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Jedox 2019.3: the best Jedox version ever!

Jedox 2019.3 is the most complete, feature-rich, stable and secure version to date. It gives report builders even more freedom to create customized visualizations and charts for impactful reporting and analytics. Again, the new version introduces “most wanted” features suggested by Jedox users, such as ComboBox search, improved export of web reports to Excel, as well as enhanced connectivity for Qlik® BI systems.

This document gives an overview of the new features, enhancements, and fixes in Jedox 2019.3, which is currently available at https://www.jedox.com/en/epm-software/free-trial/. We are committed to keeping newer versions compatible with previous versions, especially solutions built with previous versions. Any changes in the software that would require a change in a solution built with the software will be announced during the ramp-up phase before the change goes into effect.

Some Jedox features are released IN PREVIEW. These features have undergone testing and passed quality thresholds, but they should not be used in production until they have reached “generally available” (GA) status. For features in preview, we are targeting a maximum of two releases for maturation, i.e., it will take a maximum of two releases until they become GA. Our intention is to get your feedback on these features before making them GA and production-ready. These in-preview features may undergo minor design changes while going through the maturation process. Most in-preview features can be enabled in Jedox Web Administration.

Jedox features with the heading ATTN include changes that may impact settings in your current installation. Always back up your databases and other customized content before upgrading.

1 General

1.1 Object name displayed in delete dialog

The name of the object you want to delete is now displayed in the confirmation dialog in Modeler. (#40462)

2 In-Memory DB (OLAP)

2.1 New rule function PALO.EISANC

This new rule function checks whether a consolidated element contains the specified element in all of its descendants. (#40852)
2.2 Rule function NOW() is now DDE-supported for faster calculation

The rule function NOW() is DDE-supported for both CPU and GPU. Be aware that results from NOW() function in rules are volatile by nature, meaning that their result will change on each calculation. As a consequence, the results of rules using NOW() (or dependent rules) cannot be cached. (#41458)

2.3 Log messages for file system commit type

Info-level log messages now provide information on the storage types used on the file system. These log messages occur on server startup if cube and/or dimension binary storage is used and when online backup is executed. (#40523)

2.4 IN PREVIEW: new shortcut for concatenation

The pipe operator (|) can now be used for concatenation in rule functions. For example, instead of CONCATENATE("Value 1", "Value2"), you could use "Value 1" | "Value 2". This shortcut can be used when editing rule definitions in the rule list but is not yet supported in the Advanced Rule Editor. (#40853)

2.5 ATTN: DDM time dimensions format

When you create a time dimension in Data-Driven Modeling (DDM), the hierarchy is similar to that in the Time Editor. The dimension will also be assigned the dimension type "Time". Note: the <targetformat> parameter for column headers is no longer available. (#36450)

2.6 Improved performance for online backup/download

Database backup/download handling has been optimized, shortening the time needed for commits to the file system and improving performance for large databases. (#40793)

2.7 GA: optional timeout for In-Memory DB (OLAP) requests from Spreadsheet Server

A timeout period can be set in palo_config.xml for In-Memory DB (OLAP) requests from Jedox Web Spreadsheet Server. If set, all requests made to the In-Memory DB will abort when the timeout is reached. Value is in milliseconds. Value of 0 means no timeout.

Example setting for a 20-second timeout period: <network_timeout>20000</network_timeout>

This feature was in preview in version 2018.4 and is now generally available. (#37073)

2.8 New OLAP database script functions

There are 5 new OLAP database script functions (#41434):

- STR_REPLACE: replaces a substring of a string with another string
- DATABASE_ID: returns the ID of a database
- DIMENSION_ID: returns the ID of a dimension
- CUBE_ID: returns the ID of a cube
- ELEMENT_ID: returns the ID of an element
2.9 GA: lightweight GPU

Lightweight GPU, in preview in Jedox 2019.2, is now generally available. It optimizes memory storage for the GPU Accelerator: calculations on cubes converted to GPU now use the same storage structure as CPU calculations. Converting a cube to GPU is now a much faster process. (#39653)

Version 2019.3 goes even further, introducing a GPU storage cache that minimizes memory transfers between host and GPU. Cube data is cached in a custom, GPU-optimized format, allowing quick access to previously requested data. The memory footprint of a cube on GPU can be significantly smaller than in previous Jedox versions, as only requested data is cached. (#39653)

3  Jedox Web

3.1 IN PREVIEW: Select Elements dialog checks for default subset

When opening the Select Elements dialog from Paste View, the default subset is preselected. If the default subset has been deleted, an error message is displayed when you try to select it in the Select Elements window. (#40250)

3.2 ATTN: location of custom database template scripts changed

The location for custom template scripts has changed. Custom template scripts used in previous versions of Jedox must be moved to the new location and require a new configuration key. (#41474)
3.3 GA: Default Stored Views

You can now flag specific global views of a cube as “default”. When selecting a cube in the Paste View dialog in Jedox Web, the dialog checks whether a default view exists, and selects it if it does. You can flag views as “default” both in the Modeler and the Paste View dialog itself. (#40918)

Flag/Unflag Default Views in Modeler

3.4 Visibility of form elements is synchronized with XLSX export

Hidden form elements (ComboBoxes, Lists, Checkboxes, Buttons, Labels) are no longer visible in the XLSX export. (#40366)
3.5 Changing the order of axis and legend items in stacked bar/column charts

You can now reverse the order of categories on the axis in Stacked Bar or Stacked Column charts from the Edit Axis dialog. (#20078) Also, the plotting of stacked charts can be changed from bottom-up to top-down:

You can also reverse the order of the Legend elements in Format chart properties > Legend:

3.6 Automatic detection of string cells in Jedox Web Spreadsheets

When you manually copy or type a PALO.DATA/PALO.DATAC formula, the Jedox Web Spreadsheet detects whether the target cell in the OLAP cube is a string type. In this case, clicking the cell opens the String Editor pop-up. (#37690)
3.7 Macro Mailer callable with PHP macro

A new macro mailer function is available: function mailer_send_mail( $to, $subject = 'subject', $body = 'body', $from = '', $cc = array(), $bcc = array(), $attachment = '' )

The function can be used to send mails when executing a macro. Mails will be sent using the SMTP settings from the Settings Manager. (#35728)

3.8 Advanced chart properties

The Advanced tab in Format chart properties allows you to show the JSON object that is the basis of the current chart. It allows you to edit certain properties or add new ones that the native chart UI does not yet support. (#41068)

3.9 IN PREVIEW: using a view as a chart source

With the new PALO.VIEW.TABLE() formula, you can use the data from a stored view directly as source for a chart in Jedox Web, without retrieving the data in the spreadsheet first. (#41348)

3.10 GA: configurable Scheduler email notification templates

This feature was announced in preview in 2019.1 and is now generally available. (#40254)
3.11 IN PREVIEW: dynamic views – styles and formats

You can define specific styles and cell properties for elements in a dimension. These styles are stored as attributes in the In-Memory DB. You can use these styles for reports with Jedox Views. (#40269)

A dynamic Jedox view

3.12 ATTN: Internet Explorer 11 no longer supported

As announced in the 2019.2 Release Notes, Internet Explorer 11 is no longer supported as of this release. Instead, Jedox supports use of Microsoft Edge. (#39744)
3.13 IN PREVIEW: ComboBoxes support very large dimensions

ComboBoxes now support very large dimensions. When using the new option "Large Subset" in the ComboBox Properties dialog, the source data for the ComboBox is fetched on demand, as user expand, or search, in the ComboBox list. ([#41393](#))

3.14 ComboBoxes are now searchable

You can now search for elements in a ComboBox. Select the ComboBox and start typing to initiate search. If the ComboBox uses an alias, the search will be executed on the alias values. ([#25648](#))

3.15 Delete email templates in Scheduler

You can now delete the templates used for email notifications in the scheduler. Default templates cannot be deleted. ([#39972](#))
3.16 Predefined subsets can be generated in a dimension

You can now specify a set of predefined subsets to be generated when creating a dimension. (#40936)

4  Jedox Integrator

4.1 Caching for transforms

All transforms (except tree-related transforms) now have an option for caching in the advanced settings. This option can speed up transforms, especially when sorting is involved. (#22593)

4.2 Predefined subsets can be automatically generated in dimension loads

There is now an advanced option to automatically generate predefined subsets when a dimension is created during dimension load. (#41517)
4.3 Type can be specified for dimension loads

A dimension type for new dimensions can be specified in advanced settings. (#41772)

4.4 JSON and XML extracts now show possible values for xpath expressions

JSON and XML extract settings now provide a drop-down list of reasonable expressions that specify the anchor element to loop through in the source file. (#38747)

4.5 New connection type: OAuthToken

OAuth2 is an Authorization Framework and an open standard for access delegation that is used by a variety of HTTP service providers. This connection type provides an access token for an HTTP service using OAuth2 Standard. (#40359)
4.6 Changes to connection type REST

- REST connections now allow HTTP methods PUT and DELETE: PUT replaces an existing resource or creates a new resource if it does not already exist; DELETE deletes a resource. Note that these connection types have implications for XML loads and XML extracts.
- They can now reference connections of type OAuthToken (see above) with the authentication method “Token”.
- “Ignore cookies policy” option: by default, a warning is raised when the HTTP call breaks a cookie policy.
- REST connections with HTTP mode POST can no longer be used in XML/JSON extracts in Jedox 2019.3. They have to be used as connection in a XML/JSON load instead. To get the XML/JSON response for a REST connection with HTTP mode POST, a Groovy job must be used.
- Testing a REST connection with HTTP mode POST no longer executes the HTTP request in 2019.3. Only the reachability of the host is tested in this case.

## 4.7 Default maximum memory of Tomcat service increased

The default maximum heap size has been increased from 1024 MB to 2018 MB. This change applies to new installations only; existing instances retain their current setting upon update. For Linux installations, this setting applies only to the Tomcat Integrator service. (#40716)

## 5 Jedox Excel Add-in

### 5.1 New Subfunction values in PALO.ESELECT

Until now, there were two values for Subfunction in PALO.ESELECT: 0 (open Select Elements dialog on click) and 1 (don’t open dialog). Now, in the context of a Jedox View, there are additional values between 2 and 7. Note that these new values are not applicable at this time but will be used in an upcoming feature (OLAP cell properties, in preview for 2019.3). (#41850)

## 6 Office Add-in

### 6.1 ATTN: backward compatibility with old Word and PowerPoint documents is no longer supported

It is no longer possible to open documents created in Office Add-in versions that are older than 2018.2. Any document created with an earlier version must first be opened in 2018.2 – 2019.2 and saved. (#39605)

### 6.2 New registry keys to adjust wait time for Excel calculations

Two new registry keys set the default wait time for Excel calculations, thus preventing timeout issues with large data sets when retrieving data in a Powerpoint or Word document. The new keys are WaitTimeForExcelCalculation and WaitTimeForExcelWorkbookOpen. (#41209)
7 Setup & Configuration

7.1 Changes to default configuration for Tomcat

The following changes have been made:

- Jar scanning has been disabled
- Scanning for web-fragment.xml has been disabled
- JSP has been disabled

These changes affect the internal configuration of Tomcat server and are not expected to impact running applications in any way. (#40426)

7.2 ATTN: changed start options for Tomcat

Two starting options have been removed from setenv.bat. The option `-XX:+AggressiveOpts;` was deprecated in Java11 and will be removed in Java13. The option `-Dfile.encoding=UTF-8;` has been a default since Java 9 and is thus obsolete.

Note that any manually configured settings for these options will be overwritten when upgrading to Jedox 2019.3. (#40119)

7.3 Changes to setup in connecting RPC and SSS in clustered environment

Several changes have been made in the configuration files config.php and rpc.properties that enhance functionality and performance in cluster setups.

(#41755)

8 Technical Health

In Jedox Version 2019.3, the following components were updated:

<table>
<thead>
<tr>
<th>Component</th>
<th>Version</th>
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<td>PHP (Apache)</td>
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<tr>
<td>PHP (SVS/SSS)</td>
<td>5.6.39</td>
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<tr>
<td>Tomcat</td>
<td>9.0.22</td>
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<tr>
<td>OpenJDK</td>
<td>11.0.4</td>
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</table>
Tasks implemented since release 2019.2

The following issues (features, tweaks, and bugs) reported in Jedox 2019.2 have been fixed/implemented in Jedox 2019.3. The development team thanks those customers and partners who have reported issues.

<table>
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<th>Tickets</th>
</tr>
</thead>
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<td>Excel Add-in</td>
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