



FirstSpirit™

Unlock Your Content

FirstSpirit™ Release Notes

FirstSpirit™ Version 5.2 Release 2

Version	5.2.211-1
Status	RELEASED
Date	2015-11-09
Department	FS-Core
Copyright	2015 e-Spirit AG
File name	Releasenotes_5.2.211_EN

e-Spirit AG

Stockholmer Allee 24
44269 Dortmund | Germany

T +49 231 . 477 77-0
F +49 231 . 477 77-499

info@e-Spirit.com
www.e-Spirit.com

e-Spirit

Table of contents

1	Welcome to the Release Notes for FirstSpirit Version 5.2 Release 2!.....	6
2	Administration / Modules: Log in via Kerberos ticket "KerberosLoginModule").....	7
3	Administration: Expired license warning.....	7
4	Administration: Log in via the HTTP request header ("RequestHeaderLoginModule").....	8
5	Administration: Permissions for FirstSpirit modules (Template Wizard, Template Debugger, Template Inspection).....	8
6	Administration: Proxy authentication via Kerberos/SPNEGO or NTLM.....	10
7	Administration: Reduce project exports by excluding pre-calculated image resolutions.....	10
8	Administration: Security improvements in FirstSpirit ServerMonitoring and web applications.....	12
9	ContentCreator: Create new list items using the FS_BUTTON.....	12
10	ContentCreator: Move sections into other content areas.....	14
11	ContentCreator: Visualization of frequently used objects.....	15
12	External synchronization: Optimized performance.....	16
13	Module Development, Scripts, API: Changed Behavior for Data Stream Builder Implementations With Aspect "Filterable".....	17



14	Module Development, Scripts, API: Method save() observes the option "Server locks in content store".....	17
15	Module development, scripts, API: Discontinuation ("Deprecation") of methods for the "Content2" interface.....	18
16	Module development, scripts, API: General information.....	19
17	Module development, scripts, API: Handling dependent modules.....	19
18	Module development, scripts, API: Methods for determining the absolute path to the schedule entry directory.....	20
19	SiteArchitect / ContentCreator: Access to FS_INDEX value set.....	20
20	SiteArchitect: Configuring e-mail messaging in workflows.....	21
21	SiteArchitect: Optimizing code completion in templates.....	23
22	SiteArchitect: Revised version comparison.....	23
23	Template Wizard: Activate/deactivate crawling.....	25
24	Template Wizard: Configure overview.....	25
25	Template Wizard: Detecting and merging changes.....	26
26	Template Wizard: Protection against simultaneous project editing.....	27
27	Overview.....	27
28	Categories.....	37
28.1	Backup.....	37
28.2	Content Store.....	37
28.3	ContentCreator.....	38



28.4	Developer.....	39
28.5	Dynamic Forms.....	42
28.6	Editor.....	43
28.7	External synchronization.....	44
28.8	FirstSpirit API.....	44
28.9	FirstSpirit Administrator.....	45
28.10	Generation.....	47
28.11	Indexing.....	47
28.12	Input Components.....	48
28.13	Launcher.....	49
28.14	License.....	49
28.15	Media Store.....	49
28.16	Module development.....	50
28.17	Modules.....	51
28.18	Multi Perspective Preview.....	51
28.19	Permissions.....	51
28.20	Preview.....	52
28.21	Project export / import.....	52
28.22	Search.....	52
28.23	Security.....	53
28.24	Server Administrator.....	53



28.25	ServerManager.....	53
28.26	ServerMonitoring.....	54
28.27	Services.....	55
28.28	Site Store.....	55
28.29	SiteArchitect.....	55
28.30	Table templates.....	59
28.31	Tasks.....	59
28.32	Template Debugger.....	59
28.33	Template Development.....	60
28.34	Template Wizard.....	62
28.35	Workflow.....	62



1 Welcome to the Release Notes for FirstSpirit Version 5.2 Release 2!

These release notes contain an overview of all new functionality, improvements, and bugfixes in FirstSpirit Version 5.2 Release 2.

Release notes for FirstSpirit release versions (“R”) are generated using FirstSpirit. As of this new version, we are increasingly using datasets in order to profit from the more comfortable reuse and sortability of content. Furthermore, the use of datasets enables integration with the internal bug tracking database: this is another building block in the software-supported interlocking of work items and deliverables of the FirstSpirit Core Development, Quality Assurance, and Documentation groups.

The use of an additional FirstSpirit project in the development group that maintains and enhances FirstSpirit provides yet another valuable opportunity to test FirstSpirit in everyday use.

This document's header line indicates the FirstSpirit build to which these release notes apply: the bold number (in this edition of the document, “210”) indicates the build version which has officially been released for the FirstSpirit release version (“5.2 Release 2”). For better traceability, the header also lists all previously released build versions of the corresponding minor version line (in this edition of the document, “102”). The first digit of a three-digit build version number generally indicates the release version: build version numbers of the format “1xx” indicate Release 1, while build version numbers of the format “2xx” indicate Release 2.

The first chapters of these release notes contain descriptions of new features which are roughly grouped by target audience and include references to FirstSpirit documentation.

The chapter “Overview” provides a list of the new functionality which has been implemented in the current version as well as a table of bugfixes relevant to this version, categorized and sorted by their ID in the internal bug tracking system. The bugfix categories contain links to the third section of this document (“Categories”) which lists all bugfixes by category, again in tabular form. Here, you can quickly find changes made to the functionality groups that you find relevant. For easier navigation in the document, you can click on a bugfix ID in the “Categories” chapter to return to the overview.

Several IDs in the internal bug tracking system may be merged into one release notes comment (in this edition of the document, e.g. “175454” and “176337”) if several changes to one aspect of the software cause similar effects, or if several bugfixes share a common cause but each bugfix affects the software's behavior in a different way. If several bug reports share a common cause, bugfix measures are often only applied using one ID in the internal bug tracking system but cover related bug report IDs as well. Related IDs are shown below the main ID.



2 Administration / Modules: Log in via Kerberos ticket "KerberosLoginModule")

To log into FirstSpirit via the Kerberos login module (module name: `de.espirit.firstspirit.server.authentication.KerberosLoginModule`), a Kerberos ticket is accepted, which is passed from the web browser to the FirstSpirit Server.

The `sendAccepted` parameter can be used to influence the HTTP status code in the case of a handshake. If the handshake is successful, "OK" (200) is sent with FirstSpirit version 5.2R2. "ACCEPTED" (202) was sent prior to FirstSpirit version 5.2R2. Depending on the infrastructure in use, this status (202) may not be accepted as "valid", something which may cause indexing problems, for example. This default behavior has therefore been changed as of 5.2R2. It is possible to restore the old behavior by setting the parameter `sendAccepted` to the value `true` (file `fs-jaas.conf`, default value: `false`).

For more information, see

- *FirstSpirit Manual for Administrators*, chapter "Kerberos ticket (integrated Windows login)"
- Module documentation for *FirstSpirit Dynamic Personalization*, chapter "'Kerberos Login' login module"

3 Administration: Expired license warning

A license is required to operate a FirstSpirit Server. This can be found in the form of a file with the name `fs-license.conf` and it contains information including the temporal validity of the license (`license.EXPDATE` parameter). A warning e-mail may be sent before or after the expiration date.

Previously, an e-mail was always sent to a configured e-mail address as well as to e-Spirit. With FirstSpirit version 5.2R2, only one e-mail is now sent if an e-mail address is configured via the `LICENSE_EXPIRATION_MAIL_ADDRESS` parameter in the `fs-server.conf` file. E-mails are no longer sent to e-Spirit automatically.

For more information, see *FirstSpirit Manual for Administrators*, chapter "Area: Misc".



4 Administration: Log in via the HTTP request header ("RequestHeaderLoginModule")

FirstSpirit uses the Java standard JAAS ("Java Authentication and Authorization Service") to authenticate its users. Various JAAS modules are already integrated in FirstSpirit and provide various methods of user authentication. In FirstSpirit version 5.2R2, the "RequestHeaderLoginModule" has been added to the FirstSpirit standard (module name: `de.espirit.firstspirit.server.authentication.RequestHeaderLoginModule`). This module is used in conjunction with a web access management system, i.e., a reverse proxy with a simultaneous authentication function. The reverse proxy automatically authenticates the user who calls up the FirstSpirit start page using a web browser. In each HTTP request following successful authentication, the reverse proxy transfers the user name of the authenticated user between the reverse proxy and the FirstSpirit WebApp server. It does so by means of an entry in the HTTP request header. To ensure the authenticity of the transferred user name in the HTTP request header, the "RequestHeaderLoginModule" checks either the sending proxy's IP address or its HTTP client certificate. FirstSpirit then accepts the transferred user name as a FirstSpirit user name. This means there is no need for the user to perform additional authentication on FirstSpirit.

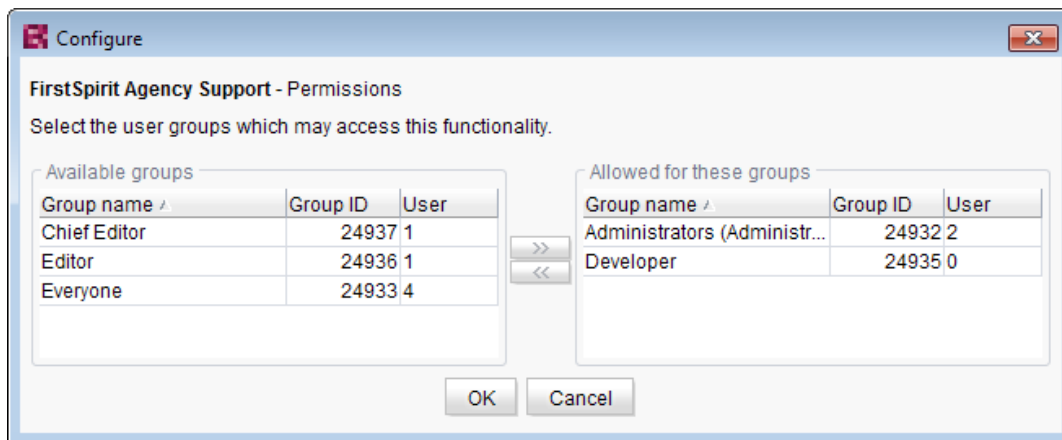
For more information, see *FirstSpirit Manual for Administrators*, chapter "Logging in via the HTTP request header".

5 Administration: Permissions for FirstSpirit modules (Template Wizard, Template Debugger, Template Inspection)

The "FirstSpirit Template Wizard", "FirstSpirit Template Debugger", and "FirstSpirit Template Inspection" functions are designed to make life easier for template developers and can be implemented via FirstSpirit modules. FirstSpirit version 5.2R2 can be configured so that only certain user groups are able to access and execute this function in SiteArchitect.

The corresponding configuration settings are made with the project components included in the scope of delivery. These must be added to the required project in the FirstSpirit Server Manager (under "Project components", "FS-AgencySupport-ProjectPermissions" for the Template Wizard, "FS-TemplateDebugger-ProjectPermissions" for the Template Debugger and Template Inspection). For the Template Debugger and Template Inspection, it is only possible to specify the same permissions; the functions are interdependent. Clicking on Configure or double-clicking on the relevant project component opens a dialog in which the required group(s) can be selected:





The groups that have access to the project are displayed on the left-hand side (“Available groups”). The groups that are permitted to use the corresponding function are displayed on the right-hand side (“Allowed for these groups”) along with their ID and the number of users they contain. To check which users belong to a group, select “Show users” from the context menu.

The corresponding icons are displayed on the horizontal tool bar in SiteArchitect or on the “Template Inspection” context menu entry in the integrated preview for members of the “allowed group(s)”. The corresponding icon is hidden for users who are not in one of the selected group. To move a group to the right-hand side or left-hand side, select it and

- click the icons



- double-click or
- select the corresponding command from the context menu (“Allow group(s)” or “Remove group(s) from allowed”).

The project components are **not** assigned by default, which means even the corresponding icons and context menu entry are not displayed in SiteArchitect. To enable the functions for a particular project, the corresponding project components must be added to the project by the ServerManager and the required group(s) must be selected using “Allowed for these groups”.

For more information, see



- *FirstSpirit Manual for Administrators*, chapter “Groups”,
- *FirstSpirit Manual for Administrators*, chapter “Project components”,
- *FirstSpirit Online Documentation*, chapter “Template development / Debugging / Where is the error? / FirstSpirit Debugger”,
- *FirstSpirit Online Documentation*, chapter “Template development / Debugging / Where is the error? / Template Inspector”,
- *FirstSpirit Online Documentation*, chapter “Template development / Template Wizard”

6 Administration: Proxy authentication via Kerberos/SPNEGO or NTLM

In FirstSpirit version 5.2R2 and higher, authentication based on Kerberos/SPNEGO or NTLM is supported through HTTP. This means that whenever SiteArchitect or ServerManager is connected to the FirstSpirit Server, transparent authentication based on Kerberos/SPNEGO or NTLM is attempted automatically (proxy or host). This method of authentication is only supported on Windows operating systems and on operating systems which support the Java GSS API.

To perform automatic authentication on Windows when using a proxy, the desired Kerberos SPN (“Service Principal Name”) must be provided as follows:

```
-Dfs.http.kerberos.spn=HTTP/proxy.example.com
```

However, automatic Kerberos authentication against both proxy and host at the same time is not possible on Windows.

For more information, see *FirstSpirit Manual for Administrators*, chapter “Configuring connection settings”.

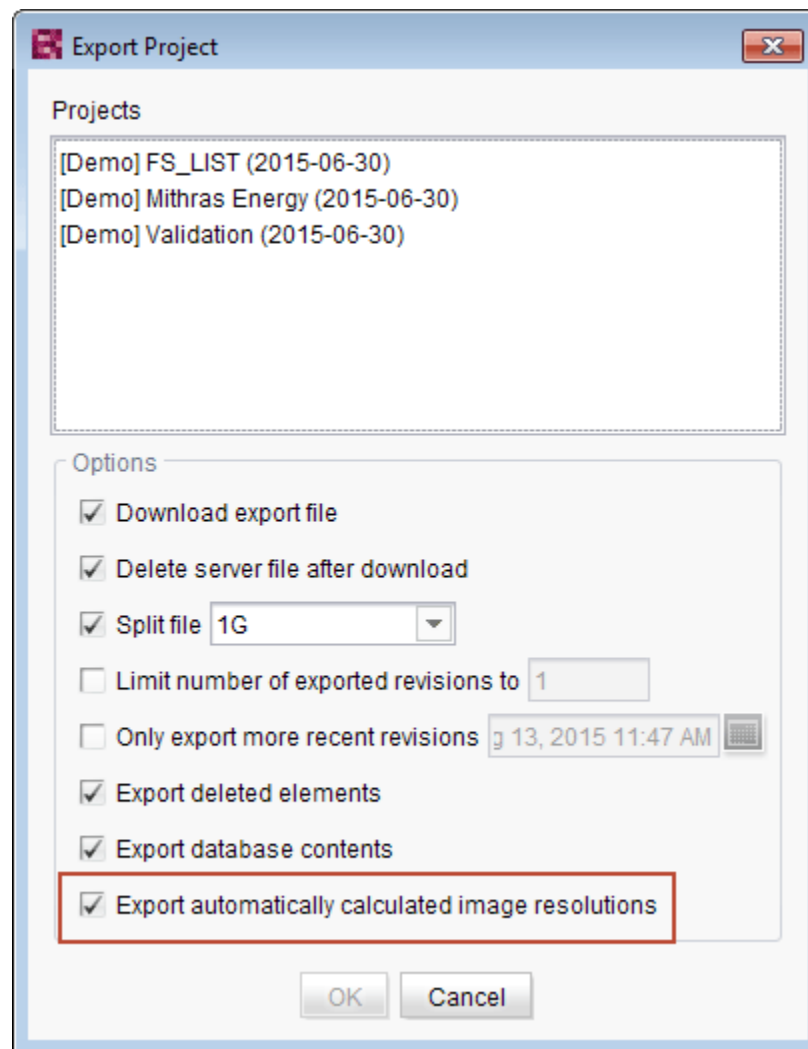
7 Administration: Reduce project exports by excluding pre-calculated image resolutions

The export function (“FirstSpirit ServerManager / Project / Export”) or the “Execute project backup” schedule entry (“FirstSpirit ServerManager / Project / Schedule management”) can be used to create a



compressed file of FirstSpirit projects so that these can then be transferred to another FirstSpirit Server, for example.

Resolutions that have been defined for a project can be automatically calculated by the system and saved on the server side. This method speeds up generation times. (Generating large numbers of media in many different resolutions is very time-intensive. With FirstSpirit version 5.2R2, these automatically calculated image resolutions can now be excluded from the export. To enable this, the “Export automatically calculated image resolutions” checkbox must be unchecked.



In this case, the content of the server-side image cache (**MEDIA_STORE_CACHED_PICTURES**) is not exported.



This checkbox is not selected by default.

For more information, see *FirstSpirit Manual for Administrators*, chapter

- “Export”
- “Resolutions”
- “Execute project backup”

The process of exporting automatically calculated image resolutions can also be controlled via the FirstSpirit Access API using the `setExportCachedPictures(final boolean exportCachedPictures)` method in the `ExportParameters` interface.

8 Administration: Security improvements in FirstSpirit ServerMonitoring and web applications

Implemented measures to improve security in FirstSpirit ServerMonitoring as well as in FirstSpirit web applications.

9 ContentCreator: Create new list items using the FS_BUTTON

In the input components for creating lists:

- FS_CATALOG
- FS_INDEX
- FS_LIST (DATABASE and INLINE types)

the ContentCreator in FirstSpirit version 5.2R2 can now be used to create entries in the preview at the same time as creating new sections using a direct button, icon or link, without first having to open the form, for example:





The use of this functionality requires the use of the newly implemented FS_BUTTON handler class `de.espirit.firstspirit.webedit.server.executables.NewListEntryExecutable` (abbreviation: `NewListEntry`).

Example:

```
<FS_BUTTON
  name="button"
  hidden="yes"
  icon="fs:new"
  onClick="class:NewListEntry"
  onDrop="class:NewListEntry"
  style="firstspirit"
  useLanguages="no">
  <LANGINFOS>
    <LANGINFO lang="" label="New entry"/>
    <LANGINFO lang="DE" label="Neuer Eintrag"/>
  </LANGINFOS>
</FS_BUTTON>
```



The relevant HTML code is rendered in the HTML presentation channel inside a “\$CMS_VALUE(...)\$” instruction via the `fsbutton(...)` function. To do this, the input component (in this case: “st_createListEntry”) must be specified via the mandatory parameter `editorName`. The input component (in this case: “st_linklist”) in which the new entry is to be created must be specified via the mandatory parameter `editorId`. A further mandatory detail includes “json: true”, e.g.,

```
<div$CMS_VALUE(fsbutton(  
    editorName: "st_createListEntry",  
    parameter: {  
        "editorId": editorId(editorName:"st_linklist", json: true)  
    }  
))$></div>
```

For more information, see *FirstSpirit Online Documentation*, chapter “Template development / Content-Creator / Functional scope”, section “FS_BUTTON handler classes”.

10 ContentCreator: Move sections into other content areas

If sections in ContentCreator could previously only be moved within the same content area, then it is now possible to also move them beyond content area boundaries.



Prerequisite: The section template for the section being moved must be approved for the content area it is being moved to.

For more information

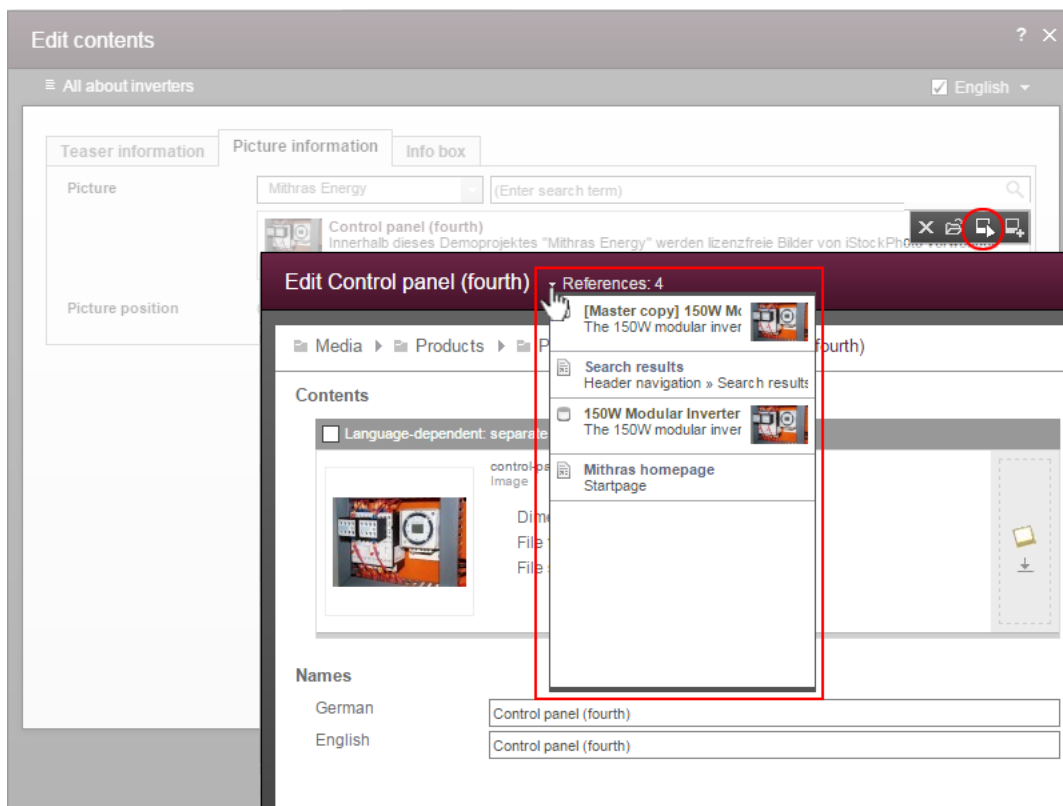
- on working with sections in ContentCreator, see the *FirstSpirit Manual for Editors (ContentCreator)*, “Editing a preview page / Sections”
- on defining allowed section templates for a content area, see the *FirstSpirit Online Documentation*, “Templates (Basics) / Composition of templates / Page templates / Properties tab”



11 ContentCreator: Visualization of frequently used objects

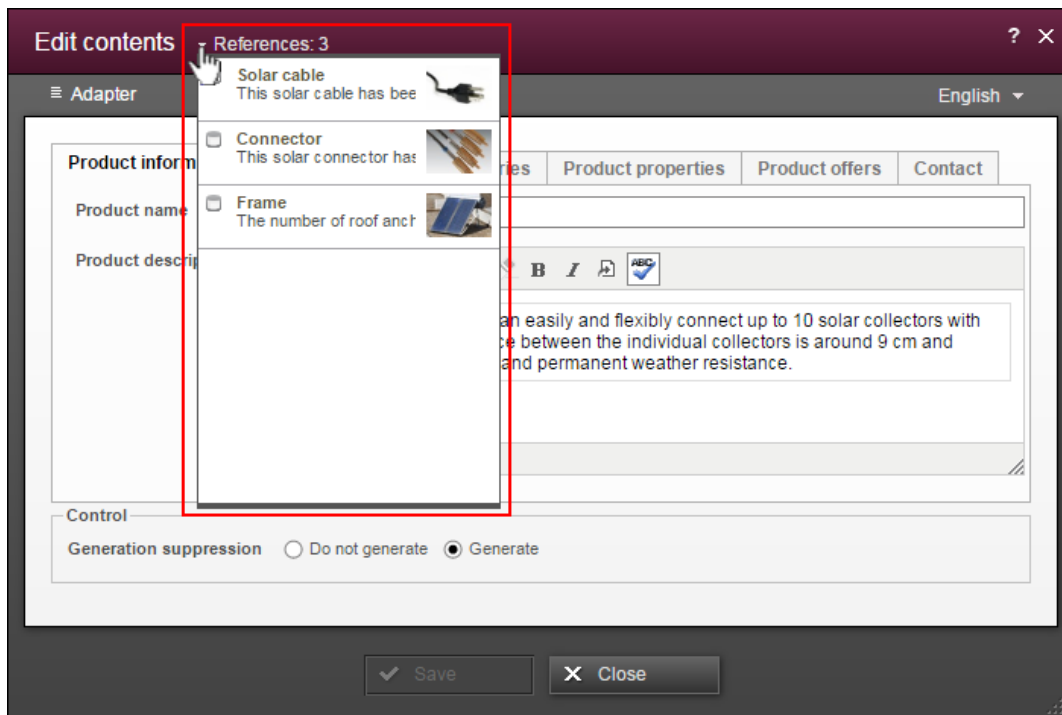
The ability to reuse content in content management systems ensures significant time and cost savings, reduces errors, and thereby increases the overall quality of the website. With this in mind, it is also possible to use a variety of objects such as images, sections, pages, and datasets several times in FirstSpirit; in other words, this content may appear in several places on the site. This means that changes to an object that are made on a preview page may affect other pages too.

With FirstSpirit version 5.2R2, the editor can now see – at various points of the editing process – that the object currently being edited is used on other pages (the same as the “Show usages” context menu function in SiteArchitect) so that changes may also be made there. An example of this can be found when editing media in a reference selection input element (“FS_REFERENCE”):



It can also be seen in a dialog for editing a dataset:





The number next to “References:” indicates the number of places (e.g., pages and/or datasets) where the object appears. In the case of referenced pages, it also includes the page which the editor is currently viewing.

Clicking on “References:” opens a window listing the pages by name together with an object type icon.

For more information, see *FirstSpirit Manual for Editors (ContentCreator)*.

12 External synchronization: Optimized performance

“External synchronization” is used to export substructures from FirstSpirit (e.g., templates, store subtrees, project properties) in a file system structure with a folder hierarchy. FirstSpirit version 5.2R2 optimized performance when adding elements via the user interface.

For more information on the “external synchronization” function, see *FirstSpirit Online Documentation*, “Advanced topics / External synchronization”.



13 Module Development, Scripts, API: Changed Behavior for Data Stream Builder Implementations With Aspect “Filterable”

The `DataStreamBuilder` interface in the package `de.espirit.firstspirit.client.plugin.dataaccess` (FirstSpirit Developer API) allows configuration of a set of data which may be used in FS_INDEX or made available via reports. Using the aspect `Filterable`, developers may define a list of parameters which will be shown in the user interfaces of FS_INDEX element selection dialogs and reports so that users may specify filters in order to limit the data returned by the data stream. If the “Filterable” aspect of a Data Access Plug-In defines more than one parameter with the same name, only the first provided parameter with that name will be used.

For more information about the `DataStreamBuilder` interface, see *FirstSpirit Online Documentation*, Chapter “Plug-In Development / Universal Extensions / Data Access / Data Stream / Builder”.

14 Module Development, Scripts, API: Method `save()` observes the option “Server locks in content store”

The project properties in `ServerManager` offer the option “Server locks in content store” (`ServerManager / Project / Properties / Options`). If this option is activated, data sources can only be edited by one user exclusively; other users cannot modify datasets in that data source concurrently.

Attempts to save a `Dataset` object via the API method `save()` without a preceding lock operation via the method `lock(true)` will cause

- saving to fail with an error message (in the form of “`java.lang.IllegalStateException: dataset 321 not locked`”) if this option is **active**,
- a warning (in the form of “`WARN 05.10.2015 15:14:59.001 (de.espirit.firstspirit.store.access.contentstore.DatasetImpl): dataset 321 not locked. please make sure the dataset is locked prior to saving.`”) to be logged to the file `fs-server.log` if the option is **not active**. In this case, saving is possible.

For further information about the option “Server locks in content store”, see

- *FirstSpirit Manual for Administrators*, Chapter “Options”
- *Documentation for FirstSpirit SiteArchitect*, Chapter “Procedure in multi-user operation”



15 Module development, scripts, API: Discontinuation ("Deprecation") of methods for the "Content2" interface

The following methods in the Content2 (FirstSpirit Access API, `de.espirit.firstspirit.access.store.contentstore` package) have been discontinued in FirstSpirit version 5.2R2 ("Deprecation") and can be omitted in the next FirstSpirit major version (6.0).

- `delete(Entity entity)`
[Replacement: `StoreElement.delete()`
Package `de.espirit.firstspirit.access.store`, Interface `StoreElement`]
- `isLocked(Entity entity)`
[Replacement: `StoreElement.isLocked()`
Package `de.espirit.firstspirit.access.store`, Interface `StoreElement`]
- `isLockedOnServer(Entity entity, boolean allSessions)`
[Replacement: `StoreElement.isLockedOnServer(boolean)`
Package `de.espirit.firstspirit.access.store`, Interface `StoreElement`]
- `lock(Entity entity)`
[Replacement: `Dataset#setLock(true)`
Package `de.espirit.firstspirit.access.store`, Interface `StoreElement`]
- `release(Entity entity)`
[Replacement: `IDProvider.release()`
Package `de.espirit.firstspirit.access.store`, Interface `IDProvider`]
- `release(Entity entity, String comment)`
[Replacement: `IDProvider.release()`
Package `de.espirit.firstspirit.access.store`, Interface `IDProvider`]
- `unlock(Entity entity)`
[Replacement: `Dataset#setLock(false)`
Package `de.espirit.firstspirit.access.store`, Interface `StoreElement`]

Methods set to the "deprecated" state can still be used, but as they will be omitted in subsequent versions, this is not advisable. If methods, classes, and interfaces that are no longer supported or are set to



deprecated are used in scripts and/or modules, entries are written to log files accordingly (e.g., server log, generation log, etc.). The corresponding log entries should be checked and the cause(s) remedied.

For more information and replacement options, see *FirstSpirit Access API*.

16 Module development, scripts, API: General information

It is recommended for all FirstSpirit server updates to newly create all self-produced modules vis-a-vis the new FirstSpirit version, when upgrading to FirstSpirit version 5.2R2, particularly when using the *PreviewParameter* interface (*de.espirit.firstspirit.client.mpp* package). In addition to this, all the installed modules delivered by e-Spirit and all web applications should also always be updated.

17 Module development, scripts, API: Handling dependent modules

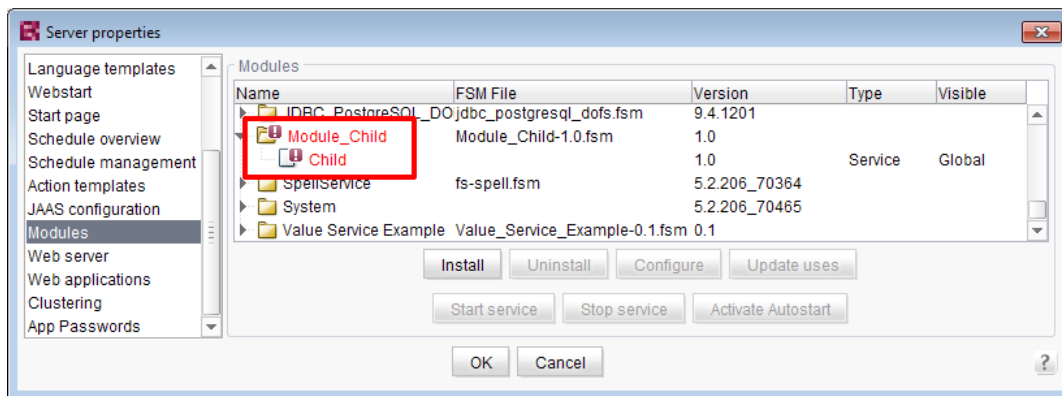
It is possible to define dependencies between FirstSpirit modules. This takes place using the entry

```
<dependencies>
  <depends>modulname</depends>
</dependencies>
```

in the **module.xml** file for the dependent module ("child").

With FirstSpirit version 5.2R2, both those modules which contain a **<dependencies><depends>** specification ("child"), and those referenced by this specification ("parent") are uninstalled from the FirstSpirit Server ("Uninstall" button) – even if the dependent module is no longer available on the server. "child" modules whose "Parent" module is no longer on the server are visualized in the FirstSpirit Server-Manager ("Server properties / Modules") with an appropriate icon:





A tool tip lists the names of the missing dependent modules.

It is possible to use the newly implemented `isActive` method (FirstSpirit Developer API, `ModuleAdminAgent` interface) in this context to check whether a module has missing references to other modules.

For more information, see

- *FirstSpirit Developer Manual for components (German only)*, chapters “Modul-Ereignisbehandlung” and “Der Modul-Deskriptor”
- *FirstSpirit Manual for Administrators*, chapter “Module”
- *FirstSpirit Developer API*, `ModuleAdminAgent` interface (`de.espirit.firstspirit.agency` package)

18 Module development, scripts, API: Methods for determining the absolute path to the schedule entry directory

Using the new `getFolderPath` method in the `JobAgent` interface (FirstSpirit Developer API, Package `de.espirit.firstspirit.scheduling.agency`), it is now possible to access the absolute path to the entry directory.

19 SiteArchitect / ContentCreator: Access to FS_INDEX value set

FS_INDEX input components save references to data objects (such as those from external web services) using identifiers in string format. These identifiers are provided by the data-access plug-in, which is



assigned to the index component in the form definition of a template. To access the actual data in an index entry, the session object for the data-access plug-in must be queried in order to obtain and further process a suitable data object using a string identifier.

For access to the value set of an FS_INDEX input component within presentation channel definitions, an **IndexAccessor** object type is returned, which not only offers access to the saved string identifiers, but also provides a list of the data objects which are relevant to the identifiers and have been resolved by the data-access plug-in.

In FirstSpirit version 5.2R2 and higher, an **IndexAccessor** type object is also returned in snippet definitions in the case of access to the value set for an FS_INDEX input component.

For more information on:

- Working with FS_INDEX, see *FirstSpirit Online Documentation*, “Template development / Forms / Input components / INDEX”
- The IndexAccessor data type, see *FirstSpirit Online Documentation*, “Template development / Template syntax / Data types / IndexAccessor”
- The definition of snippets, see *FirstSpirit Online Documentation*, “Template development / Snippets”.

20 SiteArchitect: Configuring e-mail messaging in workflows

In FirstSpirit, lists of users and / or groups can be defined for activities and transitions in a workflow. Messages are then sent to these users and / or groups via e-mail when the corresponding workflow step is completed. The “List” field is used for this purpose:



The screenshot shows the 'Properties' dialog box with the 'E-mail' tab selected. The 'Send e-mail' checkbox is checked. Below it, there are several unchecked checkboxes: 'Beneficiary', 'Task creator', 'Last editor', and 'Editor'. The 'List' field is highlighted with a red rectangle and contains the text 'Editor, Administrators, Chief Editor'. Below the 'List' field, there is a section for 'E-mail content' with a 'Subject' field containing 'Release request' and a 'Body' field containing 'Please check and release the following object. %FIRSTspiritURL%'. At the bottom of the dialog are 'Apply' and 'Cancel' buttons.

Changes to the design of FirstSpirit SiteArchitect resulted in these lists not being included in some versions of FirstSpirit version series 5.2 and 5.1. This error has been fixed in version 5.2.211-1: If at least one user or group is selected in this field, an e-mail is sent to the selected recipient(s).



Migration information: If this function was used to define a list in an earlier version of FirstSpirit version series 5.2 or 5.1 (5.2R1, 5.1R1, 5.1R2, 5.1R3, 5.1R4), this list must be redefined following an update to the latest version (5.2.211-1) so that this error fix is applied and e-mails are sent to the users or groups in the defined list.

For more information about configuring workflows, see *FirstSpirit Online Documentation*, “Templates (Basics) / Composition of templates / Workflows”.



21 SiteArchitect: Optimizing code completion in templates

Code completion allows FirstSpirit templates to be programmed more quickly, while the lists of suggestions offer a simple source of reference. This can be found in FirstSpirit templates on the



- Form
- Rules and
- Output

tabs.

The code completion function has been expanded in FirstSpirit version 5.2R2. Now, for example, the output tabs even show identifiers for the input components defined on the form tab, as well as methods which can be applied to the values returned by the input components. These can be inserted at the insert mark. The lists of suggestions can also be filtered by simply entering the necessary search text.

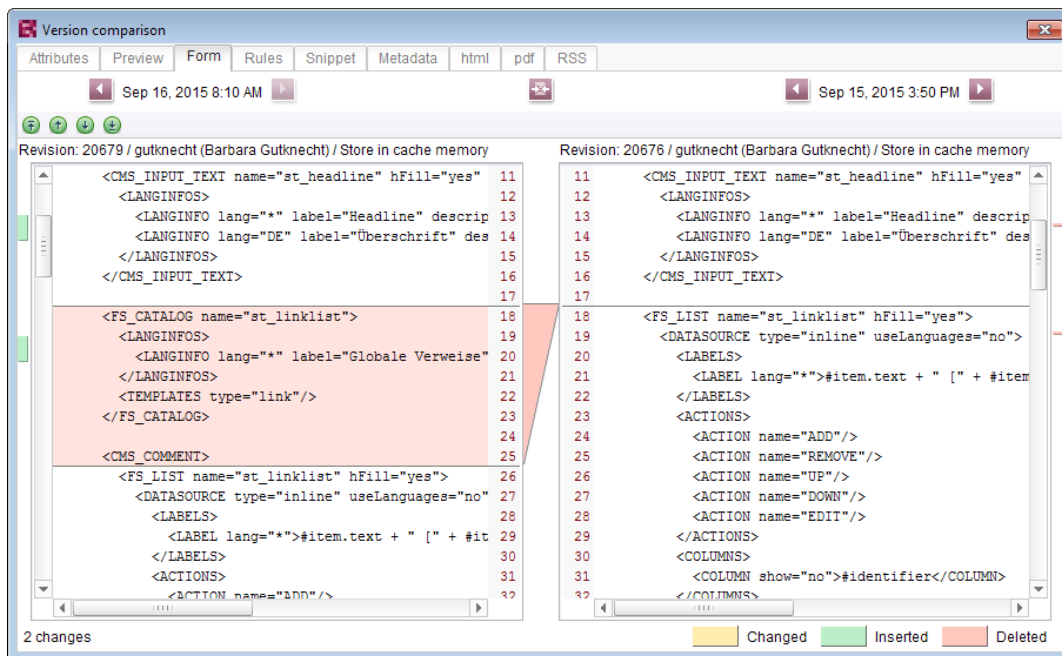
For more information, see the *FirstSpirit Online Documentation*, “Interesting tips / Input assistance”.

22 SiteArchitect: Revised version comparison

All project data in a FirstSpirit project has a version history, which documents how the data has been changed over time. Changes can generally be displayed by visualizing the differences between the revisions. To do this, two revisions can be selected for comparison with each other within the version history ( +  or “Version history” context menu function).

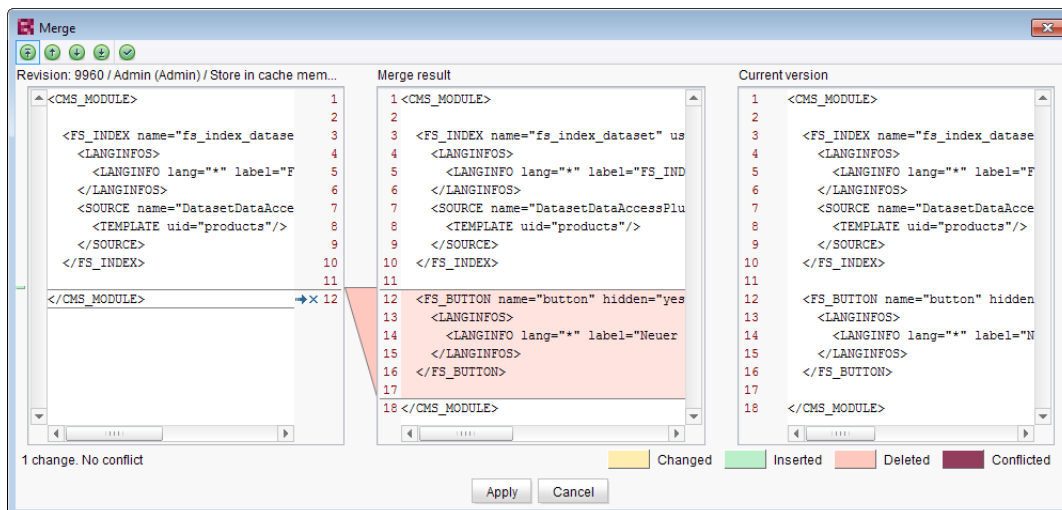
The corresponding dialog has been updated in FirstSpirit version 5.2R2 (with the exception of: Version comparison to (global) pages, (global) sections, datasets):





Version comparison of templates

The dialog now also allows you to “merge” the selected versions, e.g.,



Merging changes from several revisions

For more information, see *FirstSpirit Online Documentation*,

- “Templates (Basics) / Basics / Functions via context menus / Version history / Compare”

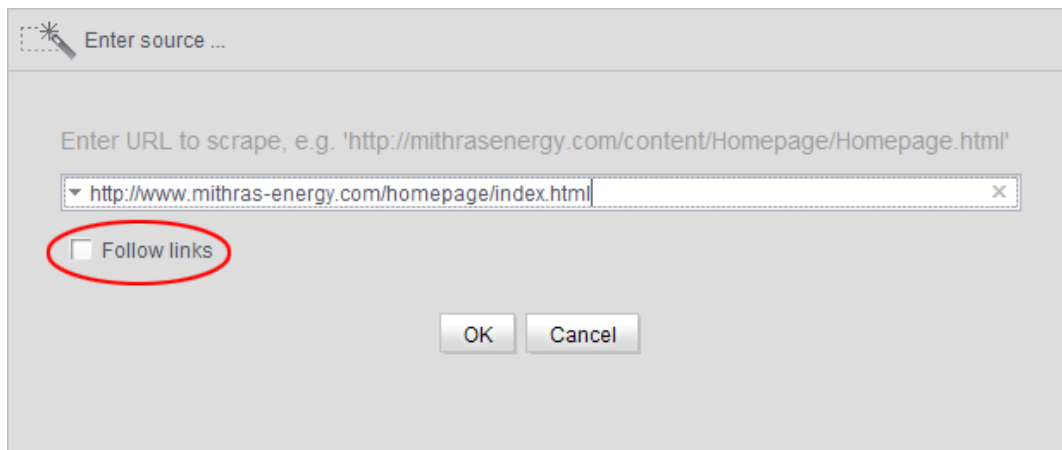


- “Templates (Basics) / Basics / Functions via context menus / Version history / Merge”

23 Template Wizard: Activate/deactivate crawling

The FirstSpirit Template Wizard allows you to load HTML content into a project. An external URL can be specified as a source for this.

The new “Follow links” checkbox can now be used to configure “Crawling” (“Select URL” function).



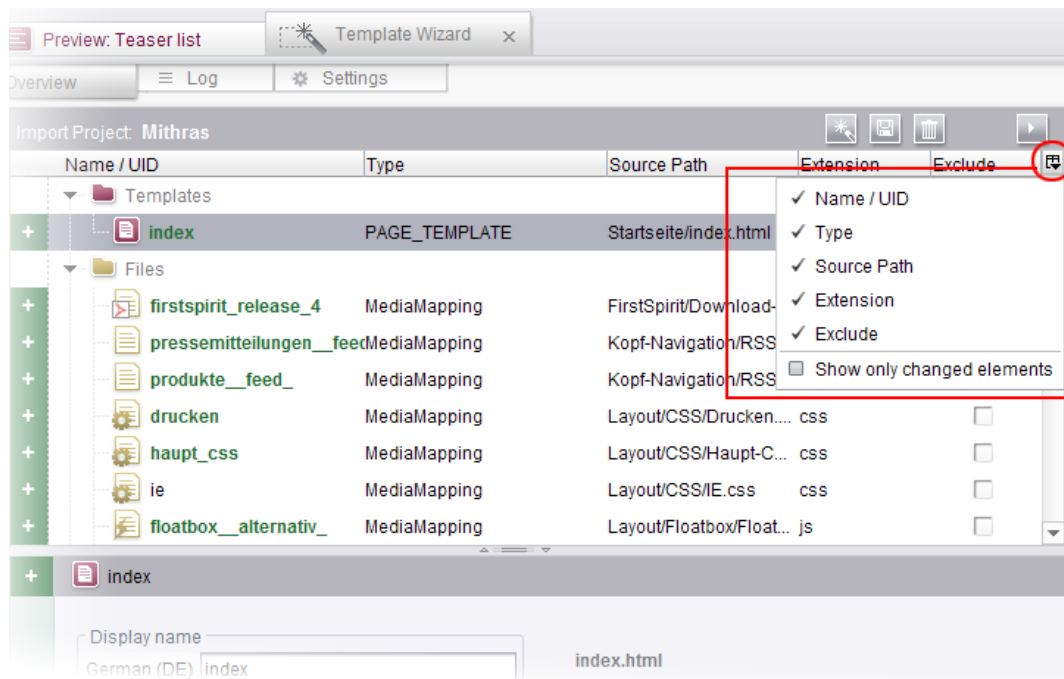
- If the checkbox is **not checked**, then crawling is restricted to the HTML structure transferred here. In this case, only the transferred HTML structure is analyzed and added to the import project. Other URLs referenced within the HTML structure are not analyzed. This is the default setting.
- If the checkbox is **checked**, all URLs referenced in the transferred HTML structure are analyzed and added to the import project. If these URLs then in turn reference other URLs, they too are analyzed, etc. In this case, you must ensure that the nesting depth is not too deep, as the import process can potentially take a long time if there are a large number of URLs.

For more information on working with the FirstSpirit Template Wizard, see *FirstSpirit Online Documentation*, “Template development / Template Wizard”.

24 Template Wizard: Configure overview

The “Overview” tab shows all the content that has been imported into the Template Wizard to date. They are displayed in table format with the name, source path, file name, etc. This view can be configured by clicking the icon at the right-hand edge of the table header:





This can be used to determine which columns are shown or hidden.

If the “Show only changed elements” checkbox is activated, then only elements that have changed compared to the last status imported are displayed in the overview (inserted as new, changed in the design deliverable, deleted in the design deliverable, etc.).

For more information, see *FirstSpirit Online Documentation*, “Template development / Template Wizard / Overview”.

25 Template Wizard: Detecting and merging changes

The FirstSpirit Template Wizard offers tools for detecting changes to the source object and then merging this changed content with content which has already been edited and imported.

This involves differentiating between three sources:

- Local root directory
- Import project
- FirstSpirit project



Changes can be made:

- between the local root directory and the import project
- between the import project and FirstSpirit project

For more information, see *FirstSpirit Online Documentation*, “Template development / Template Wizard / Detecting changes”.

26 Template Wizard: Protection against simultaneous project editing

The FirstSpirit Template Wizard infrastructure partially automates the process of transferring HTML mockups to FirstSpirit. It provides functions which can analyze the HTML templates supplied, identify referenced images and files in HTML content, and import all required content into FirstSpirit.

In FirstSpirit version 5.2R2 and higher, FirstSpirit ensures that import projects can only be edited by one user at a time. If the selected import project is already open in the Template Wizard and being used by another FirstSpirit template developer, the message “Agency Project is already locked by [...]”. In this case, the project cannot be loaded until the other user closes it in the Template Wizard.

For more information on working with the FirstSpirit Template Wizard, see *FirstSpirit Online Documentation*, “Template development / Template Wizard”.

27 Overview

ID	Description	Categories
69882	In a data source, an already released dataset was erroneously displayed as not released after starting a workflow.	Content Store, SiteArchitect, Workflow
113373	In ServerMonitoring and ServerManager, the default text for messages (functionality “Send message”) is now identical.	Server Administrator, ServerManager, Server-Monitoring
125269	Frequently used objects in a FirstSpirit project are now also visualized in editing dialogs in ContentCreator. Further information can be found in chapter “ContentCreator: Visualization of frequently used objects”.	ContentCreator, Editor



ID	Description	Categories
128058	Optimized updating the value of an FS_DATASET input component when multiple users perform edits in parallel.	Input Components, SiteArchitect
157668	Within the FS_LIST (PAGE type) input component, an empty check (EMPTY property) has been optimized for rules.	Dynamic Forms, SiteArchitect
161179	In the input component FS_LIST (type INLINE), optimized copy and paste operations of entries between lists via the context menu.	Input Components, SiteArchitect
161391	<p>Via the API, Dataset objects can now only be saved (method <code>save()</code>) if they are locked (e.g. method <code>lock(true)</code>) or the option "Server locks in content store" (ServerManager / Project / Properties / Options) is deactivated.</p> <p>Further information can be found in chapter "Module Development, Scripts, API: Method <code>save()</code> observes the option "Server locks in content store".</p>	Developer, FirstSpirit API, Template Development
167503	Making a change in the database schema for an existing table (i.e., creating a new column) may have resulted in a malfunction when maintaining data in the data source.	Content Store, Developer, Template Development
167750	<p>Project exports can now be reduced by excluding pre-calculated image resolutions.</p> <p>Further information can be found in chapter "Administration: Reduce project exports by excluding pre-calculated image resolutions".</p>	FirstSpirit Administrator, Project export / import, ServerManager
167794	The process of preselecting the referenced dataset in the selection dialog of the FS_DATASET input component has been improved.	Content Store, Input Components, SiteArchitect
168389	<p>New list entries in FS_LIST (DATABASE and INLINE types), FS_CATALOG, and FS_INDEX can now be created directly from the preview in ContentCreator via FS_BUTTON.</p> <p>Further information can be found in chapter "ContentCreator: Create new list items using the FS_BUTTON".</p>	ContentCreator, Developer, Editor, Template Development
168598	In FirstSpirit version 5.2R2 and higher, proxy authentication based on Kerberos/SPNEGO or NTLM is supported through HTTP.	FirstSpirit Administrator, Security



ID	Description	Categories
	Further information can be found in chapter “Administration: Proxy authentication via Kerberos/SPNEGO or NTLM”.	
169017	In an integrated preview using Internet Explorer as browser, opening external links in a separate window could lead to erroneous behavior.	Preview, SiteArchitect
170828	The “Overview” tab view in the Template Wizard can now be configured. Further information can be found in chapter “Template Wizard: Configure overview”.	Developer, Template Development, Template Wizard
171361	The new “Follow links” checkbox can be used to configure “Crawling” for the “Template Wizard” function. Further information can be found in chapter “Template Wizard: Activate/deactivate crawling”.	Developer, Template Development, Template Wizard
171504	The default value for the <code>sendAccepted</code> parameter when using the Kerberos login module has been changed. Further information can be found in chapter “Administration / Modules: Log in via Kerberos ticket “KerberosLoginModule”)”.	FirstSpirit Administrator, Modules
171607	Within the FS_LIST (INLINE type) component, the deletion of an entry from the list was not identified as a change even though it should have been.	Editor, Input Components, SiteArchitect
172071	Revised the set of privileges required to modify menu order.	Permissions, Site Store, SiteArchitect
172275	Template Wizard: New functionality for detecting and merging differences between content which has already been edited and imported. Further information can be found in chapter “Template Wizard: Detecting and merging changes”.	Developer, Template Development, Template Wizard
172371	Optimized rule evaluation (functionality “Dynamic Forms”) for languages of a form that haven't been displayed yet.	Dynamic Forms, SiteArchitect
172660	The version comparison dialog has been updated. It now also provides the option to “merge” differences between revisions.	Developer, SiteArchitect, Template Development



ID	Description	Categories
	Further information can be found in chapter “SiteArchitect: Revised version comparison”.	
172713	The “Add column” pop-up dialog in the data source overview has been optimized.	Content Store, SiteArchitect
172802	The FS_INDEX input component has been expanded to allow access to the value set. Further information can be found in chapter “SiteArchitect / Content-Creator: Access to FS_INDEX value set”.	ContentCreator, Developer, SiteArchitect, Template Development
172813	The process of scaling the thumbnails in the detail and symbol display modes (viewMode="DETAILS" and viewMode="SYMBOLS") in the FS_INDEX input component has been improved.	ContentCreator, Input Components, SiteArchitect
172842	When selecting a file in the media selection dialog, it no longer matters whether the file extension is written in uppercase or lowercase letters.	Media Store, SiteArchitect
172892	The options for code completion in templates have been expanded. Further information can be found in chapter “SiteArchitect: Optimizing code completion in templates”.	Developer, SiteArchitect, Template Development
172915	When creating language-dependent media via drag-and-drop from another language, the file was erroneously not transferred from the source language.	Media Store, SiteArchitect
173051	The content of input components can be checked in rules with a regular expression (matches). The regular expression can be used to check whether the editor has included at least one character which is not the equivalent of a white-space character (blank space, tab space, etc.). A problem could occur during a check of this type if the editor had never made changes to an input component.	Dynamic Forms, SiteArchitect
173112	Dynamic forms now allow canceling of rules evaluation related to complex, long-running rulesets.	Dynamic Forms, SiteArchitect
173167	Within the FS_LIST (DATABASE type) input component, the selection view has been optimized in the selection dialog.	Input Components, SiteArchitect



ID	Description	Categories
173191	In terms of the “Enterprise Backup” functionality, license evaluation has been optimized for the purpose of creating a schedule.	Backup, FirstSpirit Administrator, ServerManager
173200	In the case of using the <code>ref()</code> function on a nonexistent folder, the generation process now involves recording missing references as information (“INFO” log level) rather than errors (“ERROR” log level).	FirstSpirit Administrator, Generation
173287	Projects are now protected against simultaneous editing by several developers using the “FirstSpirit Template Wizard” function. Further information can be found in chapter “Template Wizard: Protection against simultaneous project editing”.	Developer, SiteArchitect, Template Development, Template Wizard
173326	The pop-up dialog for searching in database tables incorrectly remained in the foreground when you switched to another application outside the FirstSpirit environment.	Content Store, Search, SiteArchitect
173352	The table view when editing datasets has been optimized.	Content Store, SiteArchitect
173417	Security improvements when starting SiteArchitect and ContentCreator.	ContentCreator, Security, SiteArchitect
173480	Sections can now also be moved into other content areas in ContentCreator. Further information can be found in chapter “ContentCreator: Move sections into other content areas”.	ContentCreator, Developer, Editor
173546	A meaningful error message is now displayed when trying to delete the source section of a section reference.	ContentCreator, Editor
173612	After removing an entry from an index (input component FS_INDEX), switching to another project language of the form and then saving the form could lead to erroneous behavior.	ContentCreator, Input Components
173745	Implemented measures to improve security in FirstSpirit ServerMonitoring as well as in FirstSpirit web applications. Further information can be found in chapter “Administration: Security improvements in FirstSpirit ServerMonitoring and web applications”.	FirstSpirit Administrator, ServerMonitoring



ID	Description	Categories
173790	Downloading the log files may have resulted in a malfunction in Server-Monitoring.	FirstSpirit Administrator, ServerMonitoring
173802	The description was not always included for the resolution under the project properties.	FirstSpirit Administrator, ServerManager
173851	After importing a project with historic schedule task data, the history was not taken into account during server shutdown, causing the task history to be unavailable once the server was started again.	FirstSpirit Administrator, Project export / import, ServerManager, Tasks
173860	The browser integration for modules has been improved.	Modules, Preview, SiteArchitect
173875	A meaningful error message is now displayed if a section is supposed to be created on a single page in ContentCreator via drag-and-drop, but another user has just edited it.	ContentCreator
173952	Navigating to an HTML anchor element after refreshing the preview could lead to erroneous behavior.	ContentCreator, Preview
173955	<p>If the “Filterable” aspect of a Data Access Plug-In defines more than one parameter with the same name, only the first provided parameter with that name will now be used.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: Changed Behavior for Data Stream Builder Implementations With Aspect “Filterable””.</p>	Developer, FirstSpirit API, Template Development
174000	Optimized behavior when cropping media elements of type Picture multiple times in a row.	Media Store, Services, SiteArchitect
174004	<p>Some methods in the <code>Content2</code> (FirstSpirit Access API, <code>de.espirit.firstspirit.access.store.contentstore</code> package) have been discontinued (“Deprecation”) and can be omitted in the next FirstSpirit major version (6.0).</p> <p>Further information can be found in chapter “Module development, scripts, API: Discontinuation (“Deprecation”) of methods for the “Content2” interface”.</p>	Developer, FirstSpirit API, Module development, Template Development
174052	The template set for preview viewports has been taken into more careful consideration in the “Multi Perspective Preview” function.	Multi Perspective Preview, SiteArchitect



ID	Description	Categories
174055	Media type and size restrictions have been taken into more careful consideration in the selection dialog when uploading media.	Media Store, SiteArchitect
174176	When copying a dataset in a data source where a workflow was in progress, the workflow status was erroneously transferred.	Content Store, SiteArchitect, Workflow
174208	In the schema editor, the XML file of the database schema will now be correctly updated when deleting relations.	Developer, Template Development
174281	After installation, the option to use the launcher was not activated in the connection settings.	Launcher
174297	Navigation in the server/project properties using the arrow keys (or “cursor keys”) has been optimized.	FirstSpirit Administrator, ServerManager, Tasks
174319	The process of reading out the FS_INDEX input component into table templates has been optimized.	ContentCreator, Developer, SiteArchitect, Template Development
174628 154885 172636	For the “FirstSpirit Template Wizard”, “FirstSpirit Template Debugger”, and “FirstSpirit Template Inspection”, permissions can now be granted so that these tools can now only be accessed by certain user groups. Further information can be found in chapter “Administration: Permissions for FirstSpirit modules (Template Wizard, Template Debugger, Template Inspection)”.	Developer, FirstSpirit Administrator, Permissions, ServerManager, SiteArchitect, Template Debugger, Template Wizard
174667	E-mails are now no longer sent automatically if the license has expired. Further information can be found in chapter “Administration: Expired license warning”.	FirstSpirit Administrator, License
174793	Optimized “Select project” page of the Template Wizard's project creation/loading dialog.	SiteArchitect, Template Development, Template Wizard
174896	In a workflow, performing a release after a state change triggered via a script in an automatic activity could lead to erroneous behavior.	SiteArchitect, Workflow
174962	Optimized error handling when starting a workflow which contains an error state.	SiteArchitect, Workflow



ID	Description	Categories
175012	When double clicking the resolution of an image in the Media store of SiteArchitect, the corresponding image preview will now be displayed again.	Media Store, SiteArchitect
175016	Uploading a media file which failed media restriction checks could lead to erroneous behavior.	Media Store, SiteArchitect
175020	New FirstSpirit login facility via the HTTP request header ("Request-HeaderLoginModule") Further information can be found in chapter "Administration: Log in via the HTTP request header ("RequestHeaderLoginModule")".	FirstSpirit Administrator
175107	Optimized generation of details flyouts for report entries.	ContentCreator
175177	Optimized version comparison for subforms.	SiteArchitect
175181	The group/user combo box is now sorted alphabetically in the dialog for configuring the workflow permissions.	Developer, Permissions, Workflow
175186	Optimized clearing of inline formatting in the rich text editor (input component CMS_INPUT_DOM).	ContentCreator, Input Components
175189	The process of displaying rule violations in subforms (e.g., a link form in the CMS_INPUT_LINK input component) has been optimized.	Dynamic Forms, Input Components, SiteArchitect
175223	After closing a ServerManager dialog when using a Mac OS X operating system, the main window was not always in focus.	Server Administrator, ServerManager
175247	Methods for determining the absolute path to the schedule entry directory Further information can be found in chapter "Module development, scripts, API: Methods for determining the absolute path to the schedule entry directory".	Developer, FirstSpirit API, Generation
175399	Creating a new dataset by copying data from an existing dataset could lead to erroneous behavior if the form contained the input component CMS_INPUT_DOM.	Content Store, Content-Creator, Input Components
175454 176337	Improved support of input components FS_CATALOG and FS_INDEX in subforms.	Input Components, SiteArchitect



ID	Description	Categories
175462	<p>Modules with required missing references to other modules are now visualized appropriately in FirstSpirit ServerManager and can be uninstalled from the FirstSpirit Server without leaving any traces.</p> <p>Further information can be found in chapter “Module development, scripts, API: Handling dependent modules”.</p>	FirstSpirit Administrator, Module development, ServerManager
175504	Improved performance in aspects of external synchronization.	External synchronization, SiteArchitect
175576	<p>The performance of the “external synchronization” function has been optimized when adding elements via the user interface.</p> <p>Further information can be found in chapter “External synchronization: Optimized performance”.</p>	Developer, External synchronization, SiteArchitect, Template Development
175593	Logging of the ContentCreator may have resulted in a malfunction when using the “FirstSpirit DynamicPersonalization” module.	ContentCreator, Modules
175594 174750	The FirstSpirit Launcher functions have been improved.	Launcher, SiteArchitect
175636	Importing a project export, which has been created with FirstSpirit version 5.0R4 or lower, may have resulted in a malfunction in URLs for individual datasets.	FirstSpirit Administrator, Project export / import
175850	The display for the design elements (CMS_LABEL or CMS_GROUP), which is controlled by rules, has been improved.	ContentCreator, Dynamic Forms, Input Components
176035	Optimized output of nested levels in FS_INDEX input components.	Developer, SiteArchitect, Template Development
176065	In the CMS_INPUT_IMAGE_MAP input component, the display of remote media has been optimized.	ContentCreator, Input Components
176138	<p>The sending of an e-mail to a list of users or user groups has been improved in a workflow.</p> <p>Further information can be found in chapter “SiteArchitect: Configuring e-mail messaging in workflows”.</p>	Developer, SiteArchitect, Workflow



ID	Description	Categories
176213	Deleting an entry with a rule violation in the FS_CATALOG input component, may have resulted in a malfunction.	Dynamic Forms, Input Components, SiteArchitect
176262	When populating an FS_INDEX input component via drag and drop from a report, restrictions imposed by the rule property “ADD” were not taken into account.	Dynamic Forms, Input Components, SiteArchitect
176290	The process of updating the detail page of a content projection in the integrated preview when editing a dataset has been optimized.	Content Store, Preview, SiteArchitect
176373	Due to a change in the FirstSpirit Developer API, any special modules that you have created yourself and that use the <i>PreviewParameter</i> (package <i>de.espirit.firstspirit.client.mpp</i>) interface must be recreated after upgrading to FirstSpirit version 5.2R2. Further information can be found in chapter “Module development, scripts, API: General information”.	Developer, FirstSpirit API, Module development
176533	The process of generating content from an FS_INDEX input component in a nested structure has been improved.	Developer, Generation, Input Components
176643	Improved display of mappings in table templates for projects with many languages.	Developer, SiteArchitect, Table templates, Template Development
176937	Capitalization is no longer taken into consideration when performing global searches in the “Search in templates” system filter.	Search, SiteArchitect
177110	The <i>getHeight()</i> method from the “MappingMedium” interface (Access API, <i>de.espirit.firstspirit.access.editor.value</i> package) has been optimized.	Developer, SiteArchitect, Template Development
177127	Optimized output of inherited variable values of a menu level in the Site Structure store.	Site Store, SiteArchitect
177465	Links without link text in the CMS_INPUT_DOM input component may have resulted in a malfunction within the indexing process.	FirstSpirit Administrator, Indexing, Input Components
177500	The FS_LIST (DATABASE type) input component was liable to malfunctions when using language-independent input components in the internal form in conjunction with rules.	Dynamic Forms, Input Components, SiteArchitect



ID	Description	Categories
178271	The ability for several users to edit a dataset in parallel has been optimized.	Content Store, SiteArchitect
179073	Optimized validation hints in forms of inner entries of the input component FS_CATALOG.	Dynamic Forms, Input Components, SiteArchitect
180481	Performance improvements in the area SiteArchitect / Server-Manager.	ServerManager, SiteArchitect

28 Categories

28.1 Backup

ID	Description
173191	In terms of the “Enterprise Backup” functionality, license evaluation has been optimized for the purpose of creating a schedule.

28.2 Content Store

ID	Description
69882	In a data source, an already released dataset was erroneously displayed as not released after starting a workflow.
167503	Making a change in the database schema for an existing table (i.e., creating a new column) may have resulted in a malfunction when maintaining data in the data source.
167794	The process of preselecting the referenced dataset in the selection dialog of the FS_DATASET input component has been improved.
172713	The “Add column” pop-up dialog in the data source overview has been optimized.
173326	The pop-up dialog for searching in database tables incorrectly remained in the foreground when you switched to another application outside the FirstSpirit environment.
173352	The table view when editing datasets has been optimized.



ID	Description
174176	When copying a dataset in a data source where a workflow was in progress, the workflow status was erroneously transferred.
175399	Creating a new dataset by copying data from an existing dataset could lead to erroneous behavior if the form contained the input component CMS_INPUT_DOM.
176290	The process of updating the detail page of a content projection in the integrated preview when editing a dataset has been optimized.
178271	The ability for several users to edit a dataset in parallel has been optimized.

28.3 ContentCreator

ID	Description
125269	Frequently used objects in a FirstSpirit project are now also visualized in editing dialogs in ContentCreator. Further information can be found in chapter "ContentCreator: Visualization of frequently used objects".
168389	New list entries in FS_LIST (DATABASE and INLINE types), FS_CATALOG, and FS_INDEX can now be created directly from the preview in ContentCreator via FS_BUTTON. Further information can be found in chapter "ContentCreator: Create new list items using the FS_BUTTON".
172802	The FS_INDEX input component has been expanded to allow access to the value set. Further information can be found in chapter "SiteArchitect / ContentCreator: Access to FS_INDEX value set".
172813	The process of scaling the thumbnails in the detail and symbol display modes (<code>viewMode="DETAILS"</code> and <code>viewMode="SYMBOLS"</code>) in the FS_INDEX input component has been improved.
173417	Security improvements when starting SiteArchitect and ContentCreator.
173480	Sections can now also be moved into other content areas in ContentCreator.



ID	Description
	Further information can be found in chapter “ContentCreator: Move sections into other content areas”.
173546	A meaningful error message is now displayed when trying to delete the source section of a section reference.
173612	After removing an entry from an index (input component FS_INDEX), switching to another project language of the form and then saving the form could lead to erroneous behavior.
173875	A meaningful error message is now displayed if a section is supposed to be created on a single page in ContentCreator via drag-and-drop, but another user has just edited it.
173952	Navigating to an HTML anchor element after refreshing the preview could lead to erroneous behavior.
174319	The process of reading out the FS_INDEX input component into table templates has been optimized.
175107	Optimized generation of details flyouts for report entries.
175186	Optimized clearing of inline formatting in the rich text editor (input component CMS_INPUT_DOM).
175399	Creating a new dataset by copying data from an existing dataset could lead to erroneous behavior if the form contained the input component CMS_INPUT_DOM.
175593	Logging of the ContentCreator may have resulted in a malfunction when using the “FirstSpirit DynamicPersonalization” module.
175850	The display for the design elements (CMS_LABEL or CMS_GROUP), which is controlled by rules, has been improved.
176065	In the CMS_INPUT_IMAGE_MAP input component, the display of remote media has been optimized.

28.4 Developer

ID	Description
161391	Via the API, Dataset objects can now only be saved (method <code>save()</code>) if they are locked (e.g. method <code>lock(true)</code>) or the option “Server locks in content store” (ServerManager / Project / Properties / Options) is deactivated.



ID	Description
	Further information can be found in chapter “Module Development, Scripts, API: Method save() observes the option “Server locks in content store””.
167503	Making a change in the database schema for an existing table (i.e., creating a new column) may have resulted in a malfunction when maintaining data in the data source.
168389	New list entries in FS_LIST (DATABASE and INLINE types), FS_CATALOG, and FS_INDEX can now be created directly from the preview in ContentCreator via FS_BUTTON. Further information can be found in chapter “ContentCreator: Create new list items using the FS_BUTTON”.
170828	The “Overview” tab view in the Template Wizard can now be configured. Further information can be found in chapter “Template Wizard: Configure overview”.
171361	The new “Follow links” checkbox can be used to configure “Crawling” for the “Template Wizard” function. Further information can be found in chapter “Template Wizard: Activate/deactivate crawling”.
172275	Template Wizard: New functionality for detecting and merging differences between content which has already been edited and imported. Further information can be found in chapter “Template Wizard: Detecting and merging changes”.
172660	The version comparison dialog has been updated. It now also provides the option to “merge” differences between revisions. Further information can be found in chapter “SiteArchitect: Revised version comparison”.
172802	The FS_INDEX input component has been expanded to allow access to the value set. Further information can be found in chapter “SiteArchitect / ContentCreator: Access to FS_INDEX value set”.
172892	The options for code completion in templates have been expanded. Further information can be found in chapter “SiteArchitect: Optimizing code completion in templates”.
173287	Projects are now protected against simultaneous editing by several developers using the “FirstSpirit Template Wizard” function.



ID	Description
	Further information can be found in chapter “Template Wizard: Protection against simultaneous project editing”.
173480	Sections can now also be moved into other content areas in ContentCreator.
	Further information can be found in chapter “ContentCreator: Move sections into other content areas”.
173955	If the “Filterable” aspect of a Data Access Plug-In defines more than one parameter with the same name, only the first provided parameter with that name will now be used.
	Further information can be found in chapter “Module Development, Scripts, API: Changed Behavior for Data Stream Builder Implementations With Aspect “Filterable””.
174004	Some methods in the <code>Content2</code> (FirstSpirit Access API, <code>de.espirit.firstspirit.access.store.contentstore</code> package) have been discontinued (“Deprecation”) and can be omitted in the next FirstSpirit major version (6.0).
	Further information can be found in chapter “Module development, scripts, API: Discontinuation (“Deprecation”) of methods for the “Content2” interface”.
174208	In the schema editor, the XML file of the database schema will now be correctly updated when deleting relations.
174319	The process of reading out the FS_INDEX input component into table templates has been optimized.
174628	For the “FirstSpirit Template Wizard”, “FirstSpirit Template Debugger”, and “FirstSpirit Template Inspection”, permissions can now be granted so that these tools can now only be accessed by certain user groups.
154885 172636	Further information can be found in chapter “Administration: Permissions for FirstSpirit modules (Template Wizard, Template Debugger, Template Inspection)”.
175181	The group/user combo box is now sorted alphabetically in the dialog for configuring the workflow permissions.
175247	Methods for determining the absolute path to the schedule entry directory
	Further information can be found in chapter “Module development, scripts, API: Methods for determining the absolute path to the schedule entry directory”.



ID	Description
175576	<p>The performance of the “external synchronization” function has been optimized when adding elements via the user interface.</p> <p>Further information can be found in chapter “External synchronization: Optimized performance”.</p>
176035	Optimized output of nested levels in FS_INDEX input components.
176138	<p>The sending of an e-mail to a list of users or user groups has been improved in a workflow.</p> <p>Further information can be found in chapter “SiteArchitect: Configuring e-mail messaging in workflows”.</p>
176373	<p>Due to a change in the FirstSpirit Developer API, any special modules that you have created yourself and that use the <i>PreviewParameter</i> (package <i>de.espirit.firstspirit.client.mpp</i>) interface must be recreated after upgrading to FirstSpirit version 5.2R2.</p> <p>Further information can be found in chapter “Module development, scripts, API: General information”.</p>
176533	The process of generating content from an FS_INDEX input component in a nested structure has been improved.
176643	Improved display of mappings in table templates for projects with many languages.
177110	The <i>getHeight()</i> method from the “MappingMedium” interface (Access API, <i>de.espirit.firstspirit.access.editor.value</i> package) has been optimized.

28.5 Dynamic Forms

ID	Description
157668	Within the FS_LIST (PAGE type) input component, an empty check (EMPTY property) has been optimized for rules.
172371	Optimized rule evaluation (functionality “Dynamic Forms”) for languages of a form that haven't been displayed yet.
173051	<p>The content of input components can be checked in rules with a regular expression (matches).</p> <p>The regular expression can be used to check whether the editor has included at least one character which is not the equivalent of a whitespace character (blank space, tab space, etc.).</p>



ID	Description
	A problem could occur during a check of this type if the editor had never made changes to an input component.
173112	Dynamic forms now allow canceling of rules evaluation related to complex, long-running rulesets.
175189	The process of displaying rule violations in subforms (e.g., a link form in the CMS_INPUT_LINK input component) has been optimized.
175850	The display for the design elements (CMS_LABEL or CMS_GROUP), which is controlled by rules, has been improved.
176213	Deleting an entry with a rule violation in the FS_CATALOG input component, may have resulted in a malfunction.
176262	When populating an FS_INDEX input component via drag and drop from a report, restrictions imposed by the rule property “ADD” were not taken into account.
177500	The FS_LIST (DATABASE type) input component was liable to malfunctions when using language-independent input components in the internal form in conjunction with rules.
179073	Optimized validation hints in forms of inner entries of the input component FS_CATALOG.

28.6 Editor

ID	Description
125269	Frequently used objects in a FirstSpirit project are now also visualized in editing dialogs in ContentCreator. Further information can be found in chapter “ContentCreator: Visualization of frequently used objects”.
168389	New list entries in FS_LIST (DATABASE and INLINE types), FS_CATALOG, and FS_INDEX can now be created directly from the preview in ContentCreator via FS_BUTTON. Further information can be found in chapter “ContentCreator: Create new list items using the FS_BUTTON”.
171607	Within the FS_LIST (INLINE type) component, the deletion of an entry from the list was not identified as a change even though it should have been.
173480	Sections can now also be moved into other content areas in ContentCreator.



ID	Description
	Further information can be found in chapter “ContentCreator: Move sections into other content areas”.
173546	A meaningful error message is now displayed when trying to delete the source section of a section reference.

28.7 External synchronization

ID	Description
175504	Improved performance in aspects of external synchronization.
175576	The performance of the “external synchronization” function has been optimized when adding elements via the user interface.
	Further information can be found in chapter “External synchronization: Optimized performance”.

28.8 FirstSpirit API

ID	Description
161391	Via the API, Dataset objects can now only be saved (method <code>save()</code>) if they are locked (e.g. method <code>lock(true)</code>) or the option “Server locks in content store” (ServerManager / Project / Properties / Options) is deactivated.
	Further information can be found in chapter “Module Development, Scripts, API: Method save() observes the option “Server locks in content store””.
173955	If the “Filterable” aspect of a Data Access Plug-In defines more than one parameter with the same name, only the first provided parameter with that name will now be used.
	Further information can be found in chapter “Module Development, Scripts, API: Changed Behavior for Data Stream Builder Implementations With Aspect “Filterable””.
174004	Some methods in the <code>Content2</code> (FirstSpirit Access API, <code>de.espirit.firstspirit.access.store.contentstore</code> package) have been discontinued (“Deprecation”) and can be omitted in the next FirstSpirit major version (6.0).



ID	Description
	Further information can be found in chapter “Module development, scripts, API: Discontinuation ("Deprecation") of methods for the "Content2" interface”.
175247	Methods for determining the absolute path to the schedule entry directory
	Further information can be found in chapter “Module development, scripts, API: Methods for determining the absolute path to the schedule entry directory”.
176373	Due to a change in the FirstSpirit Developer API, any special modules that you have created yourself and that use the <i>PreviewParameter</i> (package <i>de.espirit.firstspirit.client.mpp</i>) interface must be recreated after upgrading to FirstSpirit version 5.2R2.
	Further information can be found in chapter “Module development, scripts, API: General information”.

28.9 FirstSpirit Administrator

ID	Description
167750	Project exports can now be reduced by excluding pre-calculated image resolutions.
	Further information can be found in chapter “Administration: Reduce project exports by excluding pre-calculated image resolutions”.
168598	In FirstSpirit version 5.2R2 and higher, proxy authentication based on Kerberos/SPNEGO or NTLM is supported through HTTP.
	Further information can be found in chapter “Administration: Proxy authentication via Kerberos/SPNEGO or NTLM”.
171504	The default value for the sendAccepted parameter when using the Kerberos login module has been changed.
	Further information can be found in chapter “Administration / Modules: Log in via Kerberos ticket "KerberosLoginModule"”.
173191	In terms of the “Enterprise Backup” functionality, license evaluation has been optimized for the purpose of creating a schedule.



ID	Description
173200	In the case of using the <code>ref()</code> function on a nonexistent folder, the generation process now involves recording missing references as information ("INFO" log level) rather than errors ("ERROR" log level).
173745	Implemented measures to improve security in FirstSpirit ServerMonitoring as well as in FirstSpirit web applications. Further information can be found in chapter "Administration: Security improvements in FirstSpirit ServerMonitoring and web applications".
173790	Downloading the log files may have resulted in a malfunction in ServerMonitoring.
173802	The description was not always included for the resolution under the project properties.
173851	After importing a project with historic schedule task data, the history was not taken into account during server shutdown, causing the task history to be unavailable once the server was started again.
174297	Navigation in the server/project properties using the arrow keys (or "cursor keys") has been optimized.
174628 154885 172636	For the "FirstSpirit Template Wizard", "FirstSpirit Template Debugger", and "FirstSpirit Template Inspection", permissions can now be granted so that these tools can now only be accessed by certain user groups. Further information can be found in chapter "Administration: Permissions for FirstSpirit modules (Template Wizard, Template Debugger, Template Inspection)".
174667	E-mails are now no longer sent automatically if the license has expired. Further information can be found in chapter "Administration: Expired license warning".
175020	New FirstSpirit login facility via the HTTP request header ("RequestHeaderLoginModule") Further information can be found in chapter "Administration: Log in via the HTTP request header ("RequestHeaderLoginModule")".
175462	Modules with required missing references to other modules are now visualized appropriately in FirstSpirit ServerManager and can be uninstalled from the FirstSpirit Server without leaving any traces.



ID	Description
	Further information can be found in chapter “Module development, scripts, API: Handling dependent modules”.
175636	Importing a project export, which has been created with FirstSpirit version 5.0R4 or lower, may have resulted in a malfunction in URLs for individual datasets.
177465	Links without link text in the CMS_INPUT_DOM input component may have resulted in a malfunction within the indexing process.

28.10 Generation

ID	Description
173200	In the case of using the <code>ref()</code> function on a nonexistent folder, the generation process now involves recording missing references as information (“INFO” log level) rather than errors (“ERROR” log level).
175247	Methods for determining the absolute path to the schedule entry directory Further information can be found in chapter “Module development, scripts, API: Methods for determining the absolute path to the schedule entry directory”.
176533	The process of generating content from an FS_INDEX input component in a nested structure has been improved.

28.11 Indexing

ID	Description
177465	Links without link text in the CMS_INPUT_DOM input component may have resulted in a malfunction within the indexing process.



28.12 Input Components

ID	Description
128058	Optimized updating the value of an FS_DATASET input component when multiple users perform edits in parallel.
161179	In the input component FS_LIST (type INLINE), optimized copy and paste operations of entries between lists via the context menu.
167794	The process of preselecting the referenced dataset in the selection dialog of the FS_DATASET input component has been improved.
171607	Within the FS_LIST (INLINE type) component, the deletion of an entry from the list was not identified as a change even though it should have been.
172813	The process of scaling the thumbnails in the detail and symbol display modes (<code>viewMode="DETAILS"</code> and <code>viewMode="SYMBOLS"</code>) in the FS_INDEX input component has been improved.
173167	Within the FS_LIST (DATABASE type) input component, the selection view has been optimized in the selection dialog.
173612	After removing an entry from an index (input component FS_INDEX), switching to another project language of the form and then saving the form could lead to erroneous behavior.
175186	Optimized clearing of inline formatting in the rich text editor (input component CMS_INPUT_DOM).
175189	The process of displaying rule violations in subforms (e.g., a link form in the CMS_INPUT_LINK input component) has been optimized.
175399	Creating a new dataset by copying data from an existing dataset could lead to erroneous behavior if the form contained the input component CMS_INPUT_DOM.
175454	Improved support of input components FS_CATALOG and FS_INDEX in subforms.
176337	
175850	The display for the design elements (CMS_LABEL or CMS_GROUP), which is controlled by rules, has been improved.
176065	In the CMS_INPUT_IMAGE_MAP input component, the display of remote media has been optimized.
176213	Deleting an entry with a rule violation in the FS_CATALOG input component, may have resulted in a malfunction.



ID	Description
176262	When populating an FS_INDEX input component via drag and drop from a report, restrictions imposed by the rule property “ADD” were not taken into account.
176533	The process of generating content from an FS_INDEX input component in a nested structure has been improved.
177465	Links without link text in the CMS_INPUT_DOM input component may have resulted in a malfunction within the indexing process.
177500	The FS_LIST (DATABASE type) input component was liable to malfunctions when using language-independent input components in the internal form in conjunction with rules.
179073	Optimized validation hints in forms of inner entries of the input component FS_CATALOG.

28.13 Launcher

ID	Description
174281	After installation, the option to use the launcher was not activated in the connection settings.
175594	The FirstSpirit Launcher functions have been improved.
174750	

28.14 License

ID	Description
174667	E-mails are now no longer sent automatically if the license has expired.
	Further information can be found in chapter “Administration: Expired license warning”.

28.15 Media Store

ID	Description
172842	When selecting a file in the media selection dialog, it no longer matters whether the file extension is written in uppercase or lowercase letters.



ID	Description
172915	When creating language-dependent media via drag-and-drop from another language, the file was erroneously not transferred from the source language.
174000	Optimized behavior when cropping media elements of type Picture multiple times in a row.
174055	Media type and size restrictions have been taken into more careful consideration in the selection dialog when uploading media.
175012	When double clicking the resolution of an image in the Media store of SiteArchitect, the corresponding image preview will now be displayed again.
175016	Uploading a media file which failed media restriction checks could lead to erroneous behavior.

28.16 Module development

ID	Description
174004	<p>Some methods in the <code>Content2</code> (FirstSpirit Access API, <code>de.espirit.firstspirit.access.store.contentstore</code> package) have been discontinued ("Deprecation") and can be omitted in the next FirstSpirit major version (6.0).</p> <p>Further information can be found in chapter "Module development, scripts, API: Discontinuation ("Deprecation") of methods for the "Content2" interface".</p>
175462	<p>Modules with required missing references to other modules are now visualized appropriately in FirstSpirit ServerManager and can be uninstalled from the FirstSpirit Server without leaving any traces.</p> <p>Further information can be found in chapter "Module development, scripts, API: Handling dependent modules".</p>
176373	<p>Due to a change in the FirstSpirit Developer API, any special modules that you have created yourself and that use the <code>PreviewParameter</code> (package <code>de.espirit.firstspirit.client.mpp</code>) interface must be recreated after upgrading to FirstSpirit version 5.2R2.</p> <p>Further information can be found in chapter "Module development, scripts, API: General information".</p>



28.17 Modules

ID	Description
171504	The default value for the <code>sendAccepted</code> parameter when using the Kerberos login module has been changed. Further information can be found in chapter “Administration / Modules: Log in via Kerberos ticket “KerberosLoginModule”)”.
173860	The browser integration for modules has been improved.
175593	Logging of the ContentCreator may have resulted in a malfunction when using the “FirstSpirit DynamicPersonalization” module.

28.18 Multi Perspective Preview

ID	Description
174052	The template set for preview viewports has been taken into more careful consideration in the “Multi Perspective Preview” function.

28.19 Permissions

ID	Description
172071	Revised the set of privileges required to modify menu order.
174628 154885 172636	For the “FirstSpirit Template Wizard”, “FirstSpirit Template Debugger”, and “FirstSpirit Template Inspection”, permissions can now be granted so that these tools can now only be accessed by certain user groups. Further information can be found in chapter “Administration: Permissions for FirstSpirit modules (Template Wizard, Template Debugger, Template Inspection)”.
175181	The group/user combo box is now sorted alphabetically in the dialog for configuring the workflow permissions.



28.20 Preview

ID	Description
169017	In an integrated preview using Internet Explorer as browser, opening external links in a separate window could lead to erroneous behavior.
173860	The browser integration for modules has been improved.
173952	Navigating to an HTML anchor element after refreshing the preview could lead to erroneous behavior.
176290	The process of updating the detail page of a content projection in the integrated preview when editing a dataset has been optimized.

28.21 Project export / import

ID	Description
167750	Project exports can now be reduced by excluding pre-calculated image resolutions. Further information can be found in chapter “Administration: Reduce project exports by excluding pre-calculated image resolutions”.
173851	After importing a project with historic schedule task data, the history was not taken into account during server shutdown, causing the task history to be unavailable once the server was started again.
175636	Importing a project export, which has been created with FirstSpirit version 5.0R4 or lower, may have resulted in a malfunction in URLs for individual datasets.

28.22 Search

ID	Description
173326	The pop-up dialog for searching in database tables incorrectly remained in the foreground when you switched to another application outside the FirstSpirit environment.
176937	Capitalization is no longer taken into consideration when performing global searches in the “Search in templates” system filter.



28.23 Security

ID	Description
168598	In FirstSpirit version 5.2R2 and higher, proxy authentication based on Kerberos/SPNEGO or NTLM is supported through HTTP. Further information can be found in chapter “Administration: Proxy authentication via Kerberos/SPNEGO or NTLM”.
173417	Security improvements when starting SiteArchitect and ContentCreator.

28.24 Server Administrator

ID	Description
113373	In ServerMonitoring and ServerManager, the default text for messages (functionality “Send message”) is now identical.
175223	After closing a ServerManager dialog when using a Mac OS X operating system, the main window was not always in focus.

28.25 ServerManager

ID	Description
113373	In ServerMonitoring and ServerManager, the default text for messages (functionality “Send message”) is now identical.
167750	Project exports can now be reduced by excluding pre-calculated image resolutions. Further information can be found in chapter “Administration: Reduce project exports by excluding pre-calculated image resolutions”.
173191	In terms of the “Enterprise Backup” functionality, license evaluation has been optimized for the purpose of creating a schedule.
173802	The description was not always included for the resolution under the project properties.



ID	Description
173851	After importing a project with historic schedule task data, the history was not taken into account during server shutdown, causing the task history to be unavailable once the server was started again.
174297	Navigation in the server/project properties using the arrow keys (or “cursor keys”) has been optimized.
174628 154885 172636	For the “FirstSpirit Template Wizard”, “FirstSpirit Template Debugger”, and “FirstSpirit Template Inspection”, permissions can now be granted so that these tools can now only be accessed by certain user groups. Further information can be found in chapter “Administration: Permissions for FirstSpirit modules (Template Wizard, Template Debugger, Template Inspection)”.
175223	After closing a ServerManager dialog when using a Mac OS X operating system, the main window was not always in focus.
175462	Modules with required missing references to other modules are now visualized appropriately in FirstSpirit ServerManager and can be uninstalled from the FirstSpirit Server without leaving any traces. Further information can be found in chapter “Module development, scripts, API: Handling dependent modules”.
180481	Performance improvements in the area SiteArchitect / ServerManager.

28.26 ServerMonitoring

ID	Description
113373	In ServerMonitoring and ServerManager, the default text for messages (functionality “Send message”) is now identical.
173745	Implemented measures to improve security in FirstSpirit ServerMonitoring as well as in FirstSpirit web applications. Further information can be found in chapter “Administration: Security improvements in FirstSpirit ServerMonitoring and web applications”.
173790	Downloading the log files may have resulted in a malfunction in ServerMonitoring.



28.27 Services

ID	Description
174000	Optimized behavior when cropping media elements of type Picture multiple times in a row.

28.28 Site Store

ID	Description
172071	Revised the set of privileges required to modify menu order.
177127	Optimized output of inherited variable values of a menu level in the Site Structure store.

28.29 SiteArchitect

ID	Description
69882	In a data source, an already released dataset was erroneously displayed as not released after starting a workflow.
128058	Optimized updating the value of an FS_DATASET input component when multiple users perform edits in parallel.
157668	Within the FS_LIST (PAGE type) input component, an empty check (EMPTY property) has been optimized for rules.
161179	In the input component FS_LIST (type INLINE), optimized copy and paste operations of entries between lists via the context menu.
167794	The process of preselecting the referenced dataset in the selection dialog of the FS_DATASET input component has been improved.
169017	In an integrated preview using Internet Explorer as browser, opening external links in a separate window could lead to erroneous behavior.
171607	Within the FS_LIST (INLINE type) component, the deletion of an entry from the list was not identified as a change even though it should have been.
172071	Revised the set of privileges required to modify menu order.



ID	Description
172371	Optimized rule evaluation (functionality “Dynamic Forms”) for languages of a form that haven't been displayed yet.
172660	<p>The version comparison dialog has been updated. It now also provides the option to “merge” differences between revisions.</p> <p>Further information can be found in chapter “SiteArchitect: Revised version comparison”.</p>
172713	The “Add column” pop-up dialog in the data source overview has been optimized.
172802	<p>The FS_INDEX input component has been expanded to allow access to the value set.</p> <p>Further information can be found in chapter “SiteArchitect / ContentCreator: Access to FS_INDEX value set”.</p>
172813	The process of scaling the thumbnails in the detail and symbol display modes (<code>viewMode="DETAILS"</code> and <code>viewMode="SYMBOLS"</code>) in the FS_INDEX input component has been improved.
172842	When selecting a file in the media selection dialog, it no longer matters whether the file extension is written in uppercase or lowercase letters.
172892	<p>The options for code completion in templates have been expanded.</p> <p>Further information can be found in chapter “SiteArchitect: Optimizing code completion in templates”.</p>
172915	When creating language-dependent media via drag-and-drop from another language, the file was erroneously not transferred from the source language.
173051	<p>The content of input components can be checked in rules with a regular expression (matches).</p> <p>The regular expression can be used to check whether the editor has included at least one character which is not the equivalent of a whitespace character (blank space, tab space, etc.).</p> <p>A problem could occur during a check of this type if the editor had never made changes to an input component.</p>
173112	Dynamic forms now allow canceling of rules evaluation related to complex, long-running rulesets.
173167	Within the FS_LIST (DATABASE type) input component, the selection view has been optimized in the selection dialog.



ID	Description
173287	Projects are now protected against simultaneous editing by several developers using the “FirstSpirit Template Wizard” function. Further information can be found in chapter “Template Wizard: Protection against simultaneous project editing”.
173326	The pop-up dialog for searching in database tables incorrectly remained in the foreground when you switched to another application outside the FirstSpirit environment.
173352	The table view when editing datasets has been optimized.
173417	Security improvements when starting SiteArchitect and ContentCreator.
173860	The browser integration for modules has been improved.
174000	Optimized behavior when cropping media elements of type Picture multiple times in a row.
174052	The template set for preview viewports has been taken into more careful consideration in the “Multi Perspective Preview” function.
174055	Media type and size restrictions have been taken into more careful consideration in the selection dialog when uploading media.
174176	When copying a dataset in a data source where a workflow was in progress, the workflow status was erroneously transferred.
174319	The process of reading out the FS_INDEX input component into table templates has been optimized.
174628 154885 172636	For the “FirstSpirit Template Wizard”, “FirstSpirit Template Debugger”, and “FirstSpirit Template Inspection”, permissions can now be granted so that these tools can now only be accessed by certain user groups. Further information can be found in chapter “Administration: Permissions for FirstSpirit modules (Template Wizard, Template Debugger, Template Inspection)”.
174793	Optimized "Select project" page of the Template Wizard's project creation/loading dialog.
174896	In a workflow, performing a release after a state change triggered via a script in an automatic activity could lead to erroneous behavior.
174962	Optimized error handling when starting a workflow which contains an error state.
175012	When double clicking the resolution of an image in the Media store of SiteArchitect, the corresponding image preview will now be displayed again.



ID	Description
175016	Uploading a media file which failed media restriction checks could lead to erroneous behavior.
175177	Optimized version comparison for subforms.
175189	The process of displaying rule violations in subforms (e.g., a link form in the CMS_INPUT_LINK input component) has been optimized.
175454 176337	Improved support of input components FS_CATALOG and FS_INDEX in subforms.
175504	Improved performance in aspects of external synchronization.
175576	The performance of the “external synchronization” function has been optimized when adding elements via the user interface. Further information can be found in chapter “External synchronization: Optimized performance”.
175594 174750	The FirstSpirit Launcher functions have been improved.
176035	Optimized output of nested levels in FS_INDEX input components.
176138	The sending of an e-mail to a list of users or user groups has been improved in a workflow. Further information can be found in chapter “SiteArchitect: Configuring e-mail messaging in workflows”.
176213	Deleting an entry with a rule violation in the FS_CATALOG input component, may have resulted in a malfunction.
176262	When populating an FS_INDEX input component via drag and drop from a report, restrictions imposed by the rule property “ADD” were not taken into account.
176290	The process of updating the detail page of a content projection in the integrated preview when editing a dataset has been optimized.
176643	Improved display of mappings in table templates for projects with many languages.
176937	Capitalization is no longer taken into consideration when performing global searches in the “Search in templates” system filter.
177110	The <code>getHeight()</code> method from the “MappingMedium” interface (Access API, <i>de.espirit.firstspirit.access.editor.value</i> package) has been optimized.
177127	Optimized output of inherited variable values of a menu level in the Site Structure store.



ID	Description
177500	The FS_LIST (DATABASE type) input component was liable to malfunctions when using language-independent input components in the internal form in conjunction with rules.
178271	The ability for several users to edit a dataset in parallel has been optimized.
179073	Optimized validation hints in forms of inner entries of the input component FS_CATALOG.
180481	Performance improvements in the area SiteArchitect / ServerManager.

28.30 Table templates

ID	Description
176643	Improved display of mappings in table templates for projects with many languages.

28.31 Tasks

ID	Description
173851	After importing a project with historic schedule task data, the history was not taken into account during server shutdown, causing the task history to be unavailable once the server was started again.
174297	Navigation in the server/project properties using the arrow keys (or “cursor keys”) has been optimized.

28.32 Template Debugger

ID	Description
174628 154885 172636	For the “FirstSpirit Template Wizard”, “FirstSpirit Template Debugger”, and “FirstSpirit Template Inspection”, permissions can now be granted so that these tools can now only be accessed by certain user groups. Further information can be found in chapter “Administration: Permissions for FirstSpirit modules (Template Wizard, Template Debugger, Template Inspection)”.



28.33 Template Development

ID	Description
161391	<p>Via the API, Dataset objects can now only be saved (method <code>save()</code>) if they are locked (e.g. method <code>lock(true)</code>) or the option “Server locks in content store” (ServerManager / Project / Properties / Options) is deactivated.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: Method save() observes the option “Server locks in content store””.</p>
167503	<p>Making a change in the database schema for an existing table (i.e., creating a new column) may have resulted in a malfunction when maintaining data in the data source.</p>
168389	<p>New list entries in FS_LIST (DATABASE and INLINE types), FS_CATALOG, and FS_INDEX can now be created directly from the preview in ContentCreator via FS_BUTTON.</p> <p>Further information can be found in chapter “ContentCreator: Create new list items using the FS_BUTTON”.</p>
170828	<p>The “Overview” tab view in the Template Wizard can now be configured.</p> <p>Further information can be found in chapter “Template Wizard: Configure overview”.</p>
171361	<p>The new “Follow links” checkbox can be used to configure “Crawling” for the “Template Wizard” function.</p> <p>Further information can be found in chapter “Template Wizard: Activate/deactivate crawling”.</p>
172275	<p>Template Wizard: New functionality for detecting and merging differences between content which has already been edited and imported.</p> <p>Further information can be found in chapter “Template Wizard: Detecting and merging changes”.</p>
172660	<p>The version comparison dialog has been updated. It now also provides the option to “merge” differences between revisions.</p> <p>Further information can be found in chapter “SiteArchitect: Revised version comparison”.</p>
172802	<p>The FS_INDEX input component has been expanded to allow access to the value set.</p> <p>Further information can be found in chapter “SiteArchitect / ContentCreator: Access to FS_INDEX value set”.</p>



ID	Description
172892	<p>The options for code completion in templates have been expanded.</p> <p>Further information can be found in chapter “SiteArchitect: Optimizing code completion in templates”.</p>
173287	<p>Projects are now protected against simultaneous editing by several developers using the “FirstSpirit Template Wizard” function.</p> <p>Further information can be found in chapter “Template Wizard: Protection against simultaneous project editing”.</p>
173955	<p>If the “Filterable” aspect of a Data Access Plug-In defines more than one parameter with the same name, only the first provided parameter with that name will now be used.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: Changed Behavior for Data Stream Builder Implementations With Aspect “Filterable””.</p>
174004	<p>Some methods in the <code>Content2</code> (FirstSpirit Access API, <code>de.espirit.firstspirit.access.store.contentstore</code> package) have been discontinued (“Deprecation”) and can be omitted in the next FirstSpirit major version (6.0).</p> <p>Further information can be found in chapter “Module development, scripts, API: Discontinuation (“Deprecation”) of methods for the “Content2” interface”.</p>
174208	<p>In the schema editor, the XML file of the database schema will now be correctly updated when deleting relations.</p>
174319	<p>The process of reading out the FS_INDEX input component into table templates has been optimized.</p>
174793	<p>Optimized “Select project” page of the Template Wizard’s project creation/loading dialog.</p>
175576	<p>The performance of the “external synchronization” function has been optimized when adding elements via the user interface.</p> <p>Further information can be found in chapter “External synchronization: Optimized performance”.</p>
176035	<p>Optimized output of nested levels in FS_INDEX input components.</p>
176643	<p>Improved display of mappings in table templates for projects with many languages.</p>
177110	<p>The <code>getHeight()</code> method from the “MappingMedium” interface (Access API, <code>de.espirit.firstspirit.access.editor.value</code> package) has been optimized.</p>



28.34 Template Wizard

ID	Description
170828	The “Overview” tab view in the Template Wizard can now be configured. Further information can be found in chapter “Template Wizard: Configure overview”.
171361	The new “Follow links” checkbox can be used to configure “Crawling” for the “Template Wizard” function. Further information can be found in chapter “Template Wizard: Activate/deactivate crawling”.
172275	Template Wizard: New functionality for detecting and merging differences between content which has already been edited and imported. Further information can be found in chapter “Template Wizard: Detecting and merging changes”.
173287	Projects are now protected against simultaneous editing by several developers using the “FirstSpirit Template Wizard” function. Further information can be found in chapter “Template Wizard: Protection against simultaneous project editing”.
174628 154885 172636	For the “FirstSpirit Template Wizard”, “FirstSpirit Template Debugger”, and “FirstSpirit Template Inspection”, permissions can now be granted so that these tools can now only be accessed by certain user groups. Further information can be found in chapter “Administration: Permissions for FirstSpirit modules (Template Wizard, Template Debugger, Template Inspection)”.
174793	Optimized “Select project” page of the Template Wizard's project creation/loading dialog.

28.35 Workflow

ID	Description
69882	In a data source, an already released dataset was erroneously displayed as not released after starting a workflow.
174176	When copying a dataset in a data source where a workflow was in progress, the workflow status was erroneously transferred.



ID	Description
174896	In a workflow, performing a release after a state change triggered via a script in an automatic activity could lead to erroneous behavior.
174962	Optimized error handling when starting a workflow which contains an error state.
175181	The group/user combo box is now sorted alphabetically in the dialog for configuring the workflow permissions.
176138	The sending of an e-mail to a list of users or user groups has been improved in a workflow. Further information can be found in chapter “SiteArchitect: Configuring e-mail messaging in workflows”.

