



FirstSpirit™

Unlock Your Content

Release Notes

FirstSpirit™ 2020-07

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1 Administration

1.1 Starting FirstSpirit using Linux has been further improved with the new "fs-server start script".

To further secure operation of the FirstSpirit Server using Linux and to simplify the central configuration, a further, optional configuration file has been introduced.

This new `fs-server-custom.shconf` file can be used

- to define the user with which the FirstSpirit Server is to be started.
- to define the path to the Java version.

The file is not updated automatically when the FirstSpirit backend is updated and is therefore not included in `fs-update*.tar.gz`. For servers that have already been installed, the file can be extracted from `fs-install*.tar.gz`.

In the file, the corresponding lines must then be uncommented (`#` at the start of the line removed) and the required values entered

```
RUN_AS_USER=<Username>
export FS_JAVA_HOME=<path to java>
```

2 General

2.1 Cessation of support for Microsoft Internet Explorer

With the latest FirstSpirit release, we are planning to cease support for Microsoft Internet Explorer as a browser for using the FirstSpirit web apps. The manufacturer is also gradually replacing Microsoft Internet Explorer with Microsoft Edge.

The point of reference for using FirstSpirit is always the latest version of the **Chrome** browser available on the operating system in question. Regular tests are performed on this browser and steps are taken to eliminate errors based on error messages.



Browsers that are similar to Chrome (such as Apple Safari) are also supported and tested, but functionality may be restricted (e.g., limited SVG support).

Overview of current browser compatibilities:

Recommended browsers / reference:

- Google Chrome
- Microsoft Edge

Compatible browsers:

- Mozilla Firefox
- Apple Safari (subject to restrictions)

Not compatible:

- Microsoft Internet Explorer
- Opera and others

The “FirstSpirit Technical Data Sheet” has been adapted accordingly (<https://docs.e-spirit.com/odfs/edocs/admi/technical-requi/index.html>).

3 ContentCreator

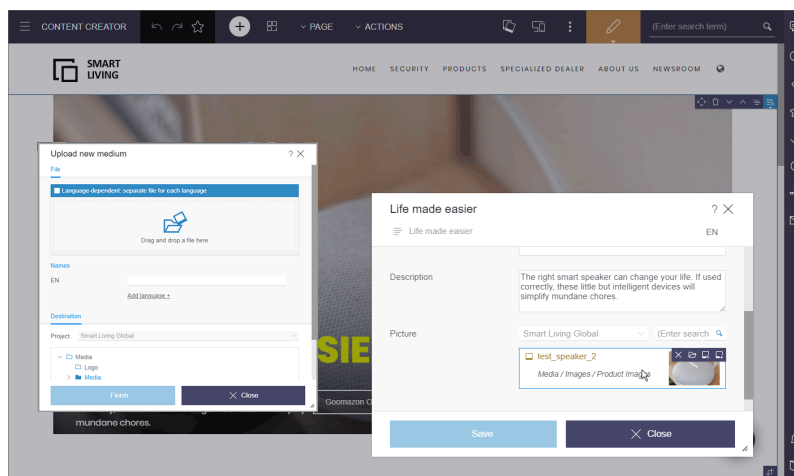
3.1 Retirement of the "old" ContentCreator and further design improvement

The design and technical basis of FirstSpirit ContentCreator were revised. With FirstSpirit 2020-01, the revised ContentCreator was officially released for use. As of FirstSpirit 2020-03, the revised ContentCreator is used by default for all projects. In addition to the internal quality assurance measures, feedback on specific operational scenarios from customers and partners has since been promptly incorporated into the development.



If necessary, it was possible to easily switch between the old and new ContentCreator on a project-by-project basis. We plan to **retire the “old” ContentCreator** with the current release; at this point, all customers will only be able to use the revised Content Creator.

The checkbox which previously enabled users to switch between the old and new ContentCreator (FirstSpirit ServerManager / “Server properties / Web applications” or “Project properties / Web components” / “ContentCreator”, option “Use new design”) has been removed in this context. When switching from previous FirstSpirit versions to 2020-07, settings which were made for the server and/or project in those versions will no longer be taken into account. From FirstSpirit Server 2020-07, only the revised ContentCreator is used.



For editors, no functional changes are associated with the new design in principle. At just a few central locations, the user prompting and guidance has additionally been optimized.

As of FirstSpirit 2020-07 a number of design and user experience optimizations were made based on customer feedback, including

- “ACTIONS” menu:
Here you can now visually differentiate between scripts, (contextless) workflows and plugins, again.
- FS_CATALOG/FS_INDEX:
New display option “Grid” (compared to “Symbols”, the thumbnails are not adjusted to the existing space)



- Media management:
The last row of entries is no longer stretched over the entire page width.
- Adaptation of dialog buttons for a uniform cross-client UI



- Optimized layout for integrated help texts and tooltips
- In release messages, which are temporarily displayed in the upper left corner below the menu bar, the relevant names are now also displayed for media folders and the top level of media management (“Media”).

For **developers and administrators**, the switch to the revised ContentCreator does not involve any migration work. Only in very rare cases, there may be compatibility problems with customer-specific modules. In such cases, please contact e-Spirit Technical Support (<https://help.e-spirit.com/>).

Information on using the new FirstSpirit ContentCreator

- Resource requirements:** The change in technologies used for ContentCreator (“MicroApp Framework”) increases the resource and system requirements. For this reason, you should check and, if necessary, increase resources, in particular for the application server (e.g., Apache Tomcat) and specifically the **hard drive capacity** and **Java Heap**.
Where possible, ContentCreator should be used as a **global web application**. ContentCreator should only be run as its own project instance (“projectlocal”) where it is absolutely necessary to do so.
- Working with Apache Tomcat:** If Apache Tomcat is used as the application server, we recommend that Apache Tomcat is **restarted** after each update.
- Pluggability:** The **Pluggability** option has to be activated for unrestricted use of the new FirstSpirit Content Creator (FirstSpirit ServerManager / “Server properties / Web applications” or “Project properties / Web components” / “ContentCreator”). When using ContentCreator, the system automatically activates pluggability mode (log entry: WARN 03.02.2020 15:58:20.902 (de.espirit.firstspirit.server.module.WebServerManagerImpl): Force



enabled pluggability for 'fs5webedit' in project '-1'.). This has no effect on the interface itself; the option “Pluggability” may still show as being set to “Inactive” even though the option is activated.

- **Working in the browser:** The new ContentCreator is not compatible with Microsoft Internet Explorer. We recommend using Google Chrome and Microsoft Edge Chromium for the new ContentCreator. See also chapter “Cessation of support for Microsoft Internet Explorer”.

Manual

The manual has already largely been adapted to the new design. In just a few places, the interfaces illustrated do not match the interface in the new design and may differ from the version of ContentCreator you are using.

3.2 Ramp-up: Less manual image cropping thanks to "Smart Cropping"

The concept of “image resolutions” in FirstSpirit has always enabled the uniform use of image sizes in online presences. The resolutions required for a project are automatically calculated and generated by the system as standard.

However, depending on the image material and project settings, these automatically generated resolutions must often be checked by the editor and manually adjusted: In some project setups (e.g. when concrete widths and heights are specified for images) the resolutions are compressed, the proportions of the delivered image material do not match the proportions and sizes required for the internet presence. In other cases, the editor may want to select a different focus for some images and move a different area to the center of attention.

Smart Cropping largely eliminates the need to check the individual resolutions and manual adjustment by the editor: thanks to intelligent technology, a suitable section can be selected manually for all resolutions of one image at the same time.

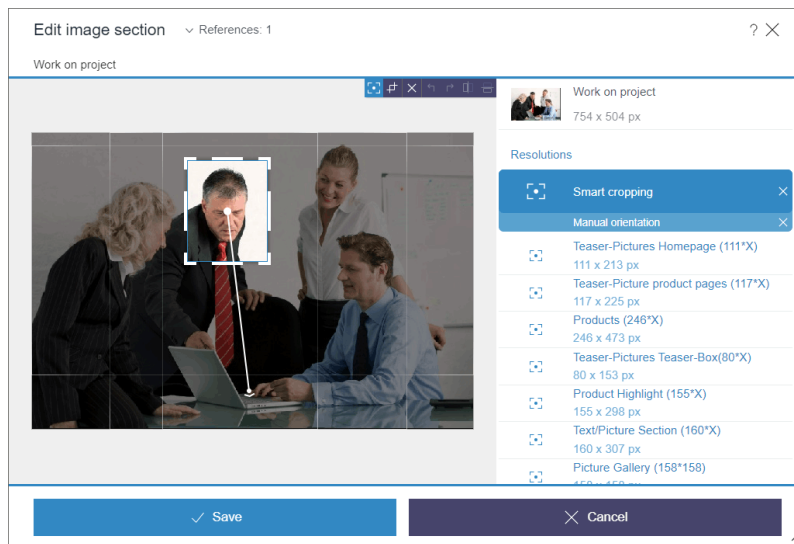
For this purpose, a suitable cropping is automatically calculated for each resolution on the basis of an area that the editor can determine in the image as the main motif using a selection frame (“focus area”). In this process the “Golden ratio” is applied: This ensures that the image composition appears organically and harmoniously proportioned instead of static and constructed.

By default, this is done from the center of the image, i.e. the cutouts are extended towards the center of the image. However, the editor can also use the “angle of view” function to determine the direction of the original image in which the cutouts should be extended (top, bottom, right, left...). With this angle of



view you can control which area of the image is relevant for the resolutions and should be considered for the automatic cropping.

In the case of images with people, for example, the viewing angle can ideally be selected so that the person and his or her viewing direction as well as the target is in the focus area.



In this context, existing APIs were extended and new ones were created, for example to define focus areas without user interaction.

The new feature can be tested with FirstSpirit 2020-07 in the scope of a ramp-up phase and will be made available to some selected customers and partners for trying out. Feedback from this phase is promptly incorporated into the development. Are you also interested in testing the new functionality? Then please contact your responsible customer or partner manager.

An official release for all customers is planned for the 4th quarter of 2020.

4 Input components

4.1 The output behavior when accessing the CMS_INPUT_PERMISSION input component via the API has been corrected.

If no metadata has been defined for an element or if the box for the “Define permissions” option in the CMS_INPUT_PERMISSION input component has not been checked, an empty list is now returned for the input component.



Before querying the content, a check should be carried out to see whether metadata has been defined for this element and whether these permissions have been applied or inherited there.

```
( <IDProvider>.hasMeta() && !<IDProvider>.getMetaFormData().get(null,  
  <Name of the input component>).get().isInherited() )
```

If the above query returns “false”, the correct values are located on the node in the parent chain for which this query returns “true”.

4.2 FS_LIST: Ramp-down phase complete: input component no longer included

As of FirstSpirit 2020-07, the FS_LIST input component is no longer included. The component has been removed from FirstSpirit and is no longer available for use. This means it is no longer possible to edit forms with FS_LIST and expected content will no longer be generated on the output side. This concludes the ramp-down phase.

Overview: Process of ramp-down phase for input component FS_LIST

To ensure that the FS_LIST component was phased out with minimum risk, it was removed in multiple stages:

- (Complete) As of FirstSpirit 5.2R3, the input component for creating and managing lists FS_LIST was **discontinued**.
- (Complete) As of FirstSpirit 2019-11, a **deprecation warning** was logged as a first step in all projects, when data was generated from an FS_LIST input component, or when data from an FS_LIST component was previewed.
- (Complete) As of FirstSpirit 2020-01, the FS_LIST input component **stopped receiving support**. It was no longer possible to use the component from this point.
- To minimize the risk of production problems, particularly in cases involving customers with longer update cycles, there was a six-month transition period during which it was possible to reactivate FS_LIST temporarily.



- (Complete) As of FirstSpirit 2020-07, the input component has been **removed** from FirstSpirit and can no longer be used in any projects.

The **FS_CATALOG**, **FS_INDEX**, and **CMS_INPUT_SECTIONLIST** input components are available as substitutes. They also provide content bundling functions, which means that they largely cover the same functions as **FS_LIST**.

- **FS_LIST**, type **DATABASE** can be substituted with an input component of type **FS_INDEX**.
- **FS_LIST**, type **INLINE** can be substituted with an input component of type **FS_CATALOG**.
- **FS_LIST** with **MEDIAMODE** tag can be substituted with an input component of type **FS_INDEX**, using the `DatasetDataAccessPlugin` (**SOURCE** tag) supplied as standard.
- **FS_LIST**, type **PAGE** can be substituted with the input component **CMS_INPUT_SECTIONLIST**.
- **FS_LIST**, type **SERVICE** can be substituted with an input component of type **FS_INDEX**, using a corresponding database access plug-in.

Detailed guidelines for performing conversion in ongoing projects are provided in the [FirstSpirit documentation](#).

! Once a conversion to the new input components has been performed, it will no longer be possible to revert back to **FS_LIST**, even if the server is downgraded.

If you have any questions or feedback on migrating **FS_LIST**, please contact e-Spirit [Technical Support](#).

5 FirstSpirit Content Experience Tools (CXT)

5.1 Latest module versions

FirstSpirit 2020-07 supports the following module versions for “FirstSpirit Content Experience Tools”:

Module / file name	Version number
FirstSpirit CXT DAP Bridge	1.30



<code>dataservice-[version].fsm</code>	
FirstSpirit CXT FragmentCreator	2.8
<code>fragment-creator-[version].fsm</code>	
FirstSpirit Fragment DAP	1.27
<code>fragmentdap-[version].fsm</code>	
FirstSpirit Media DAP	1.24*
<code>mediadap-[version].fsm</code>	
FirstSpirit PageRef DAP	1.1
<code>pagerefdap-[version].fsm</code>	
FirstSpirit Markdown Editor	1.22*
<code>markdown-editor-[version].fsm</code>	
FirstSpirit Tagging Editor	1.22
<code>tagging-editor-[version].fsm</code>	
FirstSpirit CXT FragmentCreator - CaaS	1.23
Integration	
<code>caas-integration-[version].fsm</code>	

* These modules require FirstSpirit 2020-03 or higher from this version.

5.2 FragmentCreator: Design revision (status bar)

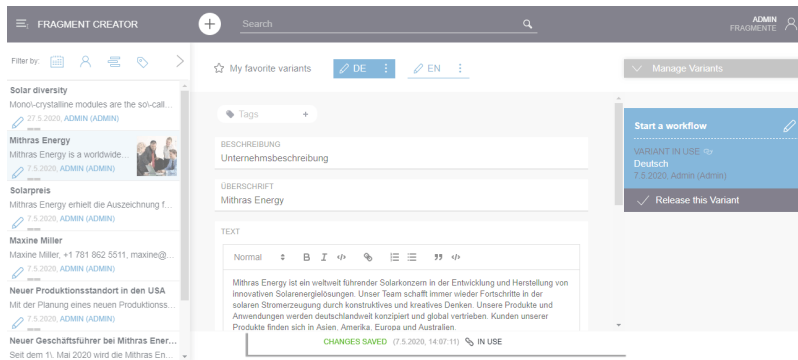
As part of the revision and consolidation of the technical basis for FirstSpirit ContentCreator and FragmentCreator, FragmentCreator's graphical interface has been revised and adapted in line with the design principles of ContentCreator.

The design update does not include any functional changes for editors or developers. All functions in the interfaces are generally available in their familiar positions. The design update will not give rise to any additional development or operational work.

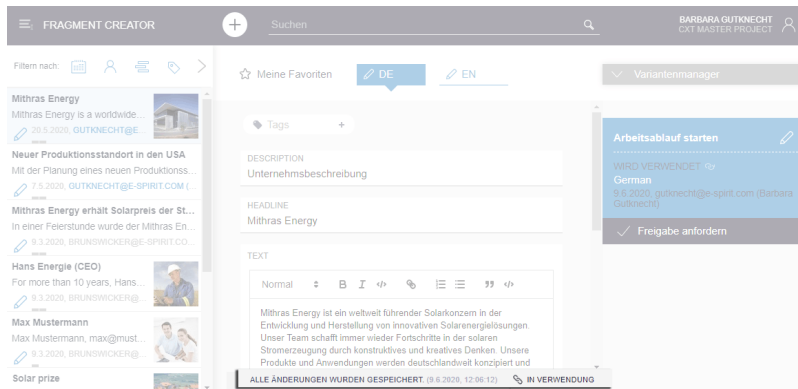
The changes in the latest release concern the status bar along the bottom edge of the screen.

Now:





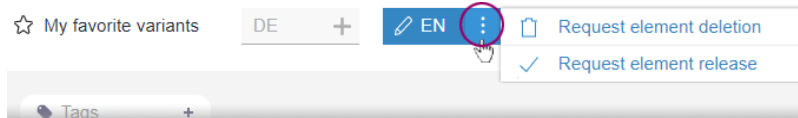
Previously:



Adjustment of the manual regarding the design is carried out gradually. The presentation in the manual may therefore no longer correspond to the current software.

5.3 MicroApps API: Providing variants with actions from MicroApps

In FragmentCreator, favored variants can now be provided with actions from customer-specific MicroApps. The variant tabs are being expanded to include 3 dots that can be used to access editing options for MicroApps. For example:



When an action is selected, it affects the selected variant.



By default, the standard workflows for release (“Request release” / *request_release*) and deletion (“Request deletion” / *delete_fragment_wf*) are started there.

See also <https://docs.e-spirit.com/odfs/edocs/cxt/workflows/index.html>.

Only actions for which the user has the appropriate permissions are shown.

To provide this UI interface with actions from **customer-specific** MicroApps, the MicroApp must support the new `VariantActionContext`. This contains

- the *projectId*
ID of the project in question
- a *documentId*
ID of the variant in question
- a *command*
the required action, e.g., *'EditVariant'*
- the *application* (optional)
Currently, the value *'fragmentcreator'* can be used here to specify that MicroApps are to be displayed at this point.

Example:

```
{ command: 'EditVariant', documentId: '4757cadc-d71e-4a58-9f3e-5cfbe86a9caa',  
  projectId: 1, application: 'fragmentcreator' }
```

Note: The API is currently intended for internal use only and is being tested internally and by partners. In the future, it will also be made available to external customers.

6 Module Development, Scripts, API

6.1 The classes from the Apache PDFBox open-source library have been removed from fs-[isolated-]webrt.jar

The classes from the “Apache PDFBox” open-source library have been removed from `fs[-isolated-]webrt.jar`.



If these classes were used during module development (which was only possible for modules that contain web applications in legacy mode), they are now missing and must be added explicitly to the web application. This means the “Apache PDFBox” library must be provided in the module as a “web-resource” by being added to the `module[-isolated].xml` file, e.g.:

```
<web-resources>
  <resource name="org.apache.pdfbox:pdfbox" version="2.0.17">
    lib/pdfbox-2.0.17.jar
  </resource>
</web-resources>
```

7 SiteArchitect / ContentCreator

7.1 New attributes for rules: ID, UID, GID, template

The following properties are now available in the rules for corresponding elements:

- *ID*: determining the ID of a FirstSpirit element
- *UID*: determining the reference name/UID of a FirstSpirit element
Sections do not technically have a UID, which is why the display name is returned in this case.
- *GID*: determining the global ID (GID) of a FirstSpirit element
- *TEMPLATE*: determining the template of the current FirstSpirit element
The reference name of the template is returned (*UID*).

Code snippet:

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

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

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



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

On a **page**, for example, the information for the page is returned (even if the rule is executed in a section within an FS_CATALOG input component, for instance).

Metadata returns information about the element on which the metadata has been defined.

8 SiteArchitect / ServerManager

8.1 Database connection: support for the parameter `jdbc.MAXSTRINGLENGTH`

The database integration of the FirstSpirit Server is configured via the ServerManager (Server properties / Databases). All connected database layers on the server, i.e. all connections to a database from the server, are listed here. The optional JDBC parameter `jdbc.MAXSTRINGLENGTH` can be used in the database layer to define the maximum number of characters of a VARCHAR column when creating a new database table. If a higher value is specified for a string attribute than the one defined via parameter `jdbc.MAXSTRINGLENGTH`, this string attribute is stored as a different data type (e.g. as BLOB, CLOB or TEXT) in the database. If no value is set here, a default value is set depending on the database used.

New behavior:

With the current FirstSpirit release the parameter `jdbc.MAXSTRINGLENGTH` is supported for the following databases:

- PostgreSQL
- Oracle 19c

The following applies to PostgreSQL:

- Default value: If no value is defined using `jdbc.MAXSTRINGLENGTH`, the default value 255 is used.
- Maximum value: It is not recommended to define values higher than 65534.

The following applies to Oracle 19c:



- Default value: If no value is defined using `jdbc.MAXSTRINGLENGTH`, the default value 2000 is used.
- Recommendation: Depending on the character set (parameter `jdbc.oracle.CHARACTERSET`), it is useful to adjust the character length. For Oracle 19c, for example, the character set `AL32UTF8` with character length 8191 is recommended. The recommended value for the respective character set can be found in the [FirstSpirit Documentation](#) (see “Values to be used for Oracle 19c (depending on the character set)”).
- Maximum value: If values are specified for the parameter that are higher than the recommended value of the specified character set (parameter `jdbc.oracle.CHARACTERSET`), a corresponding message is logged in the server log. The maximum value for the respective character set can be found in the [FirstSpirit Documentation](#) (see “Values to be used for Oracle 19c (depending on the character set)”).
 - For values that are higher than the maximum value of the specified character set, an ERROR is logged, and the value is reduced to the maximum value.
 - For values higher than the recommended value and smaller than the maximum value of the specified character set, a corresponding WARN message is logged, in which the recommended value is displayed.

For all other [recommended](#) and [compatible](#) database systems, the parameter `jdbc.MAXSTRINGLENGTH` is ignored. Instead, the hard-coded default values of the respective database are used.

I use the parameter `jdbc.MAXSTRINGLENGTH` in my existing layer configuration. Do I have to modify the configuration?

- ! e-Spirit recommends that customers who use the `jdbc.MAXSTRINGLENGTH` parameter in an existing PostgreSQL database configuration remove the parameter from the configuration before updating to FirstSpirit 2020-07. This recommendation also applies if an existing Oracle database configuration (with the parameter `jdbc.MAXSTRINGLENGTH`) is converted to an Oracle 19c configuration.

Background: The parameter has been ignored so far. After an update to FirstSpirit 2020-07 the parameter is then used for existing PostgreSQL or Oracle 19c database configurations. Depending on the value



that is set for the parameter in the configuration, the data types of the string attributes can change during the first sync to the database, and data can therefore possibly be lost.

More information:

- [Server properties - Databases](#)
- [Mandatory parameters for the database connection](#)
- [Optional parameters \(including jdbc.MAXSTRINGLENGTH\)](#)

9 System

9.1 Update of internally used software

As of the current release, the following internally used software has been updated:

- **Spring Boot** (used for MicroApp Framework)
Update from version 2.2.5 to version 2.3.1
- **Spring Cloud Hoxton** (used for MicroApp Framework)
Update from version Hoxton.SR3 to version Hoxton.SR5

10 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
Input component FS_LIST	5.2R3	January 2020
Input component CMS_INPUT_CONTENTAREALIST	5.2R3	
Input component CMS_INPUT_CONTENTLIST	5.2R3	
Input component CMS_INPUT_FILE	5.2R3	
Input component CMS_INPUT_LINKLIST	5.2R3	
Input component CMS_INPUT_OBJECTCHOOSE	5.2R3	
Input component CMS_INPUT_PAGEREF	5.2R3	
Input component CMS_INPUT_PICTURE	5.2R3	
Input component CMS_INPUT_TABLIST	5.2R3	
FirstSpirit Developer API: de.espirit.firstspirit.agency.GroupsAgent	5.2R15	
FirstSpirit Access API: delete (de.espirit.firstspirit.access.AccessUtil)	5.2R18	
FirstSpirit Access API: release (de.espirit.firstspirit.access.AccessUtil)	2018-06	
FirstSpirit Developer API: getLastLoginAsDate (de.espirit.firstspirit.agency.UserStatisticsAgent)	2018-07	
FirstSpirit Developer API: remainingDurationOfCurrentStageInMillis (de.espirit.firstspirit.server.MaintenanceModelInfo)	2018-07	
FirstSpirit Developer API: getStartingTimeOfStageAsDate (de.espirit.firstspirit.server.MaintenanceModelInfo)	2018-07	
FirstSpirit Access API: getSelectedWebserverConfiguration (de.espirit.firstspirit.access.serverConfiguration)	2018-10	
FirstSpirit Access API: setSelectedWebserverConfiguration (de.espirit.firstspirit.access.serverConfiguration)	2018-10	



Functionality	Deprecated as of	Will be removed/ Was removed as of
FirstSpirit Access API: getSelectedWebServer (de.espirit.firstspirit.access.project.Project)	2018-10	
FirstSpirit Access API: setSelectedWebServer (de.espirit.firstspirit.access.project.Project)	2018-10	
FirstSpirit Developer API: getLostAndFoundStoreNodes(); (de.espirit.firstspirit.feature.FeatureInstallResult)	2018-10	
FirstSpirit Developer API: getDeletedStoreNodes(); (de.espirit.firstspirit.feature.FeatureInstallResult)	2018-10	
FirstSpirit Access API: de.espirit.firstspirit.access.store.Previewable	2019-01	
WebSphere Application Server support for FirstSpirit	2019-05	
Legacy mode for the FirstSpirit server and module development	2019-06	
FirstSpirit ContentCreator (old design / old technology)	2019-11	2020-07
Support for Microsoft Internet Explorer for FirstSpirit Web Apps	2020-05	2020-07

11 Overview

ID	Description	Categories
CORE-11046	In very rare cases, restoring deleted objects may result in an error. If the cause of this error is that the target folder cannot be found (e.g., because it is deleted at the same time as objects are restored), there will now be a specific <code>RestoreFailedException</code> which provides further information to identify the cause.	Editor, FirstSpirit Administrator, SiteArchitect
CORE-11079	An error has been corrected which made it difficult to analyze problems when displaying input masks. In such cases, the exception that was actually causing the problem is now output instead of the unhelpful <code>NullPointerException</code> .	FirstSpirit Administrator, Input Components, SiteArchitect



ID	Description	Categories
CORE-11407	Behavior has been corrected which, in very rare cases, may have resulted in erroneous behavior when elements were deleted.	Editor, SiteArchitect
CORE-11784 CXT-1433	<p>The design and technical basis of FirstSpirit ContentCreator were revised. The “old” ContentCreator retires with the latest release.</p> <p>Further information can be found in chapter “ContentCreator: Retirement of the “old” ContentCreator and further design improvement”.</p>	ContentCreator, Editor, FirstSpirit Administrator
CORE-11797	If the FS_CATALOG component was being used in a nested manner, it was possible that content from the translation help would not transfer correctly. The corresponding error has been rectified.	Editor, Input Components, SiteArchitect
CORE-12006	An error has been corrected which, in very rare cases, may have resulted in a <code>StackOverflowError</code> when classes were loaded.	FirstSpirit Administrator, Modules, SiteArchitect
CORE-12016	<p>The output behavior when accessing the CMS_INPUT_PERMISSION input component via the API has been corrected.</p> <p>Further information can be found in chapter “Input components: The output behavior when accessing the CMS_INPUT_PERMISSION input component via the API has been corrected.”.</p>	Metadata, Permissions
CORE-12023 CXT-1527	<p>The ID, UID, GID, and the corresponding template of FirstSpirit elements can now be determined using rules.</p> <p>Further information can be found in chapter “SiteArchitect / ContentCreator: New attributes for rules: ID, UID, GID, template”.</p>	ContentCreator, Developer, Dynamic Forms, Editor, Input Components, Template Development
CORE-12024	When using the translation help, it was possible that an error would occur if the data had been created with an input component which is no longer available (e.g., FS_LIST). The error has been corrected, so the current source data now displays properly.	Editor, Input Components, Migration, SiteArchitect
CORE-12161	In rare cases, saving an FS_CATALOG input component may have resulted in erroneous behavior.	Editor, Input Components, SiteArchitect



ID	Description	Categories
CORE-12205	<p>The classes from the “Apache PDFBox” open-source library have been removed from <code>fs-[isolated-]webbrt.jar</code>. If these classes were used during module development (which was only possible for modules that contain web applications in legacy mode), they are now missing and must be added explicitly to the web application.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: The classes from the Apache PDFBox open-source library have been removed from <code>fs-[isolated-]webbrt.jar</code>”.</p>	Developer, Module development, Modules
CORE-12209	<p>Ramp-up phase for new feature: “Smart Cropping” reduces the effort for manual image cropping thanks to automatic operation</p> <p>Further information can be found in chapter “ContentCreator: Ramp-up: Less manual image cropping thanks to “Smart Cropping””.</p>	ContentCreator, Editor, FirstSpirit Administrator, Media, Media Store
CORE-12240	<p>When adding a new database layer via the ServerManager (Server Properties / Databases / Add), problems could occur if special connection parameters (<code>jdbc.property.</code>) were required for the database connection (e.g. for TNS entries, SSL connections, etc.). These connection parameters were not properly parsed. As a result, the connection test (button “Test connection”) failed and the database layer could not be saved although it was configured correctly. This problem has been fixed.</p>	Database, ServerManager
CORE-12262	<p>Changes to an object which have taken place from one revision number to another revision number can be displayed in FirstSpirit using differential visualization (via context menu “Version History” / Button: “Compare”). An error in the display of this view in combination with dropped input components (such as <code>FS_LIST</code>) has been corrected.</p>	Input Components, SiteArchitect
CORE-12368	<p>Starting FirstSpirit using Linux has been further improved with the new “fs-server start script”.</p> <p>Further information can be found in chapter “Administration: Starting FirstSpirit using Linux has been further improved with the new “fs-server start script”.”.</p>	Server Administrator



ID	Description	Categories
CORE-12388	<p>With the current FirstSpirit release, the parameter <code>jdbc.MAXSTRINGLENGTH</code> is supported for PostgreSQL and Oracle 19c databases. Please note the recommendations for configuring the parameter in this document and in the “FirstSpirit documentation”. Customers who use the <code>jdbc.MAXSTRINGLENGTH</code> parameter in an existing PostgreSQL database configuration are advised by e-Spirit to remove the parameter from the configuration before updating to FirstSpirit 2020-07, in order to avoid data loss.</p> <p>Further information can be found in chapter “SiteArchitect / ServerManager: Database connection: support for the parameter <code>jdbc.MAXSTRINGLENGTH</code>”.</p>	Database, Migration
CORE-12414	<p>Erroneous behavior could occur when creating remote references with the <code>ReferenceConstructionAgent</code> interface (FirstSpirit Developer API, <code>de.espirit.firstspirit.client.access.editor</code> package).</p>	Developer, FirstSpirit API
CORE-12460	<p>As of FirstSpirit 2020-07, the <code>FS_LIST</code> input component is no longer included. The component is no longer available for use. This means it is no longer possible to edit forms with <code>FS_LIST</code> and expected content will no longer be generated on the output side.</p> <p>Further information can be found in chapter “Input components: <code>FS_LIST</code>: Ramp-down phase complete: input component no longer included”.</p>	ContentCreator, Developer, Input Components, Migration, SiteArchitect, Template Development
CORE-12473	<p>During module updates, it was not possible to end and restart an associated service correctly with certain module configurations. This has been resolved by correcting the update process.</p>	FirstSpirit Administrator, Module development, Modules
CXT-193	<p>Workflow permissions (context menu: “Extras” / “Change Permissions” / “Workflow permissions” tab), which should apply to all users, (“All” checkbox activated) are now correctly evaluated in <code>FragmentCreator</code>. Previously, a 500 or 403 error message appeared.</p>	Developer, FirstSpirit Content Experience Tools (CXT), <code>FragmentCreator</code> , Permissions, Template Development, Workflow



ID	Description	Categories
CXT-760	<p>In FragmentCreator, favored variants can now be provided with actions from customer-specific MicroApps. The standard workflows for release and deletion are started there by default.</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): MicroApps API: Providing variants with actions from MicroApps”.</p>	Developer, FirstSpirit API, FirstSpirit Content Experience Tools (CXT), FragmentCreator, Module development, Modules, Workflow
CXT-1360	<p>Indents/outdents in lists which are generated in FragmentCreator in the input element for formatted text entries (FS_MARKDOWN input component) using the <code>Tab</code> or the <code>Shift + Tab</code> are now saved permanently.</p>	Editor, FirstSpirit Content Experience Tools (CXT), FragmentCreator
CXT-1464	<p>Although thumbnails/preview images are displayed for images in the Upload dialog for media or in the FS_INDEX input component, for example, a standardized placeholder image is now used for displaying files (e.g., PDF, HTML, TXT).</p>	Editor, FirstSpirit Content Experience Tools (CXT), FragmentCreator, Input Components, Media
CXT-1477	<p>FragmentCreator: Design revision (status bar)</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): FragmentCreator: Design revision (status bar)”.</p>	Editor, FirstSpirit Content Experience Tools (CXT), FragmentCreator
CXT-1560	<p>In the FS_INDEX selection dialog, entries (media or fragments) are now sorted according to change date, unless another explicit search term has been specified.</p>	Editor, FirstSpirit Content Experience Tools (CXT), FragmentCreator, Input Components
CXT-1571	<p>In the case of external references, opening the navigation view in ContentCreator may have resulted in a <i>NullPointerException</i> (error message: <code>de.espirit.firstspirit.webedit.server.report.conte</code> <code>\$null\$2(ContextBarReferenceProvider.java:88)</code>).</p>	ContentCreator, Editor

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ID	Description	Categories
CXT-1622	<p>Support for Microsoft Internet Explorer has ceased.</p> <p>Further information can be found in chapter “General: Cessation of support for Microsoft Internet Explorer”.</p>	ContentCreator, Developer, Editor, FirstSpirit Administrator, FirstSpirit Content Experience Tools (CXT), FragmentCreator, Module development, ServerMonitoring
CXT-1627	<p>HTTP requests with verbs other than <i>GET</i> were previously answered with a generic 500 message in the event of an error. The correct error code is now being provided.</p>	Debugging, Developer, FirstSpirit Content Experience Tools (CXT), Module development
CXT-1628	<p>Update of internally used software</p> <p>Further information can be found in chapter “System: Update of internally used software”.</p>	FirstSpirit Administrator, FirstSpirit Content Experience Tools (CXT), FragmentCreator, Integrated software
CXT-1640	<p>The registration for MicroApps now reacts more flexibly to URLs with and without final slash.</p>	Developer, FirstSpirit Content Experience Tools (CXT), Module development
CXT-1672	<p>FirstSpirit Content Experience Tools: Latest module versions</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Latest module versions”.</p>	Developer, FirstSpirit Administrator, FirstSpirit Content Experience Tools (CXT), FragmentCreator, Modules, ServerManager
CXT-1678	<p>The <code>ComparisonDialogOperation</code> interface (<code>de.espirit.firstspirit.webedit.server</code> package, FirstSpirit Developer API) is now available again in FirstSpirit ContentCreator. This can be used to activate the version comparison dialog in ContentCreator via the API.</p>	ContentCreator, Developer, FirstSpirit API, Module development, Version history



ID	Description	Categories
CXT-1717	<p>When using the module “FirstSpirit CXT FragmentCreator - CaaS Integration” , an <code>IllegalStateException</code> could occur when deploying fragments to the CaaS instance (error message: <code>ERROR 15.07.2020 06:05:06.322{dNR=} (de.espirit.firstspirit.server.scheduler.ScriptTask error during script execution : java.lang.IllegalStateException: not connected)</code> and no data was transferred. This problem has been fixed.</p>	FirstSpirit Administrator, FirstSpirit Content Experience Tools (CXT), FirstSpirit Content as a Service (CaaS)
DEVEX-378	<p>When using “FirstSpirit External Synchronization”, an additional mapping file (<code>Mapping.xml</code>) can be added to the export file using an option in the <code>ExportOperation.SchemaOptions</code> interface (<code>setExportGidMapping=true</code>) for the purpose of exporting database content (schemas, entities). This mapping file stores the database names of the source project plus FirstSpirit’s proprietary unique identifiers (UUIDs).</p> <p>The command line tool <code>FSDevTools</code> supports the new option as of version 2.6.</p> <p>Without a mapping file (default behavior when using “FirstSpirit External Synchronization”), the dbnames of the column names and tables are optimized in line with the database during synchronization, as before. In standard application cases (without the additional <code>Mapping.xml</code> file), this ensures that the schema is compatible with the target database.</p>	Database, Developer, External synchronization

12 Categories

12.1 Workflow

ID	Description
CXT-193	<p>Workflow permissions (context menu: “Extras” / “Change Permissions” / “Workflow permissions” tab), which should apply to all users, (“All” checkbox activated) are now correctly evaluated in <code>FragmentCreator</code>. Previously, a 500 or 403 error message appeared.</p>



ID	Description
CXT-760	<p>In FragmentCreator, favored variants can now be provided with actions from customer-specific MicroApps. The standard workflows for release and deletion are started there by default.</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): MicroApps API: Providing variants with actions from MicroApps”.</p>

12.2 ContentCreator

ID	Description
CORE-11784 CXT-1433	<p>The design and technical basis of FirstSpirit ContentCreator were revised. The “old” ContentCreator retires with the latest release.</p> <p>Further information can be found in chapter “ContentCreator: Retirement of the "old" ContentCreator and further design improvement”.</p>
CORE-12023 CXT-1527	<p>The ID, UID, GID, and the corresponding template of FirstSpirit elements can now be determined using rules.</p> <p>Further information can be found in chapter “SiteArchitect / ContentCreator: New attributes for rules: ID, UID, GID, template”.</p>
CORE-12209	<p>Ramp-up phase for new feature: “Smart Cropping” reduces the effort for manual image cropping thanks to automatic operation</p> <p>Further information can be found in chapter “ContentCreator: Ramp-up: Less manual image cropping thanks to "Smart Cropping””.</p>
CORE-12460	<p>As of FirstSpirit 2020-07, the FS_LIST input component is no longer included. The component is no longer available for use. This means it is no longer possible to edit forms with FS_LIST and expected content will no longer be generated on the output side.</p> <p>Further information can be found in chapter “Input components: FS_LIST: Ramp-down phase complete: input component no longer included”.</p>
CXT-1571	<p>In the case of external references, opening the navigation view in ContentCreator may have resulted in a <i>NullPointerException</i> (error message: <code>de.espirit.firstspirit.webedit.server.report.contextbar.ContextBarReferenceProvider.\$null\$2(ContextBarReferenceProvider.java:88)</code>).</p>



ID	Description
CXT-1622	<p>Support for Microsoft Internet Explorer has ceased.</p> <p>Further information can be found in chapter “General: Cessation of support for Microsoft Internet Explorer”.</p>
CXT-1678	<p>The <code>ComparisonDialogOperation</code> interface (<code>de.espirit.firstspirit.webedit.server</code> package, FirstSpirit Developer API) is now available again in FirstSpirit ContentCreator. This can be used to activate the version comparison dialog in ContentCreator via the API.</p>

12.3 Database

ID	Description
CORE-12240	<p>When adding a new database layer via the ServerManager (Server Properties / Databases / Add), problems could occur if special connection parameters (<code>jdbc.property.</code>) were required for the database connection (e.g. for TNS entries, SSL connections, etc.). These connection parameters were not properly parsed. As a result, the connection test (button “Test connection”) failed and the database layer could not be saved although it was configured correctly. This problem has been fixed.</p>
CORE-12388	<p>With the current FirstSpirit release, the parameter <code>jdbc.MAXSTRINGLENGTH</code> is supported for PostgreSQL and Oracle 19c databases. Please note the recommendations for configuring the parameter in this document and in the “FirstSpirit documentation”. Customers who use the <code>jdbc.MAXSTRINGLENGTH</code> parameter in an existing PostgreSQL database configuration are advised by e-Spirit to remove the parameter from the configuration before updating to FirstSpirit 2020-07, in order to avoid data loss.</p> <p>Further information can be found in chapter “SiteArchitect / ServerManager: Database connection: support for the parameter <code>jdbc.MAXSTRINGLENGTH</code>”.</p>
DEVEX-378	<p>When using “FirstSpirit External Synchronization”, an additional mapping file (<code>Mapping.xml</code>) can be added to the export file using an option in the <code>ExportOperation.SchemaOptions</code> interface (<code>setExportGidMapping=true</code>) for the purpose of exporting database content (schemas, entities). This mapping file stores the database names of the source project plus FirstSpirit’s proprietary unique identifiers (UUIDs).</p> <p>The command line tool <code>FSDevTools</code> supports the new option as of version 2.6.</p>



ID	Description
	Without a mapping file (default behavior when using “FirstSpirit External Synchronization”), the dbnames of the column names and tables are optimized in line with the database during synchronization, as before. In standard application cases (without the additional Mapping.xml file), this ensures that the schema is compatible with the target database.

12.4 Debugging

ID	Description
CXT-1627	HTTP requests with verbs other than <i>GET</i> were previously answered with a generic 500 message in the event of an error. The correct error code is now being provided.

12.5 Dynamic Forms

ID	Description
CORE-12023 CXT-1527	The ID, UID, GID, and the corresponding template of FirstSpirit elements can now be determined using rules. Further information can be found in chapter “SiteArchitect / ContentCreator: New attributes for rules: ID, UID, GID, template”.

12.6 Input Components

ID	Description
CORE-11079	An error has been corrected which made it difficult to analyze problems when displaying input masks. In such cases, the exception that was actually causing the problem is now output instead of the unhelpful NullPointerException.
CORE-11797	If the FS_CATALOG component was being used in a nested manner, it was possible that content from the translation help would not transfer correctly. The corresponding error has been rectified.
CORE-12023 CXT-1527	The ID, UID, GID, and the corresponding template of FirstSpirit elements can now be determined using rules.



ID	Description
	Further information can be found in chapter “SiteArchitect / ContentCreator: New attributes for rules: ID, UID, GID, template”.
CORE-12024	When using the translation help, it was possible that an error would occur if the data had been created with an input component which is no longer available (e.g., FS_LIST). The error has been corrected, so the current source data now displays properly.
CORE-12161	In rare cases, saving an FS_CATALOG input component may have resulted in erroneous behavior.
CORE-12262	Changes to an object which have taken place from one revision number to another revision number can be displayed in FirstSpirit using differential visualization (via context menu “Version History” / Button: “Compare”). An error in the display of this view in combination with dropped input components (such as FS_LIST) has been corrected.
CORE-12460	As of FirstSpirit 2020-07, the FS_LIST input component is no longer included. The component is no longer available for use. This means it is no longer possible to edit forms with FS_LIST and expected content will no longer be generated on the output side. Further information can be found in chapter “Input components: FS_LIST: Ramp-down phase complete: input component no longer included”.
CXT-1464	Although thumbnails/preview images are displayed for images in the Upload dialog for media or in the FS_INDEX input component, for example, a standardized placeholder image is now used for displaying files (e.g., PDF, HTML, TXT).
CXT-1560	In the FS_INDEX selection dialog, entries (media or fragments) are now sorted according to change date, unless another explicit search term has been specified.

12.7 Developer

ID	Description
CORE-12023 CXT-1527	The ID, UID, GID, and the corresponding template of FirstSpirit elements can now be determined using rules. Further information can be found in chapter “SiteArchitect / ContentCreator: New attributes for rules: ID, UID, GID, template”.
CORE-12205	The classes from the “Apache PDFBox” open-source library have been removed from <code>fs-[isolated-]webrt.jar</code> . If these classes were used during module development (which was



ID	Description
	<p>only possible for modules that contain web applications in legacy mode), they are now missing and must be added explicitly to the web application.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: The classes from the Apache PDFBox open-source library have been removed from fs-[isolated-]webrt.jar”.</p>
CORE-12414	<p>Erroneous behavior could occur when creating remote references with the <code>ReferenceConstructionAgent</code> interface (FirstSpirit Developer API, <code>de.espirit.firstspirit.client.access.editor</code> package).</p>
CORE-12460	<p>As of FirstSpirit 2020-07, the <code>FS_LIST</code> input component is no longer included. The component is no longer available for use. This means it is no longer possible to edit forms with <code>FS_LIST</code> and expected content will no longer be generated on the output side.</p> <p>Further information can be found in chapter “Input components: <code>FS_LIST</code>: Ramp-down phase complete: input component no longer included”.</p>
CXT-193	<p>Workflow permissions (context menu: “Extras” / “Change Permissions” / “Workflow permissions” tab), which should apply to all users, (“All” checkbox activated) are now correctly evaluated in <code>FragmentCreator</code>. Previously, a 500 or 403 error message appeared.</p>
CXT-760	<p>In <code>FragmentCreator</code>, favored variants can now be provided with actions from customer-specific <code>MicroApps</code>. The standard workflows for release and deletion are started there by default.</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): <code>MicroApps</code> API: Providing variants with actions from <code>MicroApps</code>”.</p>
CXT-1622	<p>Support for Microsoft Internet Explorer has ceased.</p> <p>Further information can be found in chapter “General: Cessation of support for Microsoft Internet Explorer”.</p>
CXT-1627	<p>HTTP requests with verbs other than <code>GET</code> were previously answered with a generic 500 message in the event of an error. The correct error code is now being provided.</p>
CXT-1640	<p>The registration for <code>MicroApps</code> now reacts more flexibly to URLs with and without final slash.</p>
CXT-1672	<p>FirstSpirit Content Experience Tools: Latest module versions</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Latest module versions”.</p>



ID	Description
CXT-1678	<p>The <code>ComparisonDialogOperation</code> interface (<code>de.espirit.firstspirit.webedit.server</code> package, FirstSpirit Developer API) is now available again in FirstSpirit ContentCreator. This can be used to activate the version comparison dialog in ContentCreator via the API.</p>
DEVEX-378	<p>When using “FirstSpirit External Synchronization”, an additional mapping file (<code>Mapping.xml</code>) can be added to the export file using an option in the <code>ExportOperation.SchemaOptions</code> interface (<code>setExportGidMapping=true</code>) for the purpose of exporting database content (schemas, entities). This mapping file stores the database names of the source project plus FirstSpirit’s proprietary unique identifiers (UUIDs).</p> <p>The command line tool <code>FSDevTools</code> supports the new option as of version 2.6.</p> <p>Without a mapping file (default behavior when using “FirstSpirit External Synchronization”), the dbnames of the column names and tables are optimized in line with the database during synchronization, as before. In standard application cases (without the additional <code>Mapping.xml</code> file), this ensures that the schema is compatible with the target database.</p>

12.8 External synchronization

ID	Description
DEVEX-378	<p>When using “FirstSpirit External Synchronization”, an additional mapping file (<code>Mapping.xml</code>) can be added to the export file using an option in the <code>ExportOperation.SchemaOptions</code> interface (<code>setExportGidMapping=true</code>) for the purpose of exporting database content (schemas, entities). This mapping file stores the database names of the source project plus FirstSpirit’s proprietary unique identifiers (UUIDs).</p> <p>The command line tool <code>FSDevTools</code> supports the new option as of version 2.6.</p> <p>Without a mapping file (default behavior when using “FirstSpirit External Synchronization”), the dbnames of the column names and tables are optimized in line with the database during synchronization, as before. In standard application cases (without the additional <code>Mapping.xml</code> file), this ensures that the schema is compatible with the target database.</p>



12.9 FirstSpirit Content as a Service (CaaS)

ID	Description
CXT-1717	When using the module “FirstSpirit CXT FragmentCreator - CaaS Integration” , an <code>IllegalStateException</code> could occur when deploying fragments to the CaaS instance (error message: <code>ERROR 15.07.2020 06:05:06.322{dNR=} (de.espirit.firstspirit.server.scheduler.ScriptTaskExecutor): error during script execution : java.lang.IllegalStateException: not connected</code>) and no data was transferred. This problem has been fixed.

12.10 FirstSpirit Content Experience Tools (CXT)

ID	Description
CXT-193	Workflow permissions (context menu: “Extras” / “Change Permissions” / “Workflow permissions” tab), which should apply to all users, (“All” checkbox activated) are now correctly evaluated in FragmentCreator. Previously, a 500 or 403 error message appeared.
CXT-760	In FragmentCreator, favored variants can now be provided with actions from customer-specific MicroApps. The standard workflows for release and deletion are started there by default. Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): MicroApps API: Providing variants with actions from MicroApps”.
CXT-1360	Indents/outdents in lists which are generated in FragmentCreator in the input element for formatted text entries (<code>FS_MARKDOWN</code> input component) using the <code>Tab</code> or the <code>Shift + Tab</code> are now saved permanently.
CXT-1464	Although thumbnails/preview images are displayed for images in the Upload dialog for media or in the <code>FS_INDEX</code> input component, for example, a standardized placeholder image is now used for displaying files (e.g., PDF, HTML, TXT).
CXT-1477	FragmentCreator: Design revision (status bar) Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): FragmentCreator: Design revision (status bar)”.
CXT-1560	In the <code>FS_INDEX</code> selection dialog, entries (media or fragments) are now sorted according to change date, unless another explicit search term has been specified.
CXT-1622	Support for Microsoft Internet Explorer has ceased.



ID	Description
	Further information can be found in chapter “General: Cessation of support for Microsoft Internet Explorer”.
CXT-1627	HTTP requests with verbs other than <i>GET</i> were previously answered with a generic 500 message in the event of an error. The correct error code is now being provided.
CXT-1628	Update of internally used software Further information can be found in chapter “System: Update of internally used software”.
CXT-1640	The registration for MicroApps now reacts more flexibly to URLs with and without final slash.
CXT-1672	FirstSpirit Content Experience Tools: Latest module versions Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Latest module versions”.
CXT-1717	When using the module “FirstSpirit CXT FragmentCreator - CaaS Integration” , an <code>IllegalStateException</code> could occur when deploying fragments to the CaaS instance (error message: <code>ERROR 15.07.2020 06:05:06.322{dNR=} (de.espirit.firstspirit.server.scheduler.ScriptTaskExecutor): error during script execution : java.lang.IllegalStateException: not connected</code>) and no data was transferred. This problem has been fixed.

12.11 FirstSpirit Administrator

ID	Description
CORE-11046	In very rare cases, restoring deleted objects may result in an error. If the cause of this error is that the target folder cannot be found (e.g., because it is deleted at the same time as objects are restored), there will now be a specific <code>RestoreFailedException</code> which provides further information to identify the cause.
CORE-11079	An error has been corrected which made it difficult to analyze problems when displaying input masks. In such cases, the exception that was actually causing the problem is now output instead of the unhelpful <code>NullPointerException</code> .
CORE-11784 CXT-1433	The design and technical basis of FirstSpirit ContentCreator were revised. The “old” ContentCreator retires with the latest release.



ID	Description
	Further information can be found in chapter “ContentCreator: Retirement of the "old" ContentCreator and further design improvement”.
CORE-12006	An error has been corrected which, in very rare cases, may have resulted in a <code>StackOverflowError</code> when classes were loaded.
CORE-12209	<p>Ramp-up phase for new feature: “Smart Cropping” reduces the effort for manual image cropping thanks to automatic operation</p> <p>Further information can be found in chapter “ContentCreator: Ramp-up: Less manual image cropping thanks to "Smart Cropping"”.</p>
CORE-12473	During module updates, it was not possible to end and restart an associated service correctly with certain module configurations. This has been resolved by correcting the update process.
CXT-1622	<p>Support for Microsoft Internet Explorer has ceased.</p> <p>Further information can be found in chapter “General: Cessation of support for Microsoft Internet Explorer”.</p>
CXT-1628	<p>Update of internally used software</p> <p>Further information can be found in chapter “System: Update of internally used software”.</p>
CXT-1672	<p>FirstSpirit Content Experience Tools: Latest module versions</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Latest module versions”.</p>
CXT-1717	<p>When using the module “FirstSpirit CXT FragmentCreator - CaaS Integration” , an <code>IllegalStateException</code> could occur when deploying fragments to the CaaS instance (error message: <code>ERROR 15.07.2020 06:05:06.322{dNR=} (de.espirit.firstspirit.server.scheduler.ScriptTaskExecutor): error during script execution : java.lang.IllegalStateException: not connected</code>) and no data was transferred. This problem has been fixed.</p>



12.12 FirstSpirit API

ID	Description
CORE-12414	Erroneous behavior could occur when creating remote references with the <code>ReferenceConstructionAgent</code> interface (FirstSpirit Developer API, <code>de.espirit.firstspirit.client.access.editor</code> package).
CXT-760	In <code>FragmentCreator</code> , favored variants can now be provided with actions from customer-specific <code>MicroApps</code> . The standard workflows for release and deletion are started there by default. Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): <code>MicroApps</code> API: Providing variants with actions from <code>MicroApps</code> ”.
CXT-1678	The <code>ComparisonDialogOperation</code> interface (<code>de.espirit.firstspirit.webedit.server</code> package, FirstSpirit Developer API) is now available again in FirstSpirit <code>ContentCreator</code> . This can be used to activate the version comparison dialog in <code>ContentCreator</code> via the API.

12.13 FragmentCreator

ID	Description
CXT-193	Workflow permissions (context menu: “Extras” / “Change Permissions” / “Workflow permissions” tab), which should apply to all users, (“All” checkbox activated) are now correctly evaluated in <code>FragmentCreator</code> . Previously, a 500 or 403 error message appeared.
CXT-760	In <code>FragmentCreator</code> , favored variants can now be provided with actions from customer-specific <code>MicroApps</code> . The standard workflows for release and deletion are started there by default. Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): <code>MicroApps</code> API: Providing variants with actions from <code>MicroApps</code> ”.
CXT-1360	Indents/outdents in lists which are generated in <code>FragmentCreator</code> in the input element for formatted text entries (<code>FS_MARKDOWN</code> input component) using the <code>Tab</code> or the <code>Shift + Tab</code> are now saved permanently.
CXT-1464	Although thumbnails/preview images are displayed for images in the Upload dialog for media or in the <code>FS_INDEX</code> input component, for example, a standardized placeholder image is now used for displaying files (e.g., PDF, HTML, TXT).
CXT-1477	<code>FragmentCreator</code> : Design revision (status bar)



ID	Description
	Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): FragmentCreator: Design revision (status bar)”.
CXT-1560	In the FS_INDEX selection dialog, entries (media or fragments) are now sorted according to change date, unless another explicit search term has been specified.
CXT-1622	Support for Microsoft Internet Explorer has ceased. Further information can be found in chapter “General: Cessation of support for Microsoft Internet Explorer”.
CXT-1628	Update of internally used software Further information can be found in chapter “System: Update of internally used software”.
CXT-1672	FirstSpirit Content Experience Tools: Latest module versions Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Latest module versions”.

12.14 Integrated software

ID	Description
CXT-1628	Update of internally used software Further information can be found in chapter “System: Update of internally used software”.

12.15 Media

ID	Description
CORE-12209	Ramp-up phase for new feature: “Smart Cropping” reduces the effort for manual image cropping thanks to automatic operation Further information can be found in chapter “ContentCreator: Ramp-up: Less manual image cropping thanks to “Smart Cropping””.



ID	Description
CXT-1464	Although thumbnails/preview images are displayed for images in the Upload dialog for media or in the FS_INDEX input component, for example, a standardized placeholder image is now used for displaying files (e.g., PDF, HTML, TXT).

12.16 Media Store

ID	Description
CORE-12209	<p>Ramp-up phase for new feature: “Smart Cropping” reduces the effort for manual image cropping thanks to automatic operation</p> <p>Further information can be found in chapter “ContentCreator: Ramp-up: Less manual image cropping thanks to “Smart Cropping””.</p>

12.17 Metadata

ID	Description
CORE-12016	<p>The output behavior when accessing the CMS_INPUT_PERMISSION input component via the API has been corrected.</p> <p>Further information can be found in chapter “Input components: The output behavior when accessing the CMS_INPUT_PERMISSION input component via the API has been corrected.”.</p>

12.18 Migration

ID	Description
CORE-12024	When using the translation help, it was possible that an error would occur if the data had been created with an input component which is no longer available (e.g., FS_LIST). The error has been corrected, so the current source data now displays properly.
CORE-12388	With the current FirstSpirit release, the parameter <code>jdbc.MAXSTRINGLENGTH</code> is supported for PostgreSQL and Oracle 19c databases. Please note the recommendations for configuring the parameter in this document and in the “FirstSpirit documentation”. Customers who use the <code>jdbc.MAXSTRINGLENGTH</code> parameter in an existing PostgreSQL database configuration are



ID	Description
	<p>advised by e-Spirit to remove the parameter from the configuration before updating to FirstSpirit 2020-07, in order to avoid data loss.</p> <p>Further information can be found in chapter “SiteArchitect / ServerManager: Database connection: support for the parameter jdbc.MAXSTRINGLENGTH”.</p>
CORE-12460	<p>As of FirstSpirit 2020-07, the FS_LIST input component is no longer included. The component is no longer available for use. This means it is no longer possible to edit forms with FS_LIST and expected content will no longer be generated on the output side.</p> <p>Further information can be found in chapter “Input components: FS_LIST: Ramp-down phase complete: input component no longer included”.</p>

12.19 Module development

ID	Description
CORE-12205	<p>The classes from the “Apache PDFBox” open-source library have been removed from <code>fs-[isolated-]webprt.jar</code>. If these classes were used during module development (which was only possible for modules that contain web applications in legacy mode), they are now missing and must be added explicitly to the web application.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: The classes from the Apache PDFBox open-source library have been removed from <code>fs-[isolated-]webprt.jar</code>”.</p>
CORE-12473	<p>During module updates, it was not possible to end and restart an associated service correctly with certain module configurations. This has been resolved by correcting the update process.</p>
CXT-760	<p>In FragmentCreator, favored variants can now be provided with actions from customer-specific MicroApps. The standard workflows for release and deletion are started there by default.</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): MicroApps API: Providing variants with actions from MicroApps”.</p>
CXT-1622	<p>Support for Microsoft Internet Explorer has ceased.</p> <p>Further information can be found in chapter “General: Cessation of support for Microsoft Internet Explorer”.</p>



ID	Description
CXT-1627	HTTP requests with verbs other than <i>GET</i> were previously answered with a generic 500 message in the event of an error. The correct error code is now being provided.
CXT-1640	The registration for MicroApps now reacts more flexibly to URLs with and without final slash.
CXT-1678	The <code>ComparisonDialogOperation</code> interface (<code>de.espirit.firstspirit.webedit.server</code> package, FirstSpirit Developer API) is now available again in FirstSpirit ContentCreator. This can be used to activate the version comparison dialog in ContentCreator via the API.

12.20 Modules

ID	Description
CORE-12006	An error has been corrected which, in very rare cases, may have resulted in a <code>StackOverflowError</code> when classes were loaded.
CORE-12205	<p>The classes from the “Apache PDFBox” open-source library have been removed from <code>fs-[isolated-]webrt.jar</code>. If these classes were used during module development (which was only possible for modules that contain web applications in legacy mode), they are now missing and must be added explicitly to the web application.</p> <p>Further information can be found in chapter “Module Development, Scripts, API: The classes from the Apache PDFBox open-source library have been removed from <code>fs-[isolated-]webrt.jar</code>”.</p>
CORE-12473	During module updates, it was not possible to end and restart an associated service correctly with certain module configurations. This has been resolved by correcting the update process.
CXT-760	<p>In <code>FragmentCreator</code>, favored variants can now be provided with actions from customer-specific MicroApps. The standard workflows for release and deletion are started there by default.</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): MicroApps API: Providing variants with actions from MicroApps”.</p>
CXT-1672	<p>FirstSpirit Content Experience Tools: Latest module versions</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Latest module versions”.</p>



12.21 Permissions

ID	Description
CORE-12016	<p>The output behavior when accessing the CMS_INPUT_PERMISSION input component via the API has been corrected.</p> <p>Further information can be found in chapter “Input components: The output behavior when accessing the CMS_INPUT_PERMISSION input component via the API has been corrected.”.</p>
CXT-193	<p>Workflow permissions (context menu: “Extras” / “Change Permissions” / “Workflow permissions” tab), which should apply to all users, (“All” checkbox activated) are now correctly evaluated in FragmentCreator. Previously, a 500 or 403 error message appeared.</p>

12.22 Editor

ID	Description
CORE-11046	<p>In very rare cases, restoring deleted objects may result in an error. If the cause of this error is that the target folder cannot be found (e.g., because it is deleted at the same time as objects are restored), there will now be a specific <code>RestoreFailedException</code> which provides further information to identify the cause.</p>
CORE-11407	<p>Behavior has been corrected which, in very rare cases, may have resulted in erroneous behavior when elements were deleted.</p>
CORE-11784 CXT-1433	<p>The design and technical basis of FirstSpirit ContentCreator were revised. The “old” ContentCreator retires with the latest release.</p> <p>Further information can be found in chapter “ContentCreator: Retirement of the “old” ContentCreator and further design improvement”.</p>
CORE-11797	<p>If the FS_CATALOG component was being used in a nested manner, it was possible that content from the translation help would not transfer correctly. The corresponding error has been rectified.</p>
CORE-12023 CXT-1527	<p>The ID, UID, GID, and the corresponding template of FirstSpirit elements can now be determined using rules.</p> <p>Further information can be found in chapter “SiteArchitect / ContentCreator: New attributes for rules: ID, UID, GID, template”.</p>



ID	Description
CORE-12024	When using the translation help, it was possible that an error would occur if the data had been created with an input component which is no longer available (e.g., FS_LIST). The error has been corrected, so the current source data now displays properly.
CORE-12161	In rare cases, saving an FS_CATALOG input component may have resulted in erroneous behavior.
CORE-12209	<p>Ramp-up phase for new feature: “Smart Cropping” reduces the effort for manual image cropping thanks to automatic operation</p> <p>Further information can be found in chapter “ContentCreator: Ramp-up: Less manual image cropping thanks to “Smart Cropping””.</p>
CXT-1360	Indents/outdents in lists which are generated in FragmentCreator in the input element for formatted text entries (FS_MARKDOWN input component) using the <code>Tab</code> or the <code>Shift + Tab</code> are now saved permanently.
CXT-1464	Although thumbnails/preview images are displayed for images in the Upload dialog for media or in the FS_INDEX input component, for example, a standardized placeholder image is now used for displaying files (e.g., PDF, HTML, TXT).
CXT-1477	<p>FragmentCreator: Design revision (status bar)</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): FragmentCreator: Design revision (status bar)”.</p>
CXT-1560	In the FS_INDEX selection dialog, entries (media or fragments) are now sorted according to change date, unless another explicit search term has been specified.
CXT-1571	In the case of external references, opening the navigation view in ContentCreator may have resulted in a <i>NullPointerException</i> (error message: <code>de.espirit.firstspirit.webedit.server.report.contextbar.ContextBarReferenceProvider.null\$2(ContextBarReferenceProvider.java:88)</code>).
CXT-1622	<p>Support for Microsoft Internet Explorer has ceased.</p> <p>Further information can be found in chapter “General: Cessation of support for Microsoft Internet Explorer”.</p>



12.23 Server Administrator

ID	Description
CORE-12368	Starting FirstSpirit using Linux has been further improved with the new "fs-server start script". Further information can be found in chapter "Administration: Starting FirstSpirit using Linux has been further improved with the new "fs-server start script" .".

12.24 ServerManager

ID	Description
CORE-12240	When adding a new database layer via the ServerManager (Server Properties / Databases / Add), problems could occur if special connection parameters (<code>jdbc.property.</code>) were required for the database connection (e.g. for TNS entries, SSL connections, etc.). These connection parameters were not properly parsed. As a result, the connection test (button "Test connection") failed and the database layer could not be saved although it was configured correctly. This problem has been fixed.
CXT-1672	FirstSpirit Content Experience Tools: Latest module versions Further information can be found in chapter "FirstSpirit Content Experience Tools (CXT): Latest module versions".

12.25 ServerMonitoring

ID	Description
CXT-1622	Support for Microsoft Internet Explorer has ceased. Further information can be found in chapter "General: Cessation of support for Microsoft Internet Explorer".



12.26 SiteArchitect

ID	Description
CORE-11046	In very rare cases, restoring deleted objects may result in an error. If the cause of this error is that the target folder cannot be found (e.g., because it is deleted at the same time as objects are restored), there will now be a specific <code>RestoreFailedException</code> which provides further information to identify the cause.
CORE-11079	An error has been corrected which made it difficult to analyze problems when displaying input masks. In such cases, the exception that was actually causing the problem is now output instead of the unhelpful <code>NullPointerException</code> .
CORE-11407	Behavior has been corrected which, in very rare cases, may have resulted in erroneous behavior when elements were deleted.
CORE-11797	If the <code>FS_CATALOG</code> component was being used in a nested manner, it was possible that content from the translation help would not transfer correctly. The corresponding error has been rectified.
CORE-12006	An error has been corrected which, in very rare cases, may have resulted in a <code>StackOverflowError</code> when classes were loaded.
CORE-12024	When using the translation help, it was possible that an error would occur if the data had been created with an input component which is no longer available (e.g., <code>FS_LIST</code>). The error has been corrected, so the current source data now displays properly.
CORE-12161	In rare cases, saving an <code>FS_CATALOG</code> input component may have resulted in erroneous behavior.
CORE-12262	Changes to an object which have taken place from one revision number to another revision number can be displayed in FirstSpirit using differential visualization (via context menu "Version History" / Button: "Compare"). An error in the display of this view in combination with dropped input components (such as <code>FS_LIST</code>) has been corrected.
CORE-12460	<p>As of FirstSpirit 2020-07, the <code>FS_LIST</code> input component is no longer included. The component is no longer available for use. This means it is no longer possible to edit forms with <code>FS_LIST</code> and expected content will no longer be generated on the output side.</p> <p>Further information can be found in chapter "Input components: <code>FS_LIST</code>: Ramp-down phase complete: input component no longer included".</p>



12.27 Version history

ID	Description
CXT-1678	The <code>ComparisonDialogOperation</code> interface (<code>de.espirit.firstspirit.webedit.server</code> package, FirstSpirit Developer API) is now available again in FirstSpirit ContentCreator. This can be used to activate the version comparison dialog in ContentCreator via the API.

12.28 Template Development

ID	Description
CORE-12023 CXT-1527	<p>The ID, UID, GID, and the corresponding template of FirstSpirit elements can now be determined using rules.</p> <p>Further information can be found in chapter “SiteArchitect / ContentCreator: New attributes for rules: ID, UID, GID, template”.</p>
CORE-12460	<p>As of FirstSpirit 2020-07, the <code>FS_LIST</code> input component is no longer included. The component is no longer available for use. This means it is no longer possible to edit forms with <code>FS_LIST</code> and expected content will no longer be generated on the output side.</p> <p>Further information can be found in chapter “Input components: <code>FS_LIST</code>: Ramp-down phase complete: input component no longer included”.</p>
CXT-193	Workflow permissions (context menu: “Extras” / “Change Permissions” / “Workflow permissions” tab), which should apply to all users, (“All” checkbox activated) are now correctly evaluated in FragmentCreator. Previously, a 500 or 403 error message appeared.

