

Digitize business processes successfully

Accelerate digital transformation with the X4 BPMS low code platform

X4 BPMS Version 7.3.1 Release Notes

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Table of Contents

1	Feature-Highlights	1
1.1	Project Parameter Configuration: Project-Specific Parameters for Technical Processes	1
1.2	Renaming Placeholders to Parameters	1
1.2.1	Global Parameter Configuration	2
1.2.2	Component Parameters (previously: Custom Parameters).....	2
1.2.3	Setting Parameters in the Condition Editor	2
1.2.4	Setting Parameters in Mappings.....	3
1.3	Web Apps: TreeView Control	3
1.4	Web Apps: Accordion Control	4
1.5	Web Apps: Data Binding in the Grid Component.....	4
1.6	Web App Configuration: URL Parameters	4
1.7	Preconfigured Web Apps for X4 Control Center	4
1.8	Additional Highlights	5
2	System Requirements	6
3	Product Enhancements	7
3.1	X4 Adapter	7
3.2	X4 Control Center.....	11
3.3	X4 Designer.....	13
3.4	X4 Server	15
3.5	X4 Web Apps	17
4	Deprecated Features.....	18
4.1	Adapter Global Parameter_INITIALIZER (previously: Custom Placeholder_INITIALIZER) – Moved to Category “Deprecated Adapters”	18
4.2	Adapter Mongo DB – Moved to Category “Deprecated Adapters”	18
5	Migration Information.....	19
5.1	100% Display of Images and Videos with the Element <i>BoxLayout</i>	19
6	Bugfixes.....	20
6.1	X4 Adapter	20
6.2	X4 Control Center.....	21
6.3	Deployment	21
6.4	X4 Designer.....	21
6.5	Documentation	22
6.6	X4 Server	23
6.7	X4 Web Apps	26

1 Feature-Highlights

1.1 Project Parameter Configuration: Project-Specific Parameters for Technical Processes

Users of X4 BPMS can now create a project-specific file in the X4 Designer, the **Project Parameter Configuration**, in which they can configure project parameters in ESB projects and Web Apps as well as for business rules in BPM projects. The file has the extension *.param.

The benefits of the **Project Parameter Configuration** in brief:

- Reusability of components through parameterization is increased.
- The process can be directly influenced by parameters at runtime.
- Project parameters can be changed at runtime.

This is possible via the X4 ReST API (<http://localhost:8080/X4/X4Api/>) or with the new adapter, the **Project Parameter Manager**.

- User-specific access to parameter configuration: Access to project parameters can be restricted by defining roles.
- Project parameters can be exported or imported directly with the project.
- Project parameters, just like system and global parameters, can be used in mappings, conditions and other configurations, such as adapters, as well as in business rules and via technical processes in human tasks (BPM projects).
- Global parameters can be copied to the Project Parameter Configuration for project-specific use.

Overall, the **Project Parameter Configuration** provides a powerful way to quickly adapt and optimize processes to a company's requirements, while saving time and resources.

This feature is included in the X4 BPMS standard license.

1.2 Renaming Placeholders to Parameters

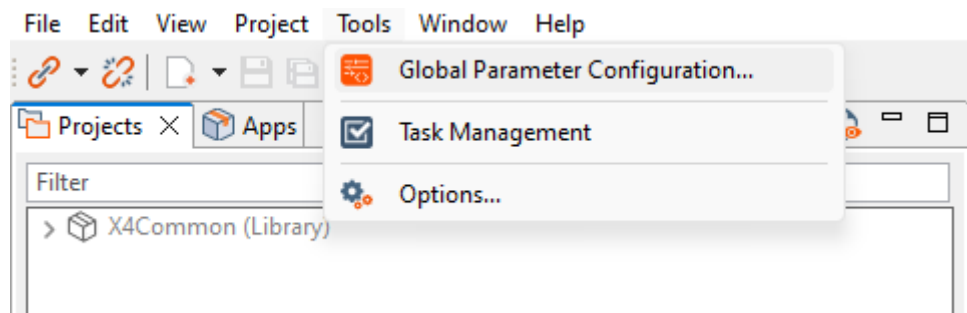
With the introduction of the project parameters, the names for parameters and placeholders have been standardized.

The following renaming was implemented:

Old designation (v 7.2.0)	New designation (v 7.3.1)
system placeholder(s)	system parameter(s)
custom placeholders and groups	global parameters and groups
Tools > Custom Placeholder Storage Editor	Tools > Global Parameter Configuration
custom parameters	component parameters

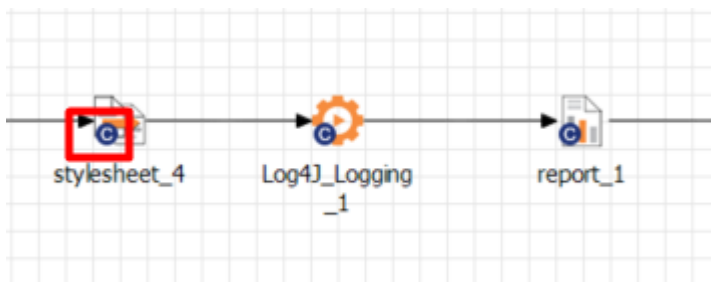
1.2.1 Global Parameter Configuration

Global parameters are defined in the **Global Parameter Configuration** (previously: **Custom Placeholder Storage Editor**). The **Global Parameter Configuration** can be called up under **Tools > Global Parameter Configuration**:

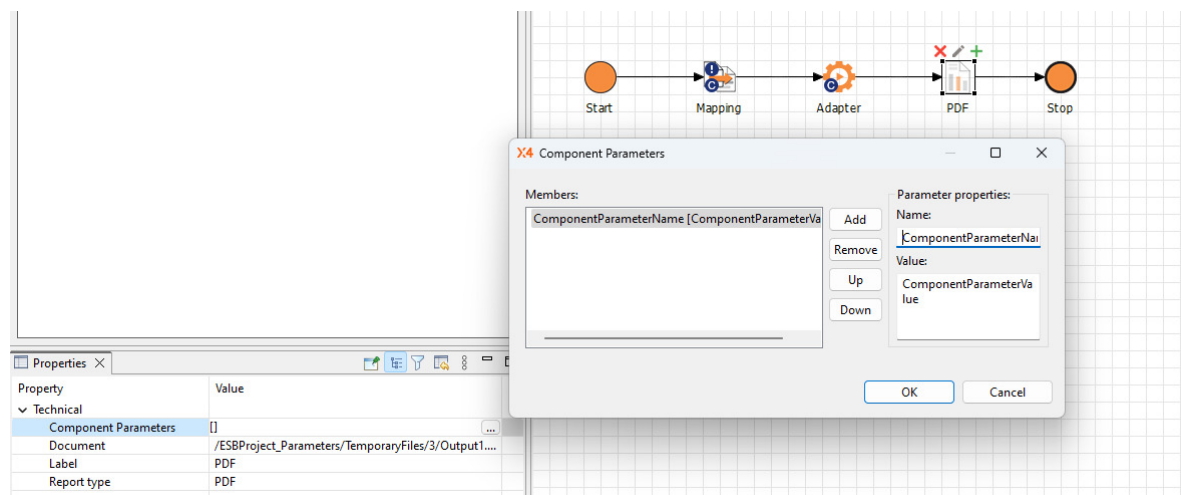


1.2.2 Component Parameters (previously: Custom Parameters)

Component parameters (previously: **custom parameters**) can be defined for an adapter, mapping or report. The process module is then marked accordingly with a symbol:

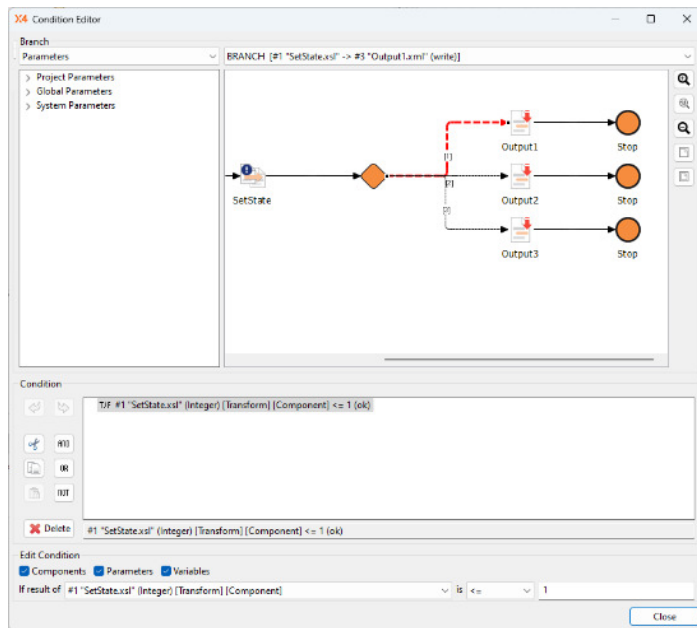


Component Parameters are set via the **Properties** view:



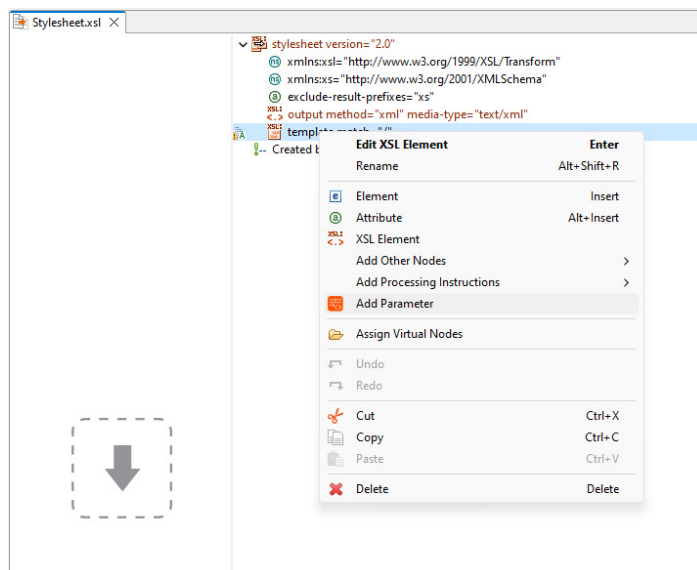
1.2.3 Setting Parameters in the Condition Editor

System parameters as well as previously defined global and project parameters can be set in the **Condition Editor**:



1.2.4 Setting Parameters in Mappings

System parameters as well as previously defined global and project parameters can be set in mappings:



1.3 Web Apps: TreeView Control

A TreeView Control is a flexible control element that can be used to structure data hierarchically and to display it clearly in a tree structure. This control element used in Detail Components and display data in a tree structure of nodes and subnodes with any number of levels. This allows for a clear representation of data, even with large amounts of data, and easy navigation for users.

Possible use cases include the representation of file and directory systems or navigation menus in a web app.

This feature is included in the X4 BPMS standard license.

1.4 Web Apps: Accordion Control

Accordion Controls are interaction elements in Web Apps that allow users to display or hide content in a concise manner (show/ hide interaction pattern). They consist of several sections or areas filled with content, each with a title. Clicking on the title of a section displays the content of that section, while the content of the other sections remains hidden.

Advantages of Accordion Controls are space-saving display of content, clear navigation, and thus improved user experience. Accordion controls are easy to implement and suitable for responsive design.

Possible use cases are the display of long article or product lists, FAQ pages, filtering and sorting data or the clear display of data in forms.

This feature is included in the X4 BPMS standard license.

1.5 Web Apps: Data Binding in the Grid Component

With this new feature, data from databases can be easily made visible and editable in web applications while always being up to date:

Data binding in the header elements (table headers) of a Grid Component can be used to connect data from a data source (database, external API or X4 process) to the Grid Component. This means that the data is automatically transferred to the Grid Component when the data in the data source changes. Thus, developers do not need to manually update the data, which results in easier maintainability of the web application.

Possible use cases for data binding include displaying measurement data with a table or data from database tables.

This feature is included in the X4 BPMS standard license.

1.6 Web App Configuration: URL Parameters

URL parameters can be activated in the Web App Configuration. These are parts of a URL that pass data to Web App. URL parameters are often used to generate dynamic content on a web page, such as an e-commerce platform, or to pass data to an application, e.g. an online form. Another possible use case is deep links.

1.7 Preconfigured Web Apps for X4 Control Center

Five preconfigured Web Apps have been developed for the X4 Control Center (<http://localhost:8080/>):

- App Configuration
- Parameter Editor
- Process Monitor
- Process Scheduler
- Third Party License Report

These apps can be downloaded from SoftProject website in the **Resources > Software X4 BPMS** section. There they are included in the installation package **All-in-One - Interactive Installation** and are additionally available as separate installation package for the X4 Control Center.

1.8 Additional Highlights

The following UI/UX improvements have been implemented in X4 Designer:

- The dialogs for creating new processes have been simplified.
- Overall, drag and drop behavior when drawing processes has been improved.

Benefits of the UI/UX improvements are easier development of processes in X4 Designer, higher productivity, and overall better user experience.

2 System Requirements

Please refer to the X4 BPMS System Requirements document for a detailed list of the system requirements. You will find this document on the Download page of the SoftProject website at <https://www.softproject.de/en/downloads/>.

3 Product Enhancements

Besides the feature highlights described above, the X4 BMPS Release 7.2 includes a variety of feature enhancements expanding the functionality of all X4 BPMS components:

- X4 Adapter
- X4 Control Center
- X4 Designer
- X4 Server
- X4 Web Apps

3.1 X4 Adapter

3.1.1 New Adapter Category X4 API

Especially for low coders, this new category bundles all adapters that can be used to quickly and easily to map requests in processes. With the creation of this new category, adapters were moved from the X4 Tools category to the X4 API category and renamed, see [Category X4 API: Moving and Renaming Adapters](#).

3.1.2 New Category X4 API: Moving and Renaming Adapters

The following adapters have been moved to the new category X4 API.

X4 Tools	X4 API
<i>Deployments</i>	<i>Deployments</i>
<i>Keycloak Administration</i>	<i>Keycloak Administration</i>
<i>Process Runtime Management</i>	<i>Process Runtime Management</i>
<i>Schedule Management</i>	<i>Schedule Management</i>
<i>Third Party License Summary</i>	<i>Third Party License Summary</i>

The following adapters have been moved from the X4 Tools category to the X4 API category and renamed:

Old designation in X4 Tools	New designation in X4 API
<i>Custom Placeholder Initializer</i> (deprecated with version 8.0)	<i>Global Parameter Initializer</i> (deprecated with version 8.0)

<i>Custom Placeholder Storage Management</i>	<i>Global Parameter Management</i>
<i>Process Profiler</i>	<i>Process Monitoring</i>
<i>Profiling Management</i>	<i>Process Monitoring Management</i>
<i>Project Parameter Management (NEW)</i>	<i>Project Parameter Management (NEW)</i>
<i>Savepoints</i>	<i>Savepoint Management</i>
<i>System Configuration</i>	<i>System Configuration Management</i>
<i>Web App Configuration Adapter</i>	<i>Web App Configuration Management</i>
<i>Web App Theme Configuration Adapter</i>	<i>Web App Theme Management</i>

3.1.3 Project Parameter Manager – New Adapter in the X4 API Category for Reading and Updating Project Parameters

The *Project Parameter Manager* contains an API for reading and updating project parameters at runtime so that they can be adapted to the system environment.

Changing project parameters can be restricted by roles.

You can also perform the operations alternatively via the ReST interface (<http://localhost:8080/X4/X4Api/>) in the **Project Parameter Management** area.

Properties

Operation	<ul style="list-style-type: none"> Operation executed by the adapter <p>Possible values:</p> <ul style="list-style-type: none"> Get Project Parameter IDs: Returns the IDs of the projects containing parameters with workspaces and project names. Get Project Parameter Structure: Returns the XML structure of the project parameters with groups. List Project Parameters: Returns the XML structure of the project parameters.
-----------	--

	<ul style="list-style-type: none"> ▪ Patch Project Parameters: Updates one or more project parameters for the specified project ID.
--	---

Parameter

Adapter	Main adapter class (do not change!) Possible value: <i>de.softproject.x4.core.paramter.runtime.ProjectParametrizationAdapter</i> : Main class (Default)
withSystemPrivileges	Possible values: Boolean (true/false) <ul style="list-style-type: none"> ▪ True: No restriction to read/edit parameters depending on access rights (roles). ▪ False: Restricts the access to read/edit parameters depending on access rights (roles).

3.1.4 System Status Adapter and ReST API: Data Sizes are Returned in Bytes

System Status Adapter with the following operations now returns the data sizes as follows:

- RAM sizes are returned in MB. The adapter operation `JVMParameters` adds the unit to the top level element: `<JVMParameters Unit="MB">`
- Data sizes are returned in bytes. The adapter operation `Processes Running` adds the unit to the `memoryConsumed` element: `<MemoryConsumed Unit="B">0</MemoryConsumed>`
- Data sizes are returned in bytes. The adapter operation `User Sessions Memory` adds the unit to top level element: `<UserSessionMemory Unit ="B"/>`

These operations for the System Status Adapter can also be executed using the X4 ReST API: <http://localhost:8080/X4/X4Api/#!/System%20Status>

3.1.5 New X4 Adapter: SAP Event Mesh Adapter

With this adapter, it is possible to connect to the SAP event mesh and to receive messages via AMQPWS.

This adapter is not included in the standard X4-BPMS license and must be purchased separately.

3.1.6 Improved Security: Apache Maven Updated to Latest Version

For all X4 Apps, Apache Maven is updated to the latest version for improved security.

3.1.7 Improved Security: GDVVU Adapter Updated to Use the Latest Library Versions of *hsqldb* and *commons-text*

For improved security, the GDVVU adapter now uses the latest library versions of *hsqldb* and *commons-text*.

3.1.8 Improved Security: Google Cloud Adapter Updated to Use Latest Library Versions

For improved security, Google Cloud adapter now uses the latest library versions of *com.google.api.grpc*, *hadoop-common*, *hbase-shaded-netty*, *google-oauth-client* and *api-util*. The adapter is not included in the default X4 BPMS installation, but is available as separate package on the SoftProject Marketplace (<https://marketplace.softproject.de/>).

3.1.9 Improved Security: OData Adapter Updated to Use the Latest Library Version

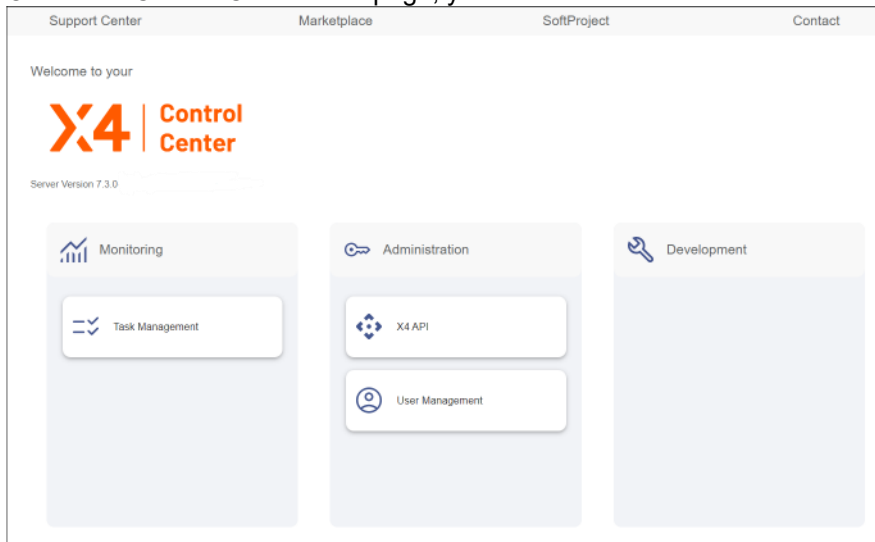
For improved security, the OData adapter now to uses the latest OData Client version.

The adapter is not included in the default X4 BPMS installation, but is available as separate package on the SoftProject Marketplace (<https://marketplace.softproject.de/>).

3.2 X4 Control Center

3.2.1 X4 Control Center Start Page Links to SoftProject Marketplace

On the X4 Control Center start page, you can now find a direct link to the SoftProject Marketplace:



3.2.2 Default Categories in X4 Control Center

The X4 Control Center comes with three default categories on the start page:

- Monitoring
- Administration
- Development

You can assign Web Apps can be assigned to the different categories and create new categories in the `pom.xml`. For this purpose, an XML element named `<project.category>` must be created in the `pom.xml` under the `<properties>` element:

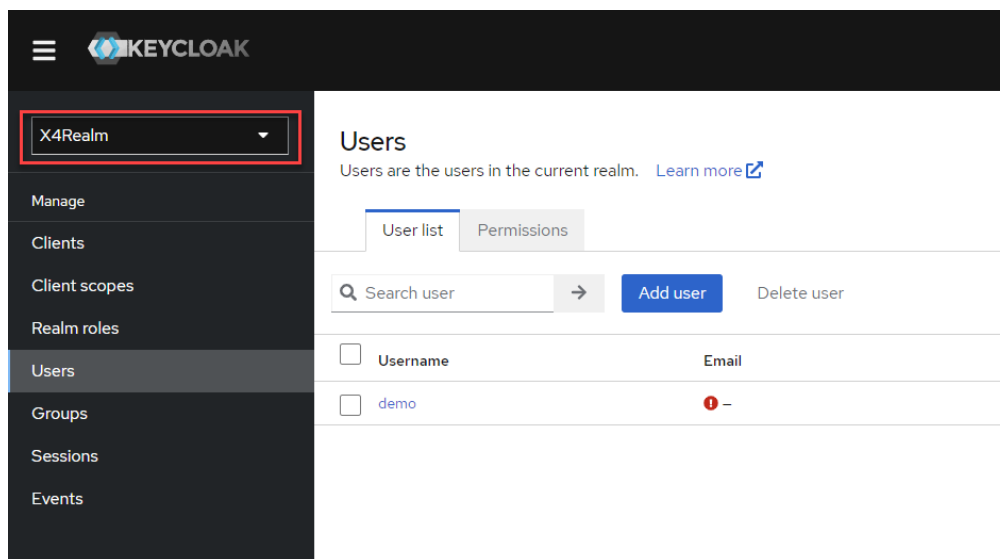
```

1  <?xml version="1.0" encoding="UTF-8"?>
2  <project xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://maven.
3      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
4      <modelVersion>4.0.0</modelVersion>
5      <groupId>de.softproject.x4.x4app</groupId>
6      <artifactId>ESBProject_1</artifactId>
7      <version>1.0.0</version>
8      <packaging>project</packaging>
9      <name>ESBProject_1</name>
10     <properties>
11         <project.type>ESB</project.type>
12         <x4.version>7.3.0</x4.version>
13         <project.category>Development</project.category>
14         <project.uuid>d3f5936e-0878-416c-9ac1-9effb282682f</project.uuid>
15     </properties>
16     <build>
17         <plugins>
18             <plugin>
19                 <groupId>de.softproject</groupId>
20                 <artifactId>x4-package-maven-plugin</artifactId>
21                 <version>7.3.0</version>
22                 <extensions>true</extensions>
23                 <configuration>
24                     <sourceDirectory>.</sourceDirectory>
25                     <excludes>
26                         <exclude>target</exclude>
27                         <exclude>target/**</exclude>
28                     </excludes>
29                 </configuration>
30             </plugin>
31         </plugins>
32     </build>
33 </project>
34

```

3.2.3 Link from X4 Control Center to Keycloak User Management has been Adjusted

The X4 Control Center has a tile **Administration** with a link **User Management** leading to Keycloak User Management. This link has been adjusted, so that it leads directly to the user management in the configured X4Realm:



3.2.4 Seal X4 Web Apps Directly from Packaging Node of pom

It is now possible to seal created X4 Web Apps directly from the packaging node of the `pom` file. With this new feature no workaround or manual task is required for sealing the Web Apps.

3.3 X4 Designer

3.3.1 Debug View: Debug Sessions View Moved to the Right

In debugging, the window layout has been optimized so that the **Debug Sessions** window now opens on the right and the files in the **Projects** window remain clearly visible on the left.

3.3.2 ESB-Workflows: Re-Organise and Clean-Up of Palette

The palette on the right in the designer has been redesigned and rarely used components have been removed. The entire **Data** section has been removed and the components from **Data** have been moved to **Modules**.

The following components were removed:

- START
- SQL Statement

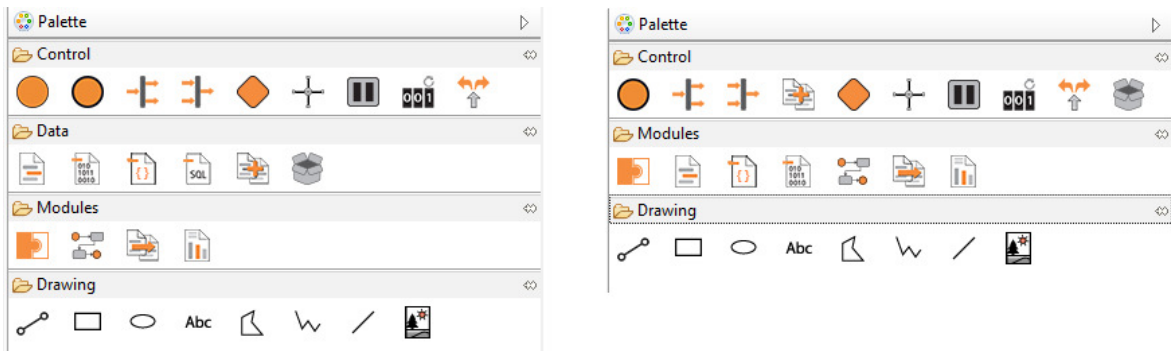
The following components were moved to the **Controls** section:

- Merge
- Variable

Comparison of the palette:

Version 7.2.0

Version 7.3.1

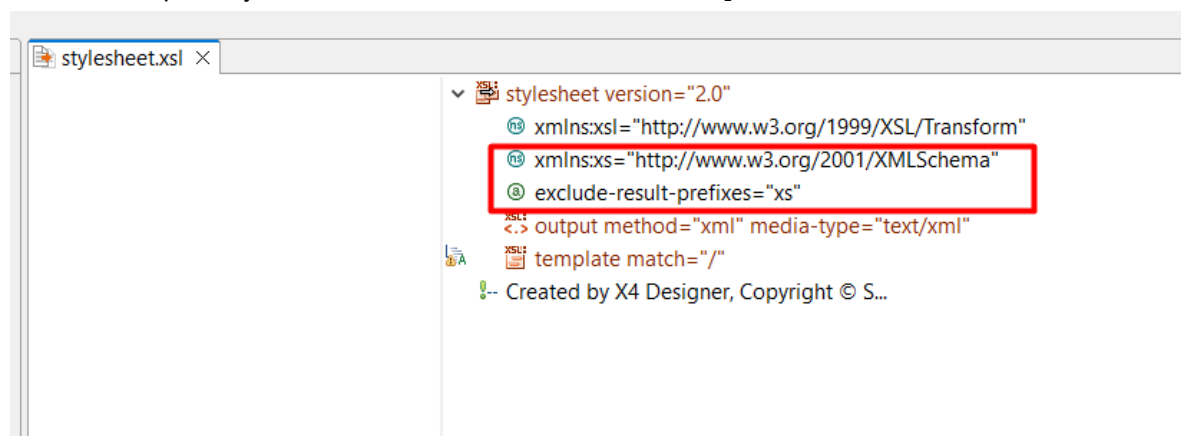


3.3.3 XSL Stylesheet: Copy&Paste Datastream from Output

You can now copy & paste data (e.g., from the output view or from a file outside the X4 Designer) directly into the XSL stylesheet.

3.3.4 XSL Stylesheet: xs in Namespace

For using data types in conjunction with XPath 2.0, newly created XSL stylesheets now include `xs` in the namespace by default, as well as `exclude-result-prefixes="xs"`:



3.3.5 Problems View: Number of Errors and Warnings Displayed

The number of errors and warnings is now displayed in the **Problems** view:

Problems		
15 problems (0 errors, 15 warnings)		
Type	Description	Project
Warning	The document "Example_Process_Data.xml" is a buffer in read mode.	ESBProject_1
Warning	The document "Adapter_Cofiguration.xml" is a buffer in read mode.	ESBProject_1
Warning	Mandatory parameter "from" in adapter "POP/SMTP" has no value assigned.	ESBProject_1
Warning	Mandatory parameter "pop3" in adapter "POP/SMTP" has no value assigned.	ESBProject_1

3.3.6 Display of All Parameter Types in the Quick Watch

Up to version 7.2.2, only the global parameters were displayed in the **Quick Watch** view. With the introduction of the project parameters, global, system and project parameters are now displayed:

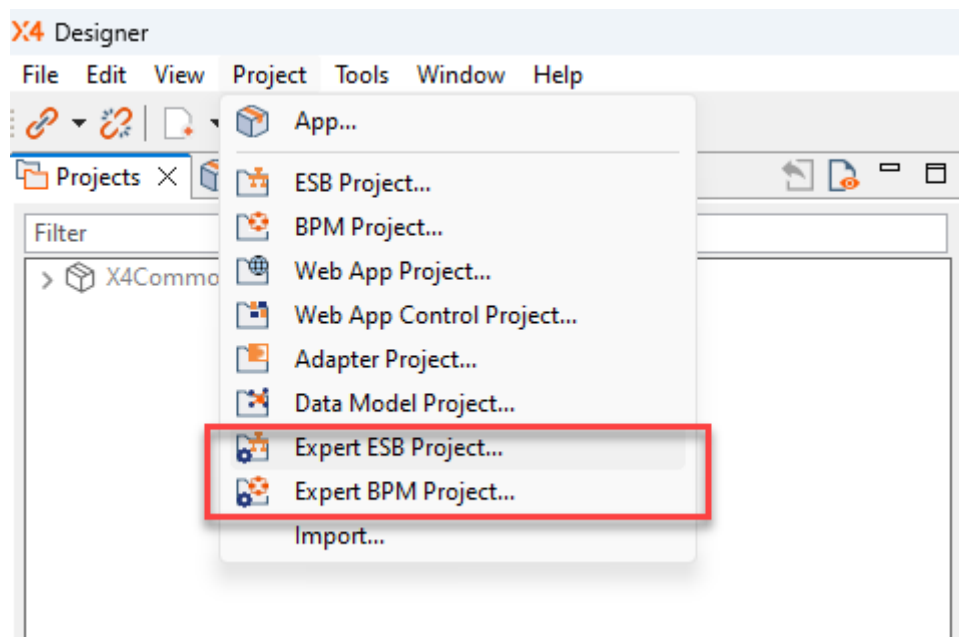
Output Quick Watch Run/Debug Console	
Parameters	<input checked="" type="checkbox"/> Project <input checked="" type="checkbox"/> Global <input checked="" type="checkbox"/> System
Variables	
Parameters	
Dynamic Parameters	
	Value
	test1
CURRENT_PROCESS	ESB_XVIER-16070/Processes/getInfosOfDefaultX4Realm.wrf
CURRENT_PROCESS_NAME	getInfosOfDefaultX4Realm
CURRENT_PROCESS_PATH	ESB_XVIER-16070/Processes/
CURRENT_PROJECT	ESB_XVIER-16070
FILE_SEPARATOR	\

3.3.7 Output of Binary Data in the Output View

Binary data is output as hexadecimal data in the **Output** view. The output of binary data as hexadecimal data does not affect the performance of the X4 Designer.

3.3.8 ESB/BPM Expert Projects with Custom Structure

Experienced X4 developers often want to use their own structure in ESB or BPM projects to adjust the project structure precisely to their needs. For this the previously named Classic Projects are now name Expert Projects and have a special icon:



3.4 X4 Server

3.4.1 Improved UX of X4 ReST API in the Swagger Editor

Categories and methods are now sorted alphabetically for an improved user experience. In addition, categories are folded by default to have a smaller list.

3.4.2 BasicAuth replaced by Bearer Token

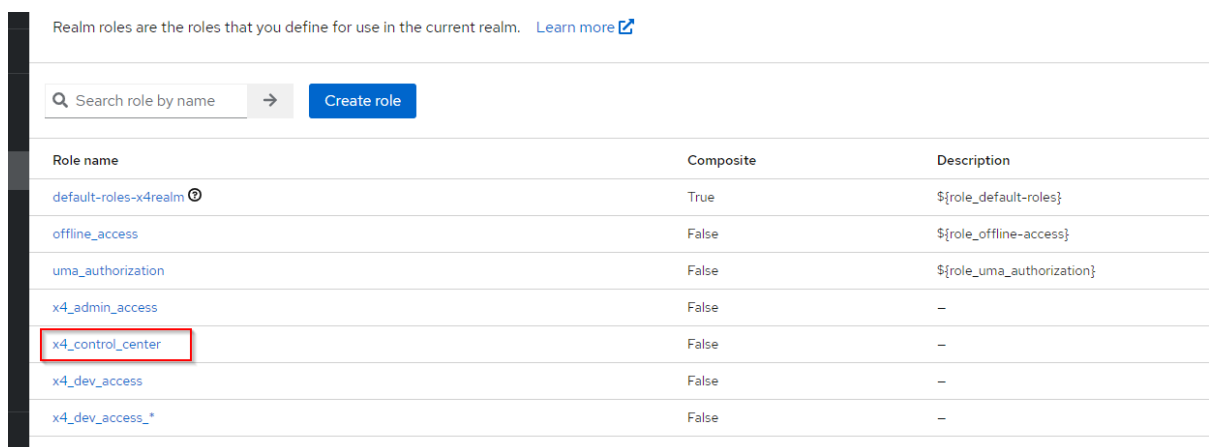
BasicAuth login is no longer supported for X4 API. A bearer token is now required to call the X4 API. This can be retrieved via `http://localhost:8080/X4/X4Api/` or with the adapter *Keycloak Token*. This note only applies to X4 API, BasicAuth is still available for the other services (ReST Starter).

3.4.3 Input Parameter Values of Native Adapters Shown in Quick Watch

When you debug a process that contains a native adapter, the **Quick Watch** view now also displays the input parameters of the native adapter. You can recognize the input parameters by the `PARAM_INPUT` prefix before the parameter name.

3.4.4 Keycloak with default role “Control Center” in X4Realm

The X4Realm now has an additional default role name “Control Center”.



Realm roles are the roles that you define for use in the current realm. [Learn more](#)

Q Search role by name → [Create role](#)

Role name	Composite	Description
default-roles-x4realm ⓘ	True	`\${role_default-roles}`
offline_access	False	`\${role_offline-access}`
uma_authorization	False	`\${role_uma_authorization}`
x4_admin_access	False	–
x4_control_center	False	–
x4_dev_access	False	–
x4_dev_access_*	False	–

3.4.5 Security Improvements: Removal of Commandline Servlets

To minimize risks that could occur on registered commandline servlets, these have been removed from the product.

3.4.6 Security Improvements: Integrated Vulnerability Scan for Third-Party Dependencies

To be informed about critical security vulnerabilities at an early stage, all third-party dependencies are automatically scanned on a daily basis.

3.4.7 Prevent Random Initialization of Java-SPI

Due to past problems that a random implementation was chosen by Java (e.g., Aalto-XML instead of preferred woodstox), it was necessary to define that the wanted implementations are directly instantiated in a single place. All occurrences of the default SPI-Factory calls have been replaced.

The solution is that the service provider implementations of Stax/Sax/Dom are pinned to prevent random initialization of Java-SPI.

3.4.8 Git Commit ID Shown in Server Log

Previously, the git commit ID was only printed in the success message. Now the Git-Commit-ID is noted in the `start.bat/.sh` of the server as parameter "`-Dx4.version`" and is thus directly visible in the log entry of the set start parameters when starting the server. This is especially helpful for SNAPSHOT versions and helps analyzing errors in the log.

3.4.9 WildFly Updated to New Version

For improved security, WildFly has been updated to version v27.0.1.

3.4.10 Java Updated to New Version

For improved security, Java has been updated to use the patch of Java 11 LTS (Version 11.0.17+8 Azul Zulu: 11.60.19).

3.4.11 .project file exists no longer

The `.project` file in projects is no longer needed, instead a `pom.xml` file is created, which however no longer contains references to individual files. This significantly simplifies the versioning and merging of projects.

3.5 X4 Web Apps

3.5.1 Web App Configuration: Access Right is Changeable at Runtime

The access permission for a web app can now be configured in Keycloak with defined roles and be changed at runtime.

3.5.2 Make Path to Web App Changeable with X4 API Adapter

It is now possible to deploy a web app multiple times with different paths. The paths are extracted from the Web App Definition (`.wac` file) to the Web App Configuration (`.wad` file) and can be configured during runtime.

The path is configurable at runtime in the X4 Control Center via **Administration > X4 API**.

4 Deprecated Features

4.1 Adapter Global Parameter Initializer (previously: Custom Placeholder Initializer) – Moved to Category “Deprecated Adapters”

The *Global Parameter Initializer* (previously: *Custom Placeholder Initializer*) has been moved to the “Deprecated Adapters” category and will be deprecated in version 8.0 of X4 BPMS. Global parameters (previously: custom placeholders) are now automatically loaded into the process, a separate adapter is no longer required for this.

Please contact SoftProject Support if you need further information (e.g., regarding migration).

4.2 Adapter Mongo DB – Moved to Category “Deprecated Adapters”

The Adapter *Mongo DB* has been moved to the “Deprecated Adapters” category and will be deprecated in version 8.0 of X4 BPMS.

Please contact SoftProject Support if you need further information (e.g., regarding migration).

5 Migration Information

5.1 100% Display of Images and Videos with the Element *BoxLayout*

The size for images and videos was corrected with the migration from 7.2. to 7.3. For 100% display of images and videos the element *BoxLayout* with 100% height is required:

```
<?xml version="1.0" encoding="UTF-8"?><DetailComponent xmlns="http://softproject.de/webapp/1.0">  
  <BoxLayout height="100">  
    <Video type="YouTube" value="vZKxBw7CIPi"/>  
  </BoxLayout>  
</DetailComponent>
```

6 Bugfixes

If you have reported a bug and would like to know if it has been fixed, please check one of the following tables for this information or contact your X4 Consultant.

If you encounter an error while working with the X4BPMS, please report it.

Please feel free to use the SoftProject Support Center (<https://supportcenter.softproject.de>) to report bugs. If you do not have a Support Center account yet, please write to support@softproject.de.

Our development team will take care of a timely resolution of the reported bugs.

6.1 X4 Adapter

Key	Summary
XVIER-15783	List Users operation in <i>Keycloak Management Adapter</i> returns only 100 users (default value)
XVIER-16175	When using the <i>Case Management Statistics Adapter</i> with the filter <code>TaskMetadataFilter</code> and the operation <code>GetAllTaskMetadata</code> , the adapter crashed because there were too many parameters in the prepared statement.
XVIER-16127	Native adapters (e.g., <i>WebSMS Adapter</i>) could not be licensed.
XVIER-15175	JSON converter does not correctly save some character from xml to json
XVIER-12841	<i>Microsoft Excel Writer Adapter</i> - attribute "autofit" has no effect (operation: <code>Create Spreadsheet</code>)
XVIER-14691	Typo in description of <i>User Identity Adapter</i>
XVIER-14616	<i>Command Line Adapter</i> – <code>NullPointerException</code> exception if working directory does not exist
XVIER-16372	Process Monitoring adapter delivers wrong processes

6.2 X4 Control Center

Key	Summary
XVIER-16112	Unable to place apps in predefined categories in Control Center
XVIER-15815	Process monitoring breaks when opening Statistics tab
XVIER-16387	UserManagement link leads always to localhost

6.3 Deployment

Key	Summary
XVIER-15414	<i>Ping Adapter</i> is not working in docker container, because the command <code>ping</code> is not available
XVIER-15033	centOS - <code>startKeycloak.sh</code> and <code>stopKeycloak.sh</code> controls the service instead of a console
XVIER-16348	Updating X4 using the update tool fails because of the creation of a backup
XVIER-16357	Update tool doesn't migrate Global Parameter configuration

6.4 X4 Designer

Key	Summary
XVIER-16171	Activities Classic: hidden columns from user profile not applied
XVIER-15721	Client Secret should not be displayed in clear text (<code>webapp</code> and <code>wsinc</code>)
XVIER-15503	Process Landscape: Copy&Paste of block arrows places it directly on top of the copied block arrow
XVIER-15305	BPM - Condition Editor - Delete in Contextual Menu does not work

<u>XVIER-15289</u>	[Server] Contextual stop element does not work with drag & drop
<u>XVIER-15220</u>	Cannot move entities to a folder
<u>XVIER-15089</u>	Designer, wizard tooltips don't lead to help/documentation
<u>XVIER-14993</u>	ViewModels folder is not created for template-based Web App Projects
<u>XVIER-14882</u>	Empty row can be created in <code>.webcontrol</code>
<u>XVIER-14804</u>	Closed app and project view – new file button is enabled but without function
<u>XVIER-14802</u>	Error while connecting to Repository in Designer
<u>XVIER-14760</u>	Hover effect is missing
<u>XVIER-14191</u>	[Migration] Not possible to move process and new folder "target" in project
<u>XVIER-13807</u>	Saving a <code>.domainmodel</code> file with duplicates leads to a <code>NullPointerException</code>
<u>XVIER-13806</u>	Saving an invalid <code>.domainmodel</code> file leads to an irreparably broken human task
<u>XVIER-13705</u>	Process in detached tab cannot be debugged/run
<u>XVIER-13045</u>	Native adapter parameter definition allows parameters which are not QNames, e.g. names with a space
<u>XVIER-11368</u>	Current scaling influences paste-function
<u>XVIER-16176</u>	Key bindings for xsl editor in designer don't work

6.5 Documentation

Key	Summary
<u>XVIER-15131</u>	<i>Task Management Adapter</i> description doesn't match the documentation

<u>XVIER-16132</u>	Administration Guide: Information referring to Keycloak has been adjusted
<u>XVIER-16068</u>	Installation Guide: Information on Docker image has been updated
<u>XVIER-16066</u>	Installation Guide: Docker setup extended with Keycloak environment infos
<u>XVIER-16065</u>	Installation Guide: Mistake regarding Docker setup corrected
<u>XVIER-15482</u>	<i>Savepoint Management Adapter</i> was not documented
<u>XVIER-15280</u>	Remove Max Age/Placeholder Groups properties from custom placeholder documentation
<u>XVIER-15279</u>	Revise documentation of attributes for the HTMLDocument control
<u>XVIER-15124</u>	Keycloak internationalization needs a specific format in the name of the translation files
<u>XVIER-15002</u>	Add custom developed adapter (as module) to license file
<u>XVIER-16153</u>	Administration Guide: Information starting Keycloak and configuring database in production included
<u>XVIER-16485</u>	<i>HTTP(S) Connector</i> : Information on the parameter <code>fromXml</code> has been updated for expert mode.

6.6 X4 Server

Key	Summary
<u>XVIER-15978</u>	Moving a process causes a refactoring of the component
<u>XVIER-15855</u>	Error in a native adapter usage when the process is scheduled at startup process
<u>XVIER-15834</u>	Thread leak in Process Starter
<u>XVIER-15790</u>	SQL-Profiling does not work on <code>mssql</code> with other than default schema

<u>XVIER-15736</u>	Project Access – List directory order
<u>XVIER-15729</u>	Profiling: SQL Plugin initial creation of database tables does not work
<u>XVIER-15722</u>	XML read/write not synchronized
<u>XVIER-15582</u>	Copy and rename of BPM projects destroys GUID references between domainmodels
<u>XVIER-15569</u>	Savepoint API does not deliver necessary information in <code>List</code> operation
<u>XVIER-15567</u>	SavePoint API uses PID instead of PUID
<u>XVIER-15560</u>	ADK license violation error when using <code>WebAppControlProject</code>
<u>XVIER-15552</u>	XML example in OpenAPI Page is not correctly generated
<u>XVIER-15541</u>	Migration of projects 7.2.0 to 7.2.1: No new files can be created afterwards (Both copy&paste X4DB folders AND export/import project as ZIP)
<u>XVIER-15506</u>	Savepoints in subprocesses get another PID.
<u>XVIER-15485</u>	Rule is empty and Human Task is broken after export and import of parent BPM process (7.2)
<u>XVIER-15479</u>	Double root element in JCo3 Connector output
<u>XVIER-15466</u>	Language in JCo3 Adapter is always set to DE
<u>XVIER-15465</u>	Changing Parameters (tables) are not working in JCO3
<u>XVIER-15413</u>	httpstarter/ReST calls in 7.2 release do not work with another X4 client secret
<u>XVIER-15412</u>	Update Tool: Service setup cannot install Keycloak with default path
<u>XVIER-15374</u>	schedule.xml migration with start and end date is broken
<u>XVIER-15369</u>	Clean up Swagger UI dependency in ear
<u>XVIER-15353</u>	JCo3 Connector doesn't support multiple bapi calls correctly

<u>XVIER-15311</u>	NullPointerException at process start via Startup
<u>XVIER-15212</u>	[Designer + Web App] Component properties attributes are swapped after refactoring
<u>XVIER-15189</u>	SAPJCO3 BapiExplorer CreateEmpty BAPI delivers no fields for tables
<u>XVIER-15126</u>	Project creation from template does not refactor the root node of <code>wsinc</code> file.
<u>XVIER-15100</u>	<i>Deployments Adapter</i> and <i>Project Access Adapter</i> cannot access private files
<u>XVIER-15075</u>	Keycloak Management ReST API is inconsistent
<u>XVIER-14978</u>	FileService & ReST Service without Content-Disposition ships <code>exe</code> file without file extension
<u>XVIER-14937</u>	The adapter <i>Global Parameter Management</i> (previously: <i>Custom Placeholder Storage Manager</i>) shows Error -1, but no error output when using unallowed attributes (e.g. <code>type="Integerrr"</code>)
<u>XVIER-14860</u>	[Designer] Exclude files from projects provokes errors in the Problems view and behavior
<u>XVIER-14770</u>	If a WebApp Resource was missing in the import <code>zip</code> , it will get deleted after reimporting the corresponding resource.
<u>XVIER-14768</u>	Condition step on password parameter prevents process to start
<u>XVIER-14655</u>	Process profiling: Remove unnecessary calculations done with <code>TimeMeasurement</code>
<u>XVIER-14548</u>	AdapterProject: lost icon path in <code>nad</code> file after refactoring the icon path (e.g., rename it)
<u>XVIER-14401</u>	Migration from snapshot version is not available when copying project to repository
<u>XVIER-14393</u>	Setup.exe - Option to create shortcuts is not shown if Designer option is unchecked

<u>XVIER-13926</u>	[TaskManagement] Case state of human task is not shown when the deadline is reached
<u>XVIER-13920</u>	Problems with "Update Tool for Windows"
<u>XVIER-13242</u>	BPM Project renaming leads to: Project not found: bpmInvoice-631
<u>XVIER-16297</u>	<i>Project Management Adapter</i> not working in <i>Web App Projects</i> with <i>Public Access</i>
<u>XVIER-16298</u>	Project Parameter value changed at runtime (API or APP) is not changed in Mapping
<u>XVIER-16366</u>	Running (paused) BPM Processes are not migrate able from 6.3.1 to 7.3.1
<u>XVIER-16276</u>	Packaging a Native Adapter that contains a Native Adapter fails
<u>XVIER-16335</u>	License violation (Web App API license) when using <code>.webcontrol</code> in Process Monitoring Web App
<u>XVIER-16363</u>	Case ID of BPM processes is not migrated correctly
<u>XVIER-16342</u>	Human Task in Task Management App delivers errors
<u>XVIER-16440</u>	Project name is missing from <i>Process Runtime Management Adapter</i> with operation "List running processes"
<u>XVIER-16375</u>	Migration from 6.3 to 7.3 of two Human Tasks with the same name is not working correctly

6.7 X4 Web Apps

Key	Summary
<u>XVIER-15526</u>	Data Binding in <i>Detail Component</i> within a Tab Group does not work

<u>XVIER-15492</u>	In a <i>ListView</i> the last item was only removed after refresh of the page. Now a refresh of the page is no longer required, and the item is removed right away.
<u>XVIER-15839</u>	ComponentName in Link doesn't work in a TextBlock
<u>XVIER-15418</u>	Error when entering values in decimal/integer fields
<u>XVIER-15622</u>	Properties in <i>Master Detail</i> were not accessible; now the data defined in the <i>MasterDetailComponent</i> is accessible for the actions defined in the <i>ListComponent</i> .
<u>XVIER-15615</u>	After page reload a web app with more than one module breaks in public access
<u>XVIER-15971</u>	<i>ComboboxAutocomplete</i> loses label
<u>XVIER-15910</u>	No scrollbar or way to scroll in privacy (.dpr)
<u>XVIER-15905</u>	Privacy doesn't load when using responsive layout in .dpr file
<u>XVIER-15735</u>	<code>DateTimePicker displayName</code> disappears after selecting a date
<u>XVIER-15731</u>	The path <code>/X4/webapp</code> shows an error message
<u>XVIER-15663</u>	<i>Chart Line</i> mouseover with more than one active group is not showing the correct number
<u>XVIER-15641</u>	Error when navigating between Components with TextBlock/Link - Element
<u>XVIER-15574</u>	JavaScript errors prevent Web Apps from loading
<u>XVIER-15507</u>	Overlay cannot be open after another overlay opening
<u>XVIER-15491</u>	Webapps performance issue using <i>Listview</i> and <i>Cards</i>
<u>XVIER-15402</u>	Detail in <i>MasterDetail</i> stays in viewport
<u>XVIER-15310</u>	Endless loading loop for an icon in a card if databinding to a resources file
<u>XVIER-15306</u>	<i>CalendarComponent</i> – title cannot be set via data binding

<u>XVIER-15286</u>	ComboBox keeps selection after clearing Box by value
<u>XVIER-15278</u>	Title of card is cut in the lower area
<u>XVIER-15271</u>	ComboBoxAutocomplete resets selection if invalid value was entered
<u>XVIER-15263</u>	ComboBoxAutocomplete – several validation issues
<u>XVIER-15253</u>	ComboBox – first selection does not work
<u>XVIER-15242</u>	Back Button generates a wrong load in combos
<u>XVIER-15183</u>	Images not calling processes inside ListView
<u>XVIER-15143</u>	In-cell editing with unsaved changes for date and datetime does not lead to "leave page" dialog
<u>XVIER-15117</u>	Header section is not displayed when it is created after log in
<u>XVIER-15104</u>	BoxLayout with percent height – wrong calculation for height is content is large
<u>XVIER-15093</u>	Info Banner: banners are cached and do not change
<u>XVIER-15071</u>	MasterDetail (Safari): stored height of master part not used
<u>XVIER-15063</u>	Header Section changes are only visible after the cache is cleared
<u>XVIER-15056</u>	Default login screen – wrong representation of radio button
<u>XVIER-15029</u>	Background and foreground does not affect ListView
<u>XVIER-14923</u>	Date is is wrong in English (US)
<u>XVIER-14907</u>	German tooltip for two buttons is missing
<u>XVIER-14880</u>	API Action name is not validated
<u>XVIER-14874</u>	DateTimePicker is cropped incorrectly when using small browser/device

<u>XVIER-14771</u>	Controls does not use the configured Resource Font
<u>XVIER-14705</u>	FlowLayout takes all the available space even when it not necessary
<u>XVIER-14169</u>	Calendar Component – all day check does not work
<u>XVIER-13953</u>	Kendo UI Calendar: date range limitations
<u>XVIER-13935</u>	BoxLayout: Validation for percentage use is not working if it is used in TabLayout
<u>XVIER-13859</u>	CalendarComponent: Details of events are not displayed
<u>XVIER-13836</u>	showHeader="true" and showFooter="false" are not working properly for mobile phones
<u>XVIER-13784</u>	List Property changes within a tab group and after a new action lead to incorrect behaviour
<u>XVIER-13777</u>	No margin on iPhone X and higher (for camera)
<u>XVIER-11855</u>	Validation message overlaps with titles on mobile phones
<u>XVIER-11757</u>	Line / Gauge/ Bar - Tooltip depends on mouse position and can be cut off
<u>XVIER-16295</u>	Input of integer that is not valid is not reset on cancel button in Overlay but leads to error
<u>XVIER-16292</u>	Username in header not shown after reloading the page
<u>XVIER-16343</u>	If in a login file the attribute <code>changePassword</code> is set to <code>false</code> , the button is not disabled.
<u>XVIER-13279</u>	GridComponent – changed data loaded by ReloadAction was not shown
<u>XVIER-16325</u>	Line breaks no longer present in <code>ListView</code> after migration (7.2.0 to 7.3.1): To fix this bug the attribute <code>textOverflow</code> was removed from <code>ListView</code>

<u>XVIER-13412</u>	Column Selected Row has no name in Filter (Confusing Behaviour)
<u>XVIER-16332</u>	Web Apps - Error 404 after being inactive for some minutes
<u>XVIER-16311</u>	CustomControl <code>setControlHeight</code> not working
<u>XVIER-16400</u>	Error while downloading the file when special characters exist in file name
<u>XVIER-16346</u>	For a property with more than one validation, validation does not work
<u>XVIER-16359</u>	Hidden mandatory fields lead to disabled SaveAction button
<u>XVIER-16371</u>	TabGroup: Navigation error when hiding components with visibility attribute
<u>XVIER-16222</u>	The size for images was corrected with the migration from 7.2. to 7.3. For 100% display of images and videos the element <code>BoxLayout</code> with 100% height is required.
<u>XVIER-16516</u>	The size for videos was corrected with the migration from 7.2. to 7.3. For 100% display of images and videos the element <code>BoxLayout</code> with 100% height is required.