

Previously released versions: 5.1.106, 5.1.209, 5.1.311

Java 8 Support

For FirstSpirit 5.1, **Java 7** is the reference version for both the FirstSpirit Server and the FirstSpirit SiteArchitect.

With FirstSpirit Version 5.1R4, **Java 8** is also passively supported. "Passive" in this case means that FirstSpirit may officially be run with Java 8. Any errors reported will always be analyzed and will be fixed if possible. e-Spirit however reserves the right, in exceptional cases, to only fix bugs and issues associated with Java 8 from FirstSpirit Version 5.2 onwards. To find out more about "passive support", please refer to *FirstSpirit Technical Data Sheet Version 5.1*.

The reason for the passive support of Java 8 is that the manufacturer, Oracle, will stop supporting Java 7 as of April 2015. More information can be found at the following websites:

- www.java.com/en/download/help/java_update.xml
- www.java.com/en/download/faq/release_dates.xml
- www.oracle.com/technetwork/topics/security/alerts-086861.html

Optimization of Search Performance

In FirstSpirit version 5.1R4, performance of search functionality has been improved significantly through implementation of a new indexing strategy. The resulting performance gain applies to all searches in FirstSpirit SiteArchitect and ContentCreator (global search, search in data sources, etc.), especially in projects with many editorial languages.

Projects which are created or imported on a server running FirstSpirit version 5.1R4 will automatically use this new search indexing strategy.

For existing projects on servers which are updated to FirstSpirit version 5.1R4 using in-place update, search indices must be rebuilt. This can be accomplished by running the action "Rebuild search index" in a project task (FirstSpirit ServerManager / Project properties / Schedule management / Action: "Rebuild search index").

It takes a lot of memory and processing time to execute this schedule entry and so it should only be used during a maintenance period!

Repository encryption

FirstSpirit uses repositories to maintain version histories of project data. The repository is a central location for managing the file structures required by the content management system (media, pages, templates, etc.). There is a separate repository for each project. Data is written to the repository whenever an action is performed in FirstSpirit (e.g. when elements are created, edited, or deleted).

In FirstSpirit Version 5.1R4, repository files (structures, content, media) can be stored in an encrypted format. A file containing a key is required for this purpose. Configuration is performed using FirstSpirit ServerManager.

For more detailed information, see the *FirstSpirit Manual for Administrators, Chapter:*

- "Repository encryption"
- "Repository" and
- "Area: Storage Engine Properties"

FirstSpirit versions are usually forward and backward compatible provided that only the minor or build version number has changed. Projects which were encrypted in FirstSpirit version 5.1R4 using the "Repository encryption" functionality, however, must first be decrypted if downgrading to an earlier version of FirstSpirit. Otherwise, these encrypted projects can no longer be used on a FirstSpirit Server running a version lower than Version 5.1R4.

Parameterizing encryption

In FirstSpirit Version 5.1R4 and higher, advanced configuration options are available for encryption. This involved modifying the encryption parameters that used to be fixed in most cases by making them configurable.

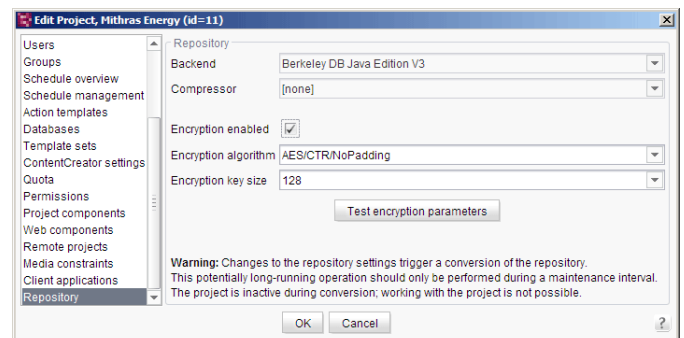
It is now possible to define precisely which protocol version and which algorithms should be used for the encryption process. In addition, certificates for server and client authentication (two-way authentication) are now supported. On the client side, any cluster nodes that are present must be taken into account in addition to the FirstSpirit web applications.

On the server side, configuration relies on the "fs-server.conf" file (including for cluster nodes). On the client side, it relies on Java or system parameters on the application server or utilizes the "web.xml" file of the web applications. In the case of FirstSpirit SiteArchitect, encryption is configured by means of **-D** parameters in the connection settings.

As there can be no assurance that all FirstSpirit installations will feature a certificate store, the default configuration settings only allow for conventional encryption (without authentication and certificates). These security settings must be configured separately by the server administrator. If certificates are to be used for authentication, valid certificates must first be created for the server and, where applicable, for the clients as well.

For more detailed information, see the *FirstSpirit Manual for Administrators, Chapters:*

- "Parameterizing encryption"



Project properties: Configuring encryption

- “Area: SSL Parameters”

Users included in project exports

By selecting “FirstSpirit ServerManager / Project / Export”, you can create export files from FirstSpirit projects. These can then be imported on the same or other FirstSpirit servers.

In addition to the project content that is entered and managed in SiteArchitect and/or ContentCreator, project exports also contain project properties, which are managed with FirstSpirit ServerManager. Among other things, these also include the users that are assigned to a project.

In FirstSpirit Version 5.1R4, users are only exported together with a project, if:

- they have been added to the project that is being exported (“FirstSpirit ServerManager / Project / Properties / Users”) or
- they belong to an external group stored within the project (“FirstSpirit ServerManager / Project / Properties / Groups / Create new group / External group”) or
- the “Allow all users” option has been enabled (“FirstSpirit ServerManager / Project / Properties / Options”).

In earlier FirstSpirit versions, all server administrators used to be exported as external users, even if they have not been added to the project or do not belong to an external group stored within the project.

This change only applies to exports created with FirstSpirit Version 5.1.401 or higher. Therefore, it may be necessary to create project exports from scratch.

Log rotation of the Java VM garbage collector (“fs-gc.log”)

On FirstSpirit Server side, the Java VM garbage collector is logged by default in the “fs-gc.log” file (in the “~/log/” directory) and in a file called “fs-gc.*.log” (* stands for the date and time of the first file entry). If a fixed file size of 5 MB is reached, the current log file is compressed and archived to a file called “fs-gc.*.log.gz”, where * once again stands for the date and time of the first entry.

In FirstSpirit Version 5.1R4 and higher, the **-XX:+UseGCLogFileRotation** parameter can be set so that the log files rotate. In this case, the file names are based on consecutive numbering instead of being created from the date and time. This numbering starts at 0 (“fs-gc.log.0”, “fs-gc.log.1”, etc.). With this configuration, older files are overwritten. This prevents the number of log files from constantly increasing and taking up more and more of the disk space.

The **-XX:GCLogFileSize** parameter can be used to set the maximum file size that can be reached before a new file is created. The minimum value is 8 KB.

The **-XX:NumberOfGCLogFiles** parameter can be used to set the maximum number of log files that should be retained.

Example:

```
wrapper.java.additional.X=-XX:+UseGCLogFileRotation
wrapper.java.additional.X=-XX:GCLogFileSize=10M
wrapper.java.additional.X=-XX:NumberOfGCLogFiles=9
```

If **-XX:+UseGCLogFileRotation** is set, the following message is recorded in the “fs-server.log” log file (inside the “~/log/” directory) when the FirstSpirit Server is started:

```
INFO 17.12.2014 13:26:35.694 (de.espirit.firstspirit.server.logging.GcLogTailer): Fs-GcLogTailer not started. Either no gc log is configured (param -Xloggc:) or vm internal log rotation is used (param -XX:+UseGCLogFileRotation).
```

This functionality is available only with Java 7 and higher.

For more information on configuring the garbage collector, see the *FirstSpirit Manual for Administrators*, Chapter “Configuration of the Java VM”.

ContentCreator: Activating the miniature preview

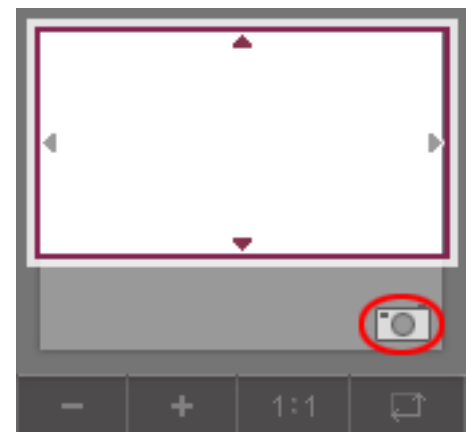
If the Multi Perspective Preview (MPP) mode is enabled in the preview for a project, a smaller image of the current view appears on the bottom left (“miniature preview”).

If it takes longer than 750 ms to calculate the miniature preview for a page (e.g. in the case of complex or large pages), the preview calculation is disabled for subsequent pages to avoid restrictions when editing the page and thereby increase performance.

In this case, a camera icon appears in the miniature preview (see figure) together with the following tool tip:

“Calculation of the miniature preview has been disabled for this session due to performance reasons. Click here if you want to activate it anyway.”

Miniature preview calculation can still be enabled by clicking this icon.



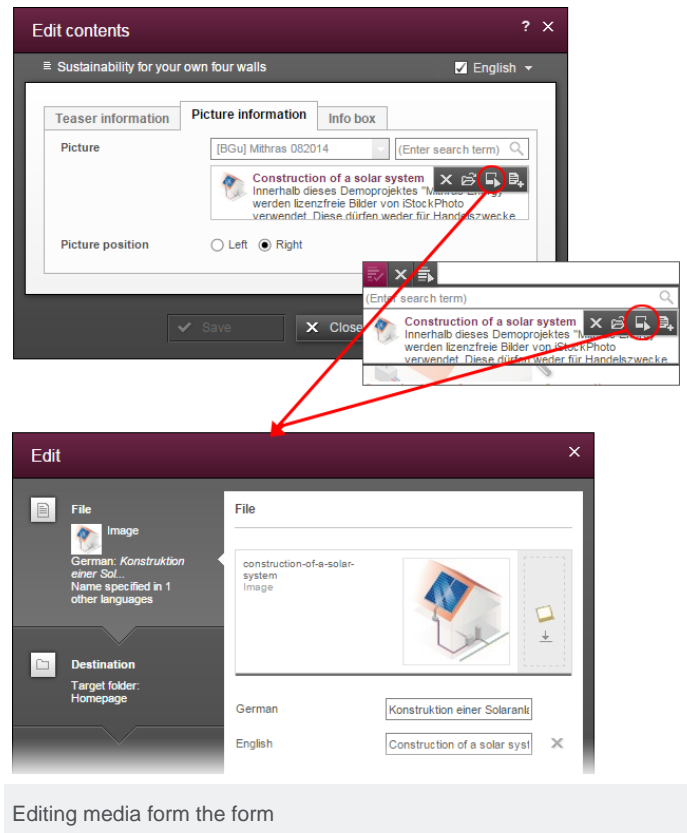
Calculating the miniature preview

ContentCreator: Editing media directly in the form

The “reference selection” input element (FS_REFERENCE) has been extended by adding an edit function so that media can be edited in a form/edit window more directly.

Clicking the relevant icon opens the window for editing media, which can be used to select another medium or assign a different name.

For more information, see also the *FirstSpirit Handbook for Editors (ContentCreator)*, “Editing a preview page / Input elements / Reference selection”.



Editing media form the form

SiteArchitect: Search enhancement

Searching in snippets and rules

In FirstSpirit Version 5.1R4 and higher, it is now possible to search the content of the “Rules” and “Snippet” tabs of templates with the global search function.

If you wish to use the function for searching “Rules” and “Snippets” within existing projects, the content must be included in the search index. The search index is updated automatically when changes are made to the relevant templates.

If the updated search index is required right away, it can also be rebuilt using the “Rebuild search index” schedule entry: FirstSpirit ServerManager / Project properties / Schedule management / Action: “Rebuild search index”).

Note: It takes a lot of memory and processing time to execute this schedule entry and so it should only be used during a maintenance period!

In addition, the “Search in templates” system filter is no longer case-sensitive. This means that the search ignores whether uppercase or lowercase letters have been used.

Searching with the “minus” sign

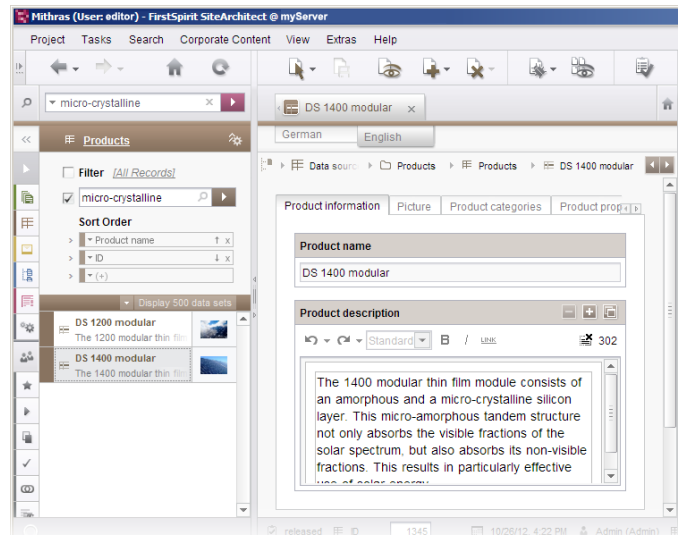
In FirstSpirit Version 5.1R4, there are more ways to search for terms that contain a minus sign (hyphen):

Previously, it was sometimes necessary to use quotation marks in the global search function in order to find terms containing a minus sign (e.g. “solar-generated”) or, alternatively, the words either side of the hyphen had to be entered separately (e.g. “solar generated”). In cases such as these, the compound term can now be entered in its entirety, including the hyphen: “solar-generated”.

This means that the following syntax can now be used to find the term solar-generated in the project (using a case-insensitive search):

- solar-generated
- “solar-generated”
- solar generated
- “solar generated”

These variants also work for datasets (e.g. when searching in data sources).

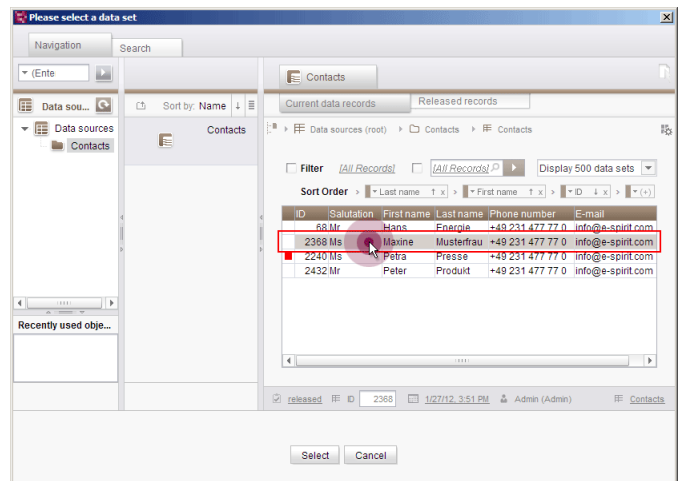


Searching in data sources

SiteArchitect: Altered selection behavior for FS_DATASET and FS_LIST

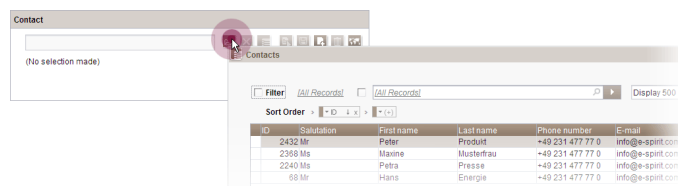
Datasets from the Data Store can be referenced using the FS_DATASET and FS_LIST (DATABASE type) input components. The required dataset(s) can be selected via a selection dialog, depending on the configuration.

In FirstSpirit Version 5.1R4, performance has been further improved specifically for data sources with many datasets by selecting the datasets in this selection dialog via the right-hand column (see figure). The middle column is for navigation and shows data sources and folders. This dialog no longer shows a detailed view of the datasets.



Selecting datasets from the right-hand column

For more information see *FirstSpirit online documentation*, “*Template development / Forms / Input components / DATASET (new)*”.



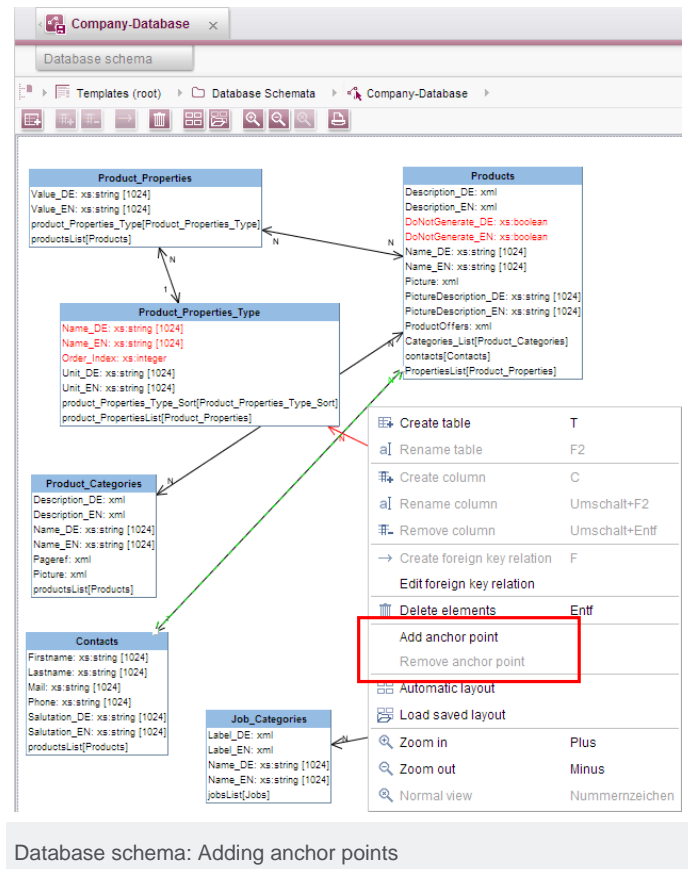
Selecting datasets using a list

Changing the Visualization of Foreign Key Relationships

In order to create and modify database schemata, SiteArchitect provides a graphical editor which allows creation of tables and rows as well as definition of foreign key relationships between tables.

To improve the graphical layout of schemata—especially those with many tables and/or foreign key relationships—anchor points may be added to the line representation of foreign key relationships by using the combination <ALT> + Left Click or by selecting the context menu entry “Add anchor point” (see figure). In prior FirstSpirit versions, this was possible by right clicking a foreign key relationship line. After adding an anchor point, it may be repositioned as desired by clicking and holding the left mouse button on the anchor point and moving it within the schema editor.

Anchor points which are no longer needed may be removed by using the combination <ALT> + Left Click or by selecting the context menu entry “Remove anchor point”.



Database schema: Adding anchor points

Displaying errors in referenced datasets in FS_LIST

Datasets from data sources can be referenced using the FS_LIST input component (DATABASE type). For performance reasons, in FirstSpirit Version 5.1R4, errors occurring in referenced datasets due to rule violations (“Dynamic forms”) are no longer taken into account in the input component if the form is not visible, e.g., if only *component=“overview”* is defined. As soon as the form is (also) visible (e.g. *component=“singleview”*), a validation takes place.

This only affects associated datasets.

For more information

- on working with FS_LIST (DATABASE type), see FirstSpirit online documentation, “Template development / Forms / Input components / FS_LIST / DATABASE”,
- on rules, see FirstSpirit online documentation, “Template development / Rules”.

Taking into account references in release state

Certain FirstSpirit input components can reference other objects (either within FirstSpirit or externally). It is possible to differentiate between references that exist in the “current” state and/or in the “release” state of the referencing object.

In certain cases, for example, when using the `getIncomingReferences()` method (FirstSpirit Access-API, e.g., `de.espirit.firstspirit.access.store` package, `StoreElement` interface), only references which exist in the current state were taken into account. This potentially affected

- input components that reference datasets (e.g., FS_DATASET, FS_LIST (DATABASE type)) and
- CMS_INPUT_LINK with external references.

In FirstSpirit Version 5.1R4, all references are once again taken into account, including those that exist in the release state of the referencing object.

In order to ensure that the associated fix takes effect, the references of the referencing objects concerned must be recalculated. This can be done by making a change to these objects.

The recalculation of all references in the project can only be carried out using the “Repair references” schedule entry in exceptional cases: FirstSpirit ServerManager / Project properties / Schedule management / Action “Repair references”.

Note: It takes a lot of memory and processing time to execute this schedule entry and so it should only be used during a maintenance period!

New functionalities

ID	Role	Category	Sub Category	Description
160186	All Users	ContentCreator (WebClient)	Input Components	An edit function has been added to the FS_REFERENCE input component. Further information can be found in the introduction (subpoint "ContentCreator: Editing media directly in the form").
163245	FirstSpirit Administrator	Administration	Security	Repositories can now be encrypted in FirstSpirit. Further information can be found in the introduction (subpoint "Repository encryption").
163747	Server Administrator	Administration	Security	Advanced configuration options are available for encryption. Further information can be found in the introduction (subpoint "Parameterizing encryption").

Bug-fixes

ID	Role	Category	Sub Category	Description
165334	All Users	Administration	None	Configured web servers would not always be taken into account when using the <i>ModuleAdminAgent</i> interface (Developer-API, <i>de.espirit.firstspirit.agency</i> package).
164126	All Users	ContentCreator (WebClient)	Bookmarks	When displaying bookmarks, the label stored in the project for the object was erroneously not taken into account.
159776	All Users	ContentCreator (WebClient)	Content Store	The evaluation of rights for datasets has been optimized.
154629	All Users	ContentCreator (WebClient)	Dom Editor	The highlighting of invalid links in the rich text editor (CMS_INPUT_DOM) in the event of a rule violation ("Dynamic forms") has been optimized.
156421	All Users	ContentCreator (WebClient)	Dom Editor	When using Microsoft Internet Explorer, merging highlighted cells in the rich text editor (CMS_INPUT_DOM) could lead to malfunctions.
161573	All Users	ContentCreator (WebClient)	Dom Editor	The creation of links in a rich text editor (CMS_INPUT_DOM) using drag-and-drop has been optimized.
160672	All Users	ContentCreator (WebClient)	Input Components	There could be erroneous log outputs when using the FS_LIST input component (DATABASE type) if the tag QUERY is not specified in the configuration.
162314	All Users	ContentCreator (WebClient)	Input Components	When displaying a form, a content change was displayed erroneously if a radio button (e.g., the CMS_INPUT_RADIOBUTTON input component) was included.
166428	All Users	ContentCreator (WebClient)	Input Components	Changing the sequence of individual entries in the preview in the FS_LIST input component (INLINE type) using drag-and-drop has been optimized (Move icon in the EasyEdit toolbar).
163204	All Users	ContentCreator (WebClient)	Media Store	Improved image cropping functionality.
164062	All Users	ContentCreator (WebClient)	Media Store	The image cropping function has been optimized for Microsoft Internet Explorer 10.
164384	All Users	ContentCreator (WebClient)	Media Store	Individual input components may be edited using InEdit functionality. For use cases in which an FS_REFERENCE component is edited using InEdit, and during which a media element is edited so that its image is replaced, reload behavior of the preview has been optimized.
165443	All Users	ContentCreator (WebClient)	Media Store	Updating the preview after using the image section function has been optimized.
160689	All Users	ContentCreator (WebClient)	Multi Perspective Preview	Optimized display of the miniature preview in the perspective selection area (functionality "Multi Perspective Preview"). For further information, see the section "ContentCreator: Activating the miniature preview" in the introduction.
131187	All Users	ContentCreator (WebClient)	None	The "Actions" menu has been optimized for displaying a large number of entries.
159483	All Users	ContentCreator (WebClient)	None	The dialog display following size changes has been improved.
166010	All Users	ContentCreator (WebClient)	None	Improved execution of long-running actions.
159112	All Users	ContentCreator (WebClient)	Page Store	When creating a new page, the selection of the desired layout in the "Layout" area ("Apply layout" subpoint) has been improved.
163134	All Users	ContentCreator (WebClient)	Page Store	Improved interaction when closing a browser tab with unsaved content changes.
165205	All Users	ContentCreator (WebClient)	Page Store	The EasyEdit functionality for sections has been improved.
165554	All Users	ContentCreator (WebClient)	Page Store	Displaying the preview image for a page template when creating a new page has been optimized.
167400	All Users	ContentCreator (WebClient)	Preview	Improved reload behavior of the preview after content changes.
166073	All Users	ContentCreator (WebClient)	Search	Optimized search functionality. The number of displayed search results is limited by the system.
164211	All Users	ContentCreator (WebClient)	Site Store	The backspace key was not always taken into account when carrying out navigation editing in Microsoft Internet Explorer.
161891	All Users	ContentCreator (WebClient)	Workflow	The automatic allocation of the next editor when starting a workflow has been improved.
130926	All Users	SiteArchitect (JavaClient)	All Stores	Support for using the right mouse button in Mac OS X has been improved.
163632	All Users	SiteArchitect (JavaClient)	All Stores	When displaying the personalized Homepage (Home), the evaluation of permissions has been optimized.

ID	Role	Category	Sub Category	Description
164551	All Users	SiteArchitect (JavaClient)	All Stores	When displaying the personalized Homepage (Home), the evaluation of permissions has been optimized.
161867	All Users	SiteArchitect (JavaClient)	Content Store	Selecting a dataset in the FS_DATASET input component could lead to malfunctions if the dataset referred to itself.
162728	All Users	SiteArchitect (JavaClient)	Content Store	Displaying columns of numbers in the data source overview has been optimized.
165897	All Users	SiteArchitect (JavaClient)	Content Store	The adoption of default values for datasets with a foreign key relationship has been optimized.
152109	All Users	SiteArchitect (JavaClient)	Corporate Content	Utilizing the "Corporate Content" functionality could result in problems in multi-master project scenarios when subscribing to page references with queries.
162436	All Users	SiteArchitect (JavaClient)	Corporate Content	In rare cases, adding objects to a package when using the "CorporateContent" function could lead to malfunctions.
165906	All Users	SiteArchitect (JavaClient)	Corporate Content	Improved formation of section names when namespace extension is activated (functionality "CorporateContent").
162072	All Users	SiteArchitect (JavaClient)	Dom Editor	When copying formatted content from one CMS_INPUT_DOM input component to another, the formatting restrictions were erroneously not completely taken into account.
165621	All Users	SiteArchitect (JavaClient)	Dom Editor	Using special versions of Java could lead to malfunctions in the CMS_INPUT_DOM input component when inserting content from Microsoft Word.
160345	All Users	SiteArchitect (JavaClient)	Dynamic Forms	In the event of a recursive release including dependent objects, the rule violations ("Dynamic forms") of the dependent objects were erroneously not taken into account.
167406	All Users	SiteArchitect (JavaClient)	Dynamic Forms	In rare cases, not all rules (functionality "Dynamic Forms") were observed when saving a page with several sections.
164619	All Users	SiteArchitect (JavaClient)	External synchronization	In rare cases, a concurrent automatic and manual synchronization could lead to malfunctions during the external synchronization.
163612	All Users	SiteArchitect (JavaClient)	Help	Calling up Help in the snippet view of a data source has been optimized.
129831	All Users	SiteArchitect (JavaClient)	Input Components	In rare cases, closing the selection dialog associated with an input component of type FS_REFERENCE could lead to erroneous behavior.
151661	All Users	SiteArchitect (JavaClient)	Input Components	The possibility of selecting invalid entries in the FS_REFERENCE input component has been prevented.
160697	All Users	SiteArchitect (JavaClient)	Input Components	Displaying content in the FS_REFERENCE input component after changing the preferred display language has been optimized.
160998	All Users	SiteArchitect (JavaClient)	Input Components	The selection dialog in the FS_REFERENCE input component has been improved with regard to remote media.
163360	All Users	SiteArchitect (JavaClient)	Input Components	The selection of the section or link templates via a pop-up menu can be configured in the FS_LIST input component (INLINE type) using the parameter <i>select-ui</i> within the tags "ACTIONS / ACTION / PARAM". The position when opening this pop-up menu has been optimized.
163386	All Users	SiteArchitect (JavaClient)	Input Components	Deleting entries in the CMS_INPUT_LIST input component when using the Mac OS X operating system has been optimized.
163664	All Users	SiteArchitect (JavaClient)	Input Components	Changed selection behavior of the input component FS_DATASET and FS_LIST(DATABASE type). For further information, see the section "SiteArchitect: Altered selection behavior for FS_DATASET and FS_LIST" in the introduction.
165192	All Users	SiteArchitect (JavaClient)	Input Components	Observation of references in release states has been optimized. For further information, see the section "Taking into account references in release state" in the introduction.
165478	All Users	SiteArchitect (JavaClient)	Input Components	The display behavior for rule violations ("Dynamic forms") in datasets of the FS_LIST input component (DATABASE type) has been optimized.
165690	All Users	SiteArchitect (JavaClient)	Input Components	Displaying preview images of the FS_REFERENCE input component in subforms of the FS_LIST input component (INLINE type) has been optimized.
154084	All Users	SiteArchitect (JavaClient)	Media Store	Optimized upload of multiple media files via drag-and-drop.
154626	All Users	SiteArchitect (JavaClient)	Media Store	Creating images on the workspace tab of the Media Store using drag-and-drop could lead to malfunctions.
157745	All Users	SiteArchitect (JavaClient)	Media Store	Editing images using the Advanced Image Editor has been improved.
163732	All Users	SiteArchitect (JavaClient)	Media Store	Calling up the Advanced Image Editor when using the Mac OS X operating system could lead to malfunctions.
163779	All Users	SiteArchitect (JavaClient)	Media Store	File selection when uploading media has been optimized.
166674	All Users	SiteArchitect (JavaClient)	Media Store	Improved display of the various resolutions of cropped images in Media store.
154509	All Users	SiteArchitect (JavaClient)	None	Displaying the task dialog ("Menu / Task list") when using the Mac OS X operating system has been improved.
161511	All Users	SiteArchitect (JavaClient)	None	In rare cases, after switching between tabs in the workspace pane, pressing the button "Switch to Edit mode" did not apply to the element of the currently selected tab, but to an element of another tab.
141068	All Users	SiteArchitect (JavaClient)	Page Store	Changing the order of sections on a page was erroneously not taken into account.
150505	All Users	SiteArchitect (JavaClient)	Page Store	The evaluation of permissions when restoring older object versions (such as pages or folders) has been optimized.
164104	All Users	SiteArchitect (JavaClient)	Page Store	The check box "Include this section in the output" in the section references can be used to regulate which sections should be included in the generation process. This setting was not evaluated correctly.
164167	All Users	SiteArchitect (JavaClient)	Page Store	Saving pages with lots of project languages and/or sections has been optimized.
164477	All Users	SiteArchitect (JavaClient)	Page Store	In rare cases, changing the reference name of a page could lead to malfunctions.
165046	All Users	SiteArchitect (JavaClient)	Page Store	The reference graph could erroneously provide data with discrepancies between current state and release state. For further information, see the section "Taking into account references in release state" in the introduction.
165923	All Users	SiteArchitect (JavaClient)	Page Store	Saving content changes could lead to malfunctions if metadata was set on a page and on one of its sections and the metadata was hidden for the user ("Show metadata" permission).
163252	All Users	SiteArchitect (JavaClient)	Preview	Displaying the external preview could lead to malfunctions if the metadata of a page was viewed previously.

ID	Role	Category	Sub Category	Description
163282	All Users	SiteArchitect (JavaClient)	Preview	Using the "editorId()" function in the integrated preview could lead to malfunctions when carrying out attribute-dependent actions (e.g., content highlighting) or when validating the source text.
163448	All Users	SiteArchitect (JavaClient)	Preview	The context menu display in Microsoft Internet Explorer in the integrated preview has been improved.
163552	All Users	SiteArchitect (JavaClient)	Preview	Improved performance of integrated preview using Microsoft Internet Explorer.
165400	All Users	SiteArchitect (JavaClient)	Scripting	Using Microsoft Internet Explorer as a browser engine could lead to malfunctions in the AppCenter area in the event of JavaScript errors.
155711	All Users	SiteArchitect (JavaClient)	Search	It is now possible to search the "Rules" and "Snippets" tabs of templates with the global search function. Further information can be found in the introduction (subpoint "SiteArchitect: Search enhancement").
163969	All Users	SiteArchitect (JavaClient)	Search	Performance of search functionality has been improved. Further information can be found in the introduction (subpoint "Optimization of Search Performance").
166507	All Users	SiteArchitect (JavaClient)	Security	Improved AppCenter integration in association with using Chrome as the browser engine for integrated preview.
158578	All Users	SiteArchitect (JavaClient)	Site Store	Settings for output behavior can be made for page references based on a content page with an integrated data source (content projection). The scroll behavior for selecting the sort order has been optimized.
165234	All Users	SiteArchitect (JavaClient)	Site Store	Settings for output behavior can be made for page references based on a content page with an integrated data source ("content projection"). Taking into account sort orders has been optimized.
154069	All Users	SiteArchitect (JavaClient)	Tasks	Dealing with usage errors in schedule scripts has been optimized.
164939	All Users	SiteArchitect (JavaClient)	Templates	The global search in templates no longer differentiates between upper and lower case letters.
157852	All Users	SiteArchitect (JavaClient)	Version History	Version comments are now also taken into account for datasets in the version history.
160868	All Users	SiteArchitect (JavaClient)	Workflow	A workflow can be configured so that an e-mail can be sent to a defined group of people if a task has not been completed by a certain time. If the list of recipients has not been maintained, sending the e-mail could lead to malfunctions.
165145	All Users	SiteArchitect (JavaClient) and ContentCreator (WebClient)	Dynamic Forms	Rule evaluation ("Dynamic forms") when using the "Section-only" mode in the FS_REFERENCE input component has been optimized.
162784	All Users	SiteArchitect (JavaClient) and ContentCreator (WebClient)	Input Components	Evaluation of the filter options in the selection dialog in the FS_REFERENCE input component has been optimized.
156502	All Users	SiteArchitect (JavaClient) and ContentCreator (WebClient)	Preview	Updating the preview when changing structures (navigation) has been optimized.
159920	All Users	SiteArchitect (JavaClient) and ContentCreator (WebClient)	Search	Searching for terms with the "minus" sign has been optimized. Further information can be found in the introduction (subpoint "Searching with the "minus" sign").
162233	All Users	SiteArchitect (JavaClient) and ContentCreator (WebClient)	Search	Using a global search for content from the Data Store has been improved.
162702	All Users	SiteArchitect (JavaClient) and ContentCreator (WebClient)	Search	Optimized search in data sources.
156137	All Users	WWW Homepage	Security	Security improvements for the FirstSpirit start page.
163974	All Users	WWW Homepage	Security	Security improvements for the FirstSpirit start page.
161087	Developer	ContentCreator (WebClient)	Media Store	When uploading media via an upload hook (Developer API, <i>de.espirit.firstspirit.service.mediamanagement</i> package, <i>UploadHook</i> interface), the methods implemented were erroneously not carried out with the current user.
164063	Developer	ServerManager (Server and Project Configuration)	Generation	A generation schedule can be created in FirstSpirit which only includes the released changes to the last deployed project status (delta generation). The new menu level to be generated can be determined in a delta generation script using the <i>levelRule(int,int)</i> method (Developer-API, <i>de.espirit.firstspirit.access.schedule.DeltaGeneration</i> package). In some cases, this could lead to malfunctions.
167568	Developer	SiteArchitect (JavaClient)	Database Configuration	Optimized manual positioning of foreign key relationships in the schema editor. For further information, see the section "SiteArchitect: Changing the Visualization of Foreign Key Relationships" in the introduction.
162211	Developer	SiteArchitect (JavaClient)	Dynamic Forms	In rules ("Dynamic forms"), the <SCHEDULE/> section of a rule definition is used for value determination via an external service. It was erroneously not possible to save an empty <SCHEDULE/> section.
155601	Developer	SiteArchitect (JavaClient)	Templates	In page templates, the order of editorial language definition from the project setting was not taken into account in the dialog for creating content areas.
160506	Developer	SiteArchitect (JavaClient)	Templates	The configuration of the properties when editing format templates has been improved.
155044	Developer	SiteArchitect (JavaClient)	Template Store	Display names and descriptions can be changed in the content areas for all project languages in the page templates. Project languages are now only included in the dialog if they are also editorial languages.
163836	Developer	Template	Template Development	If a class was specified in the FS_BUTTON input component that cannot be found, malfunctions could occur when defining a default value.
164439	FirstSpirit Administrator	Administration	Backup	Using the "Enterprise Backup" functionality, outdated and deleted project content can be archived. Once this content is archived, the project export no longer contains all project content. An export of this type can be used for importing (as a new project). Importing backups that have already been created into a project like this (i.e., an imported one) could lead to problems.
164232	FirstSpirit Administrator	Administration	Export / Import	The project import function has been improved.
164602	FirstSpirit Administrator	Administration	Logfiles	Changed FirstSpirit server-specific logging of Java VM garbage collection. For further information, see the section "Log rotation of the Java VM garbage collector (fs-gc.log)" in the introduction.
166499	FirstSpirit Administrator	Administration	None	Managed beans (MBeans) are provided for JMX monitoring of the FirstSpirit server. The calculation for the amount of media (media store) in the corresponding MBean has been improved.

ID	Role	Category	Sub Category	Description
150658	FirstSpirit Administrator	ServerManager (Server and Project Configuration)	Archiving	When archiving, unexpected repository content no longer triggers a cancelation, but is instead displayed as an error in the log files.
160156	FirstSpirit Administrator	ServerManager (Server and Project Configuration)	Archiving	With extremely large projects, archiving projects with lots of datasets in the PostgreSQL database could lead to malfunctions.
165080	FirstSpirit Administrator	ServerManager (Server and Project Configuration)	Backup	In rare cases, when restoring an Enterprise Backup, datasets were duplicated.
165486	FirstSpirit Administrator	ServerManager (Server and Project Configuration)	Backup	When restoring an enterprise backup, the revision number in the version history of a dataset was not always taken into account correctly. Existing backups can continue to be used without problems.
152723	FirstSpirit Administrator	ServerManager (Server and Project Configuration)	Export / Import	When exporting a project, there is an option to only include the exported revisions from a particular time onwards. In rare cases, the release state of a dataset was not taken into account after the project import.
163194	FirstSpirit Administrator	ServerManager (Server and Project Configuration)	Export / Import	When exporting a project, there is an option to only include the exported revisions from a particular time onwards. Importing an export of this nature into a new project could result in datasets being duplicated erroneously.
165105	FirstSpirit Administrator	SiteArchitect (JavaClient)	Corporate Content	When using the "CorporateContent" function, it was possible that temporary data (in the working directory) would not be completely deleted after publishing a package in the target project.
158883	FirstSpirit Administrator	SiteArchitect (JavaClient)	External synchronization	Die Startknoten-Informationen werden nun auch bei externer Synchronisierung berücksichtigt.
165000	FirstSpirit Administrator	SiteArchitect (JavaClient)	Modules	The evaluation of the <i>enableImport</i> parameter in the CMS_INPUT_DOM input component when using the "FirstSpirit OfficeConnect" module has been improved.
164804	Server Administrator	Administration	None	Using remote media in a server environment with several web applications could lead to malfunctions.
160770	Server Administrator	ServerManager (Server and Project Configuration)	Export / Import	Including the users in the project export has been optimized. Further information can be found in the introduction (subpoint "Users included in project exports").