



# FirstSpirit™

*Unlock Your Content*

## FirstSpirit™ Release Notes

### FirstSpirit™ Version 5.2 Release 17

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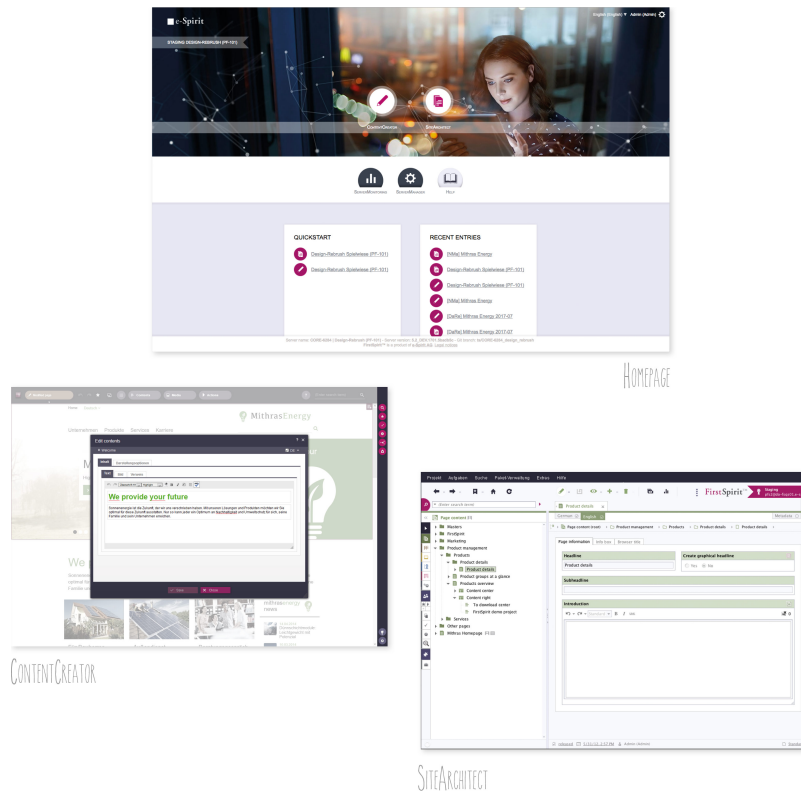


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## 1 Rebrush for FirstSpirit graphical user interfaces

With the new FirstSpirit version comes a fresh design in a familiar software environment. A modern color scheme and style enhances the User Experience (UX) for editors and paves the way for upcoming FirstSpirit extensions.



With the new FirstSpirit upgrade, editors, developers and administrators see “their” FirstSpirit revitalised. The most striking change: the new FirstSpirit start screen. The tiles for selecting clients UIs are replaced by new icons - editorial and administrative tools are visually more distinguished from each other. Large visual elements and micro-animations shape the first impression.

SiteArchitect and ContentCreator have also undergone changes to the look and feel: A unified, modernized color palette with contrasting, fresh tones gives the FirstSpirit tools a harmonized design. The color spectrum shifts from classic software gray with low-saturation colors to a modern blue-gray with glowing accents. Buttons and icons are rounder in many places, and the toolbar is even more clearly arranged.

The design update does not involve any functional changes for editors or developers. All functions are still available in familiar places. Also, it drives no additional effort for developers and operations.



As of the current FirstSpirit version, the design overhaul is not yet completed and will be pursued over future releases.

Documentation will be revised incrementally. Thus, screenshots in documentation may not yet reflect the current design.

Note about customer-specific modules and plugins: controls which are added to the graphical user interfaces of FirstSpirit SiteArchitect and/or ContentCreator by way of customer-specific plugin implementations and modules should be adjusted as needed to fit the new design.

## 2 Database schemata: New system column

Within the scope of a new feature, a new system column named

```
FS_META_DATA
```

has been introduced to database schemata.

In **newly created** database schemata or tables, this column is automatically created.

In **already existent** database schemata, this column will be created in tables as soon as the respective schema is updated, i.e. the schema is modified and saved. Alternatively, the context menu item “Edit externally” may be used on the respective schema; either closing the dialog “Externally edited elements” via “Apply changes and close” or a sequence of clicking “Apply changes” and closing the dialog will cause the column to be created in the schema. During a project import into a FirstSpirit server, the column will also be added automatically.

For further information, see chapter 5.2, “FS\_INDEX: Manually Sorting Datasets”.

## 3 Changes regarding AccessControlDb / ACL in FirstSpirit 5.2R16 / 5.2R17

While preparing for a new backend technology we moved the internal class `AccessControlDb` from the package `de.espirit.firstspirit.acl.db` with FirstSpirit version 5.2R16. After discussing this change with our customers and partners we decided to rollback this change with FirstSpirit version 5.2R17 to restore the behaviour from before FirstSpirit version 5.2R16.



If you have not yet refactored your code to use the new interface you do not need to do anything and existing implementations will continue to work with FirstSpirit version 5.2R17 (but will not work with FirstSpirit version 5.2R16). If you already did the refactoring, please rollback your changes to use the old classpath. It is unfortunately not possible to be compatible with both versions.

Regarding Downgrades: If you are using this functionality and want to downgrade after an update to FirstSpirit version 5.2R17 manual intervention is needed.

Further details can be found in our Community at <https://community.e-spirit.com/community/customer/blog/2017/12/19/info-changes-in-52r16-regarding-accesscontroldb-acl>.

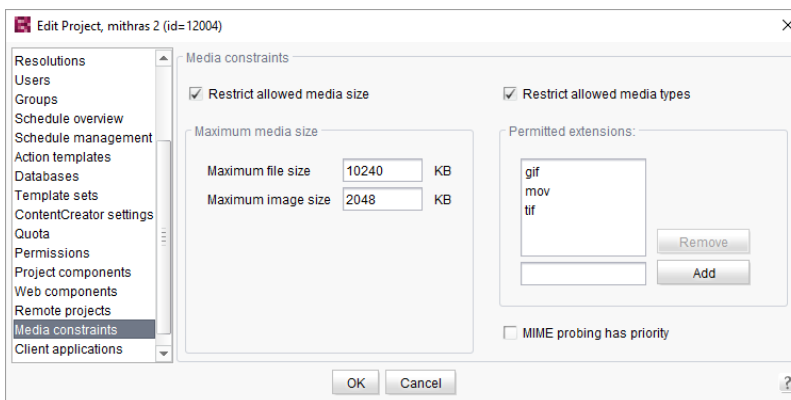
If you have questions regarding this, please let us know by contacting our Technical Support team at <https://help.e-spirit.com>.

## 4 Administration

### 4.1 Media Constraints: MIME Type Detection

**Previous behavior:** Media constraints for non-image files are generally based upon file name extensions, not MIME types.

**New behavior:** In project settings for media constraints, the new option “MIME probing has priority” is available as a checkbox.



- If the option is *active* (checkbox marked), media constraints prioritize MIME type detection over the file name extensions set in “Permitted extensions”. If the detected type does not correlate to the permitted file name extensions, a file upload will be denied.



- If the option is *inactive* (checkbox not marked), media constraints for non-image files consider only file name extensions, not MIME types.

## 5 External Synchronization

### 5.1 Consideration of Custom Properties in External Synchronization

The method `setCustomProperties` (interface `Project`, package `de.espirit.firstspirit.access.project`, FirstSpirit Access API) may be used to set custom project properties (“custom properties”). These may be relevant e.g. in the context of FirstSpirit CaaS.

As of the current version of FirstSpirit, such custom properties may now be synchronized using “FirstSpirit External Synchronization”. To this end, a new `ProjectPropertyType` (enum `PropertiesTransportOptions.ProjectPropertyType`, package `de.espirit.firstspirit.transport`, FirstSpirit Developer API) was introduced:

```
CUSTOM_PROPERTIES
```

Example command line call:

```
fs-cli -p DevProject -sd "D:\Git\DevProject" export projectproperty:CUSTOM_PROPERTIES
```

This call causes the inclusion of custom project properties in the export.

## 6 Input components

### 6.1 Dynamic Forms: New Property "PRESET"

In templates, form defaults for input components may be specified by clicking the icon



in the “Form” tab of the respective template; this opens the dialog “Edit form defaults”.

The new property `PRESET` may be used to determine if the user is currently editing in this dialog:

```
<PROPERTY name="PRESET" source="#global"/>
```



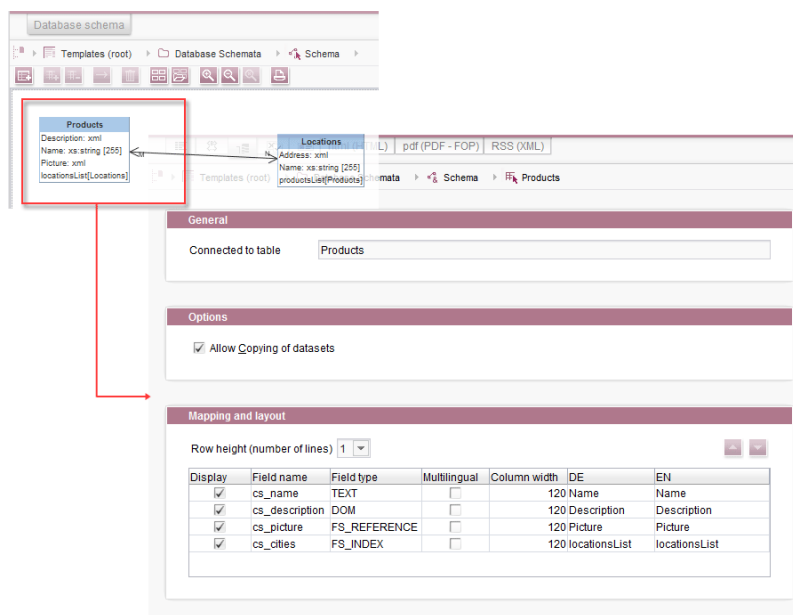
This expression returns TRUE if the user is currently editing in the dialog “Edit form defaults”, otherwise it returns FALSE.

For further information, see *FirstSpirit Online Documentation*, chapter “Template development / Rules / Form properties <PROPERTY/> / Property PRESET”.

## 6.2 FS\_INDEX: Manually Sorting Datasets

FS\_INDEX allows creation of lists of data which are provided by modules. FirstSpirit contains one solution which supports selection of datasets from data sources of a project (“DatasetDataAccess-Plugin”).

Until now, the input component FS\_INDEX, used in conjunction with “DatasetDataAccessPlugin”, already supported sorting datasets via drag-and-drop. This manual sort order was not stored in every case, however, and thus did not always affect the sort order when datasets were output. For FS\_INDEX components which are mapped to a to-N foreign key relationship, the current version of FirstSpirit now supports editors' manual sorting of datasets, affecting both the display order in the input component as well as the output order.



Database schema and table template

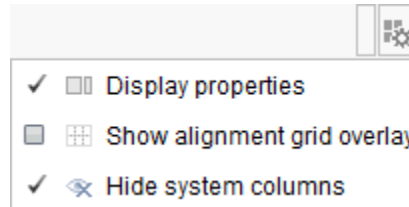
On a technical level, a new system column has been introduced:





```
FS_META_DATA
```

(may be shown in the database schema by deactivating “Customize layout / Hide system columns”)



Information about the sort order of the component's entries will be stored in this column.

In **newly created** database schemata or tables, this column is automatically created such that the new sorting functionality can be used right away.

In **already existent** database schemata, this column will be created in tables as soon as the respective schema is updated, i.e. the schema is modified and saved. Alternatively, the context menu item “Edit externally” may be used on the respective schema; either closing the dialog “Externally edited elements” via “Apply changes and close” or a sequence of clicking “Apply changes” and closing the dialog will cause the column to be created in the schema. During a project import into a FirstSpirit server, the column will automatically be added if necessary.

! If a database schema which contains this new column is to be used in other projects (e.g. via FirstSpirit Content Transport), the database schema in the target project must be updated **before** conducting a transport of data from the source project into the target project, so that the sort order of datasets will be correctly retained in the target project.

Note: Output via the system object `#row` (e.g. in a content projection - see *FirstSpirit Online Documentation*, “Templates (basics) / Composition of templates / Database schemata / Dataset output”, section “via content projection”) does not regard the sort order.

Note: A migration from FS\_LIST, type `DATABASE` to FS\_INDEX may be realized programmatically by a template developer. The following script shows a procedural example. Prerequisite: The schema must already contain the column `FS_META_DATA`, and the FS\_LIST definition must already be switched to FS\_INDEX.



```
dataset = context.getElement();
dataset.setLock(true, false);
formData = dataset.getFormData();
form = formData.getForm();
indexComponent = form.findEditor("images");
source = indexComponent.source();
session = source.createSession(context, false);
positions = Collections.synchronizedSortedMap(new TreeMap());
pictures = formData.get(null, "images");
index = pictures.get();
for (record : index.iterator()) {
    data = session.getData(record.getIdentifier());
    formData = data.getFormData();
    position = formData.get(null, "position").get();
    positions.put(position, record);
}
sorted = positions.entrySet().stream().sorted(Map.Entry.comparingByKey());
index.clear();
for (el : sorted.iterator()) {
    index.add(el.getValue());
}
pictures.set(index);
dataset.setFormData(formData);
dataset.save("Re-sort", false);
dataset.setLock(false, false);
```

where

- *images* is the unique identifier of the FS\_INDEX input component which should be migrated (and which is used to select datasets from the target table),
- *position* is the name of the column in which the sort order of datasets was stored (FS\_LIST, tag *PERSISTENCEINDEX*).

For further information, see

- *FirstSpirit Online Documentation*, “Template development / Forms / Input components / INDEX”,
- *FirstSpirit Online Documentation*, “Templates (basics) / Composition of templates / Database schemata”,



- *Documentation for FirstSpirit SiteArchitect, “Input forms / Index”,*
- *FirstSpirit Manual for Editors (ContentCreator), “Editing a preview page / Input elements / Index”*

## 7 Deprecations

For e-Spirit, an important goal in software development is to avoid introducing incompatibilities and migration expenditures related to updating from one FirstSpirit release to the next as much as possible or to compensate for these within the software. FirstSpirit updates should generally be deployable with little effort or able to be carried out in a fully automated fashion.

However - not least in order to ensure maintainability and to future-proof the software - e-Spirit cannot fully avoid replacing existing functionality with new mechanisms. In the future, functionality that will be removed from the software will be listed in this section, including the date at which time the functionality will be removed.

Functionality	Deprecated as of	Will be removed/ Was removed as of
Oracle Java 7 Support	5.2R15	June 2018
FirstSpirit Developer API: de.espirit.firstspirit.agency.GroupsAgent	5.2R15	May 2018

## 8 Overview

ID	Description	Categories
189126	The new property <code>PRESET</code> may be used to determine if the user is currently editing in the dialog “Edit form defaults”.  Further information can be found in chapter “Input components: Dynamic Forms: New Property “PRESET””.	Developer, Dynamic Forms
192181	Optimized deletion of link templates that are still referenced.	Template Development
198603	Improved performance of searches for invalid references.	Performance



ID	Description	Categories
200055	<p>As of the current version of FirstSpirit, media constraints may be based upon either file name extensions or MIME type detection.</p> <p>Further information can be found in chapter “Administration: Media Constraints: MIME Type Detection”.</p>	FirstSpirit Administrator, Media Constraints, ServerManager
200316	Optimized roll-out behavior of project-local web applications.	Server Administrator
200612	<p>As of the current version of FirstSpirit, the order in which datasets are displayed in and output by FS_INDEX components which are based on foreign key relationships can now be set by an editor.</p> <p>Further information can be found in chapter “Input components: FS_INDEX: Manually Sorting Datasets”.</p>	ContentCreator, Database, Input Components, SiteArchitect, Template Development
202425	In rules (templates), auto-completion mistakenly did not work at locations following a multi-line XML comment.	Template Development
202603	Optimized consideration of invalid references during reference recalculation.	Content Store, FirstSpirit Administrator
203023	Optimized consideration of privileges which are defined on the data source when editing datasets in the input component FS_LIST (type DATABASE).	ContentCreator
204098	<p>As of the current version of FirstSpirit, custom project properties (“custom properties”) may now be synchronized using “FirstSpirit External Synchronization”.</p> <p>Further information can be found in chapter “External Synchronization: Consideration of Custom Properties in External Synchronization”.</p>	External synchronization, FirstSpirit API
204586	Improved e-mail dispatch.	SiteArchitect, Workflow
204653	Performance improvements related to the integrated preview when using Google Chrome as browser engine.	Performance, SiteArchitect
204665	Under macOS, windows were in rare cases not opened in the foreground.	ServerManager, SiteArchitect
204688	Optimized method <code>getStartNodes()</code> of the interface <code>GenerateTask</code> (FirstSpirit Access API, package <code>de.espirit.firstspirit.access.schedule</code> ).	Developer, FirstSpirit API



ID	Description	Categories
204784	Erroneous behavior could occur in the display of customer-specific action buttons in the toolbar.	SiteArchitect
204910	In rare cases, when restoring deleted objects, the dialog was not displayed.	SiteArchitect
204958	When using OpenJDK 8, erroneous behavior could arise during roll-out of web applications.	Server Administrator
205151	Security improvements in the Media Store in ContentCreator.	Security
205152	Security improvements in FirstSpirit ServerManager.	Security
205154	Security improvements in FirstSpirit ServerMonitoring.	Security
205155	Security improvements for the search functionality in ContentCreator.	Security
205156	Security improvements in FirstSpirit ServerMonitoring.	Security
205182	Changes regarding the class <code>AccessControlDb</code> (package <code>de.espirit.firstspirit.acl.db</code> ). Please see Chapter 3.	Developer, FirstSpirit API, Modules
205268	Optimized the compatibility module.	Isolated mode (BETA)
205290	Optimized method <code>install(InputStream, boolean)</code> of the interface <code>ModuleAdminAgent</code> (FirstSpirit Developer API, package <code>de.espirit.firstspirit.agency</code> ).	Developer, FirstSpirit API
205339	Intermittently, references between the API documentations for FirstSpirit Access API and FirstSpirit Developer API were not rendered correctly.	Developer, FirstSpirit API

## 9 Categories

### 9.1 Content Store

ID	Description
202603	Optimized consideration of invalid references during reference recalculation.



## 9.2 ContentCreator

ID	Description
200612	As of the current version of FirstSpirit, the order in which datasets are displayed in and output by FS_INDEX components which are based on foreign key relationships can now be set by an editor.  Further information can be found in chapter "Input components: FS_INDEX: Manually Sorting Datasets".
203023	Optimized consideration of privileges which are defined on the data source when editing datasets in the input component FS_LIST (type DATABASE).

## 9.3 Database

ID	Description
200612	As of the current version of FirstSpirit, the order in which datasets are displayed in and output by FS_INDEX components which are based on foreign key relationships can now be set by an editor.  Further information can be found in chapter "Input components: FS_INDEX: Manually Sorting Datasets".

## 9.4 Developer

ID	Description
189126	The new property PRESET may be used to determine if the user is currently editing in the dialog "Edit form defaults".  Further information can be found in chapter "Input components: Dynamic Forms: New Property "PRESET"".
204688	Optimized method <code>getStartNodes()</code> of the interface <code>GenerateTask</code> (FirstSpirit Access API, package <code>de.espirit.firstspirit.access.schedule</code> ).
205182	Changes regarding the class <code>AccessControlDb</code> (package <code>de.espirit.firstspirit.access.db</code> ). Please see Chapter 3.



ID	Description
205290	Optimized method <code>install(InputStream, boolean)</code> of the interface <code>ModuleAdminAgent</code> (FirstSpirit Developer API, package <code>de.espirit.firstspirit.agency</code> ).
205339	Intermittently, references between the API documentations for FirstSpirit Access API and FirstSpirit Developer API were not rendered correctly.

## 9.5 Dynamic Forms

ID	Description
189126	The new property <code>PRESET</code> may be used to determine if the user is currently editing in the dialog “Edit form defaults”.  Further information can be found in chapter “Input components: Dynamic Forms: New Property “PRESET””.

## 9.6 External synchronization

ID	Description
204098	As of the current version of FirstSpirit, custom project properties (“custom properties”) may now be synchronized using “FirstSpirit External Synchronization”.  Further information can be found in chapter “External Synchronization: Consideration of Custom Properties in External Synchronization”.

## 9.7 FirstSpirit API

ID	Description
204098	As of the current version of FirstSpirit, custom project properties (“custom properties”) may now be synchronized using “FirstSpirit External Synchronization”.  Further information can be found in chapter “External Synchronization: Consideration of Custom Properties in External Synchronization”.



ID	Description
204688	Optimized method <code>getStartNodes()</code> of the interface <code>GenerateTask</code> (FirstSpirit Access API, package <code>de.espirit.firstspirit.access.schedule</code> ).
205182	Changes regarding the class <code>AccessControlDb</code> (package <code>de.espirit.firstspirit.access.db</code> ). Please see Chapter 3.
205290	Optimized method <code>install(InputStream, boolean)</code> of the interface <code>ModuleAdminAgent</code> (FirstSpirit Developer API, package <code>de.espirit.firstspirit.agency</code> ).
205339	Intermittently, references between the API documentations for FirstSpirit Access API and FirstSpirit Developer API were not rendered correctly.

## 9.8 FirstSpirit Administrator

ID	Description
200055	As of the current version of FirstSpirit, media constraints may be based upon either file name extensions or MIME type detection.  Further information can be found in chapter “Administration: Media Constraints: MIME Type Detection”.
202603	Optimized consideration of invalid references during reference recalculation.

## 9.9 Input Components

ID	Description
200612	As of the current version of FirstSpirit, the order in which datasets are displayed in and output by FS_INDEX components which are based on foreign key relationships can now be set by an editor.  Further information can be found in chapter “Input components: FS_INDEX: Manually Sorting Datasets”.





## 9.10 Isolated mode (BETA)

ID	Description
205268	Optimized the compatibility module.

## 9.11 Media Constraints

ID	Description
200055	As of the current version of FirstSpirit, media constraints may be based upon either file name extensions or MIME type detection.  Further information can be found in chapter “Administration: Media Constraints: MIME Type Detection”.

## 9.12 Modules

ID	Description
205182	Changes regarding the class <code>AccessControlDb</code> (package <code>de.espirit.firstspirit.a-cl.db</code> ). Please see Chapter 3.

## 9.13 Performance

ID	Description
198603	Improved performance of searches for invalid references.
204653	Performance improvements related to the integrated preview when using Google Chrome as browser engine.



## 9.14 Security

ID	Description
205151	Security improvements in the Media Store in ContentCreator.
205152	Security improvements in FirstSpirit ServerManager.
205154	Security improvements in FirstSpirit ServerMonitoring.
205155	Security improvements for the search functionality in ContentCreator.
205156	Security improvements in FirstSpirit ServerMonitoring.

## 9.15 Server Administrator

ID	Description
200316	Optimized roll-out behavior of project-local web applications.
204958	When using OpenJDK 8, erroneous behavior could arise during roll-out of web applications.

## 9.16 ServerManager

ID	Description
200055	As of the current version of FirstSpirit, media constraints may be based upon either file name extensions or MIME type detection.  Further information can be found in chapter “Administration: Media Constraints: MIME Type Detection”.
204665	Under macOS, windows were in rare cases not opened in the foreground.

## 9.17 SiteArchitect

ID	Description
200612	As of the current version of FirstSpirit, the order in which datasets are displayed in and output by FS_INDEX components which are based on foreign key relationships can now be set by an editor.



ID	Description
	Further information can be found in chapter “Input components: FS_INDEX: Manually Sorting Datasets”.
204586	Improved e-mail dispatch.
204653	Performance improvements related to the integrated preview when using Google Chrome as browser engine.
204665	Under macOS, windows were in rare cases not opened in the foreground.
204784	Erroneous behavior could occur in the display of customer-specific action buttons in the toolbar.
204910	In rare cases, when restoring deleted objects, the dialog was not displayed.

## 9.18 Template Development

ID	Description
192181	Optimized deletion of link templates that are still referenced.
200612	As of the current version of FirstSpirit, the order in which datasets are displayed in and output by FS_INDEX components which are based on foreign key relationships can now be set by an editor.  Further information can be found in chapter “Input components: FS_INDEX: Manually Sorting Datasets”.
202425	In rules (templates), auto-completion mistakenly did not work at locations following a multi-line XML comment.

## 9.19 Workflow

ID	Description
204586	Improved e-mail dispatch.

