



FirstSpirit™

Unlock Your Content

FirstSpirit™ Release Notes

FirstSpirit™ Version 5.2 Release 5

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1 New user interface for the trouble ticket system

The user interface of the trouble ticket system for the e-Spirit Technical Support has been greatly enhanced to provide better access to the most important information and functionality. Starting today you can, for example, find information about planned release dates of upcoming FirstSpirit versions and answers to frequently asked questions. Naturally, we will continuously update and extend the information available.

You can find the new Help Center at <https://help.e-spirit.com>. It replaces the previous address *helpdesk.e-spirit.com*.

In addition, please use help@e-spirit.com instead of the previous e-mail address *helpdesk@e-spirit.com*.

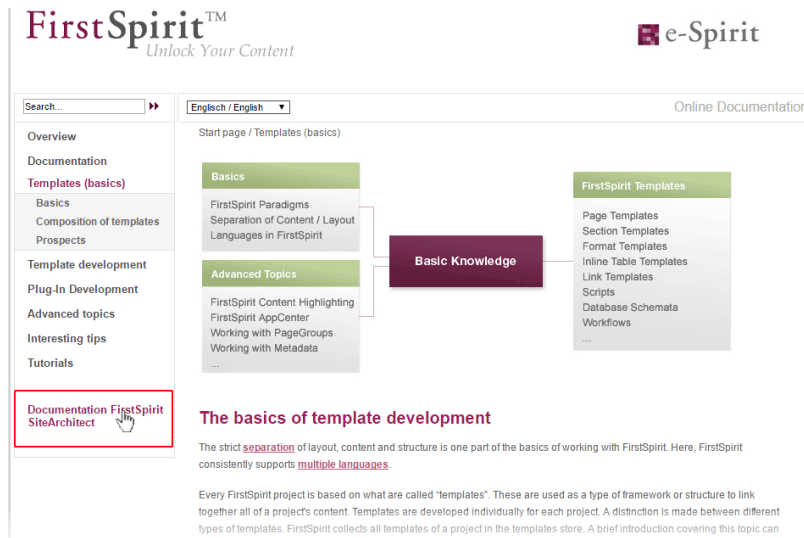
2 FirstSpirit HTML documentation

In addition to the Documentation for FirstSpirit ContentCreator, FirstSpirit Release Notes and the FirstSpirit Online Documentation (ODFS), the Documentation for FirstSpirit SiteArchitect and the “FirstSpirit Manual for Developers (Components)” are now also created and managed by FirstSpirit. This means that FirstSpirit replaces Microsoft Word for the process of creating documentations. While the documentation has been available so far only in PDF format, it is now also available as HTML edition.

- The complete HTML documentation for FirstSpirit SiteArchitect has left the beta stage and is now generally available. The migration process for this documentation is now complete, and it is now managed entirely within a FirstSpirit project.
- The HTML documentation “FirstSpirit Manual for Developers (Components)” is currently at beta stage: It is only available in German and is currently being revised.

The HTML documentation for FirstSpirit SiteArchitect and the “Manual for Developers (Components)” can be reached from the left navigation sidebar in *FirstSpirit Online Documentation* (“ODFS”):





The HTML documentation for FirstSpirit SiteArchitect can also be reached via the menu “Help” (menu entry “User (SiteArchitect)”). Context-sensitive navigation from within SiteArchitect to the documentation can be achieved by pressing **F1** or by using the help button in the horizontal toolbar.

The PDF version of these documentations continues to be available via ODFS in the chapter “Documentation”. The PDF containing the documentation for FirstSpirit SiteArchitect as well as the HTML version are generated from the same FirstSpirit project.

The URLs of the HTML documentations have been modified in this context, too. Bookmarks to the FirstSpirit online documentation should, therefore, be adapted accordingly.

3 Code signing certificates

The content of FirstSpirit JAR files is signed with a certificate. This procedure is also called “code signing”. At all times, e-Spirit aims to use up-to-date certificates for all FirstSpirit components. Release Management ensures that customers who update FirstSpirit at least once a year always use a valid certificate.

Using older FirstSpirit versions with invalid certificates primarily affects the use of SiteArchitect and ServerManager: Depending on the configuration of the individual Java security options, the system may, at the very least, show security warnings.

In the current FirstSpirit version, the content is signed with a new certificate that is valid until 13.06.2018.



Overview of certificates currently used by FirstSpirit:

FirstSpirit version (major line)	FirstSpirit version	valid until
4.2	up to 4.2.503	13.06.2016
	from 4.2.504	21.05.2017
	from 4.2.509	13.06.2018
5.0		13.06.2016
5.1	up to 5.1.502	13.06.2016
	from 5.1.503	21.05.2017
5.2	up to 5.2.501	21.05.2017
	from 5.2.502	13.06.2018

Information for customers with “Deployment Rule Set”: If you are using a Deployment Rule Set, which allows you to centrally manage Java security settings and determine which applications are permitted to start in the browser, you should ensure that the rule set matches the certificate when a certificate is updated by e-Spirit.

4 Administration

4.1 Changed standard configuration of session cookies for new installations

FirstSpirit uses several standard web applications (fs5root, fs5webedit, fs5webmon, fs5preview, fs5staging) as well as optional, project-local web applications (fs5webedit_PROJECTID and fs5preview_PROJECTID).

The optional parameter `servletSessionCookieName` in the file `fs-server.conf` may be used to define a FirstSpirit-specific session cookie name for all web applications (see *FirstSpirit Manual for Administrators*).

In the past, this parameter was not specified with a preset value. If no value is defined for `servletSessionCookieName`, the cookie name specified by the WebApp server will automatically be used, in most cases, JSESSIONID.

Previous standard configuration:




```
# Servlet engine session cookie name.  
# If left empty the servlet engine default is used (JSESSIONID in most cases).  
# servletSessionCookieName=FS${FS_MAJOR}${FS_MINOR}SESSIONID  
servletSessionCookieName=  
# Servlet engine session cookie name for a specific webapp context path.  
# 'ROOT' is the reserved name for the root webapp context path.  
# servletSessionCookieName.ROOT=FS${FS_MAJOR}${FS_MINOR}ROOTID  
# servletSessionCookieName.fs5webmon=FS${FS_MAJOR}${FS_MINOR}WEBMONID  
# servletSessionCookieName.webappContextPath=FS${FS_MAJOR}${FS_MINOR}WEBAPPXYID
```

As of FirstSpirit version 5.2R5, the standard configuration of the parameters `servletSessionCookieName` (cookie name for all web applications) and `servletSessionCookieName.ROOT` (cookie name for the root application) will be as follows:

```
# Servlet engine session cookie name.  
servletSessionCookieName=FS${FS_MAJOR}${FS_MINOR}SESSIONID  
# Servlet engine session cookie name for root webapp context path.  
servletSessionCookieName.ROOT=FS${FS_MAJOR}${FS_MINOR}ROOTID
```

This changed behavior only affects new installations. For existing installations of FirstSpirit, the previous configuration will be preserved.

4.2 Configuration of session cookies (fs-server.conf)

Within the FirstSpirit web applications (fs5root, fs5webedit, fs5webmon, fs5preview, fs5staging), unified session cookies can be used. In conjunction with an application server or a firewall (operated on the application server), additional session cookies can be set, e.g. for authentication purposes. The names of these additional session cookies must be made known to FirstSpirit via the parameter `clientCookieNames`. During start of SiteArchitect or ServerManager, FirstSpirit passes the cookies defined in this parameter via the Java Web Start file (`FirstSpirit.jnlp`) or the FirstSpirit Launcher (`FirstSpirit.fslnch`) downloaded on the client side. The cookies will also be passed to the browser engine used in the project and thus will be available for use in the integrated preview in SiteArchitect. The same cookie will be used in three distinct session contexts (web browser: HTTP client, SiteArchitect: client/server communications, SiteArchitect: integrated browser engine).

As of the current FirstSpirit version, the configuration file “fs-server.conf” now allows optional configuration of specific values for these non-FirstSpirit session cookies. The new attributes can define values



for domain, path, and the secure flag of the session cookie. This is necessary when the corresponding values cannot be read directly from these non-FirstSpirit session cookies.

`clientCookie.{cookieName}.domain`: Specifies the domain used for the session cookie. If no value is given, the cookie will carry the URL from which the client was started (including the host name).

`clientCookie.{cookieName}.path`: Specifies the path of the session cookie. Default value: /

`clientCookie.{cookieName}.secure`: The secure flag limits the transmission of the session cookie. If the value is `true`, the cookie will only be sent to the server if communication takes place via HTTPS (if the URL meets the domain and path requirements). If the value is `false`, the cookie will be sent in both HTTP and HTTPS communications.

Example (`fs-server.conf`):

```
clientCookieNames=cookieName1
clientCookie.cookieName1.domain=*.domain.com
clientCookie.cookieName1.path=/
clientCookie.cookieName1.secure=true
```

4.3 MBeans for visualization and control of database connections ("ConnectionPool")

Java Management Extensions (JMX) provide a standardized interface for the management of Java applications. Using the JMX console, it is possible to monitor and manage a FirstSpirit server. While FirstSpirit ServerMonitoring is primarily used for manual monitoring of a FirstSpirit server, the JMX interface is used for automatic monitoring and can integrate into existing, enterprise-wide monitoring infrastructures. All values and operations are provided by Managed Beans ("MBeans").

The current FirstSpirit version provides MBeans in the JMX console entry "ConnectionPool" which allow visualization and control of database connections.

For further information, see *FirstSpirit Manual for Administrators*, chapter "ConnectionPool".



4.4 Server updates using "pull" method

Only a current FirstSpirit version can ensure that all FirstSpirit functionality will be available and that the software will run as well and as reliably as possible. We therefore recommend updating existing FirstSpirit servers regularly and timely. FirstSpirit offers several update methods.

From FirstSpirit version 5.2R5 onward, it is no longer possible to perform updates via Linux package systems. Instead, FirstSpirit now offers uniform, platform-neutral update management for all FirstSpirit servers.

Updating to a newer software version **via locally available files** may be performed using FirstSpirit ServerMonitoring, via “FirstSpirit – Control – Update” or “FirstSpirit – Control – Network” (“Push”).

There, you can now also perform an update **via the update service** (web interface to e-Spirit, “Pull”). The file(s) required for the update is/are downloaded via web interface and then installed. When updating via this update service, various FirstSpirit software versions are available, indicating version line as well as release status:

The screenshot shows the FirstSpirit web interface with the 'Update' section active. The interface includes a navigation menu on the left, a top status bar, and a main content area. The 'Update' section is divided into several panels:

- Update Overview:** Shows 'Server Name: FirstSpirit 5.2R4 (QS)', 'License Type: Production', and 'Current server version: 5.2 R4-424 (STABLE)'.
- Module Details:** Lists modules such as 'Apache FOP', 'Browser Stack', 'FirstSpirit Dropbox Connector', and 'FirstSpirit Geolocation Developm' with their current versions.
- Update server:** Features a dropdown menu for selecting a version to update to, currently showing '5.2 R4-425 (STABLE)'. Other visible versions include 5.2 R4-424, 5.2 R4-423, 5.2 R4-422, 5.2 R4-421, 5.2 R4-420, 5.2 R4-417, 5.2 R3-315, 5.2 R3-314, 5.2 R3-313, 5.2 R3-312, 5.2 R3-311, 5.2 R3-310, 5.2 R3-309, 5.2 R3-308 (BETA), 5.2 R2-217, 5.2 R2-216, 5.2 R2-215, 5.2 R2-214, 5.2 R2-213, and 5.2 R2-212.
- Update modules:** Includes a 'Module file:' field and a 'Start server update' button.

This functionality is only available if the FirstSpirit server was started using the Java wrapper.

For further information, see

- *FirstSpirit Manual for Administrators*,
 - Chapter “Updating the FirstSpirit Server”
- *FirstSpirit Installation Instructions*,
 - Chapter “Update”



5 General

5.1 Code signing certificate updated

The content of FirstSpirit JAR files is signed with a certificate. This procedure is also called “code signing”. In the current FirstSpirit version, the content is signed with a new certificate that is valid until 2018-06-13 (13 June 2018).

Please refer also to Chapter 1 “Code signing certificates”.

6 Input components

6.1 FS_CATALOG: Nesting of language-dependent input components

From the current version of FirstSpirit onwards, the use of language-dependent input components within a language-dependent FS_CATALOG input component will be disallowed by default.

Old behavior

In previous FirstSpirit versions, it was technically possible to configure both FS_CATALOG and inner forms to be language-dependent. This frequently led to problems related to translation processes, general usability of input components for editors, and maintainability of project development as well as to impaired performance. Content entered by the editor into nested, language-dependent FS_CATALOG constructs could (especially so when using translation help) potentially not be output (e.g. during generation) or edited afterwards.

Thus, it was recommended to use language-independent input components within language-dependent FS_CATALOG input components. As a consequence, section templates that were meant to be used within both pages and FS_CATALOG input components had to be duplicated to produce a language-independent version (for use within language-dependent FS_CATALOG components) and a language-dependent version (for use in all other cases).

New behavior

Starting with the current version of FirstSpirit, all projects created with FirstSpirit version 5.2R5 or newer will by default be configured to disallow the use of language-dependent input components within a language-dependent FS_CATALOG input component. Language-dependent input components in



templates that are used within a language-dependent FS_CATALOG component will automatically be treated as language-independent by FirstSpirit. This alleviates the disadvantages imposed by the old behavior.



The old behavior is not recommended, and future versions of FirstSpirit may cease to support it. Migration is recommended.

Compatibility with projects from older FirstSpirit versions

For projects that

- exist on a FirstSpirit server running a previous version that is upgraded to FirstSpirit version 5.2R5 or newer
- are imported from a FirstSpirit server running a previous version to a server running FirstSpirit version 5.2R5 or newer via project import functionality

the old behavior will be supported until further notice. In order to prepare projects that were created in previous versions of FirstSpirit for use with the new behavior, FirstSpirit offers two compatibility settings that allow a stepwise migration.



The data handling used differs between the old and new behavior. If language-dependent input components are used within a language-dependent FS_CATALOG input component in a project, the data of this FS_CATALOG component must be checked and - if necessary - backed up before the new behavior can be used project-wide. Without checks and backups, switching to the new behavior can cause data loss in the project: If the FS_CATALOG component or inner forms of this component already contain content, saving this FS_CATALOG component will cause content to be stored in the language the editor is currently editing (fallback: master language); if content exists in other languages, these language versions will be discarded.

Both compatibility settings have the following effects:

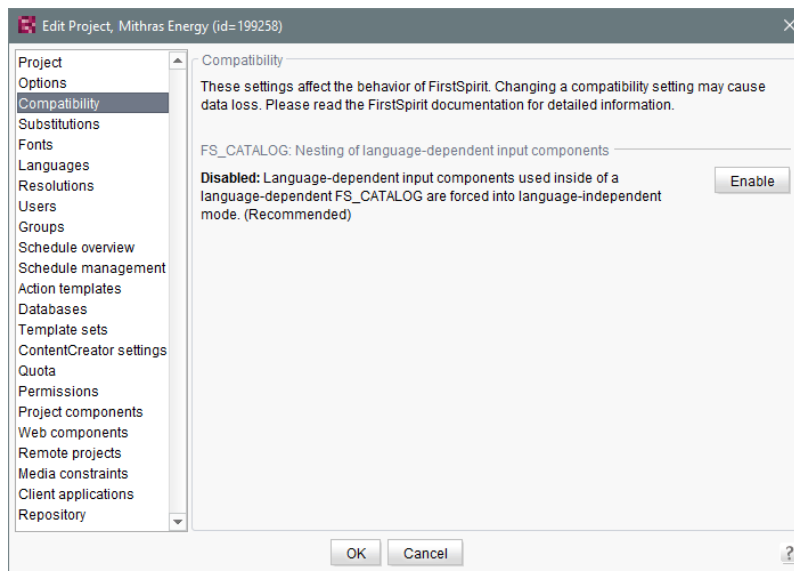
- Compatibility setting “disabled”: Within a *language-dependent* FS_CATALOG input component, inner input components which are configured to be language-dependent in their template will be handled as *language-independent* (new behavior).



- Compatibility setting “enabled”: Within a *language-dependent* FS_CATALOG input component, inner input components which are configured to be language-dependent in their template will be handled as *language-dependent* (old behavior).

Compatibility for **individual FS_CATALOG input components** can be turned off in templates using a parameter, `forbidPolyglotDataHierarchy`. This allows application of the new behavior for single FS_CATALOG input components, while other FS_CATALOG input components for which this parameter is not set will continue to use compatibility with previous FirstSpirit versions.

Once all FS_CATALOG components are prepared for the new behavior, the compatibility setting can be deactivated **project-wide** (“FirstSpirit ServerManager / Project / Properties / Compatibility / FS_CATALOG: Nesting of language-dependent input components”):



The project-wide compatibility setting affects all language-dependent FS_CATALOG input components in a project.

From FirstSpirit version 5.2R5 onwards, when transporting project properties using “Content Transport” functionality or via a project export, this property will be included in the transport/export.

FirstSpirit API

Additionally, the methods `getForbidPolyglotDataHierarchy` and `setForbidPolyglotDataHierarchy` (FirstSpirit Access API, interface `Project`, package



`de.espirit.firstspirit.access.project`) allow access via API to the value set in project properties. `getForbidPolyglotDataHierarchy` returns the currently set value of the compatibility setting “FS_CATALOG: Nesting of language-dependent input components”, while `setForbidPolyglotDataHierarchy` may be used to set this setting's value.

The `ProjectAgent`, obtainable via the `SpecialistsBroker` (both FirstSpirit Developer API, package `de.espirit.firstspirit.agency`), also provides a means to read the current value of the compatibility setting: `getForbidPolyglotDataHierarchy`.

For further information, see

- *Template development / Forms / Input components / CATALOG* (→*FirstSpirit Online Documentation*), parameter `forbidPolyglotDataHierarchy`
- *FirstSpirit Manual for Administrators*, chapter “Compatibility”
- Module documentation for “FirstSpirit CorporateContent”, chapter “Transporting project properties”

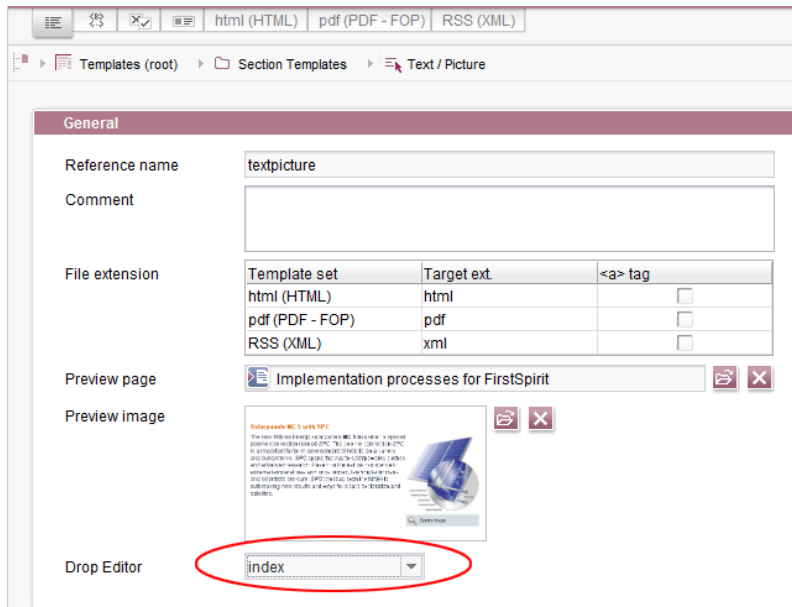
6.2 FS_INDEX: Editorial functionality using drag-and-drop

In ContentCreator, users may create sections, datasets, and links (in a rich-text editor or a table / CMS_INPUT_DOM or CMS_INPUT_DOMTABLE) by dragging and dropping content onto a specifically configured FS_BUTTON input component. To achieve this, a

- section template,
- link template, or
- table template

which should be used to create new content via drag-and-drop must be configured to use the desired target input component (tab “Form”) for such drag-and-drop content as its **Drop Editor** (tab “Properties”).

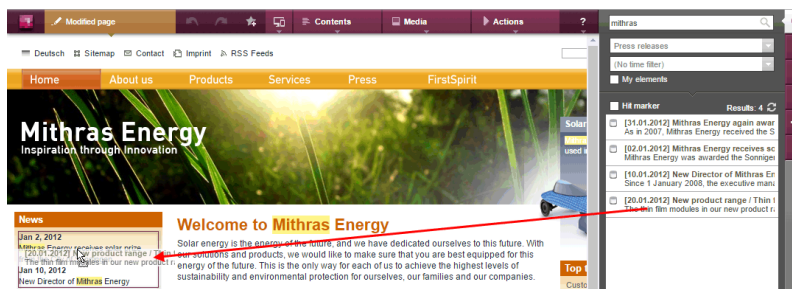




This way, elements provided by a DataAccessPlugin may be used via drag-and-drop in order to create a new section, dataset, or link (in CMS_INPUT_DOM/DOMTABLE). The element dragged and dropped onto the button will then be referenced by a target index component.

If a dataset provided by the DatasetDataAccessPlugin is dropped onto an FS_BUTTON with class `NewSection (onDrop="class:NewSection")` but is incompatible with any FS_INDEX components listed as drop editors (i.e. it does not match any table template configured for FS_INDEX components, tag `SOURCE / TEMPLATE`), the operation will be aborted with the error message “The transferred data has not been accepted”, and no section will be created. Due to technical reasons, a section will in fact be created and deleted again in the background, such that the page will afterwards be shown as changed.

In addition to the “Add” button and drag-and-drop onto an index component in an “Edit” dialog, it is now also possible to **add new entries to index components** by dragging a compatible dataset from a report (e.g. “Search”, “Bookmarks”, etc.) or data from a custom report implementation into the preview area.



The prerequisite is compatible mark-up added via `editorId`.

(Note: An appropriate preview page (“Properties” tab) must be selected so that datasets will appear in search, bookmarks etc.)

Entries within a form may now also be **replaced** with other compatible data from reports. A colored marker



Replace

or



Move/Insert above

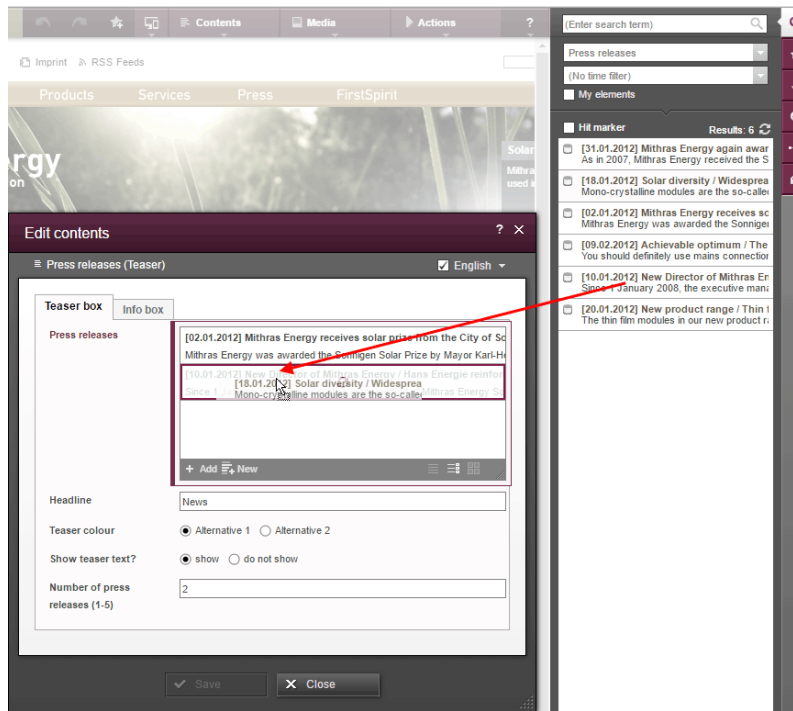
or



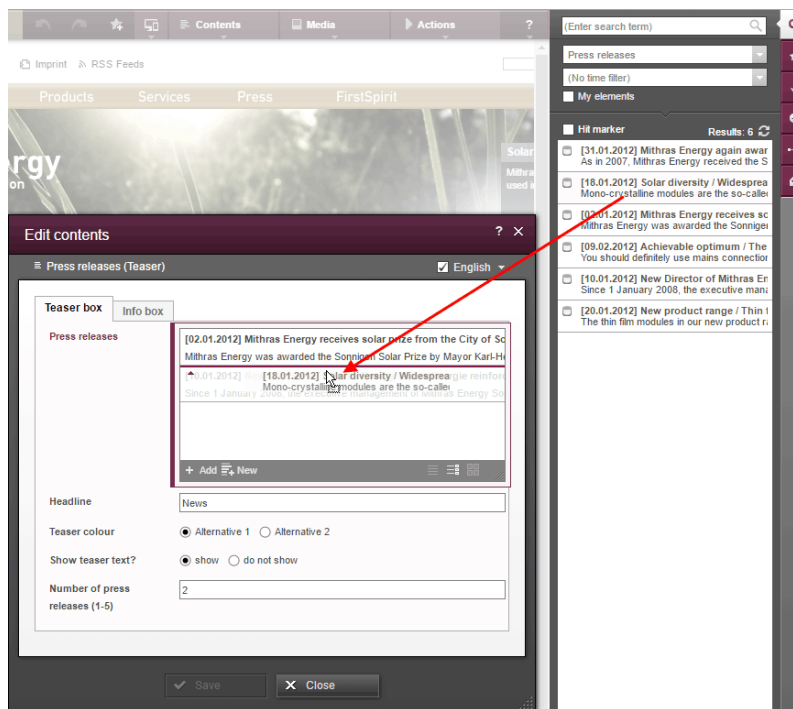
Move/Insert left

indicates whether the data would replace an existing entry if dropped:



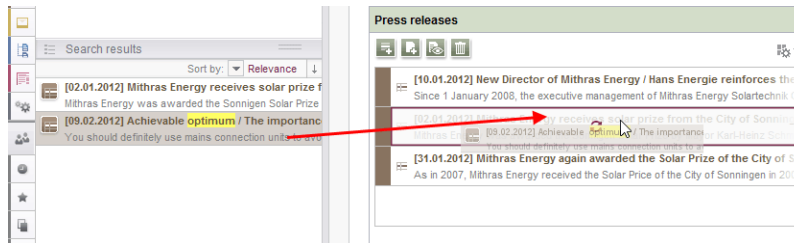


or be added as a new entry:

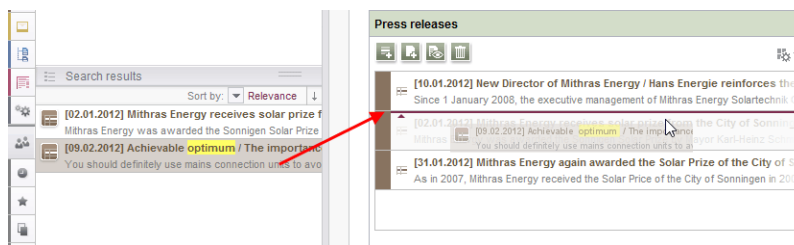


The order of entries may be modified by dropping an element that is already referenced in the component onto the form, but the dropped element will not be referenced twice.

In SiteArchitect, as of the current FirstSpirit version, data may also replace existing entries via drag-and-drop:



or be added as a new entry:



Note for use cases in which only one entry is to be selectable in FS_INDEX: If you would like that the editor can select only one entry within your FS_INDEX component, you can manage this using a rule with the **ADD** property and a “less than” check (using **<LESS_THAN/>**), for example

```

<RULE>
  <WITH>
    <LESS_THAN>
      <PROPERTY name="SIZE" source="fs_index" />
      <NUMBER>1</NUMBER>
    </LESS_THAN>
  </WITH>
  <DO>
    <PROPERTY name="ADD" source="fs_index" />
  </DO>
</RULE>
    
```



For technical reasons, starting with FirstSpirit version 5.2R5, the *ADD* rule is disregarded when replacing entries in ContentCreator **in the preview**. For ensuring that only the desired number of entries will not be exceeded, please use a rule with the restriction level *SAVE*, which will be applied when saving the form, for example

```
<RULE>
  <WITH>
    <LESS_THAN>
      <PROPERTY name="SIZE" source="fs_index"/>
      <NUMBER>2</NUMBER>
    </LESS_THAN>
  </WITH>
  <DO>
    <VALIDATION scope="SAVE">
      <PROPERTY name="VALID" source="fs_index"/>
      <MESSAGE lang="" text="The maximum number of entries is exceeded! Max. 1"/>
      <MESSAGE lang="DE" text="Anzahl der Einträge überschritten! Max. 1"/>
    </VALIDATION>
  </DO>
</RULE>
```

If an entry is added to FS_INDEX via the preview in ContentCreator even though there is already an entry, the form will open showing the rule violation (“The maximum number of entries is exceeded! Max. 1”) and it can only be saved if surplus entries have been removed.

For further information, see

- *FirstSpirit Online Documentation*,
 - “Template development / ContentCreator / Functional scope”, section “FS_BUTTON handler classes”
 - “Template development / Rules”
- *FirstSpirit Manual for Editors (ContentCreator)*,
 - “Editing the preview page / Standard input elements / Lists (new, datasets)”
 - “Editing the preview page / The FirstSpirit operating concept”, section “Using drag-and-drop”
- *Documentation for FirstSpirit SiteArchitect*, “Default input forms / Index (FS_INDEX)”



7 Media

7.1 Support for files with more than one dot character in their names

FirstSpirit now supports upload, saving and deployment of media which contain more than one dot in their file names.

This enables upload of files of type “.tar.gz”, for example. In the example “filename.tar.gz”, the part “gz” will be considered the file name extension, while “filename.tar” will be considered the file name of the medium. This also affects the search settings in SiteArchitect (limiting search results via facets): in search results filtered for file name extension, a file of type “.tar.gz” will be displayed associated with the file name extension “gz” (not “tar.gz”). This must also be considered when defining “Permitted extensions” on the “Media constraints” page of project settings in FirstSpirit ServerManager.

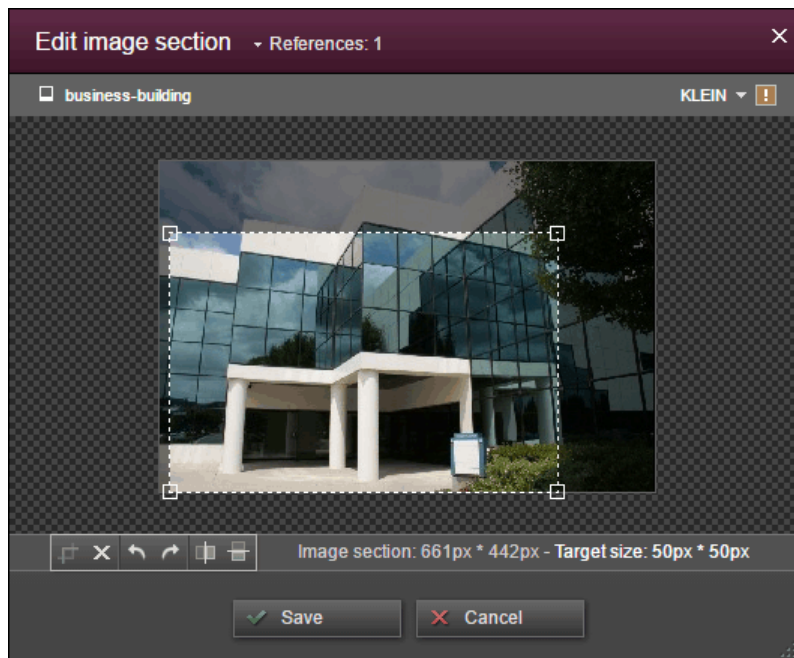
This new functionality is supported in ContentCreator and in SiteArchitect when uploading or creating files via media management functionality as well as via the input component FS_REFERENCE. Besides files of type “.tar.gz”, use cases include files which carry version information in their names such as “Linux_4.6.4-1.debian.tar.xz”.

8 Module Development, Scripts, API

8.1 ContentCreator: Opening the "Edit image section" dialog via API

Image sections (crops) of media elements of type “Picture” may be edited in ContentCreator using a specialized dialog:





As of the current FirstSpirit version, this dialog may now be opened via the FirstSpirit Developer API:

```
de.espirit.firstspirit.webedit.server.CropDialogOperation
```

The parameter `media` passed to the method `setMedia(Media media)` specifies the media element which should be edited.

The parameter `resolutions` passed to the method `setResolutions(List<Resolution> resolutions)` contains resolutions of the image which should be available for editing in the dialog. If this list contains no resolutions or only resolutions which are unknown within the current project, all resolutions specified in the project, with the exception of the resolution "ORIGINAL", will be made editable. If the list contains several other resolutions along with "ORIGINAL", the resolution "ORIGINAL" will be ignored and not made available for editing.

The following example script ("cc_crop") opens the image section dialog if an image is dropped onto an accordingly configured FS_BUTTON input component in the preview.



```
import de.espirit.firstspirit.agency.LanguageAgent;
import de.espirit.firstspirit.agency.OperationAgent;
import de.espirit.firstspirit.agency.ResolutionAgent;
import de.espirit.firstspirit.agency.TransferAgent;
import de.espirit.firstspirit.access.store.IDProvider;
import de.espirit.firstspirit.access.store.mediastore.Media;
import de.espirit.firstspirit.webedit.server.CropDialogOperation;
if (dropdata == null) {
    return false;
}
transferAgent = context.requireSpecialist(TransferAgent.TYPE);
elements = dropdata.get(transferAgent.getType(IDProvider.class));
if (elements == null || elements.isEmpty()) {
    return false;
}
media = elements.get(0);
if (media == null || !(media instanceof Media) ) {
    return false;
}
languageAgent = context.requireSpecialist(LanguageAgent.TYPE);
lang = null;
for (language : languageAgent.getLanguages().iterator()) {
    if ("EN".equals(language.getAbbreviation())) {
        lang = language;
    }
}
resolutionAgent = context.requireSpecialist(ResolutionAgent.TYPE);
resolutions = new ArrayList();
resolutions.add(resolutionAgent.getResolutionByName("Teaser"));
resolutions.add(resolutionAgent.getResolutionByName("HeaderPicture"));
operations = context.requireSpecialist(OperationAgent.TYPE);
operation = operations.getOperation(CropDialogOperation.TYPE);
operation.setMedia(media);
if (lang != null && media.isLanguageDependent()) {
    operation.setLanguage(lang);
}
operation.setResolutions(resolutions);
operation.perform();
```

Example configuration of the FS_BUTTON input component:



```
<FS_BUTTON
  name="pt_cropButton"
  hidden="yes"
  onDrop="script:cc_crop"
  style="firstspirit"
  useLanguages="no">
  <DROPTYPES>
    <TYPE value="picture"/>
  </DROPTYPES>
  <LANGINFOS>
    <LANGINFO lang="" label="Crop a Picture"/>
  </LANGINFOS>
</FS_BUTTON>
```

Example for HTML output:

```
<span$CMS_VALUE(fsbutton(editorName:"pt_cropButton"))$></span>
```

If a media element that is of type **File** or is an object of type **Picture** which does not contain image data is passed to the method `setMedia(Media media)`, according exceptions will be logged to the file `fs-server.log`, and the image section dialog will not be opened.

For further information about image section editing in ContentCreator, see *FirstSpirit Manual for Editors (ContentCreator)*, chapter “Editing a preview page / Media”, section “Edit image sections”.

8.2 ContentCreator: Using dropdown menus via API

The newly-added interface `selectOptionOperation` (FirstSpirit Developer API, package `de.espirit.firstspirit.webedit.server`) allows developers to use a lightweight dropdown menu for selection of a value within the ContentCreator preview, e.g.





In this example, the dropdown menu appears upon clicking an FS_BUTTON input component rendered in the preview (“Select an option”) and configured as follows:

```
<FS_BUTTON
  name="pt_selectOption"
  hidden="yes"
  onClick="script:cc_select_operation"
  style="firstspirit"
  useLanguages="no">
  <LANGINFOS>
    <LANGINFO lang="" label="Select an option"/>
    <LANGINFO lang="DE" label="Wählen Sie eine Option"/>
  </LANGINFOS>
</FS_BUTTON>
```

The dropdown menu allows selection among options 1 through 5. These options can be added to the dropdown using the method `SelectOptionOperation#addOption(String label, String value)`. Every single call to this method can add one item to the dropdown menu, where `String label` is the human-readable label shown in the menu and `String value` represents the internal value.

Example script (“cc_select_operation”):



```
import de.espirit.firstspirit.webedit.server.SelectOptionOperation;
import de.espirit.firstspirit.agency.OperationAgent;
import de.espirit.firstspirit.ui.operations.RequestOperation;
operations = context.requireSpecialist(OperationAgent.TYPE);
operation = operations.getOperation(SelectOptionOperation.TYPE);
operation.addOption("Option 1", "1");
operation.addOption("Option 2", "2");
operation.addOption("Option 3", "3");
operation.addOption("Option 4", "4");
operation.addOption("Option 5", "5");
selection = operation.perform();
if (selection != null) {
    request = operations.getOperation(RequestOperation.TYPE);
    request.perform("Your selection: " + selection);
}
```

Once the user selects an item in the dropdown list, this selection is then output in a dialog.

The FS_BUTTON can be rendered in the preview using the function `fsbutton(...)`:

```
<span$CMS_VALUE(fsbutton(editorName:"pt_selectOption"))$></span>
```

See also *Plug-In Development / ContentCreator Extensions / Interactive Features / Selection Lists* (→*FirstSpirit Online Documentation*).

8.3 Examples for integration of external data sources using generic DataAccessPlugins

As of FirstSpirit version 5.2R5, source code packages are available that contain example modules for integration of external data sources in FirstSpirit using generic DataAccessPlugins. These modules allow integration of web services that use Open Data Protocol (OData) and Simple Object Access Protocol (SOAP), respectively, as data sources for FS_INDEX input components, i.e. such data sources become usable without creating own Java implementations.

Manuals for compilation, installation, configuration, and use of the modules are available in *FirstSpirit Online Documentation*, chapter “Plug-In Development / Examples / Modules: Accessing Web Services via OData/SOAP”.



8.4 External Synchronization / Content Transport: Selecting a database layer for import

The functionalities “FirstSpirit Content Transport” and “External Synchronization” allow export of FirstSpirit content from a source project and import of this content into a target project - if desired, on a regular schedule and automated. Among others, a goal of these functionalities is to enable reuse of content independent of projects and servers and to synchronize the content state between different projects. This synchronization can of course include database content as well. During import of a database schema using either of these functionalities, the new interface `LayerMapper` (FirstSpirit Developer API, package `de.espirit.firstspirit.transport`) allows selection of a database layer onto which the schema should be mapped. This enables mapping several schemata onto different layers.

FirstSpirit provides two example implementations:

- `LayerMapper.SchemaUidBasedLayerMapper`
maps schema UID to target layer name.
- `LayerMapper.LayerNameBasedLayerMapper`
maps source layer name to target layer name. This allows mapping of several schemata onto different layers.
(Not suitable for use with “External Synchronization”.)

Custom mappers can be implemented using the API.

The following classes and methods have been marked deprecated in the course of this new implementation:

- “External Synchronization”
 - `ImportOperation.DatabaseLayerMapper`
 - `ImportOperation.MapDatabaseLayerMapper`
 - `IDENTITY_LAYER_MAPPING`
- “Content Transport”:



- `installFeature(FeatureFile featureFile, Map<String,String> layerMapping)`
(interface `FeatureInstallAgent`, Package `de.espirit.firstspirit.feature`)
has been replaced by: `installFeature(@NotNull FeatureFile featureFile, @Nullable LayerMapper layerMapper)`

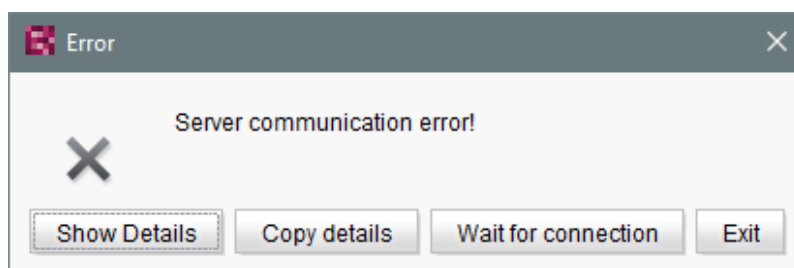
Methods set to the “deprecated” state can still be used, but as they will be omitted in subsequent versions, this is not advisable. If methods, classes, and interfaces that are no longer supported or are set to deprecated are used in scripts and/or modules, entries are written to log files accordingly (e.g., server log, generation log, etc.). The corresponding log entries should be checked and the cause(s) remedied.

9 SiteArchitect / ServerManager

9.1 Reconnecting after Communication Errors

If a communication error occurred between SiteArchitect or ServerManager and the FirstSpirit server, clients previously needed to be exited manually and restarted after communication with the server was reestablished.

As of FirstSpirit version 5.2R5, active client sessions will no longer be automatically ended in this case. If a communication error occurs, the following dialog will be displayed:



- Clicking “Exit” will close the client.
- Clicking “Wait for connection” will allow a user to continue to work with SiteArchitect or ServerManager if the connection can be reestablished within 1 minute. The dialog will then close automatically.



- If the user does not click on either button, the message “Server connection re-established” will be displayed if the connection can be reestablished within 1 minute. Clicking on “OK” will close the dialog, and the user can continue to use the client.

If the connection cannot be reestablished within one minute, the message “Server connection closed” will be displayed, and the client must be closed by clicking “Exit”.

10 SiteArchitect

10.1 Context menu functionality and horizontal toolbar

In FirstSpirit SiteArchitect, the context menus for store tree items have been modified such that context menu entries are now always shown in a consistent order. Furthermore, the drop-down menus associated with the “Preview” and “New” buttons in the horizontal toolbar have been expanded:



The icon for showing the buttons of the horizontal toolbar which are faded out because of lack of column width can be found now at the right-hand edge of each column:



For further information, see *Documentation for FirstSpirit SiteArchitect*,

- “FirstSpirit SiteArchitect / The horizontal toolbar”
- “FirstSpirit SiteArchitect / The horizontal toolbar / Preview”
- “FirstSpirit SiteArchitect / The horizontal toolbar / New”



10.2 Display of Default Values in Data Sources

FirstSpirit's Data Sources store is used to store and manage well-structured content, e.g. press releases, product catalogs, and address lists. The data is displayed in a tabular view:

ID	G.	Product name	Product description	Picture	Picture description	Product d
4160	<input checked="" type="checkbox"/>	[Master copy] 150W Modular Inverter / 12V Mini	The 150W modular inverter / 12V mini is mounted on the solar module. The small voltage range makes this safe and there are less		150W Modular Inverter / 12V Mini	[Inverter]
2050	<input type="checkbox"/>	Connector	This solar connector has been designed for use in extreme environmental situations and to satisfy the demand for lighter, more,		Connector	[Accesso
2048	<input type="checkbox"/>	Frame	The number of roof anchors is important for the stability of this frame; it enables use on pitched roofs of 20 to 60 degrees in virtually,		Frame	[Accesso
1989	<input type="checkbox"/>	Adapter	With this adapter you can easily and flexibly connect up to 10 solar collectors with each other. The distance between the individual		Adapter	[Accesso

If a template for a dataset defines an input component with a default value and a dataset based on this template does not override this value (i.e. an editor has not entered a value into this input component for that dataset), the detailed dataset view will show a pink frame around this input component:

Product name

Product name

Product description



In the tabular view, such default values used by a dataset will now be shown in a semi-transparent fashion:

ID	Product name	Product description	Picture	Picture description	Product category
4672	Product name				
4160	[Master copy] 150W Modular Inverter / 12V Mini	The 150W modular inverter / 12V mini is mounted on the solar module. The small voltage range makes this safe and there are less		150W Modular Inverter / 12V Mini	[Inverter]
2050	Connector	This solar connector has been designed for use in extreme environmental situations and to satisfy the demand for lighter, more		Connector	[Accesso
2048	Frame	The number of roof anchors is important for the stability of this frame; it enables use on pitched roofs of 20 to 60 degrees in virtually		Frame	[Accesso

Previously, default values were not shown.

For further information, see

- *Documentation for FirstSpirit SiteArchitect*, chapters
 - “Data Store / Editing area of a data source (overview)”
 - “General operation / Default values”
- *FirstSpirit Online Documentation*, chapter
 - “Template development / Forms / Default values”

10.3 Drag-and-drop support for CMS_INPUT_DOMTABLE

A central interaction pattern in ContentCreator and SiteArchitect is the affordance for simple data exchange via drag-and-drop, e.g. from a report or a (Windows) desktop into a FirstSpirit input component.

As of FirstSpirit version 5.2R5, the input component CMS_INPUT_DOMTABLE in SiteArchitect now also supports drop functionality. Now, objects of type *Text*, e.g. text from a word processing program such as Microsoft Word, may be inserted into CMS_INPUT_DOMTABLE using drag-and-drop.



When using the module “FirstSpirit OfficeConnect”, content from Microsoft Office documents may be inserted into an accordingly configured DOM input component using the keyboard shortcut **Ctrl+V**. Previously, this was only possible via the Import button.

For further information, see

- *FirstSpirit Online Documentation*, “Template development / Forms / Drag-and-drop”
- Module documentation for *FirstSpirit OfficeConnect*

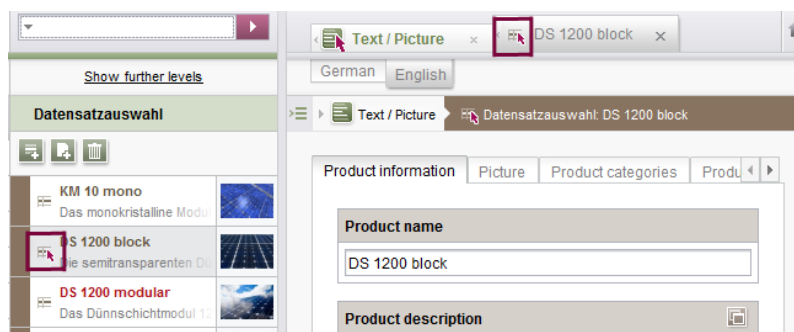
10.4 FS_INDEX: Reuse of tabs in the details view

In FirstSpirit version 5.2R5, the user interface of the details view of the input component FS_INDEX has been optimized: the tabs in the details view will now be reused and visualize an active edit mode.

The details view is always started when a new entry is added to the index or an index entry is edited. Instead of the usual tree view in the left pane of the SiteArchitect window, an overview of the index entries is displayed. In the editorial area, a new tab will be opened that shows the selected index entry. If another entry is selected in the index overview of the details view, this tab will be reused.

Edit mode is only automatically activated when adding a new index entry. If an existing entry should be modified, edit mode must be activated manually.

If edit mode is active, the same rules in tab handling apply as do to serial editing of datasets: when switching from one entry to another, changes to the first entry will be saved after a confirmation dialog is answered accordingly, the next entry will then be displayed in the same tab and will be in edit mode as well.

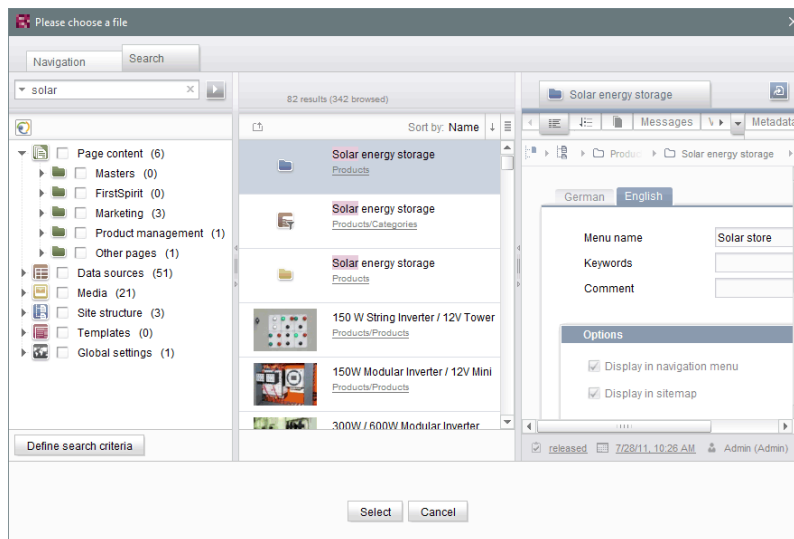


Active edit mode will be visualized using a red arrow icon on the tab of the entry that is being edited.



10.5 Optimization of selection dialog

In SiteArchitect, the selection dialog offers navigation and search functionality which enable quick location of objects which should be referenced, e.g. images or files from the Media store or page references from the Site Structure store (e.g. input components FS_REFERENCE, FS_LIST, FS_DATASET). The dialog only displays objects which may be selected, based on the constraints set by the input component.



Selection dialog of FS_REFERENCE (SiteArchitect)

In FirstSpirit version 5.2R5, the search interaction pattern in this dialog has been optimized:

- By default, the selection dialog will now search **all stores / folders of all projects** which are allowed, based on the constraints set by the input component (e.g. FS_REFERENCE: tag **SOURCES / FOLDER**, FS_DATASET: tag **SOURCES / CONTENT**). Previously, search only considered projects / stores / partial trees which were selected by the user in the tree of the tab “Navigation”. In order to limit search to certain projects / stores / partial trees, users may now toggle checkboxes in the tab “Search” accordingly.
- If search is started from the tab “Navigation”, any existing search limitations set in the tab “Search” will be **reset**. In the tab “Search”, checkboxes will thus no longer be set automatically.
- The display of the **suggestion list** below the search field has been improved.



For further information

- about the selection dialog, see *Documentation for FirstSpirit SiteArchitect*, chapter “Selection dialogs”,
- about specific input components, see *FirstSpirit Online Documentation*.

11 Overview

ID	Description	Categories
158311	The page status display, reached via the ContentCreator toolbar, erroneously displayed the most recent editor and the most recent release date of the page reference, not of the page element.	ContentCreator
161625	FirstSpirit now supports upload, saving, and deployment of media which contain more than one dot in their file names, e.g. files of type “.tar.gz” or files which carry version information in their names such as “Linux_4.6.4-1.debian.tar.xz”. Further information can be found in chapter “Media: Support for files with more than one dot character in their names”.	ContentCreator, Editor, Input Components, Media Store, Search, SiteArchitect
162580	In SiteArchitect, the selection dialog offers navigation and search functionality which enable quick location of objects which are to be referenced, e.g. images or files from the Media store or page references from the Site Structure store (e.g. input components FS_REFERENCE, FS_LIST, FS_DATASET). In FirstSpirit version 5.2R5, the search interaction pattern in this dialog has been optimized. Further information can be found in chapter “SiteArchitect: Optimization of selection dialog”.	Editor, Search, SiteArchitect
165595	From the current version of FirstSpirit onwards, the use of language-dependent input components within a language-dependent FS_CATALOG input component will be disallowed by default. Further information can be found in chapter “Input components: FS_CATALOG: Nesting of language-dependent input components”.	ContentCreator, Developer, Editor, FirstSpirit API, FirstSpirit Administrator, Input Components, Server-Manager, SiteArchitect



ID	Description	Categories
172878	In the “Extras” menu item, evaluation of the “Show preview errors” setting has been improved.	Preview, SiteArchitect
173046	<p>The newly-added interface <code>selectOptionOperation</code> (FirstSpirit Developer API) allows developers to use a lightweight dropdown menu for selection of a value within the ContentCreator preview.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: ContentCreator: Using dropdown menus via API”.</p>	ContentCreator, Developer, FirstSpirit API
173120	When the internal Jetty engine was used as servlet engine, an error message could be written to the log files during server shutdown.	Server Administrator
175578	Longer periods of inactivity could lead to erroneous behavior when requesting the FirstSpirit start page.	Webstart
177304	Disabling the “Delete” icon for the input component FS_LIST (no <code><ACTION name="REMOVE"/></code> defined) was erroneously not observed in ContentCreator.	ContentCreator, Input Components
177311	In ContentCreator, adding new media to a folder could lead to erroneous behavior if the project's master language was not configured to be used as an editorial language.	ContentCreator, Media Store
178089	<p>As of FirstSpirit version 5.2R5, source code packages are available that contain example modules for integration of external data sources in FirstSpirit using generic <code>DataAccessPlugins</code>.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: Examples for integration of external data sources using generic <code>DataAccessPlugins</code>”.</p>	Developer, FirstSpirit API, Module development
178867	<p>The “Edit image section” dialog in ContentCreator can now be opened via API.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: ContentCreator: Opening the “Edit image section” dialog via API”.</p>	ContentCreator, Developer, FirstSpirit API
179252	In the “Edit image section” dialog in ContentCreator, rotating or flipping an image section were erroneously not recognized as changes.	ContentCreator, Media Store



ID	Description	Categories
180560	For page references, optimized display of changes in the version history.	SiteArchitect, Version history
180638	Optimized the user interface of the details view of the input component FS_INDEX: the tabs in the details view will now be reused and visualize an active edit mode. Further information can be found in chapter "SiteArchitect: FS_INDEX: Reuse of tabs in the details view".	SiteArchitect
181031	Improved search in log files in ServerMonitoring.	Search, ServerMonitoring
181736	The current FirstSpirit version provides MBeans in the JMX console entry "ConnectionPool" which allow visualization and control of database connections. Further information can be found in chapter "Administration: MBeans for visualization and control of database connections ("ConnectionPool")".	Database, FirstSpirit Administrator
182228	Improved thumbnail display for media in Media store folders.	Media Store, SiteArchitect
182765	In the input component CMS_INPUT_RADIOBUTTON, the set of available options may be limited by using a rule. Erroneous behavior could occur if the current value of such an input component was not available in the current set of available options.	Dynamic Forms, Input Components, SiteArchitect
182884	Improved keyboard-based selection of entries in the input component CMS_INPUT_LIST.	Input Components
183416 184278	You can now perform web-based updates of your FirstSpirit server/s by simply selecting the desired FirstSpirit version in ServerMonitoring. Further information can be found in chapter "Administration: Server updates using "pull" method".	FirstSpirit Administrator, License, Server Administrator, ServerMonitoring
183767	When starting workflows via the status bar or the context menu, the available workflows will now be sorted using the same ordering.	SiteArchitect, Workflow



ID	Description	Categories
184024 189428 189552 189655 189899	Extended interaction pattern of FS_INDEX with drag-and-drop functionality: FS_INDEX can now be selected as a drop editor in section, link, and table templates. Furthermore, users may now add and replace entries of compatible data types (e.g. from a report) to/in index components in forms using drag-and-drop. Further information can be found in chapter "Input components: FS_INDEX: Editorial functionality using drag-and-drop".	ContentCreator, Developer, Editor, Input Components, SiteArchitect, Template Development
184237	In rare cases, erroneous behavior could occur in the preview.	ContentCreator, Preview, SiteArchitect
184313 189163	In FirstSpirit SiteArchitect, the context menus for store tree items as well as some buttons in the horizontal toolbar have been modified. Further information can be found in chapter "SiteArchitect: Context menu functionality and horizontal toolbar".	Developer, Editor, SiteArchitect
184314	Improved propagation of rule infractions in the input component FS_LIST (type PAGE).	Dynamic Forms, Input Components
184378	Relating to the input component FS_DATASET, if a filtered data source is used with <code>selectorMode="list"</code> , the filter will now be observed in the dataset view in the selection list.	Content Store, Editor, Input Components
184621	When using Oracle databases, using very long column names for N:M foreign key relationships could cause an error.	Database
185046	Improved display of input components within the design element CMS_GROUP.	Input Components, SiteArchitect
185184	Editing media elements in the Media store could lead to erroneous behavior.	Editor, Media Store
185695 189317	In the input component CMS_INPUT_DOM, the parameter <code>enableImport</code> activates use of the functionality provided by the module "FirstSpirit OfficeConnect". Optimized import into FirstSpirit of images that were resized within an Office document.	Modules, SiteArchitect



ID	Description	Categories
185711	During project import, a backup of the file “fs-database.conf” is now created when a new database layer is selected.	FirstSpirit Administrator
185753	Erroneous behavior related to nested input components FS_LIST (type INLINE) could occur if the outer input component was used within a dataset form.	Input Components
185776	Optimized evaluation of privileges for thumbnail images in the selection dialog when creating pages or sections.	SiteArchitect
185875	Improved display of changes in the “Project History” report.	ContentCreator, Reports, Version history
186602	Optimized evaluation of privileges when setting a temporary filter on a data source.	Content Store, Permissions
186692	Beginning with Oracle JDK 1.8, the interface <code>ProcessAgent</code> (FirstSpirit Developer API, package <code>de.espirit.firstspirit.agency</code>) will use standard JDK functionality to start external processes server-side.	Developer
186705	Improvements in external synchronization for nested input components.	External synchronization
186846	Modifications of mutable form values during the generation process now only have local effects and therefore do not affect the results of other channels.	Generation
186896	Displaying the node properties via the keyboard shortcut <code>Alt + P</code> could lead to erroneous behavior.	SiteArchitect
186900	Optimized release of child elements.	Release, SiteArchitect
187004	Automatic population of a data source using a script could lead to erroneous behavior.	Content Store, Developer
187107	Improved validation behavior related to nested FS_LIST input components in projects with many languages.	Input Components, SiteArchitect
187274	In rare cases, using the browser engine “Google Chrome” for internal preview could lead to erroneous behavior.	Preview, SiteArchitect
187285	Improved certificate evaluation in the integrated preview when it uses Mozilla Firefox as browser engine.	Preview, Security



ID	Description	Categories
187494	Optimizations for the number of open file handles.	Performance
187600	<p>Improved client resilience to brief interruptions in communication with the server.</p> <p>Further information can be found in chapter “SiteArchitect / Server-Manager: Reconnecting after Communication Errors”.</p>	ServerManager, SiteArchitect
187660	When populating the input component FS_INDEX via drag-and-drop from a report in ContentCreator, restrictions of the rule property “ADD” were not considered.	ContentCreator, Dynamic Forms, Input Components
187823	<p>The content of FirstSpirit JAR files is signed with a certificate. In the current FirstSpirit version, the content is signed with a new certificate that is valid until 2018-06-13 (13 June 2018).</p> <p>Further information can be found in chapter “General: Code signing certificate updated”.</p>	Webstart
187851	When using the functionality “External Synchronization”, the method <code>setDatabaseLayerMapper(ImportOperation.DatabaseLayer)</code> of the interface <code>ImportOperation</code> (FirstSpirit API, package <code>de.espirit.firstspirit.store.access.nexport.operation</code>) will now use the correct database layer.	External synchronization
188105	In the Media store and in media selection dialogs, erroneous behavior could occur while loading miniature previews of image resolutions.	Media Store, SiteArchitect
188108	<p>Optimized translation help in ContentCreator.</p> <p>Note: In ContentCreator, translation help is an optional feature that is only available if the project is configured to use it, i.e., a project-specific solution that opens translation help was implemented.</p>	ContentCreator
188182	Improved display of the status bar in the editorial workspace.	SiteArchitect
188354	Improved editing of the input component FS_CATALOG in subforms.	Editor, Input Components, SiteArchitect
188416	Optimized the process of uploading media files via the “Media Import Wizard”.	Media Store, SiteArchitect



ID	Description	Categories
188461	<p>When uploading a media file into the Media store using the dialog “Create medium”, the file selection dialog defaults to the directory “Documents” within the local user directory.</p> <p>During further file upload actions, the file selection dialog will start in the most recently selected directory.</p>	Media Store
188467	Improved visualization of rule infractions in nested FS_CATALOG input components.	Dynamic Forms, SiteArchitect
188503	Improved media import via Media Import Wizard.	Media Store
188550	Improved configuration and evaluation of parameters when several web applications are used.	Server Administrator
188564	Improved file selection dialog of the input component FS_REFERENCE.	Editor, Input Components, SiteArchitect
188569	Stability improvement related to SiteArchitect.	SiteArchitect
188580	In the method <code>disconnect()</code> of the interface <code>Connection</code> (FirstSpirit Access API, package <code>de.espirit.firstspirit.access</code>), improved the disconnection procedure.	Developer
188624	Starting a FirstSpirit server could lead to erroneous behavior if the user's home directory could not be written to.	FirstSpirit Administrator
188634	Under special circumstances, displaying the Health Center in FirstSpirit ServerMonitoring could lead to erroneous behavior.	Health Center
188700	<p>Changed standard configuration: The preset values of the optional parameters <code>servletSessionCookieName</code> and <code>servletSessionCookieName.ROOT</code> in the file <code>fs-server.conf</code> were changed. For all new installations of FirstSpirit, a FirstSpirit-specific session cookie name will be used for all web applications and the root application.</p> <p>Further information can be found in chapter “Administration: Changed standard configuration of session cookies for new installations”.</p>	FirstSpirit Administrator, Server Administrator, Sessions



ID	Description	Categories
188703	In rare cases, an additional instance of the ContentCreator user interface could be shown nested within another instance of the user interface.	ContentCreator
188731	<p>Entering text into the input component CMS_INPUT_DOMTABLE is now also possible via drag-and-drop and, when using the module “FirstSpirit OfficeConnect”, via <code>Ctrl + V</code>.</p> <p>Further information can be found in chapter “SiteArchitect: Drag-and-drop support for CMS_INPUT_DOMTABLE”.</p>	Editor, Input Components, Modules, SiteArchitect
188781	The FirstSpirit license contains information about the maximum allowable number of open sessions. The evaluation of this parameter and the interaction pattern related to exceeding the licensed maximum number of open sessions has been optimized.	License, Sessions
188813	Improved use of keyboard shortcuts.	SiteArchitect
188994	In metadata, referencing an element which has never been released could lead to unexpected results during generation.	SiteArchitect
189052	The export process of external synchronization to an existing folder may have led to a failure.	External synchronization
189166	When creating a new page in ContentCreator, dot characters (‘.’) in the display name were erroneously preserved in the reference name.	ContentCreator
189182	In the input component FS_INDEX, creating a new dataset could lead to erroneous behavior.	ContentCreator, Input Components
189212	Improved search for dataset ID.	Content Store, Search
189214	Calling methods of module classes in FS templates may have led to a failure.	Developer, Template Development
189258	<p>The behavior of id#187753 (see release notes to FirstSpirit version 5.2.421) showed unwanted effects in script executions and therefore it must be activated explicitly from this build on. Please ask our technical support for guidance.</p> <p>If the behavior is activated scripts may be adapted to the potential change of the data type of the input component CMS_INPUT_TEXT from type <code>string</code> to <code>CharSequence</code>.</p>	Developer, Input Components, Template Development



ID	Description	Categories
189284	Security improvements in the module “FirstSpirit BasicSearch”.	Modules, Security
189359	Optimized initial display of the suggestion list in the search field of global search and search in the selection dialog of the input component FS_REFERENCE.	Search, SiteArchitect
189394	When generating in some cases the project properties “substitution medium” and “substitution page” have not been respected.	Generation
189438	When using the input component CMS_INPUT_DATE in metadata, performing a search within metadata could erroneously cause the input component to be displayed in single-lined mode (parameter <code>singleLine</code>) in the metadata form.	Input Components, Search
189461	When using the functionality “External Synchronization”, importing objects with forms which reference elements that are not yet available in the project could lead to erroneous behavior.	External synchronization
189465	Optimized display of thumbnails in the brief overview of data sources.	Content Store, Snippets
189508	In ContentCreator, searching in Help could lead to erroneous behavior.	ContentCreator, Search
189628	Improved SiteArchitect performance.	Performance, SiteArchitect
189637	Improved display of forms when switching between language tabs.	SiteArchitect
189660	Improved display of media folders, taking into consideration configured permissions.	Media Store, Permissions, SiteArchitect
189662	Sporadically, erroneous behavior could occur in the preview while working with ContentCreator.	ContentCreator, Preview
189752	Improved evaluation of privileges on a data source when creating a new dataset via the input component FS_DATASET.	Input Components, Permissions
189766	Importing a page via “External Synchronization” could lead to erroneous abortion of the import process if the page template used was not present before. Now, the page will not be imported, and the error will be added to <code>ImportOperation.Result</code> .	External synchronization
189790	Improved evaluation of rules in child forms of the input components FS_LIST and FS_CATALOG.	Dynamic Forms, SiteArchitect



ID	Description	Categories
189979	Optimized revalidation in forms when using the form properties <i>SIZE</i> , <i>LENGTH</i> , <i>ENTRY</i> , and the comparison expression <i>CONTAINS</i> .	Dynamic Forms
189983	In the input component <code>CMS_INPUT_DOM</code> with inline tables, erroneous behavior could occur if no table format templates were defined in the project.	ContentCreator, Input Components
190065	In the data source overview, default values will now be displayed in semi-transparent fashion. Further information can be found in chapter “SiteArchitect: Display of Default Values in Data Sources”.	Content Store, SiteArchitect
190178	Optimized evaluation of rules when using the property <code>SECTION</code> for the input component <code>FS_REFERENCE</code> . This property may be used to check if a section is selected.	Dynamic Forms, Input Components, SiteArchitect
190195	Publishing a package with nodes that were deleted or archived in the source project could cause an error message to be logged. The message will now be logged with the log level “TRACE” such that it no longer appears as an error (log level “ERROR”).	Corporate Content
190207	The configuration file “fs-server.conf” now allows optional configuration of specific values for session cookies. The new attributes can define values for domain, path, and the secure flag of the session cookie. Further information can be found in chapter “Administration: Configuration of session cookies (fs-server.conf)”.	FirstSpirit Administrator, Launcher, Server Administrator, ServerManager, Sessions, Webstart
190263	Corrected access to form fields during generation (FirstSpirit Access API, package <code>de.espirit.firstspirit.forms</code> , interface <code>FormData</code> , method <code>get(Language, String)</code>).	Generation



ID	Description	Categories
190314	<p>During import of a database schema using the functionalities “FirstSpirit Content Transport” or “External Synchronization”, the new interface <code>LayerMapper</code> (FirstSpirit Developer API, package <code>de.espirit.firstspirit.transport</code>) allows selection of a database layer onto which the schema should be mapped.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: External Synchronization / Content Transport: Selecting a database layer for import”.</p>	Content Transport, Database, Developer, External synchronization, FirstSpirit API
190333	Drag-and-drop of media between projects could lead to erroneous behavior.	Media Store, SiteArchitect
190417	SiteArchitect performance improvements.	Editor, SiteArchitect
190569	The configuration of a new feature package can again be tested in the schedule action “Content Transport” (ServerManager / Project / Properties / Schedule management / Add / Default schedule / Actions / Add / Content Transport / Test configuration).	Content Transport, ServerManager
190695	In association with a Tomcat web server, authentication via the FirstSpirit start page could lead to erroneous behavior if a password contained special characters.	FirstSpirit home page, Server Administrator
190715	Optimized rule evaluation during emptiness check (property EMPTY).	Dynamic Forms
190752	Optimized display of the start page in Google Chrome when using automatic login.	FirstSpirit home page
190759	Improved logging of web applications running on Tomcat web server.	FirstSpirit Administrator
190822	<p>In the module “FirstSpirit Security”, the parameter <code>profilname.dir</code> in the file “<code>crcTransfer.ini</code>” may be used to configure the web application.</p> <p>If the parameter was given a value which included a trailing slash (<code>.../</code>) in the path string, erroneous behavior could occur.</p> <p>Now, it is possible to use a path that includes a trailing slash character.</p>	Modules
190852	For the input component FS_CATALOG, improved the input dialog and drag-and-dropp of media from the AppCenter.	Editor, Input Components, SiteArchitect



ID	Description	Categories
190870	When using Apache Tomcat version 8.0.36, instead of displaying the specifically requested dataset on a content projection page, the first dataset of this content projection may have been displayed.	ContentCreator, Editor, Preview
190879	In SiteArchitect running on Mac OS X, erroneous use of the system clipboard could occur.	Clipboard, SiteArchitect
190950	Optimized display of the “Task list” menu icon.	SiteArchitect
191045	Optimized automatic roll-out of web applications during server start-up.	Server Administrator
191115	Optimized determination of release state of restored folders.	Release
191158	Improved behavior of a release workflow, specific to situations in which the element to be released contains invalid references (e.g. in an FS_REFERENCE input component).	Release, SiteArchitect, Workflow
191161	In very rare cases, using the input component FS_CATALOG could lead to erroneous behavior.	Input Components, SiteArchitect
191174	Importing content packages into projects which define languages that were not defined in the source project could lead to erroneous behavior in input components that are grouped with the design element CMS_GROUP.	Corporate Content, Input Components
191211	During configuration of a database schema, renaming columns with N:M foreign key relationships could lead to erroneous behavior.	Database
191353	Optimized display of data source contents in the selection dialog of the input component FS_LIST (type DATABASE).	ContentCreator
191377	Optimized spell check for the input components CMS_INPUT_DOM and CMS_INPUT_DOMTABLE.	ContentCreator, SiteArchitect
191399	Optimized handling of rule infractions in ContentCreator.	ContentCreator, Dynamic Forms
191724	Using the input component FS_LIST (type DATABASE) within metadata could lead to erroneous behavior.	Input Components, SiteArchitect
191797	In rare cases, use of the FirstSpirit Launcher could lead to erroneous behavior.	Launcher



ID	Description	Categories
191806 191794	Security improvements in ServerManager.	Security, ServerManager
191939	In a workflow, users that have server administrator privileges could erroneously not be selected as next editors.	SiteArchitect, Workflow
191973	Using “Translation Help” functionality could lead to erroneous behavior.	SiteArchitect
192110	For the input component FS_DATASET, optimized rule evaluation when creating a new dataset.	Dynamic Forms, Input Components, SiteArchitect
192144	Optimized use of JSP Includes for inclusion of HTML or JSP content in a FirstSpirit page.	ContentCreator, Preview
192162	<p>On a <i>FormData</i> object, the method <code>get(Language, string)</code> allows access to the <i>FormField</i>.</p> <p>The output of the following (simplified) syntax, which allows access to the content of a <i>FormField</i> in the language currently being rendered, has been corrected:</p> <pre>\$CMS_VALUE(IDENTIFIER.formData["IDENTIFIER2"])\$</pre> <p>Alternatively, either of the following syntaxes will yield the same result:</p> <pre>\$CMS_VALUE(IDENTIFIER.formData.IDENTIFIER2)\$</pre> <pre>\$CMS_VALUE(IDENTIFIER.formData.get("IDENTIFIER2"))\$</pre>	Developer
192274	Saving several times during editing in “Translation Help” could lead to erroneous behavior.	Editor, SiteArchitect



12 Categories

12.1 Clipboard

ID	Description
190879	In SiteArchitect running on Mac OS X, erroneous use of the system clipboard could occur.

12.2 Content Store

ID	Description
184378	Relating to the input component FS_DATASET, if a filtered data source is used with <code>selectorMode="list"</code> , the filter will now be observed in the dataset view in the selection list.
186602	Optimized evaluation of privileges when setting a temporary filter on a data source.
187004	Automatic population of a data source using a script could lead to erroneous behavior.
189212	Improved search for dataset ID.
189465	Optimized display of thumbnails in the brief overview of data sources.
190065	In the data source overview, default values will now be displayed in semi-transparent fashion. Further information can be found in chapter "SiteArchitect: Display of Default Values in Data Sources".

12.3 Content Transport

ID	Description
190314	During import of a database schema using the functionalities "FirstSpirit Content Transport" or "External Synchronization", the new interface <code>LayerMapper</code> (FirstSpirit Developer API, package <code>de.espirit.firstspirit.transport</code>) allows selection of a database layer onto which the schema should be mapped. Further information can be found in chapter "Module Development, Scripts, API: External Synchronization / Content Transport: Selecting a database layer for import".



ID	Description
190569	The configuration of a new feature package can again be tested in the schedule action “Content Transport” (ServerManager / Project / Properties / Schedule management / Add / Default schedule / Actions / Add / Content Transport / Test configuration).

12.4 ContentCreator

ID	Description
158311	The page status display, reached via the ContentCreator toolbar, erroneously displayed the most recent editor and the most recent release date of the page reference, not of the page element.
161625	<p>FirstSpirit now supports upload, saving, and deployment of media which contain more than one dot in their file names, e.g. files of type “.tar.gz” or files which carry version information in their names such as “Linux_4.6.4-1.debian.tar.xz”.</p> <p>Further information can be found in chapter “Media: Support for files with more than one dot character in their names”.</p>
165595	<p>From the current version of FirstSpirit onwards, the use of language-dependent input components within a language-dependent FS_CATALOG input component will be disallowed by default.</p> <p>Further information can be found in chapter “Input components: FS_CATALOG: Nesting of language-dependent input components”.</p>
173046	<p>The newly-added interface <code>selectOptionOperation</code> (FirstSpirit Developer API) allows developers to use a lightweight dropdown menu for selection of a value within the ContentCreator preview.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: ContentCreator: Using dropdown menus via API”.</p>
177304	Disabling the “Delete” icon for the input component FS_LIST (no <code><ACTION name="REMOVE"/></code> defined) was erroneously not observed in ContentCreator.
177311	In ContentCreator, adding new media to a folder could lead to erroneous behavior if the project's master language was not configured to be used as an editorial language.
178867	The “Edit image section” dialog in ContentCreator can now be opened via API.



ID	Description
	Further information can be found in chapter “Module Development, Scripts, API: ContentCreator: Opening the "Edit image section" dialog via API”.
179252	In the “Edit image section” dialog in ContentCreator, rotating or flipping an image section were erroneously not recognized as changes.
184024 189428 189552 189655 189899	Extended interaction pattern of FS_INDEX with drag-and-drop functionality: FS_INDEX can now be selected as a drop editor in section, link, and table templates. Furthermore, users may now add and replace entries of compatible data types (e.g. from a report) to/in index components in forms using drag-and-drop. Further information can be found in chapter “Input components: FS_INDEX: Editorial functionality using drag-and-drop”.
184237	In rare cases, erroneous behavior could occur in the preview.
185875	Improved display of changes in the “Project History” report.
187660	When populating the input component FS_INDEX via drag-and-drop from a report in ContentCreator, restrictions of the rule property “ADD” were not considered.
188108	Optimized translation help in ContentCreator. Note: In ContentCreator, translation help is an optional feature that is only available if the project is configured to use it, i.e., a project-specific solution that opens translation help was implemented.
188703	In rare cases, an additional instance of the ContentCreator user interface could be shown nested within another instance of the user interface.
189166	When creating a new page in ContentCreator, dot characters (‘.’) in the display name were erroneously preserved in the reference name.
189182	In the input component FS_INDEX, creating a new dataset could lead to erroneous behavior.
189508	In ContentCreator, searching in Help could lead to erroneous behavior.
189662	Sporadically, erroneous behavior could occur in the preview while working with ContentCreator.
189983	In the input component CMS_INPUT_DOM with inline tables, erroneous behavior could occur if no table format templates were defined in the project.
190870	When using Apache Tomcat version 8.0.36, instead of displaying the specifically requested dataset on a content projection page, the first dataset of this content projection may have been displayed.



ID	Description
191353	Optimized display of data source contents in the selection dialog of the input component FS_LIST (type DATABASE).
191377	Optimized spell check for the input components CMS_INPUT_DOM and CMS_INPUT_DOMTABLE.
191399	Optimized handling of rule infractions in ContentCreator.
192144	Optimized use of JSP Includes for inclusion of HTML or JSP content in a FirstSpirit page.

12.5 Corporate Content

ID	Description
190195	<p>Publishing a package with nodes that were deleted or archived in the source project could cause an error message to be logged.</p> <p>The message will now be logged with the log level "TRACE" such that it no longer appears as an error (log level "ERROR").</p>
191174	Importing content packages into projects which define languages that were not defined in the source project could lead to erroneous behavior in input components that are grouped with the design element CMS_GROUP.

12.6 Database

ID	Description
181736	<p>The current FirstSpirit version provides MBeans in the JMX console entry "ConnectionPool" which allow visualization and control of database connections.</p> <p>Further information can be found in chapter "Administration: MBeans for visualization and control of database connections ("ConnectionPool")".</p>
184621	When using Oracle databases, using very long column names for N:M foreign key relationships could cause an error.
190314	During import of a database schema using the functionalities "FirstSpirit Content Transport" or "External Synchronization", the new interface LayerMapper (FirstSpirit Developer API, package



ID	Description
	<p><code>de.espirit.firstspirit.transport</code>) allows selection of a database layer onto which the schema should be mapped.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: External Synchronization / Content Transport: Selecting a database layer for import”.</p>
191211	<p>During configuration of a database schema, renaming columns with N:M foreign key relationships could lead to erroneous behavior.</p>

12.7 Developer

ID	Description
165595	<p>From the current version of FirstSpirit onwards, the use of language-dependent input components within a language-dependent FS_CATALOG input component will be disallowed by default.</p> <p>Further information can be found in chapter “Input components: FS_CATALOG: Nesting of language-dependent input components”.</p>
173046	<p>The newly-added interface <code>selectOptionOperation</code> (FirstSpirit Developer API) allows developers to use a lightweight dropdown menu for selection of a value within the ContentCreator preview.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: ContentCreator: Using dropdown menus via API”.</p>
178089	<p>As of FirstSpirit version 5.2R5, source code packages are available that contain example modules for integration of external data sources in FirstSpirit using generic <code>DataAccessPlugins</code>.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: Examples for integration of external data sources using generic <code>DataAccessPlugins</code>”.</p>
178867	<p>The “Edit image section” dialog in ContentCreator can now be opened via API.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: ContentCreator: Opening the "Edit image section" dialog via API”.</p>
184024	<p>Extended interaction pattern of FS_INDEX with drag-and-drop functionality: FS_INDEX can now be selected as a drop editor in section, link, and table templates. Furthermore, users may now add</p>
189428	
189552	



ID	Description
189655 189899	<p>and replace entries of compatible data types (e.g. from a report) to/in index components in forms using drag-and-drop.</p> <p>Further information can be found in chapter “Input components: FS_INDEX: Editorial functionality using drag-and-drop”.</p>
184313 189163	<p>In FirstSpirit SiteArchitect, the context menus for store tree items as well as some buttons in the horizontal toolbar have been modified.</p> <p>Further information can be found in chapter “SiteArchitect: Context menu functionality and horizontal toolbar”.</p>
186692	<p>Beginning with Oracle JDK 1.8, the interface <code>ProcessAgent</code> (FirstSpirit Developer API, package <code>de.espirit.firstspirit.agency</code>) will use standard JDK functionality to start external processes server-side.</p>
187004	<p>Automatic population of a data source using a script could lead to erroneous behavior.</p>
188580	<p>In the method <code>disconnect()</code> of the interface <code>Connection</code> (FirstSpirit Access API, package <code>de.espirit.firstspirit.access</code>), improved the disconnection procedure.</p>
189214	<p>Calling methods of module classes in FS templates may have led to a failure.</p>
189258	<p>The behavior of id#187753 (see release notes to FirstSpirit version 5.2.421) showed unwanted effects in script executions and therefore it must be activated explicitly from this build on. Please ask our technical support for guidance.</p> <p>If the behavior is activated scripts may be adapted to the potential change of the data type of the input component <code>CMS_INPUT_TEXT</code> from type <code>String</code> to <code>CharSequence</code>.</p>
190314	<p>During import of a database schema using the functionalities “FirstSpirit Content Transport” or “External Synchronization”, the new interface <code>LayerMapper</code> (FirstSpirit Developer API, package <code>de.espirit.firstspirit.transport</code>) allows selection of a database layer onto which the schema should be mapped.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: External Synchronization / Content Transport: Selecting a database layer for import”.</p>
192162	<p>On a <code>FormData</code> object, the method <code>get(Language, String)</code> allows access to the <code>FormField</code>.</p> <p>The output of the following (simplified) syntax, which allows access to the content of a <code>FormField</code> in the language currently being rendered, has been corrected:</p>



ID	Description
	<pre>\$CMS_VALUE(IDENTIFIER.formData["IDENTIFIER2"])\$</pre> <p>Alternatively, either of the following syntaxes will yield the same result:</p> <pre>\$CMS_VALUE(IDENTIFIER.formData.IDENTIFIER2)\$</pre> <pre>\$CMS_VALUE(IDENTIFIER.formData.get("IDENTIFIER2"))\$</pre>

12.8 Dynamic Forms

ID	Description
182765	<p>In the input component CMS_INPUT_RADIOBUTTON, the set of available options may be limited by using a rule.</p> <p>Erroneous behavior could occur if the current value of such an input component was not available in the current set of available options.</p>
184314	Improved propagation of rule infractions in the input component FS_LIST (type PAGE).
187660	When populating the input component FS_INDEX via drag-and-drop from a report in ContentCreator, restrictions of the rule property "ADD" were not considered.
188467	Improved visualization of rule infractions in nested FS_CATALOG input components.
189790	Improved evaluation of rules in child forms of the input components FS_LIST and FS_CATALOG.
189979	Optimized revalidation in forms when using the form properties <i>SIZE</i> , <i>LENGTH</i> , <i>ENTRY</i> , and the comparison expression <i>CONTAINS</i> .
190178	<p>Optimized evaluation of rules when using the property SECTION for the input component FS_REFERENCE.</p> <p>This property may be used to check if a section is selected.</p>
190715	Optimized rule evaluation during emptiness check (property EMPTY).
191399	Optimized handling of rule infractions in ContentCreator.
192110	For the input component FS_DATASET, optimized rule evaluation when creating a new dataset.



12.9 Editor

ID	Description
161625	<p>FirstSpirit now supports upload, saving, and deployment of media which contain more than one dot in their file names, e.g. files of type “.tar.gz” or files which carry version information in their names such as “Linux_4.6.4-1.debian.tar.xz”.</p> <p>Further information can be found in chapter “Media: Support for files with more than one dot character in their names”.</p>
162580	<p>In SiteArchitect, the selection dialog offers navigation and search functionality which enable quick location of objects which are to be referenced, e.g. images or files from the Media store or page references from the Site Structure store (e.g. input components FS_REFERENCE, FS_LIST, FS_DATASET). In FirstSpirit version 5.2R5, the search interaction pattern in this dialog has been optimized.</p> <p>Further information can be found in chapter “SiteArchitect: Optimization of selection dialog”.</p>
165595	<p>From the current version of FirstSpirit onwards, the use of language-dependent input components within a language-dependent FS_CATALOG input component will be disallowed by default.</p> <p>Further information can be found in chapter “Input components: FS_CATALOG: Nesting of language-dependent input components”.</p>
184024 189428 189552 189655 189899	<p>Extended interaction pattern of FS_INDEX with drag-and-drop functionality: FS_INDEX can now be selected as a drop editor in section, link, and table templates. Furthermore, users may now add and replace entries of compatible data types (e.g. from a report) to/in index components in forms using drag-and-drop.</p> <p>Further information can be found in chapter “Input components: FS_INDEX: Editorial functionality using drag-and-drop”.</p>
184313 189163	<p>In FirstSpirit SiteArchitect, the context menus for store tree items as well as some buttons in the horizontal toolbar have been modified.</p> <p>Further information can be found in chapter “SiteArchitect: Context menu functionality and horizontal toolbar”.</p>
184378	<p>Relating to the input component FS_DATASET, if a filtered data source is used with <code>selectorMode="list"</code>, the filter will now be observed in the dataset view in the selection list.</p>
185184	<p>Editing media elements in the Media store could lead to erroneous behavior.</p>



ID	Description
188354	Improved editing of the input component FS_CATALOG in subforms.
188564	Improved file selection dialog of the input component FS_REFERENCE.
188731	<p>Entering text into the input component CMS_INPUT_DOMTABLE is now also possible via drag-and-drop and, when using the module “FirstSpirit OfficeConnect”, via <code>Ctrl + V</code>.</p> <p>Further information can be found in chapter “SiteArchitect: Drag-and-drop support for CMS_INPUT_DOMTABLE”.</p>
190417	SiteArchitect performance improvements.
190852	For the input component FS_CATALOG, improved the input dialog and drag-and-dropp of media from the AppCenter.
190870	When using Apache Tomcat version 8.0.36, instead of displaying the specifically requested dataset on a content projection page, the first dataset of this content projection may have been displayed.
192274	Saving several times during editing in “Translation Help” could lead to erroneous behavior.

12.10 External synchronization

ID	Description
186705	Improvements in external synchronization for nested input components.
187851	When using the functionality “External Synchronization”, the method <code>setDatabaseLayerMapper (ImportOperation.DatabaseLayerMapper)</code> of the interface <code>ImportOperation</code> (FirstSpirit API, package <code>de.espirit.firstspirit.store.access.nexport.operations</code>) will now use the correct database layer.
189052	The export process of external synchronization to an existing folder may have led to a failure.
189461	When using the functionality “External Synchronization”, importing objects with forms which reference elements that are not yet available in the project could lead to erroneous behavior.
189766	Importing a page via “External Synchronization” could lead to erroneous abortion of the import process if the page template used was not present before. Now, the page will not be imported, and the error will be added to <code>ImportOperation.Result</code> .
190314	During import of a database schema using the functionalities “FirstSpirit Content Transport” or “External Synchronization”, the new interface <code>LayerMapper</code> (FirstSpirit Developer API, package



ID	Description
	<p><code>de.espirit.firstspirit.transport</code>) allows selection of a database layer onto which the schema should be mapped.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: External Synchronization / Content Transport: Selecting a database layer for import”.</p>

12.11 FirstSpirit API

ID	Description
165595	<p>From the current version of FirstSpirit onwards, the use of language-dependent input components within a language-dependent FS_CATALOG input component will be disallowed by default.</p> <p>Further information can be found in chapter “Input components: FS_CATALOG: Nesting of language-dependent input components”.</p>
173046	<p>The newly-added interface <code>selectOptionOperation</code> (FirstSpirit Developer API) allows developers to use a lightweight dropdown menu for selection of a value within the ContentCreator preview.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: ContentCreator: Using dropdown menus via API”.</p>
178089	<p>As of FirstSpirit version 5.2R5, source code packages are available that contain example modules for integration of external data sources in FirstSpirit using generic <code>DataAccessPlugins</code>.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: Examples for integration of external data sources using generic <code>DataAccessPlugins</code>”.</p>
178867	<p>The “Edit image section” dialog in ContentCreator can now be opened via API.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: ContentCreator: Opening the “Edit image section” dialog via API”.</p>
190314	<p>During import of a database schema using the functionalities “FirstSpirit Content Transport” or “External Synchronization”, the new interface <code>LayerMapper</code> (FirstSpirit Developer API, package <code>de.espirit.firstspirit.transport</code>) allows selection of a database layer onto which the schema should be mapped.</p>



ID	Description
	Further information can be found in chapter “Module Development, Scripts, API: External Synchronization / Content Transport: Selecting a database layer for import”.

12.12 FirstSpirit Administrator

ID	Description
165595	<p>From the current version of FirstSpirit onwards, the use of language-dependent input components within a language-dependent FS_CATALOG input component will be disallowed by default.</p> <p>Further information can be found in chapter “Input components: FS_CATALOG: Nesting of language-dependent input components”.</p>
181736	<p>The current FirstSpirit version provides MBeans in the JMX console entry “ConnectionPool” which allow visualization and control of database connections.</p> <p>Further information can be found in chapter “Administration: MBeans for visualization and control of database connections (“ConnectionPool”)”.</p>
183416 184278	<p>You can now perform web-based updates of your FirstSpirit server/s by simply selecting the desired FirstSpirit version in ServerMonitoring.</p> <p>Further information can be found in chapter “Administration: Server updates using “pull” method”.</p>
185711	<p>During project import, a backup of the file “fs-database.conf” is now created when a new database layer is selected.</p>
188624	<p>Starting a FirstSpirit server could lead to erroneous behavior if the user's home directory could not be written to.</p>
188700	<p>Changed standard configuration: The preset values of the optional parameters <code>servletSessionCookieName</code> and <code>servletSessionCookieName.ROOT</code> in the file <code>fs-server.conf</code> were changed. For all new installations of FirstSpirit, a FirstSpirit-specific session cookie name will be used for all web applications and the root application.</p> <p>Further information can be found in chapter “Administration: Changed standard configuration of session cookies for new installations”.</p>



ID	Description
190207	The configuration file “fs-server.conf” now allows optional configuration of specific values for session cookies. The new attributes can define values for domain, path, and the secure flag of the session cookie. Further information can be found in chapter “Administration: Configuration of session cookies (fs-server.conf)”.
190759	Improved logging of web applications running on Tomcat web server.

12.13 FirstSpirit home page

ID	Description
190695	In association with a Tomcat web server, authentication via the FirstSpirit start page could lead to erroneous behavior if a password contained special characters.
190752	Optimized display of the start page in Google Chrome when using automatic login.

12.14 Generation

ID	Description
186846	Modifications of mutable form values during the generation process now only have local effects and therefore do not affect the results of other channels.
189394	When generating in some cases the project properties “substitution medium” and “substitution page” have not been respected.
190263	Corrected access to form fields during generation (FirstSpirit Access API, package <code>de.espirit.firstspirit.forms</code> , interface <code>FormData</code> , method <code>get(Language, String)</code>).



12.15 Health Center

ID	Description
188634	Under special circumstances, displaying the Health Center in FirstSpirit ServerMonitoring could lead to erroneous behavior.

12.16 Input Components

ID	Description
161625	<p>FirstSpirit now supports upload, saving, and deployment of media which contain more than one dot in their file names, e.g. files of type “.tar.gz” or files which carry version information in their names such as “Linux_4.6.4-1.debian.tar.xz”.</p> <p>Further information can be found in chapter “Media: Support for files with more than one dot character in their names”.</p>
165595	<p>From the current version of FirstSpirit onwards, the use of language-dependent input components within a language-dependent FS_CATALOG input component will be disallowed by default.</p> <p>Further information can be found in chapter “Input components: FS_CATALOG: Nesting of language-dependent input components”.</p>
177304	Disabling the “Delete” icon for the input component FS_LIST (no <code><ACTION name="REMOVE" /></code> defined) was erroneously not observed in ContentCreator.
182765	<p>In the input component CMS_INPUT_RADIOBUTTON, the set of available options may be limited by using a rule.</p> <p>Erroneous behavior could occur if the current value of such an input component was not available in the current set of available options.</p>
182884	Improved keyboard-based selection of entries in the input component CMS_INPUT_LIST.
184024	Extended interaction pattern of FS_INDEX with drag-and-drop functionality: FS_INDEX can now be selected as a drop editor in section, link, and table templates. Furthermore, users may now add and replace entries of compatible data types (e.g. from a report) to/in index components in forms using drag-and-drop.
189428	
189552	
189655	
189899	



ID	Description
	Further information can be found in chapter “Input components: FS_INDEX: Editorial functionality using drag-and-drop”.
184314	Improved propagation of rule infractions in the input component FS_LIST (type PAGE).
184378	Relating to the input component FS_DATASET, if a filtered data source is used with selectorMode="list" , the filter will now be observed in the dataset view in the selection list.
185046	Improved display of input components within the design element CMS_GROUP.
185753	Erroneous behavior related to nested input components FS_LIST (type INLINE) could occur if the outer input component was used within a dataset form.
187107	Improved validation behavior related to nested FS_LIST input components in projects with many languages.
187660	When populating the input component FS_INDEX via drag-and-drop from a report in Content-Creator, restrictions of the rule property “ADD” were not considered.
188354	Improved editing of the input component FS_CATALOG in subforms.
188564	Improved file selection dialog of the input component FS_REFERENCE.
188731	<p>Entering text into the input component CMS_INPUT_DOMTABLE is now also possible via drag-and-drop and, when using the module “FirstSpirit OfficeConnect”, via Ctrl + V.</p> <p>Further information can be found in chapter “SiteArchitect: Drag-and-drop support for CMS_INPUT_DOMTABLE”.</p>
189182	In the input component FS_INDEX, creating a new dataset could lead to erroneous behavior.
189258	<p>The behavior of id#187753 (see release notes to FirstSpirit version 5.2.421) showed unwanted effects in script executions and therefore it must be activated explicitly from this build on. Please ask our technical support for guidance.</p> <p>If the behavior is activated scripts may be adapted to the potential change of the data type of the input component CMS_INPUT_TEXT from type string to CharSequence.</p>
189438	When using the input component CMS_INPUT_DATE in metadata, performing a search within metadata could erroneously cause the input component to be displayed in single-lined mode (parameter singleLine) in the metadata form.
189752	Improved evaluation of privileges on a data source when creating a new dataset via the input component FS_DATASET.



ID	Description
189983	In the input component CMS_INPUT_DOM with inline tables, erroneous behavior could occur if no table format templates were defined in the project.
190178	Optimized evaluation of rules when using the property SECTION for the input component FS_REFERENCE. This property may be used to check if a section is selected.
190852	For the input component FS_CATALOG, improved the input dialog and drag-and-dropp of media from the AppCenter.
191161	In very rare cases, using the input component FS_CATALOG could lead to erroneous behavior.
191174	Importing content packages into projects which define languages that were not defined in the source project could lead to erroneous behavior in input components that are grouped with the design element CMS_GROUP.
191724	Using the input component FS_LIST (type DATABASE) within metadata could lead to erroneous behavior.
192110	For the input component FS_DATASET, optimized rule evaluation when creating a new dataset.

12.17 Launcher

ID	Description
190207	The configuration file “fs-server.conf” now allows optional configuration of specific values for session cookies. The new attributes can define values for domain, path, and the secure flag of the session cookie. Further information can be found in chapter “Administration: Configuration of session cookies (fs-server.conf)”.
191797	In rare cases, use of the FirstSpirit Launcher could lead to erroneous behavior.



12.18 License

ID	Description
183416	You can now perform web-based updates of your FirstSpirit server/s by simply selecting the desired FirstSpirit version in ServerMonitoring. Further information can be found in chapter “Administration: Server updates using "pull" method”.
184278	
188781	The FirstSpirit license contains information about the maximum allowable number of open sessions. The evaluation of this parameter and the interaction pattern related to exceeding the licensed maximum number of open sessions has been optimized.

12.19 Media Store

ID	Description
161625	FirstSpirit now supports upload, saving, and deployment of media which contain more than one dot in their file names, e.g. files of type “.tar.gz” or files which carry version information in their names such as “Linux_4.6.4-1.debian.tar.xz”. Further information can be found in chapter “Media: Support for files with more than one dot character in their names”.
177311	In ContentCreator, adding new media to a folder could lead to erroneous behavior if the project's master language was not configured to be used as an editorial language.
179252	In the “Edit image section” dialog in ContentCreator, rotating or flipping an image section were erroneously not recognized as changes.
182228	Improved thumbnail display for media in Media store folders.
185184	Editing media elements in the Media store could lead to erroneous behavior.
188105	In the Media store and in media selection dialogs, erroneous behavior could occur while loading miniature previews of image resolutions.
188416	Optimized the process of uploading media files via the “Media Import Wizard”.
188461	When uploading a media file into the Media store using the dialog “Create medium”, the file selection dialog defaults to the directory “Documents” within the local user directory.



ID	Description
	During further file upload actions, the file selection dialog will start in the most recently selected directory.
188503	Improved media import via Media Import Wizard.
189660	Improved display of media folders, taking into consideration configured permissions.
190333	Drag-and-drop of media between projects could lead to erroneous behavior.

12.20 Module development

ID	Description
178089	<p>As of FirstSpirit version 5.2R5, source code packages are available that contain example modules for integration of external data sources in FirstSpirit using generic DataAccessPlugins.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: Examples for integration of external data sources using generic DataAccessPlugins”.</p>

12.21 Modules

ID	Description
185695 189317	<p>In the input component CMS_INPUT_DOM, the parameter <code>enableImport</code> activates use of the functionality provided by the module “FirstSpirit OfficeConnect”.</p> <p>Optimized import into FirstSpirit of images that were resized within an Office document.</p>
188731	<p>Entering text into the input component CMS_INPUT_DOMTABLE is now also possible via drag-and-drop and, when using the module “FirstSpirit OfficeConnect”, via <code>Ctrl + V</code>.</p> <p>Further information can be found in chapter “SiteArchitect: Drag-and-drop support for CMS_INPUT_DOMTABLE”.</p>
189284	Security improvements in the module “FirstSpirit BasicSearch”.
190822	In the module “FirstSpirit Security”, the parameter <code>profilname.dir</code> in the file “crcTransfer.ini” may be used to configure the web application.



ID	Description
	If the parameter was given a value which included a trailing slash (.../) in the path string, erroneous behavior could occur.
	Now, it is possible to use a path that includes a trailing slash character.

12.22 Performance

ID	Description
187494	Optimizations for the number of open file handles.
189628	Improved SiteArchitect performance.

12.23 Permissions

ID	Description
186602	Optimized evaluation of privileges when setting a temporary filter on a data source.
189660	Improved display of media folders, taking into consideration configured permissions.
189752	Improved evaluation of privileges on a data source when creating a new dataset via the input component FS_DATASET.

12.24 Preview

ID	Description
172878	In the “Extras” menu item, evaluation of the “Show preview errors” setting has been improved.
184237	In rare cases, erroneous behavior could occur in the preview.
187274	In rare cases, using the browser engine “Google Chrome” for internal preview could lead to erroneous behavior.
187285	Improved certificate evaluation in the integrated preview when it uses Mozilla Firefox as browser engine.
189662	Sporadically, erroneous behavior could occur in the preview while working with ContentCreator.



ID	Description
190870	When using Apache Tomcat version 8.0.36, instead of displaying the specifically requested dataset on a content projection page, the first dataset of this content projection may have been displayed.
192144	Optimized use of JSP Includes for inclusion of HTML or JSP content in a FirstSpirit page.

12.25 Release

ID	Description
186900	Optimized release of child elements.
191115	Optimized determination of release state of restored folders.
191158	Improved behavior of a release workflow, specific to situations in which the element to be released contains invalid references (e.g. in an FS_REFERENCE input component).

12.26 Reports

ID	Description
185875	Improved display of changes in the “Project History” report.

12.27 Search

ID	Description
161625	<p>FirstSpirit now supports upload, saving, and deployment of media which contain more than one dot in their file names, e.g. files of type “.tar.gz” or files which carry version information in their names such as “Linux_4.6.4-1.debian.tar.xz”.</p> <p>Further information can be found in chapter “Media: Support for files with more than one dot character in their names”.</p>
162580	In SiteArchitect, the selection dialog offers navigation and search functionality which enable quick location of objects which are to be referenced, e.g. images or files from the Media store or page references from the Site Structure store (e.g. input components FS_REFERENCE, FS_LIST,



ID	Description
	FS_DATASET). In FirstSpirit version 5.2R5, the search interaction pattern in this dialog has been optimized. Further information can be found in chapter “SiteArchitect: Optimization of selection dialog”.
181031	Improved search in log files in ServerMonitoring.
189212	Improved search for dataset ID.
189359	Optimized initial display of the suggestion list in the search field of global search and search in the selection dialog of the input component FS_REFERENCE.
189438	When using the input component CMS_INPUT_DATE in metadata, performing a search within metadata could erroneously cause the input component to be displayed in single-lined mode (parameter <code>singleLine</code>) in the metadata form.
189508	In ContentCreator, searching in Help could lead to erroneous behavior.

12.28 Security

ID	Description
187285	Improved certificate evaluation in the integrated preview when it uses Mozilla Firefox as browser engine.
189284	Security improvements in the module “FirstSpirit BasicSearch”.
191806	Security improvements in ServerManager.
191794	

12.29 Server Administrator

ID	Description
173120	When the internal Jetty engine was used as servlet engine, an error message could be written to the log files during server shutdown.
183416	You can now perform web-based updates of your FirstSpirit server/s by simply selecting the desired FirstSpirit version in ServerMonitoring.
184278	



ID	Description
	Further information can be found in chapter “Administration: Server updates using "pull" method”.
188550	Improved configuration and evaluation of parameters when several web applications are used.
188700	<p>Changed standard configuration: The preset values of the optional parameters <code>sessionCookieName</code> and <code>sessionCookieName.ROOT</code> in the file <code>fs-server.conf</code> were changed. For all new installations of FirstSpirit, a FirstSpirit-specific session cookie name will be used for all web applications and the root application.</p> <p>Further information can be found in chapter “Administration: Changed standard configuration of session cookies for new installations”.</p>
190207	<p>The configuration file “fs-server.conf” now allows optional configuration of specific values for session cookies. The new attributes can define values for domain, path, and the secure flag of the session cookie.</p> <p>Further information can be found in chapter “Administration: Configuration of session cookies (fs-server.conf)”.</p>
190695	In association with a Tomcat web server, authentication via the FirstSpirit start page could lead to erroneous behavior if a password contained special characters.
191045	Optimized automatic roll-out of web applications during server start-up.

12.30 ServerManager

ID	Description
165595	<p>From the current version of FirstSpirit onwards, the use of language-dependent input components within a language-dependent FS_CATALOG input component will be disallowed by default.</p> <p>Further information can be found in chapter “Input components: FS_CATALOG: Nesting of language-dependent input components”.</p>
187600	<p>Improved client resilience to brief interruptions in communication with the server.</p> <p>Further information can be found in chapter “SiteArchitect / ServerManager: Reconnecting after Communication Errors”.</p>



ID	Description
190207	<p>The configuration file “fs-server.conf” now allows optional configuration of specific values for session cookies. The new attributes can define values for domain, path, and the secure flag of the session cookie.</p> <p>Further information can be found in chapter “Administration: Configuration of session cookies (fs-server.conf)”.</p>
190569	<p>The configuration of a new feature package can again be tested in the schedule action “Content Transport” (ServerManager / Project / Properties / Schedule management / Add / Default schedule / Actions / Add / Content Transport / Test configuration).</p>
191806	<p>Security improvements in ServerManager.</p>
191794	

12.31 ServerMonitoring

ID	Description
181031	<p>Improved search in log files in ServerMonitoring.</p>
183416	<p>You can now perform web-based updates of your FirstSpirit server/s by simply selecting the desired FirstSpirit version in ServerMonitoring.</p> <p>Further information can be found in chapter “Administration: Server updates using "pull" method”.</p>
184278	

12.32 Sessions

ID	Description
188700	<p>Changed standard configuration: The preset values of the optional parameters <code>sessionCookieName</code> and <code>servletSessionCookieName.ROOT</code> in the file <code>fs-server.conf</code> were changed. For all new installations of FirstSpirit, a FirstSpirit-specific session cookie name will be used for all web applications and the root application.</p> <p>Further information can be found in chapter “Administration: Changed standard configuration of session cookies for new installations”.</p>



ID	Description
188781	The FirstSpirit license contains information about the maximum allowable number of open sessions. The evaluation of this parameter and the interaction pattern related to exceeding the licensed maximum number of open sessions has been optimized.
190207	<p>The configuration file “fs-server.conf” now allows optional configuration of specific values for session cookies. The new attributes can define values for domain, path, and the secure flag of the session cookie.</p> <p>Further information can be found in chapter “Administration: Configuration of session cookies (fs-server.conf)”.</p>

12.33 SiteArchitect

ID	Description
161625	<p>FirstSpirit now supports upload, saving, and deployment of media which contain more than one dot in their file names, e.g. files of type “.tar.gz” or files which carry version information in their names such as “Linux_4.6.4-1.debian.tar.xz”.</p> <p>Further information can be found in chapter “Media: Support for files with more than one dot character in their names”.</p>
162580	<p>In SiteArchitect, the selection dialog offers navigation and search functionality which enable quick location of objects which are to be referenced, e.g. images or files from the Media store or page references from the Site Structure store (e.g. input components FS_REFERENCE, FS_LIST, FS_DATASET). In FirstSpirit version 5.2R5, the search interaction pattern in this dialog has been optimized.</p> <p>Further information can be found in chapter “SiteArchitect: Optimization of selection dialog”.</p>
165595	<p>From the current version of FirstSpirit onwards, the use of language-dependent input components within a language-dependent FS_CATALOG input component will be disallowed by default.</p> <p>Further information can be found in chapter “Input components: FS_CATALOG: Nesting of language-dependent input components”.</p>
172878	In the “Extras” menu item, evaluation of the “Show preview errors” setting has been improved.
180560	For page references, optimized display of changes in the version history.



ID	Description
180638	<p>Optimized the user interface of the details view of the input component FS_INDEX: the tabs in the details view will now be reused and visualize an active edit mode.</p> <p>Further information can be found in chapter “SiteArchitect: FS_INDEX: Reuse of tabs in the details view”.</p>
182228	<p>Improved thumbnail display for media in Media store folders.</p>
182765	<p>In the input component CMS_INPUT_RADIOBUTTON, the set of available options may be limited by using a rule.</p> <p>Erroneous behavior could occur if the current value of such an input component was not available in the current set of available options.</p>
183767	<p>When starting workflows via the status bar or the context menu, the available workflows will now be sorted using the same ordering.</p>
184024 189428 189552 189655 189899	<p>Extended interaction pattern of FS_INDEX with drag-and-drop functionality: FS_INDEX can now be selected as a drop editor in section, link, and table templates. Furthermore, users may now add and replace entries of compatible data types (e.g. from a report) to/in index components in forms using drag-and-drop.</p> <p>Further information can be found in chapter “Input components: FS_INDEX: Editorial functionality using drag-and-drop”.</p>
184237	<p>In rare cases, erroneous behavior could occur in the preview.</p>
184313 189163	<p>In FirstSpirit SiteArchitect, the context menus for store tree items as well as some buttons in the horizontal toolbar have been modified.</p> <p>Further information can be found in chapter “SiteArchitect: Context menu functionality and horizontal toolbar”.</p>
185046	<p>Improved display of input components within the design element CMS_GROUP.</p>
185695 189317	<p>In the input component CMS_INPUT_DOM, the parameter <code>enableImport</code> activates use of the functionality provided by the module “FirstSpirit OfficeConnect”.</p> <p>Optimized import into FirstSpirit of images that were resized within an Office document.</p>
185776	<p>Optimized evaluation of privileges for thumbnail images in the selection dialog when creating pages or sections.</p>



ID	Description
186896	Displaying the node properties via the keyboard shortcut <code>Alt + P</code> could lead to erroneous behavior.
186900	Optimized release of child elements.
187107	Improved validation behavior related to nested FS_LIST input components in projects with many languages.
187274	In rare cases, using the browser engine “Google Chrome” for internal preview could lead to erroneous behavior.
187600	Improved client resilience to brief interruptions in communication with the server. Further information can be found in chapter “SiteArchitect / ServerManager: Reconnecting after Communication Errors”.
188105	In the Media store and in media selection dialogs, erroneous behavior could occur while loading miniature previews of image resolutions.
188182	Improved display of the status bar in the editorial workspace.
188354	Improved editing of the input component FS_CATALOG in subforms.
188416	Optimized the process of uploading media files via the “Media Import Wizard”.
188467	Improved visualization of rule infractions in nested FS_CATALOG input components.
188564	Improved file selection dialog of the input component FS_REFERENCE.
188569	Stability improvement related to SiteArchitect.
188731	Entering text into the input component CMS_INPUT_DOMTABLE is now also possible via drag-and-drop and, when using the module “FirstSpirit OfficeConnect”, via <code>Ctrl + V</code> . Further information can be found in chapter “SiteArchitect: Drag-and-drop support for CMS_INPUT_DOMTABLE”.
188813	Improved use of keyboard shortcuts.
188994	In metadata, referencing an element which has never been released could lead to unexpected results during generation.
189359	Optimized initial display of the suggestion list in the search field of global search and search in the selection dialog of the input component FS_REFERENCE.
189628	Improved SiteArchitect performance.



ID	Description
189637	Improved display of forms when switching between language tabs.
189660	Improved display of media folders, taking into consideration configured permissions.
189790	Improved evaluation of rules in child forms of the input components FS_LIST and FS_CATALOG.
190065	<p>In the data source overview, default values will now be displayed in semi-transparent fashion.</p> <p>Further information can be found in chapter “SiteArchitect: Display of Default Values in Data Sources”.</p>
190178	<p>Optimized evaluation of rules when using the property SECTION for the input component FS_REFERENCE.</p> <p>This property may be used to check if a section is selected.</p>
190333	Drag-and-drop of media between projects could lead to erroneous behavior.
190417	SiteArchitect performance improvements.
190852	For the input component FS_CATALOG, improved the input dialog and drag-and-dropp of media from the AppCenter.
190879	In SiteArchitect running on Mac OS X, erroneous use of the system clipboard could occur.
190950	Optimized display of the “Task list” menu icon.
191158	Improved behavior of a release workflow, specific to situations in which the element to be released contains invalid references (e.g. in an FS_REFERENCE input component).
191161	In very rare cases, using the input component FS_CATALOG could lead to erroneous behavior.
191377	Optimized spell check for the input components CMS_INPUT_DOM and CMS_INPUT_DOMTABLE.
191724	Using the input component FS_LIST (type DATABASE) within metadata could lead to erroneous behavior.
191939	In a workflow, users that have server administrator privileges could erroneously not be selected as next editors.
191973	Using “Translation Help” functionality could lead to erroneous behavior.
192110	For the input component FS_DATASET, optimized rule evaluation when creating a new dataset.
192274	Saving several times during editing in “Translation Help” could lead to erroneous behavior.



12.34 Snippets

ID	Description
189465	Optimized display of thumbnails in the brief overview of data sources.

12.35 Template Development

ID	Description
184024	Extended interaction pattern of FS_INDEX with drag-and-drop functionality: FS_INDEX can now be selected as a drop editor in section, link, and table templates. Furthermore, users may now add and replace entries of compatible data types (e.g. from a report) to/in index components in forms using drag-and-drop. Further information can be found in chapter “Input components: FS_INDEX: Editorial functionality using drag-and-drop”.
189428	
189552	
189655	
189899	
189214	Calling methods of module classes in FS templates may have led to a failure.
189258	The behavior of id#187753 (see release notes to FirstSpirit version 5.2.421) showed unwanted effects in script executions and therefore it must be activated explicitly from this build on. Please ask our technical support for guidance. If the behavior is activated scripts may be adapted to the potential change of the data type of the input component CMS_INPUT_TEXT from type <code>string</code> to <code>CharSequence</code> .

12.36 Version history

ID	Description
180560	For page references, optimized display of changes in the version history.
185875	Improved display of changes in the “Project History” report.



12.37 Webstart

ID	Description
175578	Longer periods of inactivity could lead to erroneous behavior when requesting the FirstSpirit start page.
187823	The content of FirstSpirit JAR files is signed with a certificate. In the current FirstSpirit version, the content is signed with a new certificate that is valid until 2018-06-13 (13 June 2018). Further information can be found in chapter “General: Code signing certificate updated”.
190207	The configuration file “fs-server.conf” now allows optional configuration of specific values for session cookies. The new attributes can define values for domain, path, and the secure flag of the session cookie. Further information can be found in chapter “Administration: Configuration of session cookies (fs-server.conf)”.

12.38 Workflow

ID	Description
183767	When starting workflows via the status bar or the context menu, the available workflows will now be sorted using the same ordering.
191158	Improved behavior of a release workflow, specific to situations in which the element to be released contains invalid references (e.g. in an FS_REFERENCE input component).
191939	In a workflow, users that have server administrator privileges could erroneously not be selected as next editors.

