WEBCON BPS
Updates for WEBCON BPS version 2020.1.1
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1. Information

1. Changes in this version will break compatibility of the Export-Import mechanism. Exported process packages created in versions 2019.1.4.x 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.

2. The update will need you to provide the SOLR database admin password – as the update includes scripts the structure of the database. After the update is finished, restart the WEBCON BPS Search Service.

3. When updating to WEBCON BPS 2020.1.1, the SOLR engine database will be updated to version 8.3.0. This update will happen automatically, during the update installation process.
2. Changes to existing features

2.1. Opening links to related workflow instances

With the introduction of the instance preview for related instances, the mechanism on the form for opening links to other instances has been changed. From now on, clicking on the link directly will open a preview without leaving the current form. To go to the full version of the instance form, click on the full-screen view button that appears as a tooltip.

<table>
<thead>
<tr>
<th>Instance number</th>
<th>Date</th>
<th>Payment due</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGRMT/2019/1000010</td>
<td>10/18/2019</td>
<td>11/18/2019</td>
</tr>
</tbody>
</table>

2.2. Item list column width on the Modern form

The Item list form field will now behave differently when certain widths are defined in the configuration of its columns.

The width of columns can be defined in two ways: by defining a fixed width in pixels (e.g. 100px) or by defining a relative width as a percentage (e.g. 10%). When using pixels, the column will always have the fixed width. When using a percentage, the column width will adjust to the available space – which is all the space left in the given section/panel after reserving space for system columns (ordinal column and actions column) and columns with a fixed value.

If no width is defined, the column will adjust to the item list table based on its contents and available space.

2.3. Refreshing form rules defined on Item lists after value change

Form rules defined for Item list form fields on the Modern form that are responsible for visibility, requiredness, editability of columns will now adhere to a slightly different logic when it comes to refreshing and reevaluating them. This change in rule refreshing logic also applies to the values of calculated columns and the available choices in choice columns.

From now on, when changing the value of a cell on the Item list, or any other form field – all form rules defined for the Item list will be reevaluated as long as they contain a variable representing the cell or form field that was modified.
2.4. OCR AI validation

A mechanism was introduced to guard against incorrect value recognition of date fields and choice fields by OCR AI recognition actions.

Due to this, choice fields will not be filled with values if the value is found (by the OCR AI action) to contain restricted characters (# ; $$). Information about this event, should it occur, will be saved in the action execution log.

In the case of date fields, the value will not be entered into the field if it falls outside the 01-01-1900 to 31-12-2999 range.

2.5. Deleting workflow instances

The mechanism for deleting workflow instances from the database has been expanded slightly. From now on, when deleting an instance, information will also be removed from the following tables:

- **WFActionExecutions**
  All action execution entries related with the deleted instance will also be deleted.

- **WFAttachmentFiles**
  Only the most recent version of the attachment related to the deleted instance will remain. This final version will be marked as: ATF_IsDeleted.

- **WFHistoryAttachments**
  Each attachment will have an entry added about its removal. All other entries will be removed.

- **WFHistoryElements**
  An entry will be added about the instance’s removal. All other entries will be removed.

- **WFHistoryElementDetails**
  Each item list row will have an entry added about its removal. All other historical entries will be removed.

2.6. Item list changes in instance history

The way that changes to values in Item lists are saved in the instance history have been modified. From now on, the system will check whether any cell was modified and whether any row was added or removed. If a change is found, each modified row will have an entry added to the change history.
2.7. Ability to configure an execution condition of Hyperlink type actions

On the Modern form, Hyperlink type actions that are configured on the Menu button trigger can now have execution conditions defined for them.

Migration

When updating the system to the newest version, execution conditions will be modified to reflect the above change, but the logic of all existing actions will remain the same.

Actions that come from and are bound to a template will have their execution condition replaced with a POSITIVE Boolean rule. Independent actions not coming from a template will have their execution conditions remain empty.
3. What’s new in WEBCON BPS 2020?

3.1. Item list columns in application reports

Reports on WEBCON BPS Portal can now display data from Item list type form fields. Columns from available Item lists can now be selected in the report configuration. If an Item list contains more than one row, other form fields displayed as part of the report will be shown multiple times to reflect the number of rows on the Item list.

Additionally, a report can be configured to show data from one selected Item list only.

3.2. SOLR Search Index database as a data source in application reports

It is now possible to use the Search Index database as a data source for reports on the application. This allows all regular report features to be applied to data from the Search Index database, e.g.: displaying them as tables or as a graph, applying filters, grouping, sorting, and searches.

When applying additional filters or calculated columns, it is necessary to use expressions that adhere to SOLR format. Expressions may contain functions approved by the SOLR engine. Their description can be found here: https://lucene.apache.org/solr/guide/7_0/function-queries.html.

Reports that use the Search Index source can include all form fields except Item lists. The report can also display a system column containing attachments of the instance.

*When using the Search Index source, keep in mind that data is updated in the database with a delay. Therefore, data entered into forms will be reflected on the report after rebuilding the index.*
3.3. Archived instances available in application reports and in BPS internal view

It is now possible to use an archive database as a source for WEBCON BPS Portal reports and BPS internal view data sources. In this configuration, the report will load archive data from one specified process.
3.4. Embed Power BI reports on application dashboards

WEBCON BPS Portal can now use Power BI reports embedded on application dashboards. When configuring a dashboard, you can now add a Power BI widget. In the widget configuration, you can specify a workspace and a specific report in the Power BI service.

To activate this feature, you must first register WEBCON BPS Portal in Azure AD and obtain an Application ID. The Application ID then has to be entered into WEBCON BPS Designer Studio -> System Settings -> Global Parameters -> Power BI application ID.

**NOTE!**

Users must have a Power BI license (depending on licensing mode – according to Microsoft guideline).
3.5. Business rules inside Form rules

The Modern form on WEBCON BPS Portal can now employ Business rules inside Form rules. When designing Form rules in the expression editor, you can access any Business rules that you have defined.

This Feature is not available for forms in Classic mode and Form rules in JavaScript mode.
3.6. **New widgets for application dashboards**

New widget types can now be embedded on application dashboards:

- Find instance by ID or instance number.
- Application supervisor
- Recent activities
- Application description
- Suggested reports

3.7. **Quick search suggestion window**

The contextual suggestion dropdown that appears under the search field on WEBCON BPS Portal have been modified. From now on, when entering text into the search field, the system will present the user with elements from four groups that best match the entered term: applications, views and reports, start buttons, and workflow instances. The user can instantly go to one of the suggested elements, or open the advanced search view (by clicking the Show more button or pressing ENTER).
3.8. **OCR verification view for the Modern form**

The Modern form now has the option to view documents in OCR verification mode. The OCR verification mode is used to reenter and correct data that was automatically recognized by the OCR AI recognition action. OCR verification mode is only available in steps that have been marked in the configuration as **OCR verification step**.
3.9. Preview related instances on the form

Instances available as links on the form can now be previewed in the preview panel that slides in from the right. Clicking on one of these links will open the instance in preview mode, without exiting the current form. To go to the full version of the instance form, click on the full-screen view button that appears as a tooltip.

![Preview related instances on the form](image)

3.10. Updated display options for form field on the Modern form

- Data row type form fields now have the option to hide header text. If the Show column header option is left unchecked, the form field value will be displayed across the entire form panel in which it is located.

![Updated display options for form field on the Modern form](image)
• Form field description tooltips will now be displayed under an icon that appears next to the field. This icon will be visible for all form fields that have some value entered into its Description field.

![Form field description example]

• Choice fields that operate in the Autocomplete mode can now be configured to search for and suggest values after a defined number of characters has been entered. It is also possible to configure how many results are displayed by default, and what is the maximum number of results that are shown after clicking the Show more button.

![Autocomplete configuration example]
• Form fields and item list columns of the *Floating-point number* type now have the option to automatically format the value display to the current language of the form. If the *Format* option is set to *Auto*, the system will use decimal and thousands separators that match the current form language. Automatic formatting will also be taken into consideration when using the form field in BPS internal view sources, calculated columns, application reports, and when generating Word documents.

3.11. **Adding attachments from the system clipboard**

Modern forms displayed in Internet Explorer can now have attachments added directly from the clipboard.

This feature is available after enabling the *Use ActiveX Plug-In Client* option in the configuration of the attachment panel (WEBCON BPS Designer Studio -> Application -> Process -> Workflow -> Global form template -> Attachment Panel). The *WEBCON BPS ActiveX Client* must also be installed.

To add an attachment from the clipboard, click on the *Add from clipboard* button that is available on the attachment panel shown on the form.
3.12. Browsing multiple attachments

The attachment preview window now has paddles allowing users to navigate to the next or previous attachment from the list of instance attachments. You can also download the attachment directly from the attachment preview window.

3.13. Exporting Data table form fields to Excel files

Data table type form fields on the Modern form now have the option to have their contents exported to an Excel file. To make the button for this feature visible on the form, enable the Allow Excel export option in the form field’s configuration.
3.14. Hiding reports in the application navigation menu

The configuration of application reports now has the option to hide the report from the navigation panel. Once the *Hide in navigation menu* option is selected in the *User privileges* tab, the report will be hidden from all users that do not have the ability to edit WEBCON BPS Portal. Reports hidden in the navigation panel will still be available on dashboards and when obtaining the report embed code.
3.15. Translations for choice field values based on data source columns

Choice fields can now display translations for their values, as long as these translations are found in a different column of the same data source used to power the choice field.

This feature requires that the data source is prepared in such a way, so that each column that needs to be translated has additional columns storing these translations. Each additional column must contain the translations for one specific language.

After enabling the Support multi-language names in the choice field’s configuration, for every column in the Columns section, it is possible to map which additional columns contain the translations for the Source column in different languages. This window is accessed by clicking the translation button next to the Source column name.

The values are displayed in the language selected by the user in their Portal settings.

3.16. Attachment category name translations

Attachment category names can now be defined based on additional data source columns.

This feature requires that a data source is prepared containing the relevant translations. The methodology of preparing such data sources and configuration is identical to translations for choice field values (chapter 3.14 above).
3.17. Dictionary processes

WEBCON BPS 2020 introduces the option to add processes for the sole purpose of acting as data dictionaries. A dictionary process can be quickly created in Designer Studio by using the wizard in the Tasks tab.

For convenience, when a dictionary process is created, a data source that returns all data from this process is created automatically. The data source will return all form fields defined in the dictionary process and will be updated whenever the dictionary process is updated.

A dedicated dictionary report can be created for dictionary processes, with the ability to export and import data from Excel files.

Dictionary processes can be operated without expending a process license (when using the ‘per process’ licensing model).
3.18. Document template processes

WEBCON BPS 2020 introduces the option to add processes for the sole purpose of acting as repositories for document templates used in the system. A document template process can be quickly created in Designer Studio by using the wizard in the Tasks tab.

For convenience, when a document template process is created, a data source that returns all templates from this process is created automatically. The structure of this data source is updated whenever the document template process is updated.

Documents stored in such a repository may be used as templates for actions that generate Word, Excel, PDF, and HTML files.

A dedicated document template report can be created for document template processes, with the ability to import and export data to ZIP files.

Document template processes can be operated without expending a process license (when using the ‘per process’ licensing model).
3.19. Anomaly analysis in processes

The mechanism for AI analysis and detecting anomalies in workflow instances has been expanded. The updated mechanism allows you to manage analysis rules created by the system, control the process based on analysis outcome, and define analysis modes for individual form fields.

- Managing analysis rules
  Processes where AI analysis is enabled (Settings -> Include in AI analysis) and that have a built model and calculated analyses (Reports -> Basic reports -> AI Analysis -> Add -> Building model and calculating analyses) will have an additional tab available in their configuration. The AI rules tab will show all AI rules created for this process. From this report, the application administrator can decide which rules are more important and should have a higher effect when calculating the analysis for workflow instances.

From the context menu, you can view workflow instances that do not adhere to specific rules.
A report of all instances that were recognized as anomalous is available for every application with enabled AI analysis. It can be accessed from WEBCON BPS Portal’s navigation panel through Insights -> Anomalies

- AI analysis business rules
  Additional business rules were added that can interpret the results of AI analysis for a workflow instance. The rules can be found under the AI rules node in business rules editors throughout WEBCON BPS Designer Studio.
**AI ANALYSIS RULE COUNT FOR INSTANCE** – returns the number of all rules for the given workflow instance

**AI ANALYSIS BROKEN RULE COUNT FOR INSTANCE** – returns the number of rules broken by the given workflow instance

**AI ANALYSIS SCORE FOR INSTANCE** – returns the result of AI analysis for the given workflow instance. The result of analysis is a number between 0 (all rules have been broken) and 1 (no rules broken).

- Form field analysis mode
  For every form fields in a process with enabled AI analysis, it is possible to select one of three value analysis modes:
  - **Ignore** – form field will not be analyzed
  - **By step** – form field value will be analyzed per step
  - **By workflow** – form field value will be analyzed for the entire workflow without breaking down into individual steps

**3.20. Preventing imported processes from being manually modified**

A safety mechanism was introduced to help enforce Import-Export rigor between DEV/TEST/PROD environments – and prevent any accidental manual modifications of imported processes.

In WEBCON BPS Designer Studio 2020, a process imported to any environment will be marked as: *Process modified by Export-Import*.

The user will be warned whenever they attempt save a process marked as modified by export-import.

**3.21. Zoom in & out in the rules editor**

The pop-up editor for form rules and business rules now has the option to zoom in and out on the rules you are building. This can be done via CTRL + Mouse wheel.
3.22. Dedicated account for accessing the database

In WEBCON BPS 2020 it is possible to define an independent user account which will be used for the purpose of loading data from the database. The account will be used for executing SQL COMMAND business rules, and for queries in actions where the default connection option was selected. You may use a dedicated account that will receive read-only privileges to tables with process data, and function to format that data.

This feature is for new installations of WEBCON BPS only.

The dedicated account is configured during installation on the Account for reading data step.

Accounts with lowered privileges will have access to the following objects from the database:

- **Tables** (select)
  - CacheOrganizationStructure, CacheOrganizationStructureExtendedTokens, Calendars, Companies, DicActionKinds, DicActionTypes, DicADGroupTypes, DicADUserTypes, DicAssignTypes, DicChoiceFieldTypes, DicElementStatuses, DicFieldDetailTypes, DicSecurityLevels, DicStepTypes, DicTaskFlags, DicWFFieldTypes, ExchangeRates, WFActionExecutions, WFActions, WFApplications, WFApplicationsGroups, WFApplicationsLinkedProcesses, WFAvailablePaths, WFConfigurations, WFcovers, WFDataAttachments, WFDefinitions, WFDetailConfigs, WFDocTypes, WFDetailCheckouts, WFElementDetails, WFElements, WFElemtTasks, WFFieldDefinitions, WFFieldDetailDefinitions, WFHistoryAttachments, WFHistoryElementDetails, WFHistoryElements, WFSecurities, WFSteps, WorkFlows, _V_WFEElements, FormPathAssocs, CacheOrganizationStructureSubordinates, AttributeDocTypeAssocs, DocTypeAssociations, Translates, TranslateLanguages

- **Functions/procedures** (execute)
  - ClearWFElem, ClearWFElemAdv, ClearWFElemAdvLanguage, ClearWFElemExt, ClearWFElemID, ClearWFElemIDAdv, ClearWFElemIDExt, GetDbDate, GetRelatedSiteUrl, IsUserInADGroup, IsUserInSPGroup, ReplaceLogin

- **Functions** (select)
  - SplitToTable
3.23. **SDK extensions for the Modern form**

Form fields on the Modern form can now be expanded upon using SDK extensions.

- **Form field extension SDK**
  An extension of this type is used to prepare your own control in JavaScript REACT technology. The control is placed directly on the form, loading and saving data by using JS API.

- **Custom control SDK**
  An extension of this type is used to embed your own control on the form created in any technology that can use Iframe. The control is hosted outside the form. Data is saved, loaded, and stored outside of the system. The control can communicate with the form using JS API.

3.24. **Expanding WEB API**

A number of changes were introduced to WEBCON BPS Portal WEB API. A list of all new methods for API Beta along with interface descriptions can be found on the Portal subsite: https://portal_address/API.
4. Bug fixes

[General]

- The WEBCON BPS installer should now correctly give the service account privileges to the database.
- Added optimization improvements to the Export-Import mechanism

[Portal]

- Added several improvements to the functioning and layout of WEBCON BPS Portal. Among others:
  - Improved the report tile widget
  - Removed the unnecessary scroll bar on empty dashboards
  - Long dashboard names should save correctly
  - Task counter widget should now be better aligned
  - Dashboard privileges can now be assigned to groups of users
  - Dashboards created in Designer Studio should get refreshed correctly.
  - Fixed the scroll bar when viewing the configuration in IE.

- Introduced several changes to WEBCON BPS Portal components. Among other things, the following problems/inconsistencies were resolved:
  - Error when editing themes
  - Incorrect display on Safari
  - Elements overlapping on the compact view
  - Filters overlapping on IE
  - Incorrect display of multilingual fields
  - Translation packages being downloaded multiple times unnecessarily
  - Unnecessary queries when opening an instance
  - Form margin disappearing on some resolutions
  - Cut-off names on the navigation menu
  - Incorrect default language
  - Task counter only displaying 3 digits
  - Double-error on quick paths
  - Incorrect structure preview on small mobile devices
  - Inconsistency in how substitution end-dates are displayed
  - Application order on substitutions view
  - Incorrect default focus in substitution view
  - Incorrect database entry about substitutions
  - Unnecessary loading of data on My Tasks view
  - Cut-off descriptions on start buttons
  - Cannot move start buttons to the end of the list
  - Cannot select a form type in start buttons
  - Multiple default values in start button configuration
  - Saving start buttons when a default value is set to empty
- Incorrect behavior when clearing the filter in a search structure
- Unnecessary asterisks when adding filters
- Incorrect paging in search structure views
- Incorrect values being shown when grouping search structures

- Added a number of improvements and graphical updates to application reports displayed on Portal. Some improvements, among others:
  - A message confirming that a view was deleted.
  - Improved filtering by days in step.
  - A large number of views will now be displayed correctly.
  - Improved name translations.
  - Availability of values by which the report can be filtered.
  - Reports on dashboards can now be edited correctly.
  - Step names should no longer overlap with other columns.
  - Report configuration should no longer load twice.

- Changed how reports are displayed in compact mode. The compact mode tiles will now more appropriately display long text values.

[Modern form]

- Introduced several improvements to the display and functioning of form fields in the Modern form. Among other things, the following problems/inconsistencies were fixed:
  - Numbers should align left correctly
  - Image and signature form field behavior when they are required
  - Style changing for form field groups
  - Yes/No form field should correctly display a message when it is required
  - Adding default values with no ID to choice fields
  - Control styles affecting the calendar control
  - Action execution window placement
  - Update time in history cutting off when displayed on small monitors
  - Comment control displaying incorrectly on Firefox
  - Related attachments not displaying correctly on Item lists
  - Timeout error when exporting Item lists to Excel
  - ReadOnlyHtml columns being updated in edit mode
  - RowsNotEditable error on mobile forms
  - Improvements to the 'Dark' theme
  - Form field order on Compact forms should now work correctly after breaking inheritance
  - Formatting error in calculated floating-point columns when using the Convert rule
  - Incorrect form scaling when the left panel is expanded
  - XHR elements should not be loaded unnecessarily
• Introduced a number of display improvements to choice fields. Among others, choice lists should now be displayed correctly on monitors with low resolution.

[Actions]

• Fixed the following errors in actions:
  - [Update related instance] - the popup window will no longer be excessively wide.
  - [Add element to list] - fixed the message in action execution history.
  - [Add barcode] - The number should no longer overlap with the code.
  - [Add text layer] - PDF documents with added text layer should no longer increase in size.
  - [Generate a PDF file] - PDF file should now be displayed correctly.
  - [Generate a Word file] - Data table should now be generated correctly regardless of characters in its name.
  - [Exchange calendar] - Fixed an issue that would prevent different types of variables from being used in the same field.
  - [Load data from Excel] - Should work correctly even with empty form fields.
  - [Hyperlink] - Fixed link not loading
  - [Create list] - Small corrections in the configuration.
  - [Launch sub-workflow] - Action should work correctly when set to trigger on a cycle.
  - [Remove privileges] - Added spacing in execution history.
  - [Create task] - Fixed an issue with task assignment via SQL query.
  - [Invoke REST Web service] - Improved validate HTTPS
  - [Invoke REST Web service] - Improved Dynamics 365 ADFS authorization.

[Plugins]

• The MS Team and Outlook Light plugins now have the ability to preview attachments added to instances