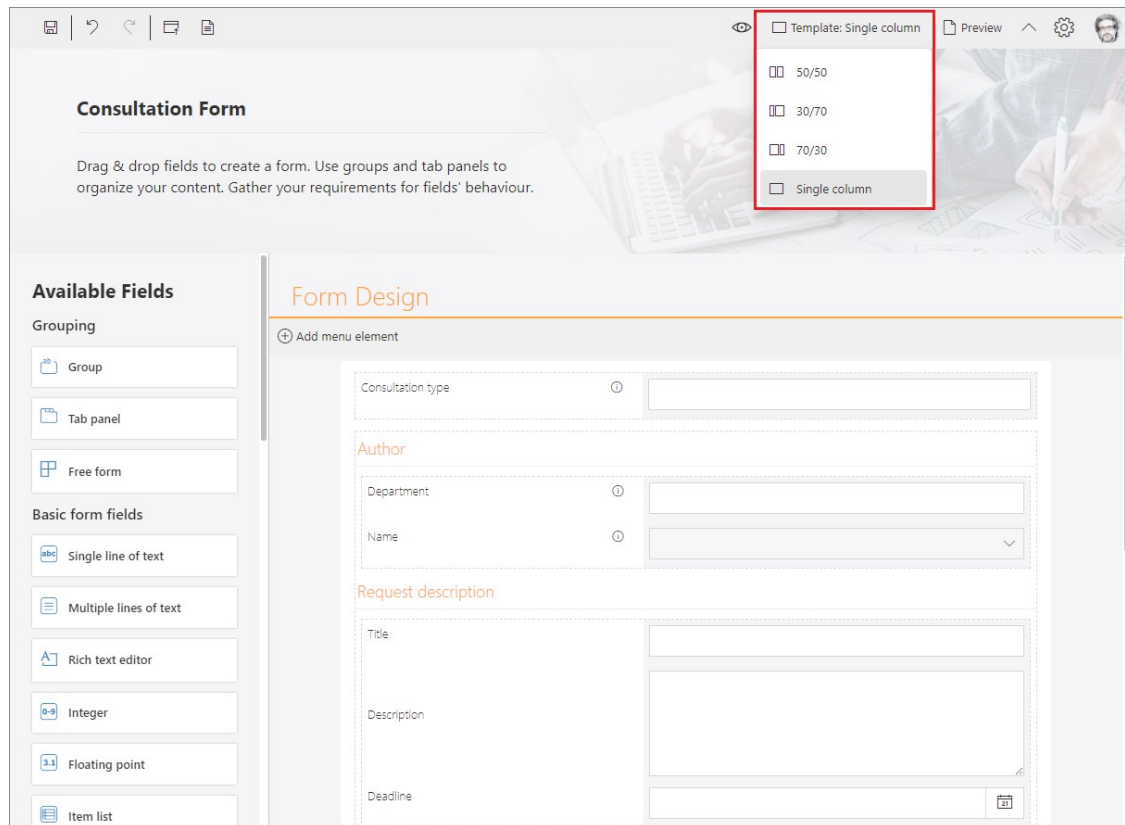
When a prototype is published to Designer Studio, the settings made are saved and available in the target **Global form template**.
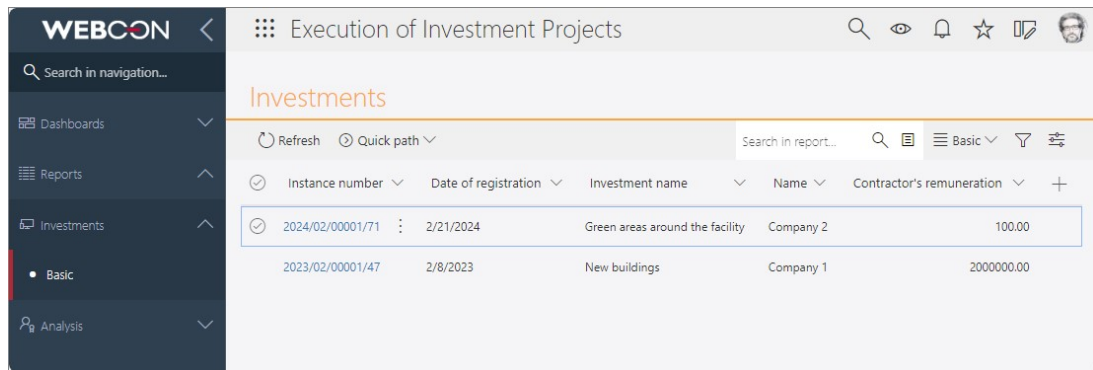
5.3. Enhancing digital accessibility of WEBCON BPS Portal

The latest version of WEBCON BPS continues the changes initiated in version 2023 R3 to enhance the Portal's accessibility for end users, aligning it with the applicable Web Content Accessibility Guidelines (WCAG).

Portal navigation without a mouse

The changes made allowed users to navigate additional areas of Portal conveniently using the keyboard (Tab, Enter, Esc, Space, arrow keys) and other device interaction tools (e.g. TalkBack, VoiceOver). These areas include among others:

- Home page,
- Task panel,
- Top menu bar,
- Side panel and its selected nodes (e.g. Analytics),
- Selected sections of the Admin panel,
- Global search panel,
- Reports and their views.

The changes apply to elements visible or editable by the end user, such as forms, but exclude configuration windows for individual functionalities.

Additionally, the default focus border for all supported Portal elements has been standardized. These settings will be derived from the theme configuration, regardless of browser type and settings.

Contrast on Portal pages

The contrast ratio between text or text graphics and the background in the required places in Portal has been adjusted to be at least 4.5:1 to meet the AA level according to WCAG 2.2 requirements.
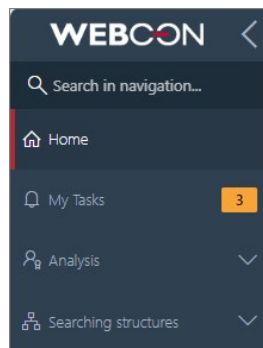
New, contrast system theme and related changes

A new system theme, **Webcon Contrast Black Yellow**, has been introduced in Portal, that will enhance the accessibility of the Portal's pages for individuals with visual impairments and special needs. This theme features a distinctive, higher contrast ratio: yellow or white text against a black background (which also appears in areas where photos were previously displayed), with blue accents for graphic elements such as those related to the application, start buttons, favorites, or task details and comments on the form. The default focus color for this theme is pink.
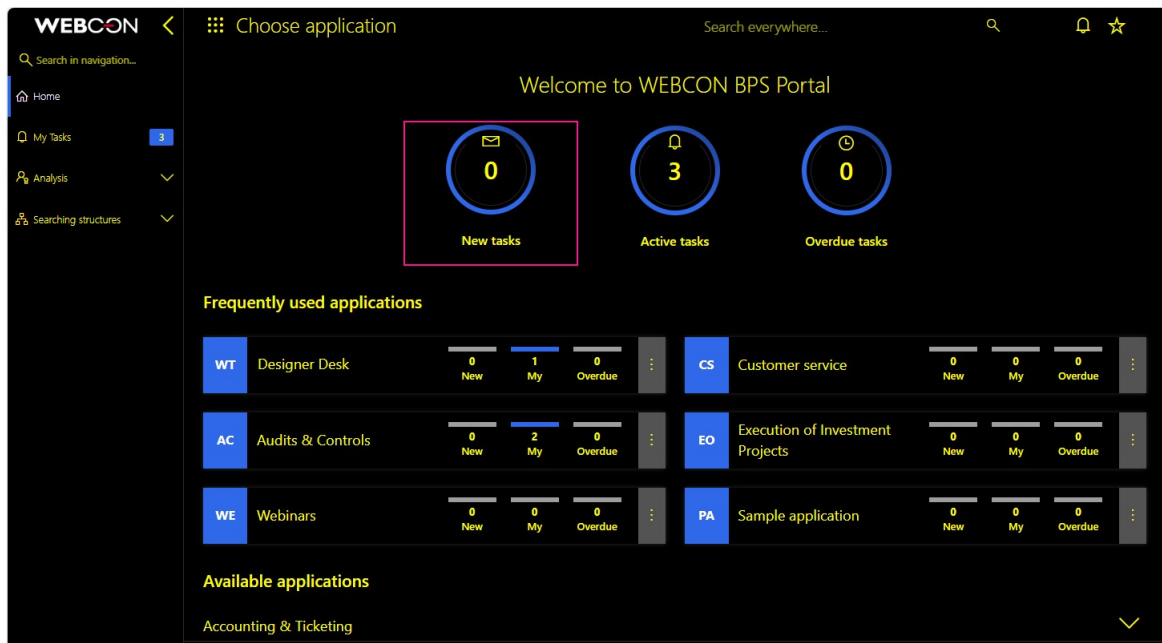
By default, this theme disables the coloring of report rows and Item list rows, as well as overriding the colors of form fields, path buttons, and other form elements. However, a new **CustomColoringInContrastThemeEnabled** parameter has been added to the **GlobalParameters** table in the configuration database that allows users to apply custom colors to the listed elements in the contrast theme, if desired.

Additionally, it is now possible to create additional contrast themes based on a different color palette. For this purpose, a special **Is contrast** checkbox has been added to the editing window of each theme:

By configuring a contrast theme, the administrator can independently indicate well-contrasting colors of Portal elements to meet the needs of individual users.
The checkbox is also visible on the main color themes page (**User menu →
Administration → Color themes**).
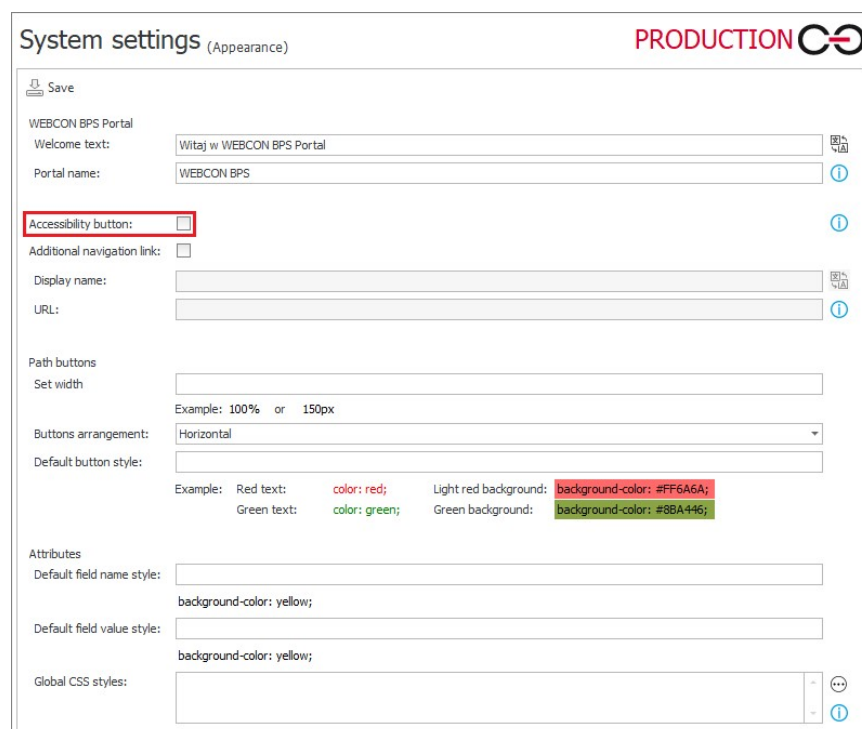
Accessibility options

The top menu bar in Portal has been modified to provide convenient and quick access to the new features. Therefore, the icon 👁 has been added that, when clicked, displays the **Accessibility settings** window.
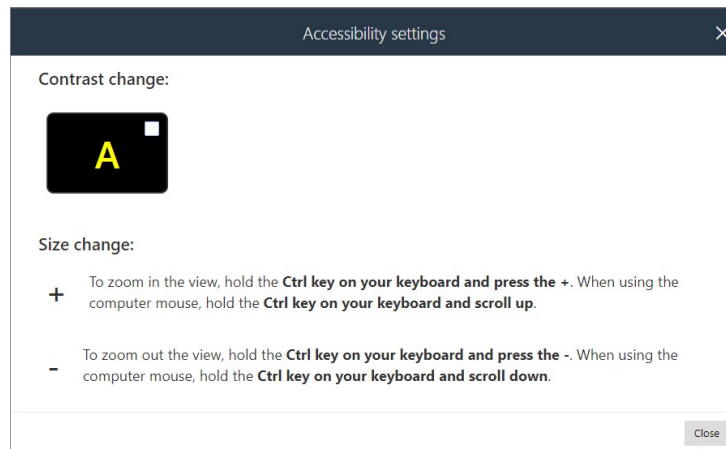
With it, users can easily switch the Portal theme to **WEBCON Contrast Black Yellow** or any other custom theme **marked as contrast**. Deselecting the theme in the window will restore the default theme in Portal. Additionally, there are prompts to resize the screen using either the mouse or keyboard, which vary depending on the operating system in use.

To display the accessibility icon in the top menu in Portal, user needs to check the new **Accessibility button** box in the WEBCON BPS Designer Studio configuration (**System settings → Global parameters → Appearance**).

Accessibility settings can also be accessed from the Portal's home page by using the **Quick navigation links** and tabbing to **Go to accessibility settings**.

Messages in Portal

The color of text used in error messages, warnings, and any information displayed as a result of the system's checking of operations undertaken by the user and the correctness of the data entered has been standardized. Additionally, according to the WCAG guidelines, information cannot be conveyed solely through color. Therefore such messages, warnings, and notifications will also be identified by a consistent icon featuring an exclamation point in the same color as the text. An asterisk will be displayed also in the same color to indicate that a field is required or an option must be selected in Portal.

For system contrast theme, the mentioned elements will be displayed in pink, which provides more contrast than red.

Use of voice readers in Portal

Navigation in Portal has been made easier for individuals using voice readers and similar solutions. ARIA tags were added to improve accessibility, and the HTML structure on WCAG-compliant pages was enhanced. In addition, landmarks were introduced to identify content types, and appropriate roles were assigned to individual page elements, reducing the time required to find specific content or navigation elements in Portal. Thanks to these changes, information from Portal will be more accessible and understandable to users who rely on voice readers (such as Windows Narrator, VoiceOver, and TalkBack).

5.4. Changes to color themes

Two new parameters, **Input-type fields font** and **Input-type fields background**, have been added to the color themes configuration window (**User profile → Administration → Color themes → Edit**). These parameters enable defining the font color and background color, respectively, in fields used for entering input data in Portal, as well as related icons and symbols (e.g. in form fields).

Font and background colors for input-type fields can be set for custom color themes, while system themes will use the following default colors:

Input-type field for WEBCON Light and WEBCON White themes

Input-type field for WEBCON Dark theme

Input-type field for WEBCON Contrast Black Yellow theme

After the version update, input-type fields in user-defined themes will automatically adopt the default font and background colors that were previously used for this type of fields.

5.5. ToDo list

Added functionality that allows users to create a list of tasks (**ToDo**) for better work management and progress monitoring. The list within the table rows presents objects, such as form fields, actions, or rules, which are designated as requiring further configuration.

Every user with privileges to a given application can access the list. The list can be accessed either by clicking the **ToDo list** button in the **Actions** tab or by selecting the **Show ToDo list** option from the context menu, which is opened by right-clicking on the application icon in the selection tree.
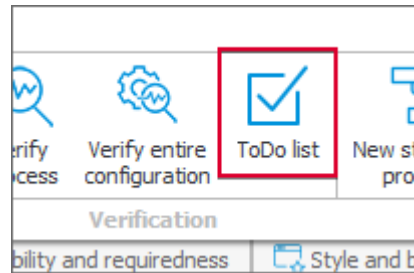
The list items are arranged according to the application they belong to and displayed in the order in which the user added them. Users can mark a given task as executed (by selecting a checkbox in the **Done** column) and directly open the configuration window (the **Navigate to object configuration**).
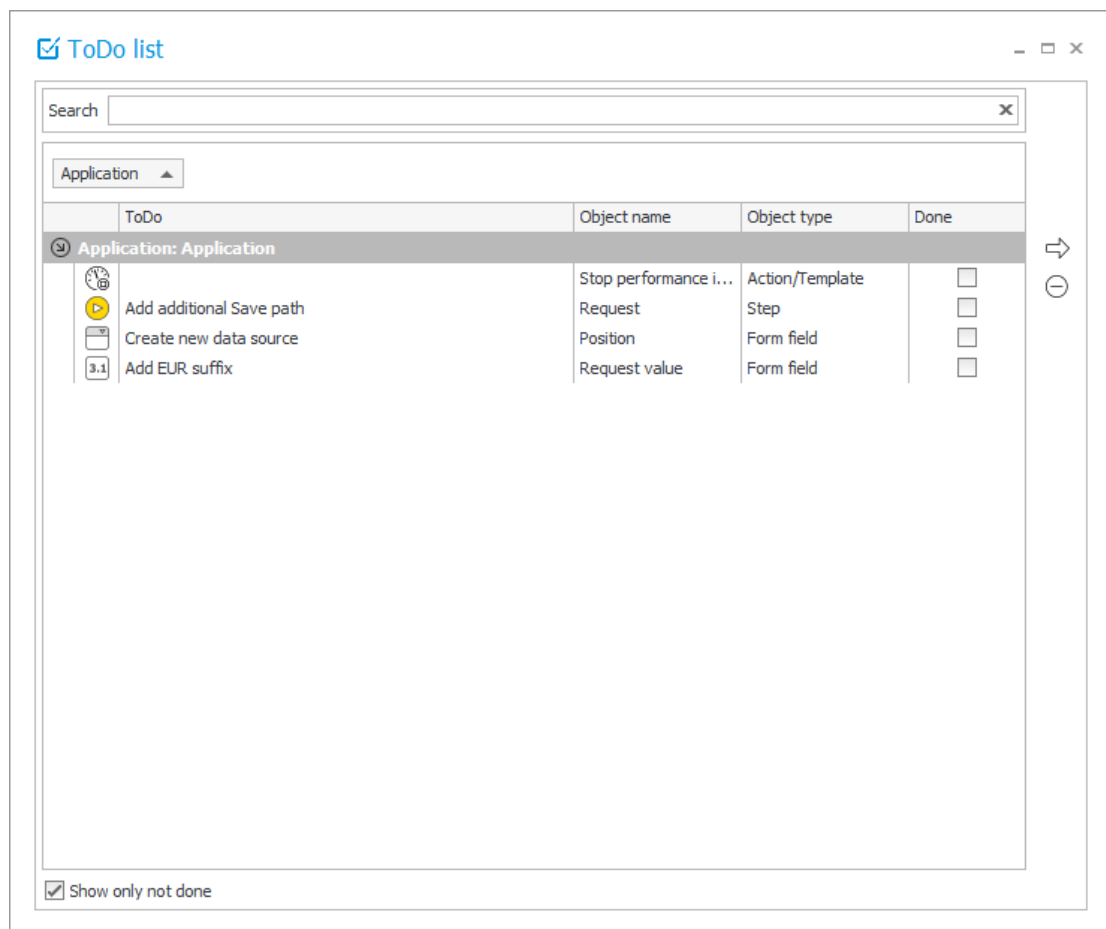
Adding objects to the list

Users can add objects to the **ToDo** list by right-clicking on an addable object and selecting the **Add ToDo** option from the context menu. When adding an object, users can provide its description in the dedicated window and mark it as **Done**. The name of the added object is highlighted in green in the Designer Studio configuration.
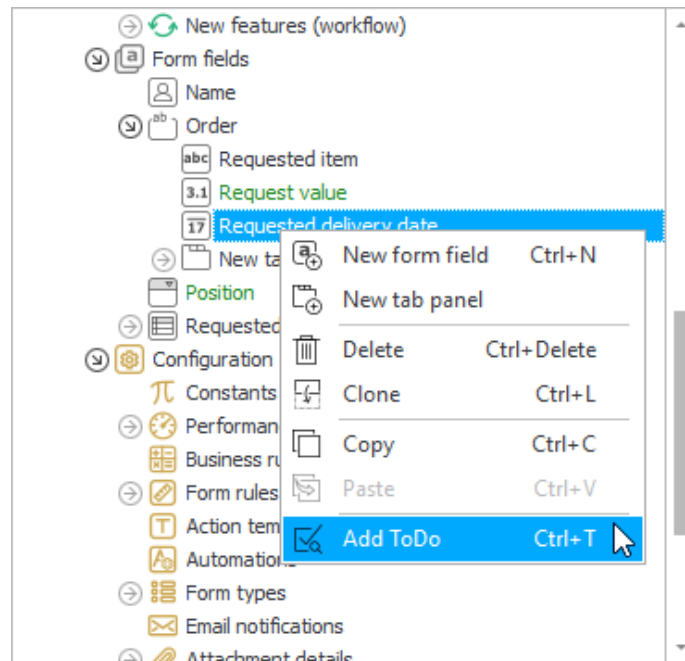
Note: the information stored in the ToDo list is not preserved when importing or exporting the application.

Application prototypes transferred from Designer Desk to Designer Studio

The ToDo list, which contains certain objects and automatically generated task descriptions, is created upon importing the application from Designer Desk. The list contains the following objects provided they have been inserted in the prototype:

- path (if the **I need this path to be available only in some cases** checkbox has been selected),
- actions,
- form fields, such as Choice field or fields belonging to the Data presentation group),
- business rules,
- data sources (except Fixed values list).

5.6. Importing applications using the public API

Administrators can now import applications using the **REST API** in Portal. With the new tool and API application, they can define import parameters that previously required navigating separate wizard steps in WEBCON BPS Studio. This solution automates the process of importing applications and transferring configuration data between environments (DEV/TEST/PROD).

Note: the import operation will be performed in the context of the application registered in Portal. Therefore, using this functionality will not require an additional license for Designer Studio.

Application for automatic import

As part of this new functionality, a console application named **BatchImportApp** (.exe file) was created. It is available among the WEBCON BPS installation files in the "Tools" directory (previously "Migration Tools"). The table below lists the parameters required for automated default application import, as well as some optional import parameters:

<div align="center">

Required parameters

</div>

Name	Description
-a, --portalAddress	Portal address
-d, --dbId	Content database ID
-c, --clientId	Client ID
-s, --clientSecret	Client secret
-p, --package	Path of the exported package

<div align="center">

Optional parameters

</div>

Name	Description
-i, --importConfiguration	Path of the .json file with custom import configuration
-l, --splitFileLargerThan	Used to split the package files larger than 20 MB
-f, --fileChunkSize	Size of a single chunk; 4 MB by default
--help	Used to display context-sensitive help with parameter descriptions
--version	Used to display application version

```
-a, --portalAddress        Required. Portal Address

-d, --dbId                 Required. Db id

-c, --clientId             Required. Client id

-s, --clientSecret         Required. Client secret

-p, --package              Required. Package

-i, --importConfiguration  Optional. Import configuration

-l, --splitFileLargerThan  Optional. Split package file larger than (in B). Default value is 20971520 B (20 MB).

-f, --fileChunkSize        Optional. Chunk size when splitting package file (in B). Default value is 4194304 B (4 MB).

--help                     Display this help screen.

--version                  Display version information.
```

The application uses the Client ID and Client secret credentials available in the API application configuration (**User profile → Administration → Integration → API**).

For the import to be possible, a new role, **Admin.Import**, must be checked in the list of API application permissions, which allows reading and modifying all configuration data used during the application import. (The operation will also succeed if the **Admin.ReadWrite.All** permission is checked).

Successful application import is indicated by the "Completed" status in the CMD console.


```
C:\Users\t.green\Desktop\WebCon.BPS.BatchImportApp>BatchImportApp.exe -a  https://814-bps.at.webcon.pl -d 1 -c 7cf3c710-
-s aCMOoz5u                          -p C:\Users\t.green\Desktop\Exported\Webinars.bpe
3/8/2024 4:00:31 PM Import start
3/8/2024 4:00:32 PM https://814-bps.at.webcon.pl/api/oauth2/token OK
3/8/2024 4:00:33 PM https://814-bps.at.webcon.pl/api/data/beta/db/1/importsessions/ Created
SessionID: f14573aa-ba35-49a4-84eb-0136c2731765
3/8/2024 4:00:33 PM https://814-bps.at.webcon.pl/api/data/beta/db/1/importsessions/f14573aa-ba35-49a4-84eb-0136c2731765/1 OK
3/8/2024 4:00:33 PM https://814-bps.at.webcon.pl/api/data/beta/db/1/importsessions/f14573aa-ba35-49a4-84eb-0136c2731765 OK
3/8/2024 4:00:33 PM https://814-bps.at.webcon.pl/api/data/beta/db/1/importsessions/f14573aa-ba35-49a4-84eb-0136c2731765/status OK
3/8/2024 4:00:33 PM StatusID 5 InProgress
3/8/2024 4:00:35 PM https://814-bps.at.webcon.pl/api/data/beta/db/1/importsessions/f14573aa-ba35-49a4-84eb-0136c2731765/status OK
3/8/2024 4:00:35 PM StatusID 5 InProgress
3/8/2024 4:00:36 PM https://814-bps.at.webcon.pl/api/data/beta/db/1/importsessions/f14573aa-ba35-49a4-84eb-0136c2731765/status OK
3/8/2024 4:00:36 PM StatusID 5 InProgress
3/8/2024 4:00:37 PM https://814-bps.at.webcon.pl/api/data/beta/db/1/importsessions/f14573aa-ba35-49a4-84eb-0136c2731765/status OK
3/8/2024 4:00:37 PM StatusID 5 InProgress
3/8/2024 4:00:38 PM https://814-bps.at.webcon.pl/api/data/beta/db/1/importsessions/f14573aa-ba35-49a4-84eb-0136c2731765/status OK
3/8/2024 4:00:38 PM StatusID 1 Completed
3/8/2024 4:00:38 PM Import end
```

In addition to being able to use the new/updated application on the target environment, Designer Studio users will also be able to review the details of the performed import. As with a standard import wizard, all relevant information and logs will be available in the **Import history**. Also, a **LogSummary** section that provides a summary of the import has been added to the logged information.

Import with an additional configuration file

The **Create file with default import parameters (API)** option has been added to the Designer Studio export wizard. When this option is enabled, an additional .json configuration file with import settings is created when the application is exported. The file can optionally be used to import the application into the target environment using the API. The parameters passed in the file will be applied at the stage related to the parsing of the package and the environment where the import takes place.
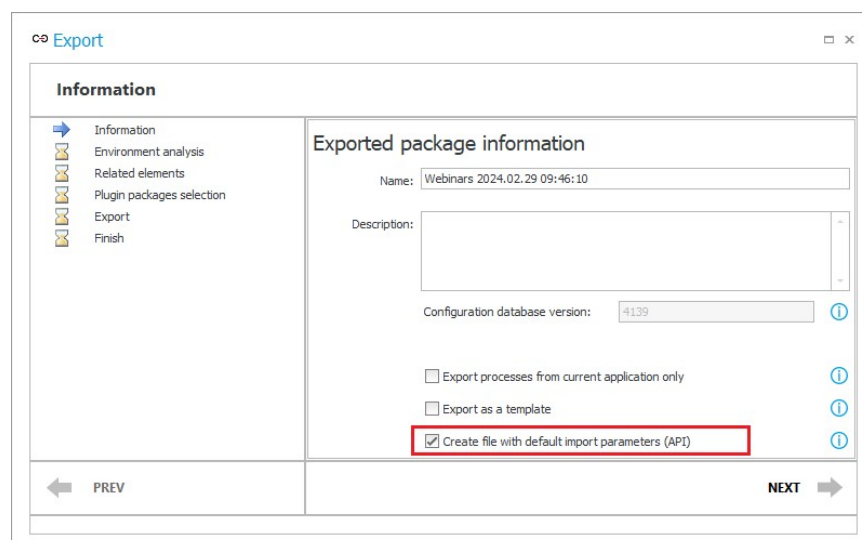
After a successful export, the .json file will be saved automatically to the location indicated for the standard .bpe export file. Additionally, it is possible to view the contents of the .json file by clicking the **Import parameters** button in the **Finish** step of the wizard.
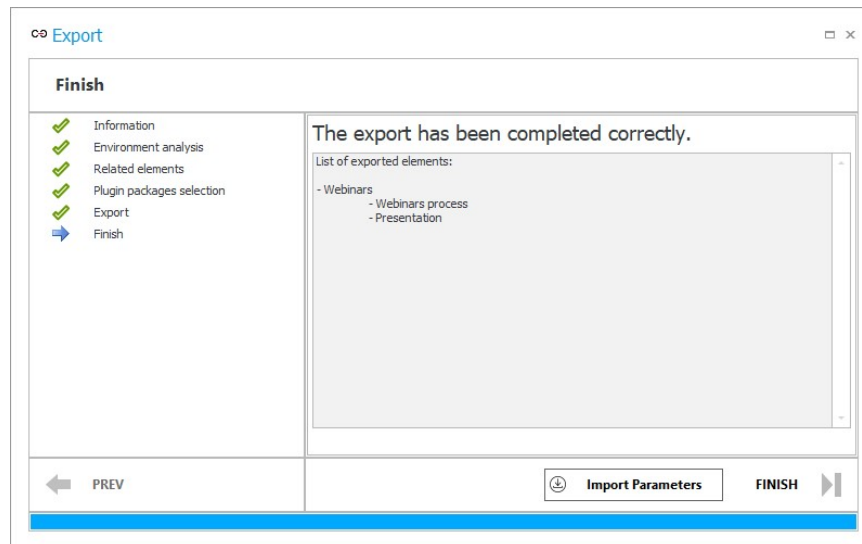
The file contains the default import configuration, which remains constant regardless of the exported process.

```
1  {
2      "ImportAllNewApplications": true,
3      "ImportAllModifiedApplications": true,
4      "ImportAllPresentationObjects": true,
5      "ImportAllNewProcesses": true,
6      "ImportAllModifiedProcesses": true,
7      "ImportOnlySelectedApplications": [],
8      "ImportBpsGroups": true,
9      "ImportOnlySelectedBpsGroups": null,
10     "OverwriteAllBusinessEntitiesPrivilegeSettings": false,
11     "OverwriteSelectedBusinessEntitiesPrivilegeSettings": null,
12     "OverwriteSecuritySettings": false,
13     "OverwriteAllGlobalBusinessRules": true,
14     "OverwriteSelectedGlobalBusinessRules": null,
15     "OverwriteAllGlobalFormRules": true,
16     "OverwriteSelectedGlobalFormRules": null,
17     "OverwriteAllGlobalFields": true,
18     "OverwriteSelectedGlobalFields": null,
19     "OverwriteAllGlobalConstants": true,
20     "OverwriteSelectedGlobalConstants": null,
21     "OverwriteAllGlobalAutomations": true,
22     "OverwriteSelectedGlobalAutomations": null,
23     "OverwriteAllDataSources": true,
24     "OverwriteSelectedDataSources": null,
25     "OverwriteAllConnections": true,
26     "OverwriteSelectedConnections": null,
27     "OverwriteAllPluginPackages": true,
28     "OverwriteSelectedPluginPackages": null,
29     "OverwriteAllProcessesDeploymentMode": false,
30     "OverwriteAllProcessesDeploymentModeMailRecipient": null,
31     "ImportAllDictionaryElements": true,
32     "OverwriteAllDictionaryItems": false,
33     "ImportOnlySelectedDictionaryElements": [],
34     "ImportAllDocTemplates": true,
35     "OverwriteAllDocTemplates": false,
36     "ImportOnlySelectedDocTemplates": [],
37     "IgnoreNoExistingGUID": true
38  }
```

Once properly completed, it will enable the customized import of an application and its process configuration data. The file's contents are transferred when a command containing the **-i** parameter and the path of the .json file on disk is entered in the **BatchImportApp** console application.

For detailed information on the functionality, as well as a description of the individual application parameters and the additional configuration file, please refer to the related article on our technical blog.

5.7. Dashboards

Changed the configuration process for reports embedded in application dashboards. As a result, users can define data sources for dashboards which can then feed independent reports and **Report Tiles** created within the dashboard.

Creating reports and Report Tiles on a dashboard

Currently, both reports and Report Tiles are fully defined within the dashboard. Such elements are independent of reports created at the application level and are visible <u>only</u> on the dashboard for which they were created.

These elements can be defined through the **Add New Element** menu. After selecting the appropriate type of report or Report Tile and adding or creating a data source, the configuration is performed in a separate window. The appearance of the configuration window depends on the selected type of report and, aside from minor differences (e.g., the **Definition** tab containing the options of the **Source** and **Columns** tabs), generally resembles the configuration window of an application report.

Embedding Report Tiles

When embedding Report Tiles on a dashboard, it is no longer necessary to create a dedicated report. Currently, these tiles utilize the dashboard's data source. As a result of this modification, it is now possible to define additional filters for Report Tiles (accessible in the Filters section of the Definition tab within the configuration window).

Creating data sources for a dashboard

You can now define data sources within a dashboard which can then be reused in multiple reports and Report Tiles embedded on it. The dashboard's data source allows you to select the data to be presented on the report, while the report configuration enables you to define how it will be presented (table, chart, Report Tile).

You can create a new dashboard's data source when embedding a new report on it through the **Add new element** menu. After selecting the type of report, an additional window titled **Select dataset for report** will appear. Here, you can associate the created report with an existing data source or create a new one by selecting the **<Add New>** option. (Dedicated data sources are created specifically for the **Dictionaries** and **Document Templates** reports.)
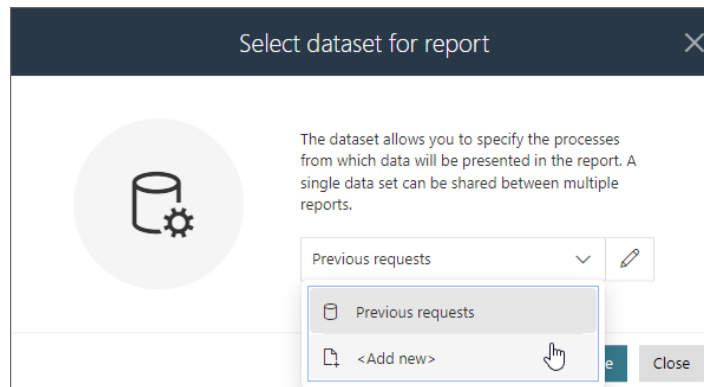
This data source is configured in a separate window independent of the report and can also be utilized for other reports embedded on the dashboard.

Managing dashboard's data sources

Users can manage the so-defined data sources in the dashboard configuration window by navigating to the **Datasets** tab. In this tab, you can select a specific data source from the **Available datasets** section and then edit it within the **Definition** and **Columns** tabs. The options available under those tabs, as well as their appearance, depend on the type of data source being edited. On the other hand, the **Usages** tab allows you to view which reports utilize a given data source.

Cloning the report and Report Tile configuration

The categories of certain elements have been modified within the **Add new element** menu, and the **Clone existing** option has been added to the **Report** category.
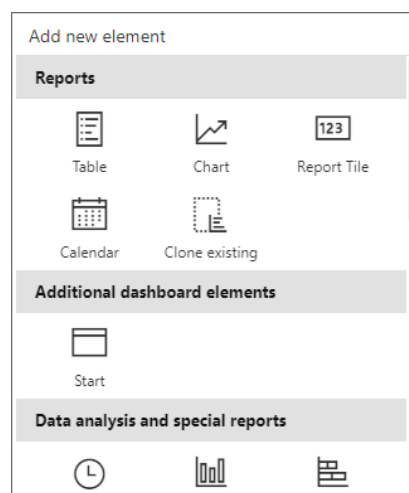
This option allows you to clone a Report Tile or a report that has been added to any application dashboard, or one of the reports created within the application. Cloning transfers the complete configuration of the element, optionally creating a data source if

the cloned element does not belong to a specific dashboard for which a data source has already been created and feeds the cloned report.

5.8. Expansion of user synchronization via LDAP/LDAPS

Expanded user synchronization with the LDAP server by adding support for the LDAP(S) protocol. Users can now establish an encrypted connection with the LDAP server through the SSL/TLS protocol. Additionally, authentication is possible for users connecting to the server using their login and password.

As part of the new functionality, the mapping configuration has been expanded to allow the addition of a prefix to the synchronized user login. In addition, new attributes (**ExtensionAttribute01-30**) have been added, which can be mapped to any LDAP property.

In addition to the mentioned changes, the content of the error messages has been expanded.

5.9. New system column: "Last comment"

A new **Last comment** column has been added to the group of system columns available in the **Reports** configuration, which displays the content of the last comment in the workflow instance, together with information about its author and date of addition. The column is available for reports with **SQL** and **SearchIndex** sources.
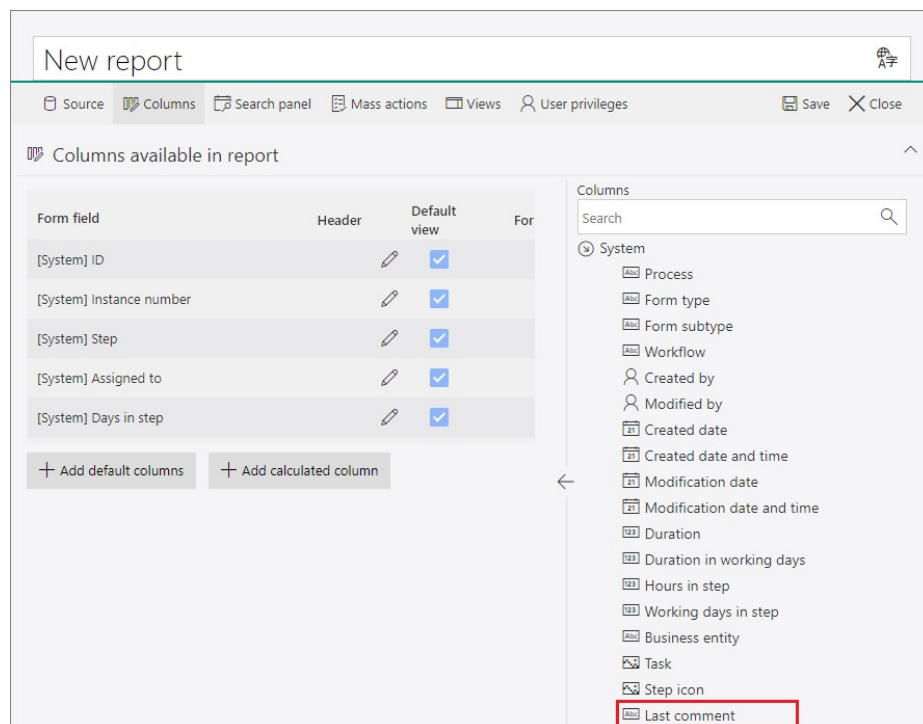
The options for displaying the column in the report view are the same as for a **Multiple lines of text** column with **Append mode** enabled (Default, Do not wrap, First 100 characters). It is also possible to specify that only the content of the comment is visible in the column, without information about the date and author.

The Last comment can also be displayed in the **Task panel** in the compact view, as well as in **Calendar** reports (event title, description, and location).

The Last comment column has value filter settings (**<Empty value>, <Not empty>**) and can be exported to an Excel file.

5.10. Connection to MSSQL database via Microsoft Entra ID

The feature to connect to an MSSQL database through Microsoft Entra ID has been introduced. This enables Microsoft service users to authenticate with credentials appropriate for their database.

A new **Authentication** parameter has been added in the **MSSQL database** connection configuration window, offering five options to choose from:

- **Active Directory Password** – Microsoft Entra authentication with a username and password,

- **Active Directory Integrated** – Microsoft Entra authentication using Integrated Windows Authentication (IWA),

- **Active Directory Service Principal** – Microsoft Entra authentication with a Client ID and Client secret,

- **Active Directory Managed Identity** – Microsoft Entra authentication using system-assigned or user-assigned managed identity,

- **Active Directory Default** – Microsoft Entra authentication using non-password and non-interactive mechanisms, including managed identities, Visual Studio Code, Visual Studio, Azure Command-Line Interface (CLI), etc.
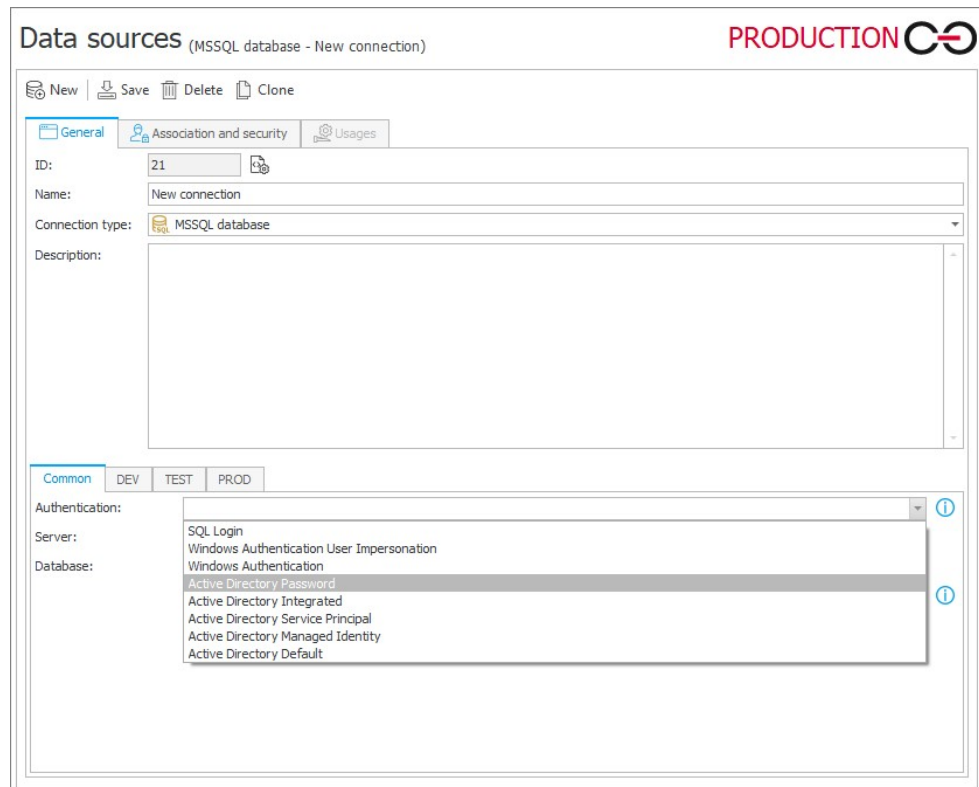
In addition, the option **Trust server certificate** has been added to the connection configuration window. When checked, communication between SQL Server and WEBCON BPS will be encrypted without certificate validation.

The above authentication methods are also available in the installer, **REST API** endpoints, and the **WEBCON BPS System Administrators** tool.

5.11. Improved readability of automation configuration

The latest version provides users with a more comprehensive understanding of the automation's functionality by allowing them to swiftly access information about individual actions and action templates within the automation configuration. By simply hovering the mouse cursor over the action/template icon within the automation definition area, a tooltip will be displayed, showcasing the action / action template name and description (entered in the **Documentation** field). This solution eliminates the need to carefully check the configuration of the actions and templates that comprise it.

In addition, the default name of automations created in WEBCON BPS Designer Studio has been changed. When a new automation is added, its default name (previously **New Automation**) will be dependent on the context in which the automation is to be triggered. For example, the default name of an action triggered **On exit** will be labeled as **Automation "On exit".** The change does not apply to process and global automations.
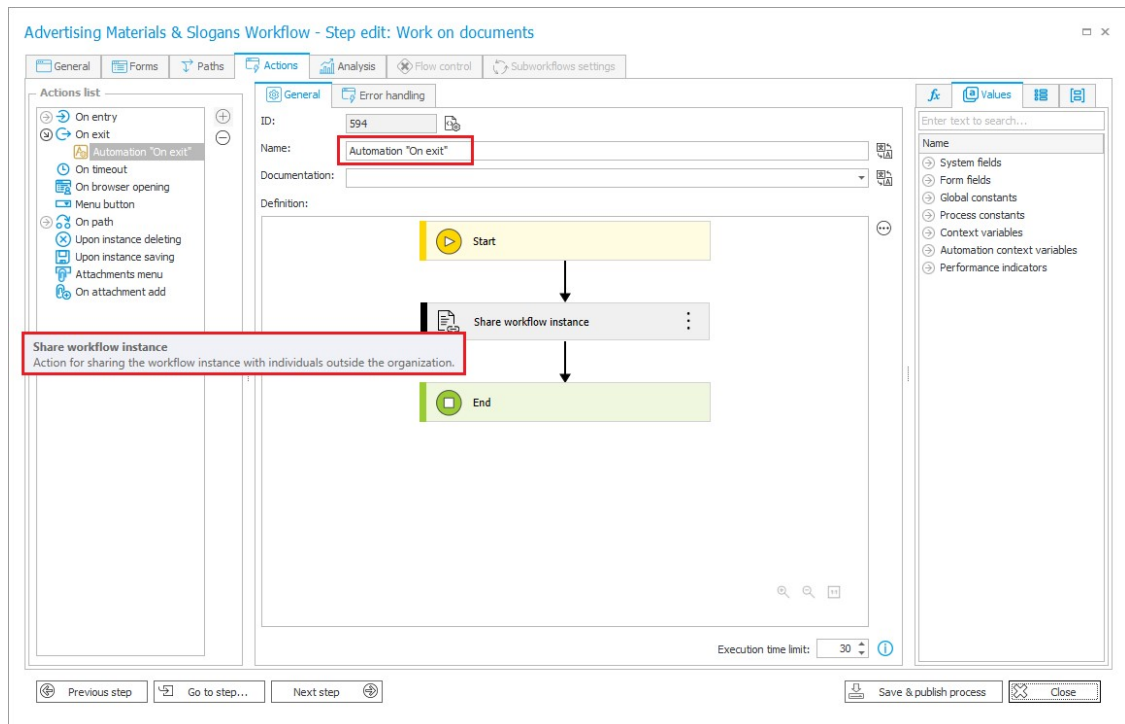
5.12. Improved SOLR indexing performance

A number of changes have been introduced to improve the efficiency and reliability of SOLR indexing in WEBCON BPS, especially for large installations. Thanks to these modifications, SOLR indexing will require less resources and will be less burdensome on the system. As a result, searching for elements in Portal will be more efficient.

New indexer queues

The handling of the indexer queue has been improved by dividing it into four independently operating queues: **SOLR – Activity Indexer**, **SOLR – Attachment Indexer**, **SOLR – Element Indexer**, and **SOLR – Utility Indexer**. These modules are launched simultaneously after enabling the **SOLR Indexer** role in the **Services configuration**.
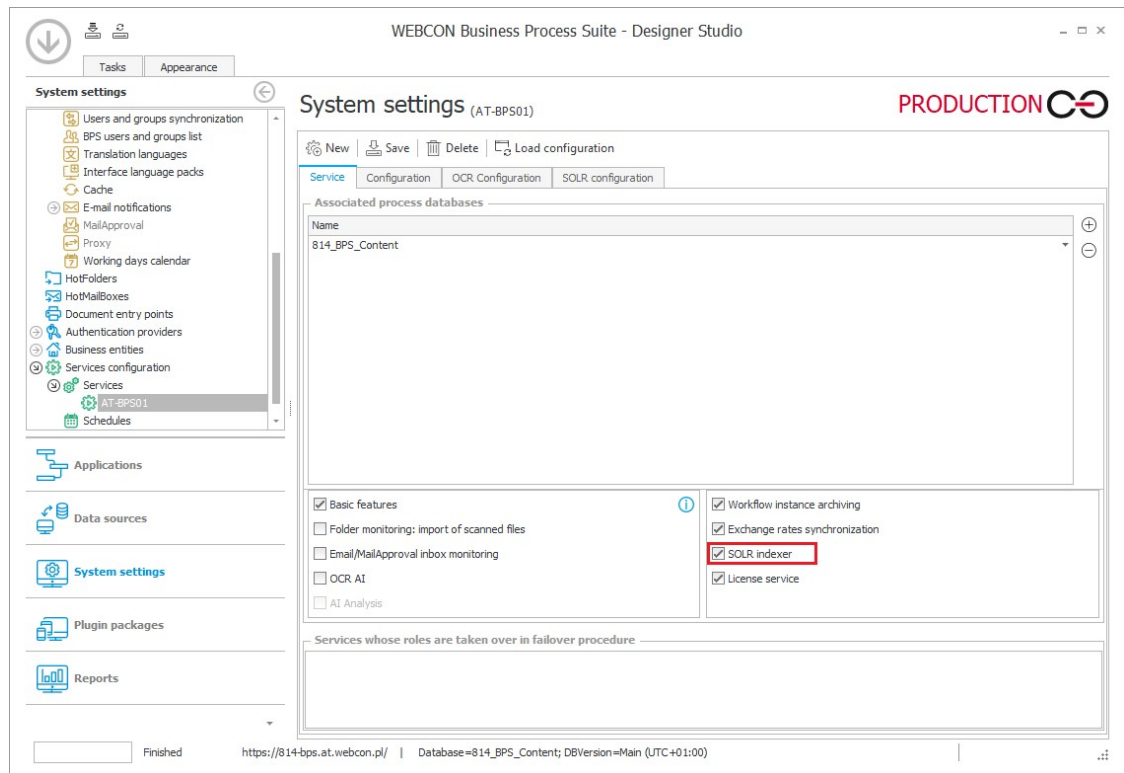
Expanded SOLR configuration in Designer Studio

The list of SOLR components has been updated in WEBCON BPS Designer Studio to include the following items:

It is also possible to specify what kind of data will be stored in the processing logs with indexing results (Summary, Error only, Detailed, Diagnostic).

Changes have also been made to the basic report named **SOLR indexer queue** (**Reports** section in Designer Studio). The method of grouping items queued for indexation has been altered – the name of the table from which the entry comes will be displayed first, followed by the **Processing service**.

In addition, the descriptions of individual report items have been modified. For example, in the case of process indexation, information about the process will be displayed first, and then the interval for which the indexation is carried out.

5.13. Updated ranges of Administrative notifications

The designated recipients of **Administrative notifications** will no longer receive messages regarding Asynchronous OCR. The list of notification areas has been updated to include **Barcode print** and **Barcode add** areas.
A preview of the updated areas is available in the Administrative notifications configuration window in WEBCON BPS Designer Studio (**System settings → Global parameters → E-mail notifications**).
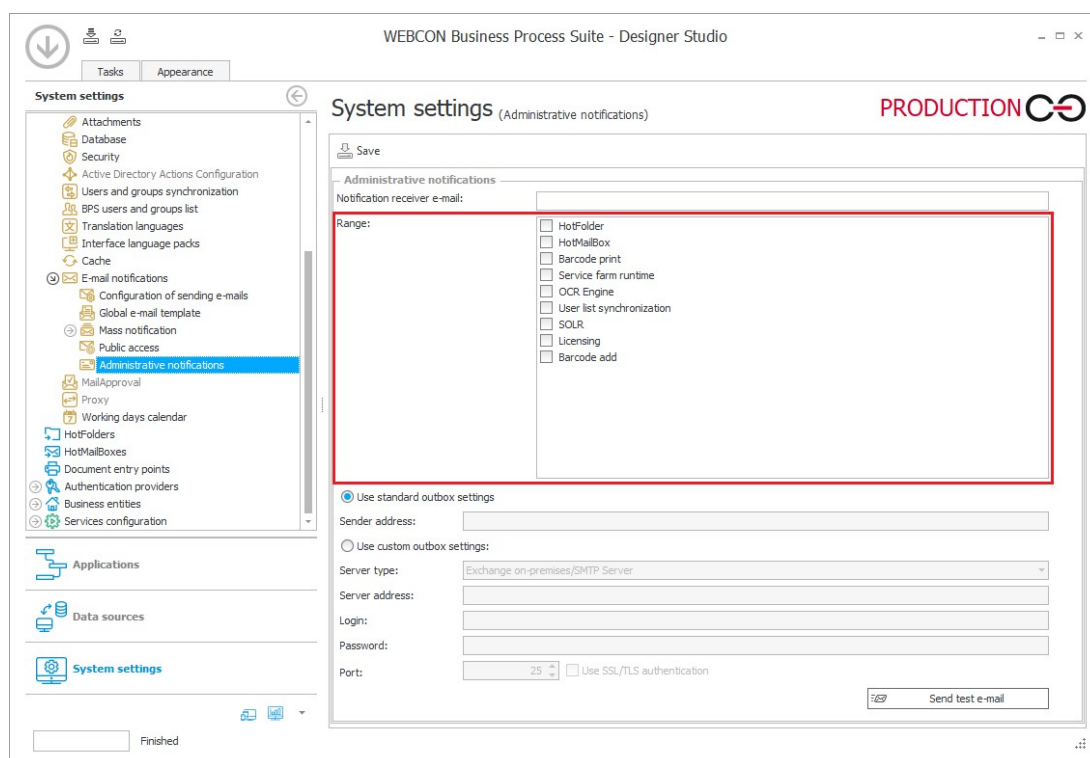
5.14. Columns indexed in the configuration

A new tool has been added to the **Administration tools** that allows users to locate where indexed columns are applied in the process configuration. This tool can be found in the **Columns indexed in the configuration** tab under **Tasks → Administration tools** in WEBCON BPS Designer Studio.
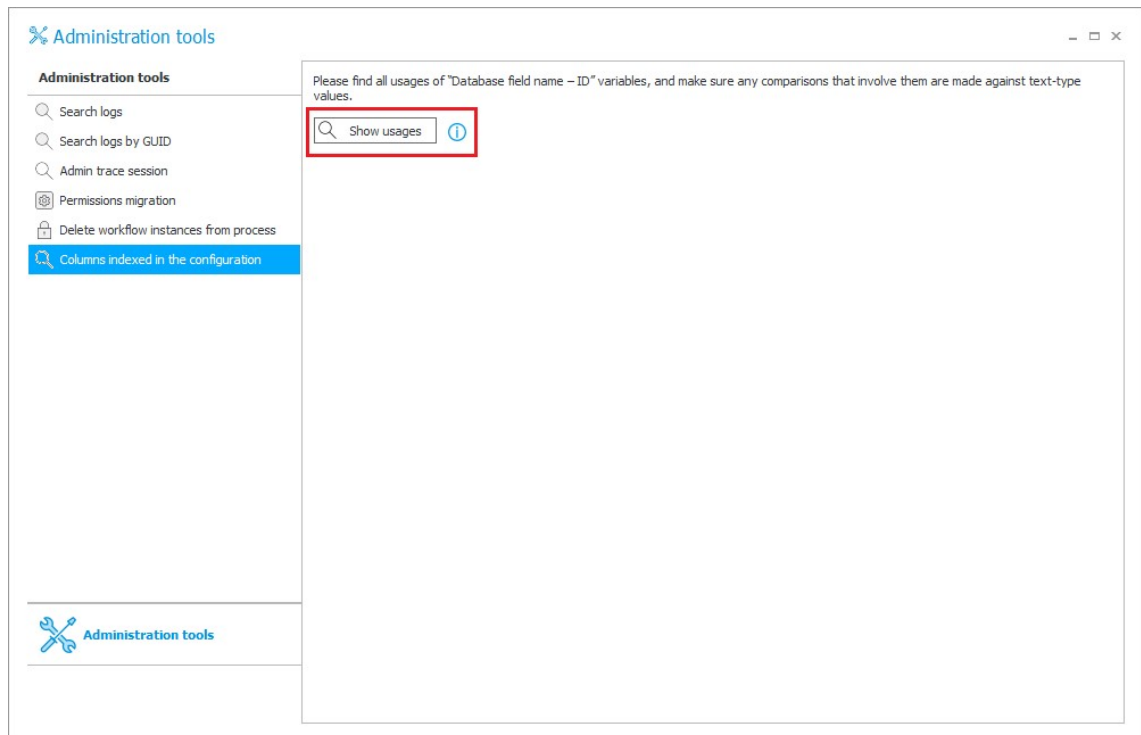
Pressing the **Show usages** button will display variables containing references to indexed columns in the form of a standard usage tree that can be exported to an Excel file.
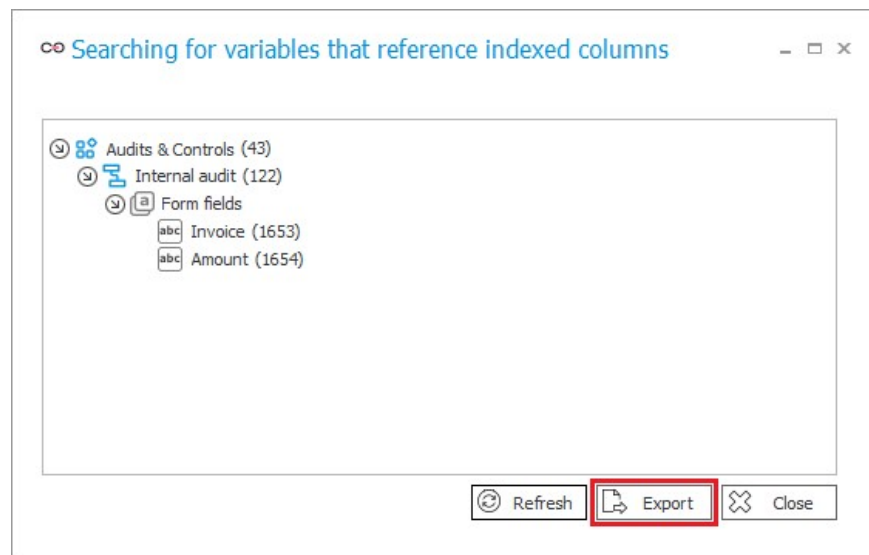
5.15. No limitation to the number of exporters in OpenTelemetry

Added the capability to use any number of exporters through the OpenTelemetry component. Due to the expansion, the structure of the otlpsettings.json configuration file belonging to the OpenTelemetry component has been changed. To configure subsequent exporters, it is now required to add the following blocks in the Tracing/Exporters section separated with a coma:

```
"[exporter name]": {
    "Enabled": [whether enabled or not],
    "Endpoint": "[address]",
    "Headers": "[headers – optional]",
    "Protocol": "[protocol – optional, by default grcp]"
}
```

An example of configuration:

```
"Exporters": {
        "Jaeger": {
          "Enabled": false,
          "Endpoint": "http://localhost:4317",
          "Protocol": "grpc"
        },
        "Otlp": {
          "Enabled": true,
          "Endpoint": "https://otelcol.aspecto.io:4317",
          "Headers": "Authorization=B21DCEB1-4A77-4959-8196-5964BEEB24B6",
          "Protocol": "grpc"
        }
    }
```

5.16. General

- The **Temporary deployment access** functionality has been introduced, allowing the administrator to grant up to 5 designated users access to WEBCON BPS Portal and Designer Studio for a period of 30 days without consuming an additional license. Temporary access is granted via a dedicated window in the **Users and licenses** section of the **Admin Panel** in Portal or from the **License allocation** window in Designer Studio based on a 10-digit code. The access code can be obtained by WEBCON Partners through the dedicated Partner Portal.
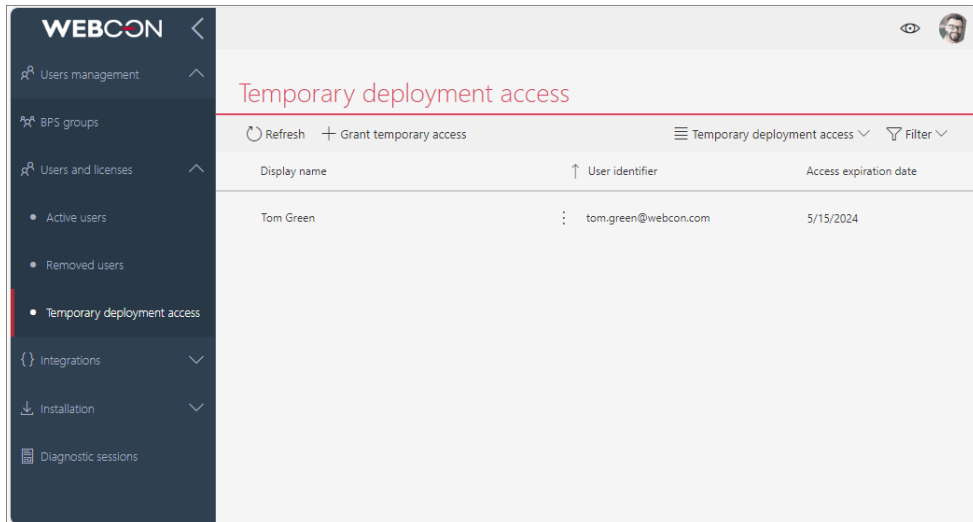
- To store cyclical action logs, a new table was added to the content database: **WFRecurrentActionExecutions**. Until now, those logs were stored in the **WFActionsExecutions** table. The tables contain the same columns. The service will remove logs older than 12 months.
  Existing logs will not be moved to the new table.

5.17. Portal

- Added the feature that allows for logging the information about opening the Portal page by users. In addition to the information including the user login, the log records the IP address of the device used for opening the Portal page.
  The activation of the feature requires adding the **Microsoft.AspNetCore.Authentication** parameter with the **Information** logging level to the **Logging** section of the **appsettings.user.json** configuration file.
  "Logging": {
   "LogLevel": {
   "Default": "Warning",
   "Microsoft.AspNetCore.Authentication": "Information",
   }
  }
  The location where the information is logged depends on the configuration of the **NLog** module. By default this is the **AdminWFEventLogs** table of the configuration database.

- Changed the manner in which the system handles the **ALERT** and **CONFIRM** form rules. Consequently, the standard, JavaScript-based dialogue windows that are invoked by the CONFIRM and ALERT functions are replaced with native implementations. The change allows you to use formatted text with HTML tags <i>, <b>, <u>, <br> inside the ALERT and CONFIRM functions.
  The change results in breaking backwards compatibility for those form rules which functioned in JavaScript mode and invoked in its code other form rules working in the block mode and containing the aforementioned ALERT and CONFIRM

functions. For such a configuration, it is necessary to manually insert the Promise object in the JavaScript rule code.

For any other configuration, backward compatibility is preserved, and no further modifications are required for the rule configuration.

- Added the capability to generate a link that redirects to the user or group sidebar in the **Admin Panel**. This link can be generated by individuals with **Global administrator**, **BPS group administrator**, or **Group owner** privileges. Those users can generate the link by selecting **Link** (on the user or group edition sidebar) or **Copy link** (from the context menu displayed with an inverted ellipsis button provided for each row in the **BPS groups** and **Users and licenses** reports).

5.18. Form

- Added the option **Wrap fields in horizontal arrangement** to the group settings. The option allows users to change the way in which form fields are displayed in horizontal arrangement. Selecting it results in placing the form fields one below the other where the screen width does not allow for displaying them next to each other. If the option remains unchecked, the form fields are always displayed next to each other. Additionally, if the screen is narrow, a horizontal scrollbar appears which enables you to scroll the form fields within the group.

5.19. Designer Studio

- A new button has been added to the step edit window, allowing users to navigate to the selected step of the current workflow for editing.

- The **Getting started** page in Designer Studio has been updated in all available languages.

- Changed the operation of the **Test** and **Show** buttons in the **Expression editor** when the entered SQL query contains tags that refer to **Item list** columns. In this case, the Item list will be selected from the context. If such a context is missing, it will still be necessary to specify the Item list manually.

- Added the ability to include a variety of additional distinguishers in mass notifications. In addition to the parameters available thus far, these notifications can now incorporate the following distinguishers:
  - [System] Days in step,
  - [System] Duration in working days,
  - [System] Working days in step,
  - [System] Days in step,
  - [System] Hours in step,
  - [System] Last comment.

- Added the ability to open the editing window for universal rules by double-clicking on the respective rule block.

- Added the capability to print barcodes using the TCP protocol. As a result, the **Computer terminals** table has been expanded to include a new column, **Communication mode**, which allows users to specify the method for establishing a connection with the barcode printer (SMB or TCP). Additionally, new logs have been added that include information about the point where the printer is provided.

- It is now possible to enter multi-line text in the **Client Secret** field in all tabs of the **REST Web Service connection** configuration. Similarly, a multi-line password can now be set in the **SDK plugin** configuration.

- Options for managing report elements have been added to the **Email sending report** window. The previously available **Delete not sent** button has been replaced with a **Delete** button that, when clicked, displays a list of additional options: **Delete error elements**, **Delete pending elements**, and **Delete not sent elements**.
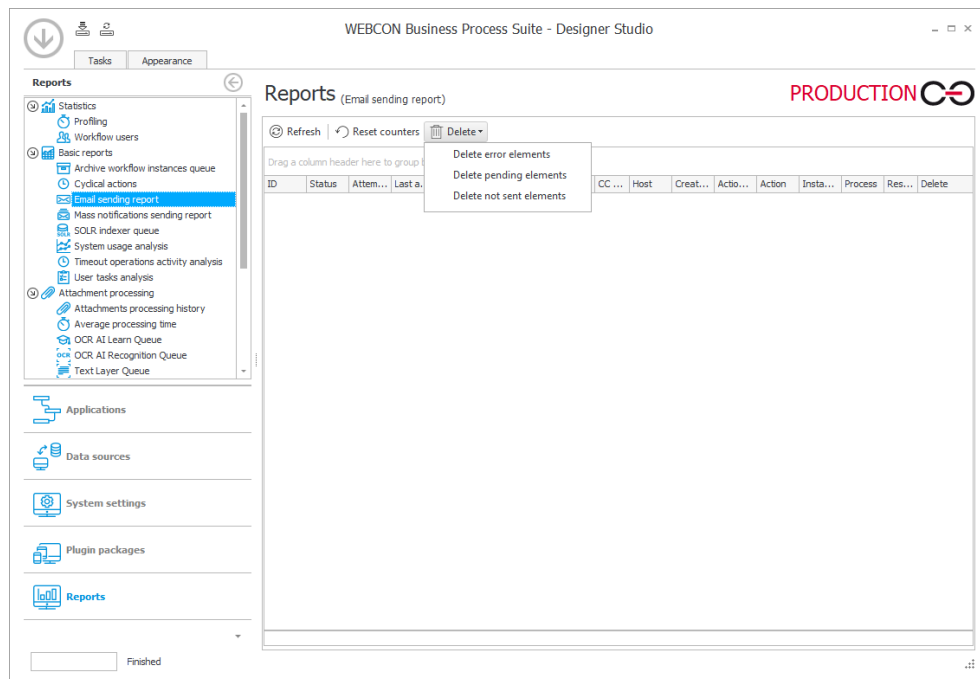
5.20. Actions

- Updated the **Response** tab in **Invoke REST Web service** actions. The **Destination field** column will now use choice-tree style control.

5.21. Rules

- It is now possible to use the functions **SET CELL FONT COLOR**, **SET CELL BACKGROUND**, **SET CELL FONT DECORATION**, **SET CELL FONT SIZE**, **SET CELL FONT FAMILY**, **SET CELL STYLE**, as well as **MARK REQUIRED** and **MARK NOT REQUIRED** inside the **FOR EACH ROW** operation in case the **Item list** to which the style is applied is different from the one for which the **Form rule** is executed. In this case, the style is changed in the rows of the Item list specified in FOR EACH ROW.
  Additionally, if the operation is not defined with the FOR EACH ROW function, it is performed in the context of the entire column of the Item list.

5.22. Add-In

- The **Teams** add-in has been adapted for use with the new Microsoft Teams Beta application.

5.23. Mobile app

- Improved gesture support for the application on iOS mobile devices. After the change, swiping toward the right edge of the screen will return the user to the previous application page instead of the login page.

5.24. Service

- Added dedicated spans to the OpenTelemetry functionality, enabling logging of the execution of attachments-related actions and the addition of rights to files stored in the OneDrive service.

- Added a feature that allows users to define a time period for the **Database maintenance hours** functionality. Users can now specify the start time and end time for executing database maintenance tasks in the respective columns. Once this time elapses, the maintenance module stops its operation (unless it has already completed all tasks), and a corresponding message is displayed.

- Improved diagnostics for BPS user and group synchronization with Active Directory.

5.25. Designer Desk

- In the properties of **Groups** in **Designer Desk**, it is now possible to define the arrangement of group elements. Available options include: **Vertical**, **Horizontal**, and **Horizontal with wrap**.

  The selected option will be visualized on the preview.
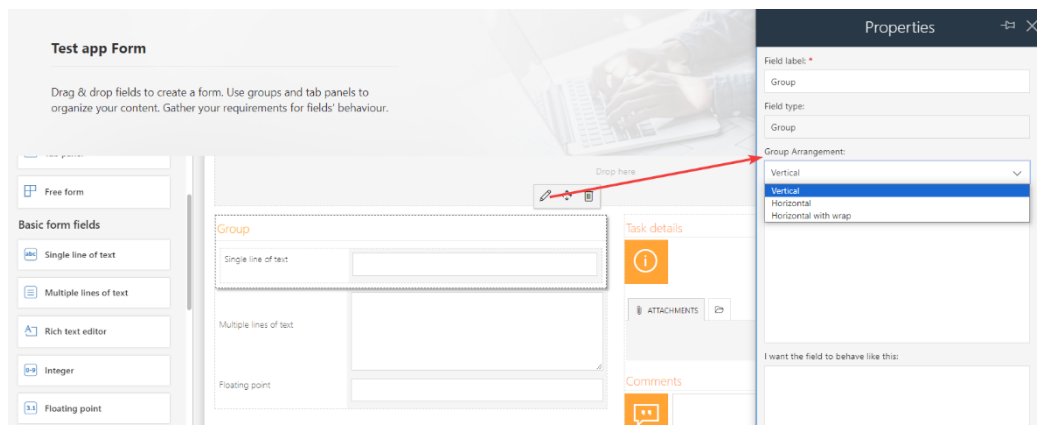
5.26. API & SDK

- Add the ability to pass default values to the SDK attribute ConfigEditableGrid.

- The SDK has been expanded to include a mechanism that enables loading from a plugin package independent files for service and Portal. This mechanism relies on two folders, **ServiceDependencies** and **PortalDependencies** where the respective files for Service and Portal are stored. These folders can be added to a plugin package, ensuring that the files they contain are loaded only in the specific environment (Service or Portal).

- In the REST API endpoint related to application metadata, information has been added to define whether a process was created within an application or is a **Related process**.

- Versioning has been added for **SDK plugin packages**. If a plugin's version is incompatible with the current version of WEBCON BPS, a warning will be displayed either in the Installer or in WEBCON BPS Designer Studio when updating the system or uploading the plugin. In this case, it will be necessary to migrate the plugin packages to the corresponding version.

- The functionality of SDK plugins in the **UserDataProvider** class has been extended with the ability to search for **BPS groups** and add members of such groups.

6. Bug fixes

6.1. General

- It is no longer possible to enter Polish characters in **BPS_ID** for group/users (they are converted to invariant after saving). The change affects the following areas: **Designer Studio**, **Admin Panel**, **API**, all **BPS users and groups** actions.

- When a person who had a task shared with them via public link opens it, the **TSK_ElementWasDisplayed** column in the **ActiveTasks** table will be correctly updated.

- A prerequisite has been added to the installer that checks the environment for form fields that are no longer available in newer versions of the system.

- Fixed a bug that occurred when updating to a new version of the WEBCON BPS platform by disabling transaction in the OCRAI fields migration script.

- Fixed a bug that was preventing the system from updating to the newest version due to failure to execute the script updating parameters for sending e-mail notifications for messages queued for delivery. Currently, after detecting incorrect configuration that prevents decrypting credentials of the message prepared for sending (queued) it is skipped and the update is continued. Additionally, the message is marked as not sent.

- Improved the performance of WEBCON BPS Installer for installing the ABBYY FineReader 12 component. The installer now includes parameters that enable correct activation of the FineReader 12 license. Additionally, two installation modes have been introduced: installation of the engine and license server on a single server, or separate installation of the engine and license server on dedicated servers.

- WEBCON BPS Portal can now use dynamic compression when the new **Dynamic content compression** option is enabled in the IIS configuration.

- The operation of the **UniqueFirstTwoColumnsInPickerConfigurationPrerequisite** (which checks that the columns of the form field do not refer to the same column of the data source) has been extended to the **Choice tree** and **Choice field** columns of the Item list, as well as the **Choice field** configured as a **Dropdown**.

- Fixed a bug that could occur during system upgrades from version 2023 R2 and below. The bug was related to a change in the location of **Active tasks** in the database. The fix changes the way the data is copied so that the database connection does not timeout even when there is a large amount of data.

- Added a red asterisk to the **Change requests registration form URL** option in the **Change requests** configuration in the **Admin Panel** to visually indicate that this field is required.

In Designer Studio, the validation of **Change requests** configuration has been improved to be consistent with that in Portal – **Form field values mapping** is optional. The ability to save configurations in standard handling mode with URL-based registration of requests has also been introduced.
In addition, fixed a bug in Designer Studio where after a validation failure of the Change requests configuration, the configuration was reset to the state before it was saved.

- Fixed an issue with finding MailApproval commands in e-mails that did not contain enter signs after the command.

6.2. Portal

- Improved the display of numerical data in the **Chart** report view. After the change, numbers are correctly rounded according to the configuration and there are no duplicate values on the Y-axis.

- Added the ability to view entry details in the **Logger view** window when the search filter is active.

- Improved search for values and display of the **Performance indicators** node between report columns. After the change, the indicators are displayed in alphabetical order and the node is not displayed if the search does not apply to its subelements.

- Removed redundant event control tooltips in the **Calendar** report view.

- An error has been fixed where selecting parameter values such as **Login**, **Client ID** or **Secret** in the API application configuration did not set focus to these values in the Mozilla Firefox browser. After the change, these values can be selected and copied correctly.

- Fixed a bug where the message regarding the instance check-out displayed incorrect time. The issue occurred when a user took over the instance due to the inactivity of the person who had previously edited it.

- Fixed a bug that caused duplicate entries in the **SubstitutionDetails** database after selecting an application with related processes multiple times in the substitution configuration.

- Fixed a bug which caused that after removing an attachment, the instance **History** stored information about a person who was not in fact responsible for deleting that attachment.

- Fixed an error that occurred when importing an Excel file with translations into Portal. The import resulted in unintended changes to the XML configuration of the associated report, which could cause problems when transferring the configuration between environments.

- Fixed a bug due to which a removed instance remained visible on the SOLR report.

- Increased the visibility of focus in WEBCON Dark theme that is available when selecting application from a drop-down menu available after clicking the **Choose application** button.

- Fixed a bug found in the report widget window added to the dashboard. As a result of the bug, the **Apply** button remained active even in the absence of any configured reports.

- Added migration to fix configuration of **Document templates** reports with **SearchIndex source** included. The report configuration may have been saved incorrectly due to a system bug that was independently fixed.

- Fixed the operation of the **My Tasks** list. Currently, if a user opens a link to a task within an application context for which they do not have permission, the My Tasks list will display tasks without the application context.

- Fixed a bug where the configuration of report table **Views** was not correctly transferred to another environment after exporting the application. After the change, all report column settings are imported, including those related to their coloring.

- Improved the contextual help for the **Standard filters** in the configuration of **Reports**.

- Fixed a bug in **Admin panel** on Portal that allowed users to preview deleted groups.

- When starting a workflow instance, the list of available business entities is limited to those covered by the user's privileges.

- Fixed a bug where searching the SOLR report with the value of the technical choice field did not return any results.

- Improved filtering of data by form field value on a report for which the data source is a **Fixed value list**.

- Fixed a bug where a task was not correctly created for a **Substitute** if that task referred to an instance for which they already had a task assigned as a result of **Task delegation substitution**.

- Aligned the appearance and behavior of authorization windows. The modifications include, among other things, alignment of authorization mechanism behavior in the event of correct execution of operations, errors, as well as session expiration or authorization cancellation. In addition, the buttons available in authorization windows now have uniform names.

- Improved the display of the substitution **End date** format to allow for correct configuration of **Substitutions** in Portal.

- Fixed a bug that made it difficult to move to the next item in the **Favorites** list after deleting an item.

- Fixed a performance issue related to **Granting privileges** to **BPS groups**. After the change in the associated SQL query, fields are searched first for the **BPS ID** and then for other parameters.

- Fixed a bug that prevented the saving of information about an individual who triggered an action. The format for displaying information about a user's last login has been updated by adding specific time details to the date of the user's last activity.

- Fixed a bug related to the execution of the **Hyperlink** action triggered by the **Menu button**. The problem occurred when the form contained unsaved **Item list**.

- Improved the grouping of **Performance indicators** available when configuring **Dashboards**. After the change, the indicators are displayed divided into **Active** and **Inactive**, and, within each of these groups, by process.

- Changed the query to SOLR that references **Recent activities** to reduce the activity loading time after applying **My subordinates** filter for a significant number of users.

- Fixed a bug that caused the **Start element** window to appear every time the start button was pressed, even if none of the window's fields were editable. In addition, the availability of the start button for a user is now correctly conditioned on the user's privileges in the company.

- Changed system behavior when the **Generate/Update a Word file** action fails. If the action is executed based on a **Template** that contains a reference to a misconfigured form field, a corresponding error message is displayed and the **Instance history** does not log information about the action execution.

- Improved navigation between the application page and the **Substitution** configuration page as well as the **Change requests** page in Portal for **Single Use Access** license.

- Fixed missing **Item list** columns in the configuration of **Reports**. The columns were not available when configuring chart-type views.

- Added handling for incorrectly configured SQL Filters in **Reports**. Until now, an incorrectly configured filter could cause errors and a "kill state" in the Report. The fix adds a mechanism to prevent a "kill state" when the filter is configured incorrectly.

- It will no longer be possible to set archival/technical columns for reports based on the **SearchIndex source**. If a report based on **SQL source** contains

technical/archival columns and then its source is changed to SearchIndex, these columns will be removed from the report, views, and data sources (if any).

- The leave reports have been enhanced to prevent the **Legend** from obstructing the schedule when numerous leave types are defined.

- Fixed a bug causing incorrect display of translations of path and step names in the **Workflow preview** on the form.

- Added encryption of keys in the **DataProtection** repository when Portal runs in a container. This change will prevent the display of associated warning messages.

- Validation has been added to the form to prevent the saving of invalid URLs. In addition, changes have been made to ensure that existing invalid URLs are displayed correctly on forms and reports, and do not cause Portal errors.

- Fixed a bug that caused a **Substitute** to see in the **My tasks** section and in reports instances from processes that had the **Working on behalf of another user** option disabled.

- Fixed the display of data in the **Archive** where one of the columns referred to a **From field** created by cloning a **Global field**.

- Improved the behavior of the task counter on the Portal home page. After the change, the **Overdue tasks** counter displays the correct value after setting filters in the **My tasks** list and returning to the home page.

- Fixed a bug that caused the global search window **Filters** to display instance IDs instead of names when refreshing the page or navigating forward/backward in the browser.

- When attempting to access the **Admin panel** in a **WEBCONAPPS SaaS** environment, an administrator without the required licenses will be redirected to the relevant Portal page.

- Fixed a bug that occurred when sending PUSH notifications to user accounts that no longer existed in the system during path transition.

- Fixed a bug that prevented setting the current date in the **Start date** field in the **Substitution** configuration if the user account and database time zones were different.

- When synchronizing the BPS user list with Active Directory, optimized loading of data from the **CacheOrganizationStructure** table at first login, if a user login that does not exist in the table is specified as the application supervisor.

- Fixed a bug that prevented saving the **Substitution** configuration when the **Default business entity structure** data was retrieved from the **Data source** instead of Active Directory.

- Fixed a bug that occurred when the **Add OPTION clause to query** option and aggregation on a column were simultaneously configured on a **Report**.

- Improved the filtering options available on the global search page. After this change, it will be possible to filter search results by **Global form fields**.

- Restored the ability to save changes to the **Table report**, even if there are errors in the configuration of its column coloring based on a condition.

- Fixed a bug that caused the **Report view** to display incorrectly when **Mass actions** were misconfigured. A migration script has been created to remove buttons for Mass actions that no longer exist from the View configuration.

- Fixed a bug that occurred when refreshing the **Archive** report. Now, refreshing the report correctly updates the number of instances in a given group on the list.

- Improved the behavior of the **Selected person and their subordinates** option in the vacation schedule. After the change, selecting a person and their subordinates in the configuration is similar to selecting only the person. The list of subordinates is expanded by clicking the "+" button. To view only selected subordinates, use the **Selected persons** option.

- Optimized the display of messages to ensure they are visible immediately when another user checks out and modifies an instance that has been open for editing in the background.

- Resolved an issue where the Portal's fixed elements were not displaying correctly in Czech, despite importing the relevant translation package from the **WEBCON BPS Translator**.

- Fixed an issue with suggested views on **Reports**. In some cases, choosing a suggested view would redirect to a different view of the same Report.

- Fixed a bug that occurred when the sum of values from the **Item list** column was passed to a **Floating-point number** form field. As a result, the column was not visible in a step, and a default value was set for it. The bug caused Portal to stop responding after an instance was moved to the next step where the column was visible.

- Fixed an issue with searching in text fields in **Reports** that use the **SearchIndex** as a data source.

- Fixed a bug in the mechanism that checks form configuration changes for the **Multiple lines of text** column in **Rich** mode.

- Improved assignment of tasks to multiple delegates when configuring **Task delegation substitutions**.

- Restored the correct behavior of the **Search everywhere** field in Portal, so that values entered in it are cleared after returning to the home page.

- Improved loading of data in reports when the data is taken from at least 2 workflows for which all or selected workflow instances are specified.

- Fixed a bug that restricted available value filters in report columns with over 100 displayed items. Due to this bug, the search results included items that did not comply with the selected grouping and required filter configurations.

- Fixed a bug that occurred when trying to save a report in which a color condition was set for a hidden column. After the change, a message will be displayed indicating that the report view is misconfigured.

- Fixed a bug that caused the current browser tab (previously opened by clicking a link in Portal) to close when using the global search option and selecting one of the search results from the list.

- Optimized the performance of user-defined functions (UDFs), **ClearWFElemIDAdv** and **ClearWFElemAdv**, for the "null" value.

- Resolved an issue where the **Chart** report was not displaying correctly when the defined **X-axis label** was **Workflow**.

- Fixed filtering on **Reports** by the **Assigned to** column in cases where the user that is being searched for is no longer active.

6.3. Form

- Fixed a bug that caused a report to load randomly in the default view instead of the configured view. This bug occurred when the dashboard included the **Refresher** control.

- Fixed an Invalid checksum exception, which occurred after changing the value of a **Choice (picker)** or **Autocomplete** column on an **Item list** with multiple values enabled. The error occurred in a cloned row when the original row already had selected values.

- Fixed a bug that caused the action button text to be copied along with the instance number text when the latter was copied using the Google Chrome browser.

- Fixed a bug that, during OCR verification, allowed changing the value of a form field whose editing was blocked by a **Form rule** with **DISABLE** function.

- Changed focus behavior after cloning an **Item list** row – instead of going to the **Add** button, the focus will remain on the **Clone** button.

- Improved the display of leave type name translations in the **Absence chart** with the **Support multi language names** option enabled.

- Improved handling of the underscore character "_" in the list of values available for the **Choice field (Popup search window)**.

- Fixed incorrect loading of values from a **Person or group** field. If the e-mail address of the superior of the chosen person was entered into a target field – that e-mail address was incorrect.

- Fixed an issue that prevented copying form field values from read-only fields in the Firefox browser.

- Fixed an issue with editing attachments, whose extensions were written in capital letters. A PDF attachment with such an extension would open in view mode instead of edit mode.

- Fixed an issue that caused the edit button next to rows to disappear when the maximum number of rows in edit mode was exceeded.

- Blocked the ability to select the path buttons when the form saves.

- Fixed a bug in the display of information in the **E-mail conversations** tab on the form. After the change, the tab will display the correct information about the date, subject and recipient of the email.

- Added a "No matches found" message when no values are returned for a **Choice field** configured based on a **REST Web Service** data source.

- Fixed a bug that prevented setting the date in ISO-compliant format (**YYYY-MM-DDThh:mm:ssZ**) for the **Date and time** form field.

- Improved the alignment of infotip buttons (i) for the **Multiple lines of text** form field and **Item list** columns on the form.

- Fixed a bug that occurred when editing .pdf files through the WebDAV mechanism with the **Require identity verification (security code sent via email)** option enabled under **Public access** in the process settings.

- The **Replace item list** and **Clear item list** actions have been improved to make the necessary changes to the form upon execution.

- Fixed a bug that changed the formatting of numbers on the Y axis of a **Chart** type form field. This bug occurred after refreshing the form field.

- Corrected alignment of the checkbox with the name of the **Yes/No choice** form field in a group when editing the form.

- Improved handling of invalid color formats when coloring **Item list** rows. Now, the form will load correctly and the selected Item list rows will be colored according to the default settings.

- The date format for the **Multiple lines of text** form field saved in **Append mode** has been updated to match the date format of the **Comment** system field. The new format is YYYY-MM-DDTHH:SS (without milliseconds).

- Fixed an error that occurred when checking whether the process configuration had been changed if the **Item list** contained a **Hyperlink** column.

- The **SetValue** function has been restored to allow for setting form field values, while considering the full name of the field in the database (prefixed with "WFD").

- Corrected the behavior of a **Form rule** with **SET** function configured for a **Choice field** that caused the defined **Additional link** to be hidden on the form.

- Fixed a bug that hindered opening the attached PDF file for editing at the form level. The problem occurred after refreshing a form site where such a file had been previously edited.

- The **Save and previous** button in the **Item list** row editing window has been replaced by the **Apply and previous** button to ensure consistency with other buttons in this window.

- Improved the paging of the **Active shares** report in the **Admin Panel**.

- Restored the ability to use the "Enter" key to expand the list of values for a **Choice field** in **Autocomplete** mode when the number of characters entered in the field is less than the number defined in its configuration.

- The **Share workflow instance** and **Share task** actions now undergo additional validation. The system checks if the same instance has already been shared to the same email address and identifies the user who shared the workflow instance / task, either the **Current user** or the **System**.
  Following the change, the case of email addresses is ignored when they are being compared for shares.
  In addition, a message indicating that the email address field must be filled in is displayed when attempting to share a link and the field is empty, instead of immediately upon entering the configuration window.

- Changed the default format of dates saved in the **Item list** in text columns. After the change, the date will be saved in the universal ISO format, i.e. **yyyy-MM-ddTHH:mm:ss**.

- Fixed a bug that incorrectly refreshed the expired checkout on the form.

- Fixed an issue with the tooltip that appears when hovering the cursor over the **Task details** – it should now interpret HTML code correctly.

- Fixed an issue that prevented **Mass actions** from being used if the form contained choice fields that used a REST source that had **OAuth2 app** type authentication.

- Fixed a bug that occurred when attempting to view another workflow instance from the **Form preview**.

- Fixed an issue with validating **Choice fields** that have been placed in tabs. Changing the tab after an unsuccessful validation, and then returning to the first

tab, will no longer validate the choice field again without the user operating on the value of the field.

- Fixed a bug where the **Choice field** operating in **Autocomplete** mode automatically focused on the entered value. With this fix, not only is the mentioned bug resolved, but also, after deleting the selected value in the Choice field, the focus is now redirected to the input field. Additionally, the focus color is now determined by the selected Portal theme.

- The **DET_TSUpdate** column in the database will now be updated every time the value in the **Item list** row is edited.

- Added validation of email addresses when performing the **Share workflow instance** action. If an attempt is made to share an instance to email addresses with an invalid format, the action fails with an error and a message is displayed explaining the problem and listing the invalid email addresses.

- Changed the rules for configuring the **OAuth2 Authentication** specialized form field. After the change, defining the scope of privileges for authentication providers (using the **Scope** parameter) is optional.

- Fixed a bug that produced the "Invalid checksum for value in form field […]" message when attempting to transit a path after cloning the **Choice field** column and changing its value.

- Optimized loading of the historical version of the workflow instance to save an attachment.

- The visibility of system fields (including the **Attachments** section) in archived workflow instances will be analogous to that in the final step before archiving.

- When adding an attachment, the target category selection window shows the **Empty element display name** defined in the **Attachment details** configuration (instead of the **None** option as before).

- Fixed a form error that occurred when calculating the value of the **Data row** column of the **Item list** when the displayed **Source column** had a date format. After the change, the date is displayed correctly.

- Improved the display of the values used to fill the **Choice fields** (**Autocomplete**, **Popup search window**). After the change, the values are correctly aligned horizontally.

- Improved operation of **Item list** with column-based grouping enabled when editing a single row in **OCR verification** mode.

6.4. Designer Studio

- Fixed a bug where the advanced configuration of the **Person or group** form field included an incorrect **Name** data source column and did not specify the available

data range. The issue occurred at the application level after switching the type of the global form field from the **Choice field** to the Person or group field.

- Fixed a bug that occurred when expanding a process node that contained patterns of actions that are no longer supported.

- Fixed a bug that caused incorrect behavior of the **Change Requests** node in Designer Studio. As a result, after saving changes in the Change requests configuration in Portal (**Admin panel › Change requests**), the user could not save changes in the corresponding node in Designer Studio using the **Save** button, whereas clicking the **Save all** button generated an exception if the Designer Studio configuration has not been refreshed beforehand. What is more, after setting the **Active - standard handling** option in Portal and refreshing the DS configuration, the asterisk sign was constantly displayed on the Designer Studio selection tree next to the Change Requests node.

- Fixed an issue in **Dynamic** task assignment based on the **Person or group** field. The error occurred when a field of a different type was originally used in the dynamic task assignment (e.g. another choice field) and was later changed to the Person or group type in its configuration.

- Fixed a bug that caused a parameter value specified in one business rule to propagate into the same parameter in the remaining rules. This issue occurred when the same universal business rule was inserted at least twice in the HTML form field.

- Fixed a bug that occurred during application import and caused the following exception: "Message=Input string was not in a correct format". This bug was caused by a forbidden special character in the default German translation. This translation has been fixed.

- Improved the performance of the **SQL COMMAND** function when the **Return values from all rows** option is selected and the **Returned value type** is Date, Decimal, Boolean (Yes/No). After the fix, the values of all database rows are returned, not only the first one.

- Fixed a bug that generated error messages in Designer Studio after pressing the **Global logout** button in Portal. The error messages appeared in WebView-based windows displaying internet content and only affected users logged in through the AAD service.

- The unsupported **{PATH:____}** tag will no longer be replaced by values in WEBCON BPS Designer Studio.

- Added an operation to check if a value is selected in the **Data Source** section when saving the configuration of the **Update item list values** and **Replace item list** actions. If no data source is specified, a corresponding message is displayed.

- During export/import of an application, the contents of the **Documentation** fields in the process configuration are no longer parsed for the presence of tags specifying process variables. The previous operation could result in displaying incorrect configuration message during export.

- Improved loading of **Subworkflow** data from the database. After the change, only the columns needed in a given context are retrieved from the WFElements table.

- Revised the English translation of one of the **Days in step** distinguishers found in the **Compact view** tab of the process configuration window. Changed it to **Duration** to prevent confusion and maintain consistency with other language versions.

- Added URL validation when editing the **Exception list** in the proxy configuration.

- Fixed a bug that prevented the inclusion of an added action in the .xml automation definition file after saving the configuration. The fix includes a validation run during the automation save process, ensuring consistency between the configuration in the automation designer and the actual state. If any inconsistency is detected, the system displays an error message.

- Corrected assignment of **TsUpdate** property when saving AttributeDocTypeAssocs, Translates, WFActions, WFBusinessRuleDefinitions, WFConfigurations, WFStepFormFields, WFStepFormFieldDetails tables in the database.

- Fixed a bug that occurred when filtering a **BPS internal view** data source with a calculated column.

- Fixed a bug due to which the rule editor sidebar contained all the **Item list** form fields available in a given process despite opening the editor within the context of a specific Item list. The problem occurred in the rule editor opened in the configuration window of the particular Item list from the level of the form view configuration at a given step.

- Fixed a login failure through **AAD** or another **OpenID Connect** authentication provider when accessing Portal using the local http://localhost address. This configuration is used in environments with multiple front-ends and a load balancer.

- Fixed a bug that caused the **Parameters** tab to be invisible in the expression editor sidebar for the **GET ATTACHMENTS** function embedded in a business rule.

- Loading columns in the advanced configuration of **Choice fields** will no longer clear the configuration of target fields and searching.

- Fixed a bug that prevented the **Properties** of a **Global automation** action from being displayed using the **Ctrl+E** shortcut.

- Improved the **DeleteSubelementRows** JavaScript function so that rows are not deleted if no parameter is provided. The function will delete all rows if the **Item List ID** is specified as a parameter (without specifying the rows).

- Fixed a bug that prevented setting a default value for a **Choice field** (in **Autocomplete** mode) based on a **BPS source** if that data source returned only one boolean-type row.

- Fixed a bug where pressing the **Delete not sent** button in the **Email sending report** window caused the entire content of **WFMails** table to be deleted.

- Improved validation of user data in **webcon.pl\svc.bps** format in a non-domain environment, as well as connecting to and retrieving OUs and user data from such a domain when synchronizing BPS users.

- Fixed a bug that prevented dragging and dropping form fields between tabs within a single **Tab panel**.

- Fixed a bug that prevented saving modifications of parameters of tasks added to **SOLR indexer queue**.

- Fixed a bug that occurred when attempting to execute the **Generate a PDF file** action embedded on step entry. The issue appeared when the template for the target file had been selected from an attachment.

- Added additional information to the message displayed when an error occurs while testing a rule containing the **SQL COMMAND** function.

- Fixed an error that prevented accessing the configuration window of an automation defined under the **For each** operator in a cloned workflow.

- Fixed an error causing the user and password to be invisible in the configuration of SQL and Oracle connections.

- Entering control characters that are not allowed by the XML standard has been disabled in WEBCON BPS Designer Studio. Additionally, these characters will be automatically removed from XML files during migration.

- Improved display of column names loaded from the data source in the **Filter** field when configuring the **Item list** initialization.

- Fixed a bug that prevented users from entering values greater than "1023" in the **Port** field of the **Configuration of sending e-mails** when the selected server type was **Exchange on-premises/SMTP Server**.

- Added protection against **Importing translations** from another environment type. An appropriate message will be displayed when such an operation is attempted.

- The order of display for **Global constants**, **global Business rules**, and **Automation** has been updated to be alphabetical.

- Fixed a bug that prevented the display of **OCR AI Projects** usages in the system.

- Added the ability to finish tasks assigned in the start step of the **Dictionary** and **Document templates processes**.

- Corrected the erroneous incrementation of date values in the **Service hours** configuration.

- Fixed a bug that occurred when configuring the **Send custom email action** without a defined **Template** in a **Global automation**.

- Fixed a bug that occurred when creating a **Business rule** based on a **Condition** operator defined in the **Automation** configuration.

- Restored behavior of the **{I:WFD_CreatedBy}** variable as of version 2022 R3. Values returned from the **CacheOrganizationStructure** table on the form are again case-sensitive.

- Resolved the issue of generating documentation when the form field in the process uses a connection to the **REST Web Service** with the authentication type set to **Basic**.

- Added a mechanism to prevent the step configuration from being saved if the **Predefined (CC) task assignment** is set without defining the exact rules for assigning tasks to users (by selecting one of the available options from the list).

- Fixed a bug that caused BPS tags to be cleared when testing queries, such as in the configuration of the **Change values of multiple fields** action.

- Improved behavior of the global form field of the **Data** type in the **Variable editor**. After the change, the list of variants available in the Editor for this global form field is similar to that for the process form field.

- The system behavior for the **Services activity** and **Running modules** reports in case of session expiration in WEBCON BPS Designer Studio has been improved. Following the change, when attempting to load data for these reports, a message about session expiration and a window to log in to Designer Studio will be displayed.

- Improved saving and reading of changes made in the **HotFolder Advanced settings** tab in WEBCON BPS Designer Studio.

- Fixed a bug that prevented the correct loading of the **Email sending report** in case the process referred to by the report item no longer exists.

- Fixed a bug that resulted in incorrect configuration of the **Clear item list** action after importing an application.

- Fixed a bug that prevented displaying the location where an MSSQL connection is used if such a connection had been configured in the **Validate form** action.

6.5. Actions

- Fixed a bug that caused incorrect retrieval of connection parameters when editing/viewing a file that was checked out in OneDrive through the **Start editing a file using OneDrive** action.

- Improved the performance of the **Add attachment** action when the query defined in its configuration does not return any attachments. In this case, the action will be aborted and a corresponding message will be displayed.

- Changed the content of the error message displayed for incorrect action configuration to clarify where the error actually occurred.

- Fixed a bug that occurred when executing **Cyclical actions** with the **For each** operator defined.

- Fixed a bug that prevented the **Move workflow (SQL)** action from setting an empty value.

- Fixed a bug that prevented the **Run an SDK action** configuration window from opening within **Global automation** if a reference to a **Choice field**, **Data source** or **Connection** was used in its configuration.

- Unified retrieval of instance ID in action configuration and SQL query editors, ensuring that data is returned correctly.

- Corrected the display of the value of the **Multiple lines of text** form field in the footer of a Word file generated using a dedicated action.

- Fixed an error in the execution of the action **Add/Remove single user to BPS groups** configured under cyclical automation.

- Resolved an issue that caused the instance **History** to display the information about no changes of a calendar entry despite its modification via the **Exchange calendar** action.

- Fixed an issue in the **Change value of a single field** action defined within a **For each** operator that changed the value of an autocomplete column on an **Item list**. The error caused the action to set only the ID within the target column – it will now enter the ID#Name (BPS format).

- Fixed a bug that occurred after a system version update when executing the **Replace item list** action with value filtering enabled.

- Improved the performance of the **Update item list values** action when an instance is moved to the **Wait for subworkflows** step.

- Removed redundant line spacing in the formatted **Item list** column of the **Multiple line of text** type.

- Fixed a bug in the execution of the **Update item list values** action when **Acceptance** was configured for the **Item list** with an option to hide rows with values that were to be updated by the action.

- Fixed a bug in the execution of an automation featuring the **Replace item list** and **Change value of single field** actions that caused the **Item list** values used to be out of date.

- In the configuration windows for the **Start a subworkflow** and **Start a subworkflow (SQL)** actions, an infotip (i) will be displayed next to the **Set form fields data before defaults evaluation (compatibility mode)** checkbox in the **Advanced** tab only if the checkbox is available.

- Improved the conversion of the values returned by the **Business rule** in the request sent by the **Invoke REST Web service** action. After the change, the value returned by the rule is converted to the type defined in the **JSON part value** field.

- Corrected the content of user and administrator messages available in the **Instance history** after executing the **Share workflow instance** and **Share task** actions.

- Fixed a bug that occurred when defining a **Run an SDK** action on a path and retrieving the **Connection ID** via a **Business rule** in the action configuration.

- Disabled logging to the **Event Viewer** of errors related to actions performed when saving a form.

- When the **Send custom email** action is executed correctly, the **Instance history** will display information about **CC** and **BCC recipients**.

- The configuration for all actions in the **Performance indicators** group has been updated. Now, a performance indicator must always be selected, even if only one is available in the system.

- Resolved an issue that resulted in the loss of saved translations for the **Validate form** action based on which the **Action template** was created.

- Fixed an issue with passing an empty value from a **Date and time** field to an **Automation** parameter.

- Improved the performance of the **Add a substitution** action configured **Based on SQL query**. Now, when using the **CompanyID** parameter, both the business entity name and its ID are retrieved correctly.

- Fixed a bug that prevented the correct migration of the **Update item list** values action configured from the **Template** after a system version update.

- Fixed an issue in the **Invoke SOAP Web service** action, which caused the user to be unable to close the error window that appeared when loading a WSDL file.

- Improved creation of a URL in the **Invoke REST Web Service** action when the **request suffix** consists only of parameters.

- Improved logging of information regarding actions executed on the **Item list**.

- Fixed a bug that prevented setting the **Comment author** other than the **System** in the configuration of the **Change value of single field** action when the **Field** to be changed is a system **Comment**.

- Fixed a bug that caused the **Hyperlink** action to incorrectly decode special characters entered in the form fields, e.g., the "plus" character was replaced by space.

- The behavior of the **Start editing a file using OneDrive** action has been modified. If an attempt is made to start editing the same file using OneDrive again, an error message will be displayed and the path transition will be blocked.
  In addition, the previous behavior of the **Finish editing a file using OneDrive** and **Cancel editing a file using OneDrive** actions has been restored. If these actions fail, the path transition will not be blocked. The action execution logs will show the corresponding information.

- Disabled the warning about manually entered path ID in the configuration window of the **Move workflow (SQL)** action when attempting to save. The warning would appear even though the **Default path** was set.

- Modified the behavior of the **Remove attachment** action operating in the **Remove attachment and all binary data** and **Remove only history of binary data**. Currently, the action also deletes data dedicated to OCR verification view.

- Increased the scope of logs stored in the AdminWFEventLogs table to facilitate diagnostic operations in case of any errors when printing barcode labels in the **WEBCONAPPS-SaaS** environment.

- Improved support for special characters in the configuration of the **Update attachment** action executed by **WEBCON BPS Workflow Service**.

- Added additional diagnostic logging for the **Exchange events** action that creates a new entry in the calendar.

- Changed the type of data that is recorded in the execution logs of the **Add a substitution** and **Remove a substitution** actions.
  The adminMessage property in the browser's administration tools, which appeared as a result of the user viewing the **Instance history**, has been hidden.

6.6. Rules

- Improved the **InvokeRule(ID)** JavaScript function. Prior to this fix, in certain cases, a **Form rule** with an ID that began with the search ID was executed instead of the intended Rule ID.

- The **Business rule** in the **Invoke REST Web service** action can now return an empty value using the **EMPTY** parameter. Clearing the value of a **Date and Time** field with an empty value returned from REST will work correctly.

- The **GetMode** function has been returned to the editor in JavaScript mode.

- It is now possible to create universal **Form rules** that contain a reference (parameter or tag) to **Item list** columns.

- If the BpsID of a **BPS group** added through the Portal or the API contains a space at the beginning, this space is automatically removed when the group is added. Therefore, such a BPS Group can be used in the definition of **Business rules** containing **USERS** and **CURRENT USER IS ONE OF** functions.

- Fixed a bug that occurred when attempting to preview the **Form rule** used in the **For each** operator that iterates over collection elements, following a change in the **Collection type** for this operator.

- The **Attachments** group functions, including **ATTACHMENTS COUNT, CONTENT TYPE**, **FILE NAME**, and **GET ATTACHMENTS**, can now be used in rules for files uploaded to OneDrive through the **Start editing a file using OneDrive** action.

- Fixed an issue in the **GET AT INDEX** function when used in a **Form rule**.

- Improved **Parameter** setting for a **Business Rule** using another Business Rule.

- Fixed a bug that prevented the update of information in the **Usage** tab of the **Global business rule** when it was used in a **Condition** of a **Global automation**.

6.7. Data sources

- Fixed an issue related to a migration script. The issue was caused by deleted form fields still existing in the configuration of **BPS Internal View** data sources. The script is now protected against invalid configurations.

- Fixed a bug that caused process configuration data in an unsaved **Data source** to be deleted after switching to another source's configuration.

- Fixed a bug that resulted in prolonged search times for instance numbers in the SOLR database.

- Improved filtering of **BPS internal view** data source values in the **Choice field** configuration when the defined filter compared the **Data source column** to a **Floating-point number**.

- Fixed a bug with **REST Web Service** connections using **Salesforce** authentication. Changed the token type to Bearer.

- Fixed a bug that prevented the proper completion of **Choice columns** configured based on a **REST Web Service** data source, for which values were retrieved from **Single lines of text** defined on the form.

- Fixed a migration issue with the configuration of the **Data table** type form field. The issue occurred for data source columns whose names consisted only of spaces.

- Improved loading of values from a subordinate data source when using a **Business rule** in a **Data row**.

6.8. Add-In

- Fixed a bug in the WEBCON BPS Outlook Classic add-in that caused issues when loading the defined **Search structure**. This occurred when the **Browse** tab was opened from the new message window and a system form field was selected.

- Improved the display of previously invisible elements in **WEBCON BPS Word Classic add-in** when the dark gray Office theme is set.

- Fixed a bug that occurred in the **Word Modern** add-in in the desktop and mobile versions. The bug prevented the template from being correctly populated with process data using the **Generate/Update a Word file** action.

- Changed the behavior of the **Outlook Classic** add-in when the user logs in through the browser. When the MS Outlook application is restarted, the previous login session will be restored.

6.9. Mobile app

- Fixed a bug that prevented the use of the global search option in the mobile app.

- Fixed a bug that occurred when scanning a QR code generated for the **Start** tile with a mobile device. Due to this bug, the form of the initiated instance did not include the default values configured in the Start tile settings.

- Fixed a bug that caused the mobile app to display a white screen when attempting to wake it up after extended periods of user inactivity.

- Added missing **Overwrite** option in the attachment context menu on the mobile app.

- Improved visibility of context menu icons in the mobile application supported on Android devices by changing their color when set to a dark user interface theme.

- Fixed a bug where the **Connections** window would not close after selecting a connection. This issue occurred in the mobile application on iOS devices.

- Improved opening of an instance after clicking a hyperlink in a PUSH notification.

- Fixed a bug that prevented Android mobile devices from previewing .pdf and .docx files within the **Report** in the **Document template process**.

6.10. Service

- Fixed a bug where after synchronizing individual users from an external Azure Active Directory source, the user's relationships to their parent AAD groups were removed. This resulted in the user having no permissions to instances that could only be accessed by members of the parent group.

- Changed the scope of information included in **AAD synchronization** logs. After the change, warnings about devices present in Security groups are no longer displayed.

- Fixed a bug in the processing of **HotMailBoxes** by WEBCON BPS Workflow Service. As a result, any items other than emails will now be moved to the error folder.

- Fixed a bug in the exchange rate synchronization for data packages that return no results. Improved the logging mechanism.

- Fixed a bug that occurred when indexing activities to SOLR. When creating an activity entry, special characters in configuration object names are replaced with allowed characters.

- Streamlined the removal of instances from SOLR after they have been archived.

- Improved information logging in cases where the **HotMailBox** and **HotFolder** stop processing. The log will contain info about which task caused the processing to stop.

- The stability of the WEBCON BPS Workflow Service has been enhanced.

- Fixed incorrect behavior of **SOLR indexing** when **SOLR** is unavailable.

- Improved exception logging for **HotMailBox** timeouts.

- Improved processing of .tiff files by **WEBCON BPS Workflow Service**.

- Fixed a deserialization error that arose while synchronizing photos with AAD. Added logging for responses from Microsoft Graph pertaining to the download of photos and their metadata during synchronization.

- Corrected an error message returned by WEBCON BPS Workflow Service when an editability condition is configured for a form field with the **{CurrentPath}** tag. The updated message is: "In the current execution context, the value of the {CurrentPath} variable is unavailable".

- Changes have been made so that in WEBCON Workflow Service, the log "Empty content databases for running services" is only available if there is no connection to the database during restart, failover or reloading of the service configuration.

- Improved the presentation and handling of the date in the parameter responsible for the initial date from which exchange rates will be loaded, thus enabling their correct synchronization.

- Fixed a bug that caused WEBCON WorkFlow Service to hang during restart. Extended the scope of information registered in the event log to address such situations.

- In the event that irregularities are identified in **HotMailBox** operations, the related diagnostic information will include the data pertinent to the workflow instance in which such irregularities occurred.

6.11. Designer Desk

- Improved download of prototypes available in Designer Desk in environments where **Content database** with ID 1 does not exist.

6.12. API & SDK

- An unsupported **parentID** property has been removed from the PATCH API endpoint model **/api/data/{ver}/db/{dbId}/elements/{id}**.

- Implemented a change in the API module in version 6.0 and BETA. The change involves replacing the word "application" with "applications" in the routing of the following endpoints:
  /api/data/{version}/db/{dbId}/applications/{idguid}/admin/privileges
  /api/data/{version}/db/{dbId}/applications/{idguid}/admin/privileges/add
  /api/data/{version}/db/{dbId}/applications/{idguid}/admin/privileges/remove

- Improved public API retrieval of the values of the **Creation date** and **Modification date** system columns in reports.

- Fixed a bug that caused some **Instance history** logs to be deleted if an exception was not caught in a custom action.

- Instances started with **REST API** would enter dates into form fields in the wrong format. Fixed an issue with the format of dates entered into text fields via REST API.

- Fixed a bug that caused the public API refresh token issued to a user to be valid for an additional 60 seconds after selecting **Global logout** in Portal. After the change, the token is correctly invalidated upon logout.

- Corrected the error message that appears when moving a workflow instance through a path via the REST API fails due to a lack of a license. This message now clearly indicates the need for a proper license.