FirstSpirit™

Unlock Your Content

FirstSpirit™ Maintenance Build

FirstSpirit™ Version 5.2 Release 6

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e-Spirit

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1 Administration

1.1 Apache Tomcat / Java Servlet Specification 3.0: Disabling Pluggability features

"Pluggability" features were introduced with version 3.0 of the Java Servlet Specification. These enable the `web.xml` modularization or the configuration of components via Java annotations. However, the latter function requires that all classes must be scanned for annotations when the web application is deployed (and implicitly each time the application server is started). As this process can take a long time, FirstSpirit can disable pluggability features globally or for individual web applications starting with the current FirstSpirit version.

Global configuration is carried out in the server configuration via the `WEBAPP_ENABLE_PLUGGABILITY_FEATURES_DEFAULT` parameter within the file `fs-server.conf`. Possible values are:

- `true`: Pluggability features are activated, Java classes are scanned for annotations during deployment. This is the default value.

- `false`: Pluggability features are deactivated, Java classes are not scanned.

Configuration for individual web applications is carried out via the "Pluggability"selection field, either for the global web applications (FirstSpirit ServerManager, "Server properties / Web applications")
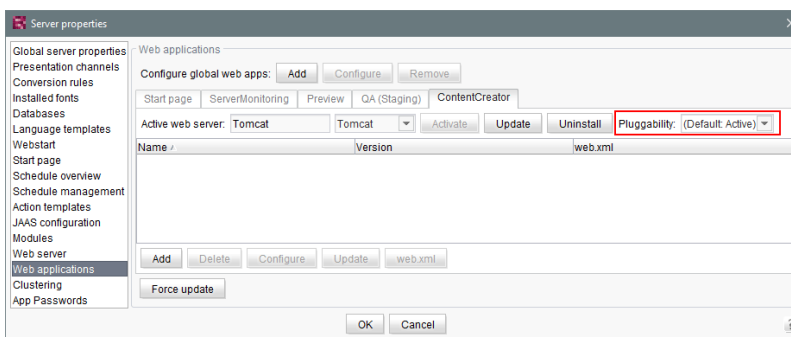
or for the web components of a project (FirstSpirit ServerManager, "Project properties / Web components")
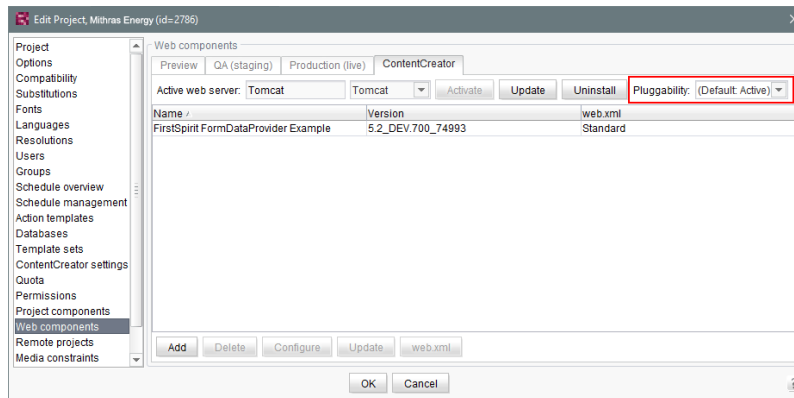
For more information please see *FirstSpirit Manual for Administrators*,

- Chapter "Area: Web Applications"

- Chapter "Configuring web applications"

- Chapter "Web components"

and the official page about the Java Servlet 3.0 Specification.

> **!** If the pluggability features are deactivated manually within the `web.xml`, for example by specifying an `<absolute-ordering>` element, and if the pluggability features have been **deactivated** by means of the new functionality which is described here, this can lead to conflicts. In this case, please remove the manual configuration (from the `web.xml`) or change the pluggability setting of the respective web application/s to "active" using the above described possibilities.

2 ContentCreator

2.1 Deletion of bookmarks and master copies

Frequently used elements may be bookmarked in FirstSpirit to enable easy access. In ContentCreator, an element is bookmarked by using the following button in the toolbar:

Bookmarked elements are then shown in the report area.

Here, bookmarked elements may also be set as master copies so that new elements may quickly be created based on the data of such frequently used elements. A bookmark may be set as a master copy by using the following button:

For sections, this button is also available within the section's toolbar in the preview.

If an element (e.g. a section) that is bookmarked as a master copy is deleted, the current FirstSpirit version will now show a confirmation dialog with the following note:

"The element 'xyz' is a master copy, would you like to delete it anyway?"

If the user clicks OK, the section and its associated master copy bookmark in the report area will be deleted.

Furthermore, elements which are bookmarked can now be deleted without errors in all cases.

For further information, see *FirstSpirit Manual for Editors (ContentCreator)*, "Report area / Bookmarks".

2.2   Workflows on media and media folder elements

In the report area, the report "Tasks" shows the tasks that are available to the current user. In addition to media elements, as of the current FirstSpirit version, this report also displays media folder elements that are in a workflow:
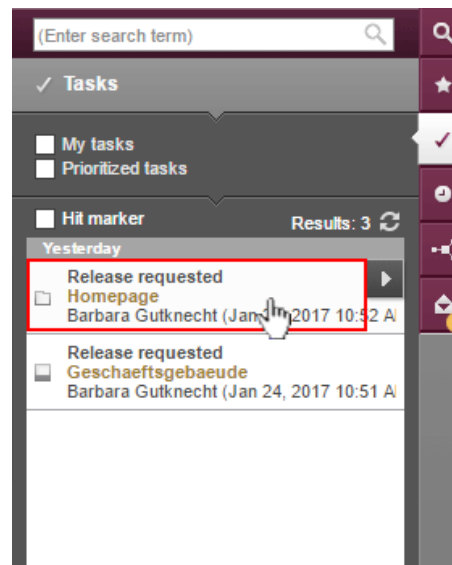
Clicking on a media folder entry will open the dialog "Manage media".

In order to advance media and media folder elements in a workflow, use the following button:

Clicking the button will open a drop-down menu that shows the available next steps in the workflow. Clicking on an entry in that menu (e.g. "check release") will open the dialog to set information for the next workflow step.

For further information, see *FirstSpirit Manual for Editors (ContentCreator)*, chapter "Report area / Tasks".

3   Input components

3.1   FS_INDEX: Emptiness check with ".isEmpty"

The input component FS_INDEX *Template development / Template syntax / Data types / IndexAccessor* (→*FirstSpirit Online Documentation*).

Within output channel definitions, accessing the value set of an FS_INDEX input component returns an object of type **IndexAccessor**.

As of the current FirstSpirit version, the data type **IndexAccessor** includes a new implementation of the method **.isEmpty()** (in Bean syntax: **.isEmpty**). This method may be used to check whether or not the FS_INDEX input component contains entries.

- If the input component contains at least one entry, the method returns **false**.

- If the input component does not contain any entries, the method returns **true**.

Example:

```
$CMS_VALUE(fs_index.isEmpty)$
```

Previously, this method always returned **false**.

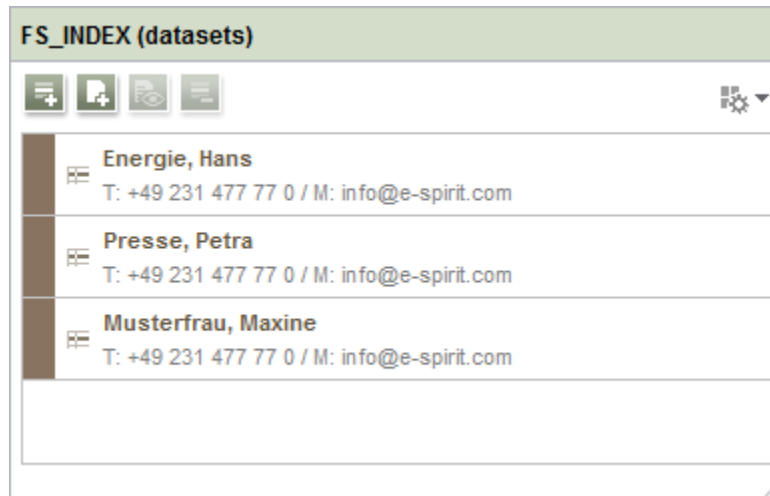For further information, see *Template development / Template syntax / Data types / IndexAccessor* (→*FirstSpirit Online Documentation*).

4 Module Development, Scripts, API

4.1 ContentCreator: Detection of the user interface language ("Locale") selected by the current user

FirstSpirit supports a multi-language concept that pervades all aspects of FirstSpirit. This concept differentiates between:

- **User interface language (also called "Locale"):** This language is selected via the combobox on the FirstSpirit Start Page. It specifies the language commonly used in the user interface, such as that of menu labels, dialog texts and content that is not maintained in a language-dependent fashion by editors and template developers in a project. Currently, FirstSpirit supports the user interface languages German, English, French, Spanish, Russian, Italian, and Dutch.

- **Project language:** Project developers specify in which languages editorial content may be entered (via "input components"). As a rule, this content will then be output on a web page in the various language variants of a page. A language selection control may be used to switch to another language of the web page. The project language may differ from the selected user interface language: FirstSpirit does not provide Portuguese as a user interface language, but Portuguese-language content can of course be maintained within FirstSpirit.

- **Editorial language:** An editorial language (also called "display language") may be used by project developers to influence the display of input elements and other objects in ContentCreator. Such editorial languages are used for labels of input components, tool tips, and elements of a selection list ("combobox"), among others.

As of the current FirstSpirit version, it is possible to detect the user interface language of ContentCreator, selected by the current user, via the method `getLocale()` of the FirstSpirit Developer API interfaces

- `WebeditUiAgent` (package `de.espirit.firstspirit.webedit`):
  `de.espirit.firstspirit.webedit.WebeditUiAgent.getLocale()`

- `Common` (package `de.espirit.firstspirit.webedit.client.api`):
  `WE_API.Common.getLocale()`

For further information, see *Template development / JavaScript APIs / ContentCreator / Common Functionality* (→*FirstSpirit Online Documentation*).

4.2   ContentCreator: Use of "setTitle" for a dialog's main title

The interface `ShowFormDialogOperation` (package `de.espirit.firstspirit.ui.operations`, FirstSpirit Developer API) allows creation and configuration of project-specific dialogs for both SiteArchitect and ContentCreator.

In ContentCreator, the title text that may be set for such a dialog via the method `setTitle(String title)` is now also used for the dialog's main title (berry-colored background), e.g.
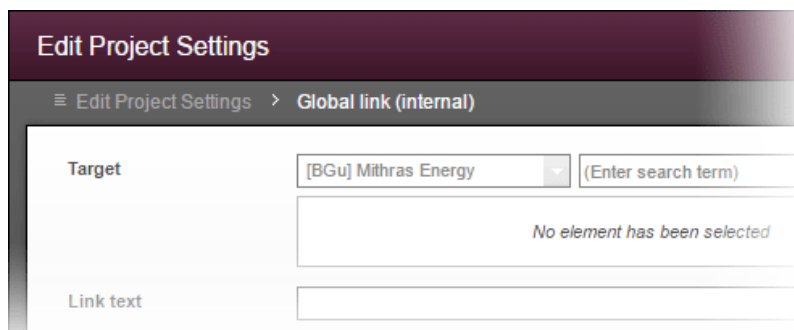
Previously, the title text was only used in the dialog's secondary labeling (grey background), and the main title text could not be influenced:
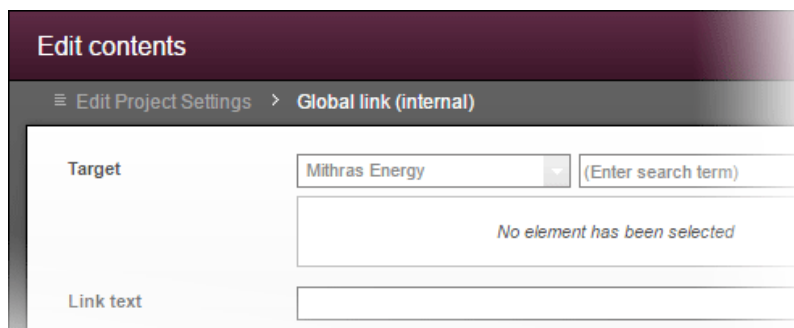
4.3   Identification of server mode (isolated vs. legacy)

The interface `ServerInformationAgent` (FirstSpirit Access API, package `de.espirit.firstspirit.agency`) provides version information about the FirstSpirit server. The `VersionInfo` object returned by the agent now provides information about the currently active server mode ("Legacy" or "Isolated"). This information may be obtained via the new method `getMode()`:

- ■ **LEGACY**: The FirstSpirit server is running in legacy mode.

- ■ **ISOLATED**: The FirstSpirit server is running in isolated mode.

For further information, see *Isolated mode [Beta]* (→*Manual for Module Developers*).

5 Modules: Corporate Content

5.1 ContentTransport: Deleting feature collections

The functionality "FirstSpirit ContentTransport" enables transport of project contents from a source project into a target project. The desired content is collected into so-called "Features". Via the button "Save feature"

such a feature may be stored on the server.

In order to simplify the selection of a feature, the "Select" dialog (reached via "Create or load a feature / Load feature from server") has been improved:
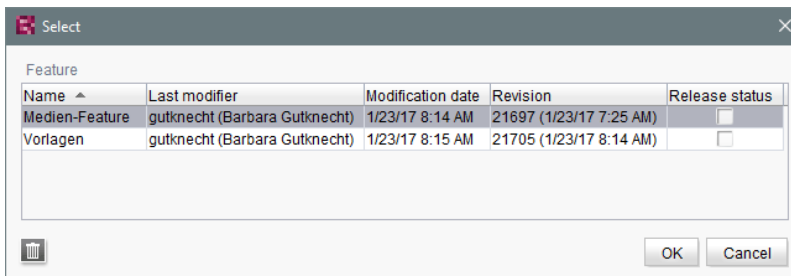
The dialog now allows sorting by column and provides detailed information about a feature in a tool-tip.

Furthermore, in order to improve readability of the feature list, features that were once stored on the server but are no longer needed may now be deleted from the server. Via the button "Delete"

the selected feature or features may be deleted following a confirmation request. Selection of multiple features is possible.

Deletion of feature collections is final and cannot be undone.

For further information, see Module documentation for "FirstSpirit CorporateContent", chapter "Content Transport / Creating or loading a feature".

5.2 Multisite Management: Export of image resolutions

The multisite management functionalities "FirstSpirit ContentTransport" and "External Synchronization" enable transport of project contents as well as of project properties, e.g. languages, resolutions, etc.

If resolutions are transported from a source project into a target project using ContentTransport or External Synchronization, e.g.
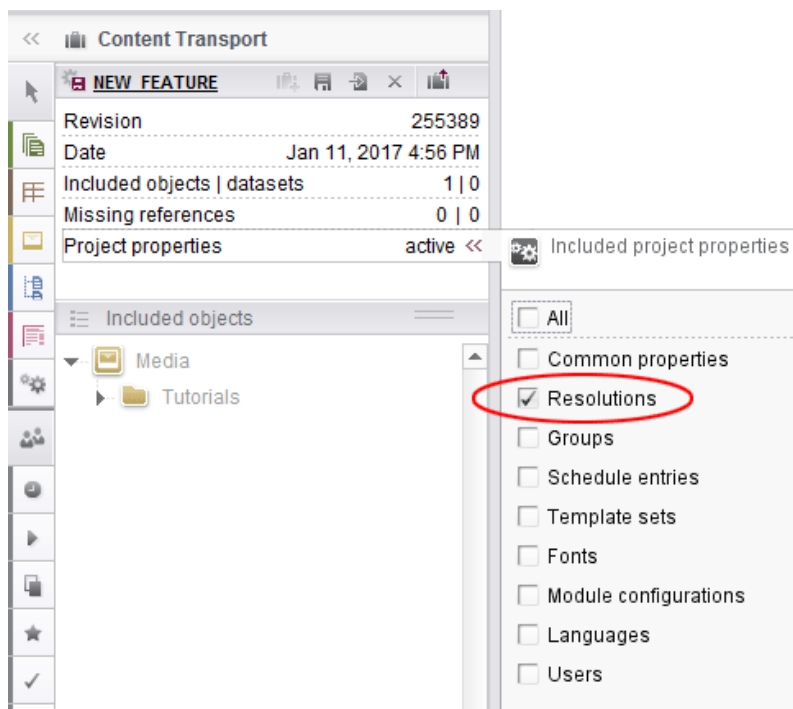
the order of resolutions in the target project now matches their order in the source project.

Display in ServerManager, area "Resolutions":
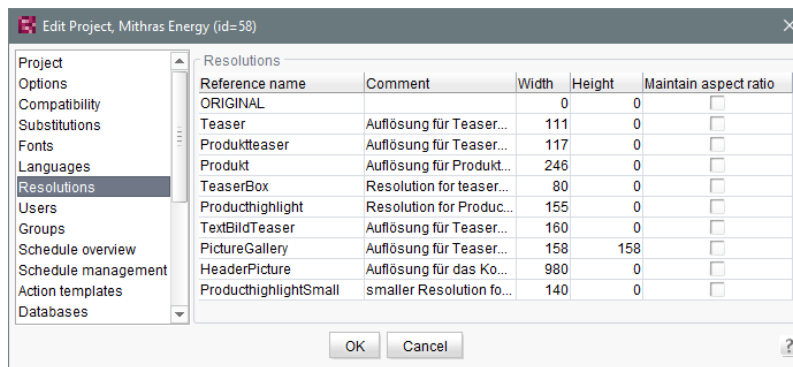
Display in the Media store of SiteArchitect:
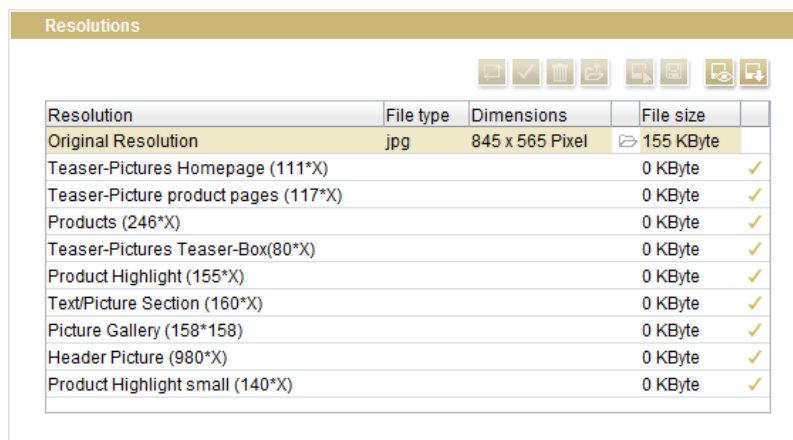
Previously, resolutions were ordered by reference name after export/import.

In order to apply the new behavior, a new export must be made.

For further information, see

- Module documentation for "FirstSpirit CorporateContent"

- *FirstSpirit Manual for Administrators*, chapter "Resolutions"

6 Overview

ID	Description	Categories
120150	Optimized the dialog "Select" for features which were stored on the server via the button "Save feature". It is now possible to delete a stored feature. Further information can be found in chapter "Modules: Corporate Content: ContentTransport: Deleting feature collections".	Content Transport
150087	For improved consistency, the title text that may be set for a dialog via the method `setTitle(String title)` of the interface `ShowFormDialogOperation` (package `de.espirit.firstspirit.ui.operations`, FirstSpirit Developer API) is now also used for the dialog's main title. Further information can be found in chapter "Module Development, Scripts, API: ContentCreator: Use of "setTitle" for a dialog's main title".	ContentCreator, FirstSpirit API
158656	So called "Pluggability" features (Java Servlet Specification 3.0) can be disabled starting with the current FirstSpirit version. Further information can be found in chapter "Administration: Apache Tomcat / Java Servlet Specification 3.0: Disabling Pluggability features".	FirstSpirit Administrator, ServerManager
171040	Improved visualization of changes in version comparison.	SiteArchitect, Version history
179202	Optimized default contents of a rule definition after creation of a new template. The editor now initially contains opening and closing `<RULES>` tags.	Dynamic Forms, Template Development
182789	Project exports were erroneously not considered during clean-up of the backup directory.	Backup
184104	Workflows on media and media folder elements can now be advanced in the report area under "Tasks". Further information can be found in chapter "ContentCreator: Workflows on media and media folder elements".	ContentCreator, Media Store, Workflow

ID	Description	Categories
186917	In rare cases, erroneous behavior could occur when opening the selection dialog in the input component FS_REFERENCE.	Input Components, SiteArchitect
187469	Optimized list formatting in the input component CMS_INPUT_DOM.	ContentCreator
188373	Optimized form updates when using rules to display or hide input components.	Dynamic Forms, SiteArchitect
188445	As of the current FirstSpirit version, it is possible to detect the user interface language of ContentCreator that was selected by the current user. Further information can be found in chapter "Module Development, Scripts, API: ContentCreator: Detection of the user interface language ("Locale") selected by the current user".	ContentCreator, Developer, FirstSpirit API
192763	Optimized logging for project components during server start-up.	Isolated mode (BETA)
192943	Corrected information about libraries in system web app components.	Isolated mode (BETA)
193594	Optimized rule evaluation for option-based input components (e.g. CMS_INPUT_COMBOBOX) whose values are sourced from a database.	ContentCreator, Dynamic Forms
193684	When using a nested FS_CATALOG input component, erroneous display could occur in the edit/"snippet" view.	Input Components, SiteArchitect
193689	After updating a module via server properties in ServerManager, the version of a web application associated with that module will now be displayed correctly in project properties.	Isolated mode (BETA)
194184	Optimized detection of incompatible module resources.	Isolated mode (BETA)
194190	Deregistering a cluster slave server from the cluster master server via ServerManager could temporarily lead to the deregistered slave server no longer restarting automatically.	Server Administrator, ServerManager
194349	Improved display logic for workflows in the status bar.	SiteArchitect, Workflow
194362	During archiving, inbound references are now also considered.	Archiving
194367	Optimized loading of action groups of MenuItemsPlugin (interface `JavaClientEditorialToolbarItemsPlugin`, package `de.espirit.firstspirit.client.plugin`).	SiteArchitect

ID	Description	Categories
194421	When creating a database schema from an external database, problems in accessing foreign key columns could occur.	Database
194589	Optimized performance of loading data sources with datasets which contain an input component of type FS_INDEX.	Performance, SiteArchitect
194689	A confirmation dialog now warns a user if an element is about to be deleted which is still bookmarked as a master copy. Further information can be found in chapter "ContentCreator: Deletion of bookmarks and master copies".	Bookmarks, Content-Creator, Editor
194719	Optimized performance of loading the data source overview with datasets whose forms contain an FS_INDEX input component with many referenced datasets.	Content Store, Input Components, SiteArchitect
194780	If an FS_INDEX input component does not contain any entries, the new method `.isEmpty()` returns `true`. Further information can be found in chapter "Input components: FS_INDEX: Emptiness check with ".isEmpty"".	Input Components, Template Development
194838	Improved the display of web components in project properties.	ServerManager
194862	Optimized notification about rule infractions related to subforms of the input component FS_LIST.	Dynamic Forms, SiteArchitect
195010	The `VersionInfo` object returned by the interface `ServerInformationAgent` (FirstSpirit Access API, package `de.espirit.firstspirit.agency`) now provides information about the currently active server mode ("Legacy" or "Isolated"). Further information can be found in chapter "Module Development, Scripts, API: Identification of server mode (isolated vs. legacy)".	Developer, FirstSpirit API, Isolated mode (BETA), Module development
195014	Optimized the order of (image) resolutions which are transported from a source project into a target project using FirstSpirit ContentTransport or External Synchronization. Further information can be found in chapter "Modules: Corporate Content: Multisite Management: Export of image resolutions".	Content Transport, External synchronization

ID	Description	Categories
195024	In external synchronization, unnecessary updates are now avoided during import.	External synchronization
195054	Enhanced logging in the module "FirstSpirit DynamicPersonalization".	Modules
195163	Identical resources have been consolidated when using more than one project-specific web component.	Modules, Server Administrator
195195	Improved consideration of authorized users during mail dispatch in workflows.	Workflow
195277	Improved stability in integrated preview when using the browser engine "Internet Explorer".	Preview, SiteArchitect
195314	Optimized status detection for the menu entry "View" / "Display area of AppCenter / Preview".	SiteArchitect
195471	Optimized performance of saving datasets whose forms contain an FS_LIST input component (type DATABASE) with many referenced datasets.	SiteArchitect
195482	Corrected the return value of the statement `$CMS_REF(...)$` when using the optional parameter `abs:2`.	Developer, Template Development
195526	During import, certain specific circumstances could lead to elements in the external file system being mistakenly deleted if, previously, local changes were made in the target project that differed from the exported state.	External synchronization
195588	Improved identification of invalid references in the input component FS_LIST (type DATABASE).	Input Components, SiteArchitect
195603	Improved display of the results of a query in the query template.	SiteArchitect, Template Store
195642	In certain circumstances, switching between languages in the workspace area could lead to erroneous behavior.	SiteArchitect
195692	In rare cases, setting focus on an object could lead to an erroneous state of action buttons.	SiteArchitect
195707	Optimized performance of calculating the page preview with many database-based input components of type CMS_INPUT_COMBOBOX.	Performance, Preview

ID	Description	Categories
196034	In SiteArchitect running on macOS, use of the input component FS_LIST could lead to limited operability of SiteArchitect.	Input Components, SiteArchitect
196326	Corrected version information about standard components of the system module.	Server Administrator

7   Categories

7.1   Archiving

ID	Description
194362	During archiving, inbound references are now also considered.

7.2   Backup

ID	Description
182789	Project exports were erroneously not considered during clean-up of the backup directory.

7.3   Bookmarks

ID	Description
194689	A confirmation dialog now warns a user if an element is about to be deleted which is still bookmarked as a master copy. Further information can be found in chapter "ContentCreator: Deletion of bookmarks and master copies".

7.4   Content Store

ID	Description
194719	Optimized performance of loading the data source overview with datasets whose forms contain an FS_INDEX input component with many referenced datasets.

7.5   Content Transport

ID	Description
120150	Optimized the dialog "Select" for features which were stored on the server via the button "Save feature". It is now possible to delete a stored feature. Further information can be found in chapter "Modules: Corporate Content: ContentTransport: Deleting feature collections".
195014	Optimized the order of (image) resolutions which are transported from a source project into a target project using FirstSpirit ContentTransport or External Synchronization. Further information can be found in chapter "Modules: Corporate Content: Multisite Management: Export of image resolutions".

7.6   ContentCreator

ID	Description
150087	For improved consistency, the title text that may be set for a dialog via the method `setTitle(String title)` of the interface `ShowFormDialogOperation` (package `de.espirit.firstspirit.ui.operations`, FirstSpirit Developer API) is now also used for the dialog's main title. Further information can be found in chapter "Module Development, Scripts, API: ContentCreator: Use of "setTitle" for a dialog's main title".
184104	Workflows on media and media folder elements can now be advanced in the report area under "Tasks".

ID	Description
	Further information can be found in chapter "ContentCreator: Workflows on media and media folder elements".
187469	Optimized list formatting in the input component CMS_INPUT_DOM.
188445	As of the current FirstSpirit version, it is possible to detect the user interface language of Content-Creator that was selected by the current user. Further information can be found in chapter "Module Development, Scripts, API: ContentCreator: Detection of the user interface language ("Locale") selected by the current user".
193594	Optimized rule evaluation for option-based input components (e.g. CMS_INPUT_COMBOBOX) whose values are sourced from a database.
194689	A confirmation dialog now warns a user if an element is about to be deleted which is still bookmarked as a master copy. Further information can be found in chapter "ContentCreator: Deletion of bookmarks and master copies".

7.7   Database

ID	Description
194421	When creating a database schema from an external database, problems in accessing foreign key columns could occur.

7.8   Developer

ID	Description
188445	As of the current FirstSpirit version, it is possible to detect the user interface language of Content-Creator that was selected by the current user. Further information can be found in chapter "Module Development, Scripts, API: ContentCreator: Detection of the user interface language ("Locale") selected by the current user".

ID	Description
195010	The `VersionInfo` object returned by the interface `ServerInformationAgent` (FirstSpirit Access API, package `de.espirit.firstspirit.agency`) now provides information about the currently active server mode ("Legacy" or "Isolated"). Further information can be found in chapter "Module Development, Scripts, API: Identification of server mode (isolated vs. legacy)".
195482	Corrected the return value of the statement `$CMS_REF(...)$` when using the optional parameter `abs:2`.

7.9   Dynamic Forms

ID	Description
179202	Optimized default contents of a rule definition after creation of a new template. The editor now initially contains opening and closing `<RULES>` tags.
188373	Optimized form updates when using rules to display or hide input components.
193594	Optimized rule evaluation for option-based input components (e.g. CMS_INPUT_COMBOBOX) whose values are sourced from a database.
194862	Optimized notification about rule infractions related to subforms of the input component FS_LIST.

7.10   Editor

ID	Description
194689	A confirmation dialog now warns a user if an element is about to be deleted which is still bookmarked as a master copy. Further information can be found in chapter "ContentCreator: Deletion of bookmarks and master copies".

7.11 External synchronization

ID	Description
195014	Optimized the order of (image) resolutions which are transported from a source project into a target project using FirstSpirit ContentTransport or External Synchronization. Further information can be found in chapter "Modules: Corporate Content: Multisite Management: Export of image resolutions".
195024	In external synchronization, unnecessary updates are now avoided during import.
195526	During import, certain specific circumstances could lead to elements in the external file system being mistakenly deleted if, previously, local changes were made in the target project that differed from the exported state.

7.12 FirstSpirit API

ID	Description
150087	For improved consistency, the title text that may be set for a dialog via the method **setTitle(String title)** of the interface **ShowFormDialogOperation** (package **de.espirit.firstspirit.ui.operations**, FirstSpirit Developer API) is now also used for the dialog's main title. Further information can be found in chapter "Module Development, Scripts, API: ContentCreator: Use of "setTitle" for a dialog's main title".
188445	As of the current FirstSpirit version, it is possible to detect the user interface language of Content-Creator that was selected by the current user. Further information can be found in chapter "Module Development, Scripts, API: ContentCreator: Detection of the user interface language ("Locale") selected by the current user".
195010	The **VersionInfo** object returned by the interface **ServerInformationAgent** (FirstSpirit Access API, package **de.espirit.firstspirit.agency**) now provides information about the currently active server mode ("Legacy" or "Isolated"). Further information can be found in chapter "Module Development, Scripts, API: Identification of server mode (isolated vs. legacy)".

7.13 FirstSpirit Administrator

ID	Description
158656	So called "Pluggability" features (Java Servlet Specification 3.0) can be disabled starting with the current FirstSpirit version. Further information can be found in chapter "Administration: Apache Tomcat / Java Servlet Specification 3.0: Disabling Pluggability features".

7.14 Input Components

ID	Description
186917	In rare cases, erroneous behavior could occur when opening the selection dialog in the input component FS_REFERENCE.
193684	When using a nested FS_CATALOG input component, erroneous display could occur in the edit/"snippet" view.
194719	Optimized performance of loading the data source overview with datasets whose forms contain an FS_INDEX input component with many referenced datasets.
194780	If an FS_INDEX input component does not contain any entries, the new method `.isEmpty()` returns `true`. Further information can be found in chapter "Input components: FS_INDEX: Emptiness check with ".isEmpty"".
195588	Improved identification of invalid references in the input component FS_LIST (type DATABASE).
196034	In SiteArchitect running on macOS, use of the input component FS_LIST could lead to limited operability of SiteArchitect.

7.15 Isolated mode (BETA)

ID	Description
192763	Optimized logging for project components during server start-up.
192943	Corrected information about libraries in system web app components.

ID	Description
193689	After updating a module via server properties in ServerManager, the version of a web application associated with that module will now be displayed correctly in project properties.
194184	Optimized detection of incompatible module resources.
195010	The **VersionInfo** object returned by the interface **ServerInformationAgent** (FirstSpirit Access API, package **de.espirit.firstspirit.agency**) now provides information about the currently active server mode ("Legacy" or "Isolated"). Further information can be found in chapter "Module Development, Scripts, API: Identification of server mode (isolated vs. legacy)".

7.16 Media Store

ID	Description
184104	Workflows on media and media folder elements can now be advanced in the report area under "Tasks". Further information can be found in chapter "ContentCreator: Workflows on media and media folder elements".

7.17 Module development

ID	Description
195010	The **VersionInfo** object returned by the interface **ServerInformationAgent** (FirstSpirit Access API, package **de.espirit.firstspirit.agency**) now provides information about the currently active server mode ("Legacy" or "Isolated"). Further information can be found in chapter "Module Development, Scripts, API: Identification of server mode (isolated vs. legacy)".

7.18 Modules

ID	Description
195054	Enhanced logging in the module "FirstSpirit DynamicPersonalization".
195163	Identical resources have been consolidated when using more than one project-specific web component.

7.19 Performance

ID	Description
194589	Optimized performance of loading data sources with datasets which contain an input component of type FS_INDEX.
195707	Optimized performance of calculating the page preview with many database-based input components of type CMS_INPUT_COMBOBOX.

7.20 Preview

ID	Description
195277	Improved stability in integrated preview when using the browser engine "Internet Explorer".
195707	Optimized performance of calculating the page preview with many database-based input components of type CMS_INPUT_COMBOBOX.

7.21 Server Administrator

ID	Description
194190	Deregistering a cluster slave server from the cluster master server via ServerManager could temporarily lead to the deregistered slave server no longer restarting automatically.
195163	Identical resources have been consolidated when using more than one project-specific web component.
196326	Corrected version information about standard components of the system module.

7.22 ServerManager

ID	Description
158656	So called "Pluggability" features (Java Servlet Specification 3.0) can be disabled starting with the current FirstSpirit version. Further information can be found in chapter "Administration: Apache Tomcat / Java Servlet Specification 3.0: Disabling Pluggability features".
194190	Deregistering a cluster slave server from the cluster master server via ServerManager could temporarily lead to the deregistered slave server no longer restarting automatically.
194838	Improved the display of web components in project properties.

7.23 SiteArchitect

ID	Description
171040	Improved visualization of changes in version comparison.
186917	In rare cases, erroneous behavior could occur when opening the selection dialog in the input component FS_REFERENCE.
188373	Optimized form updates when using rules to display or hide input components.
193684	When using a nested FS_CATALOG input component, erroneous display could occur in the edit/"snippet" view.
194349	Improved display logic for workflows in the status bar.
194367	Optimized loading of action groups of MenuItemsPlugin (interface `JavaClientEditorialToolbarItemsPlugin`, package `de.espirit.firstspirit.client.plugin`).
194589	Optimized performance of loading data sources with datasets which contain an input component of type FS_INDEX.
194719	Optimized performance of loading the data source overview with datasets whose forms contain an FS_INDEX input component with many referenced datasets.
194862	Optimized notification about rule infractions related to subforms of the input component FS_LIST.
195277	Improved stability in integrated preview when using the browser engine "Internet Explorer".
195314	Optimized status detection for the menu entry "View" / "Display area of AppCenter / Preview".

ID	Description
195471	Optimized performance of saving datasets whose forms contain an FS_LIST input component (type DATABASE) with many referenced datasets.
195588	Improved identification of invalid references in the input component FS_LIST (type DATABASE).
195603	Improved display of the results of a query in the query template.
195642	In certain circumstances, switching between languages in the workspace area could lead to erroneous behavior.
195692	In rare cases, setting focus on an object could lead to an erroneous state of action buttons.
196034	In SiteArchitect running on macOS, use of the input component FS_LIST could lead to limited operability of SiteArchitect.

7.24 Template Development

ID	Description
179202	Optimized default contents of a rule definition after creation of a new template. The editor now initially contains opening and closing `<RULES>` tags.
194780	If an FS_INDEX input component does not contain any entries, the new method `.isEmpty()` returns `true`. Further information can be found in chapter "Input components: FS_INDEX: Emptiness check with ".isEmpty"".
195482	Corrected the return value of the statement `$CMS_REF(...)$` when using the optional parameter `abs:2`.

7.25 Template Store

ID	Description
195603	Improved display of the results of a query in the query template.

7.26 Version history

ID	Description
171040	Improved visualization of changes in version comparison.

7.27 Workflow

ID	Description
184104	Workflows on media and media folder elements can now be advanced in the report area under "Tasks". Further information can be found in chapter "ContentCreator: Workflows on media and media folder elements".
194349	Improved display logic for workflows in the status bar.
195195	Improved consideration of authorized users during mail dispatch in workflows.