



# FirstSpirit™

*Unlock Your Content*

## Release Notes

### FirstSpirit™ 2021-06

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## 1 Administration

### 1.1 Adaptations of the Java Service Wrapper and support of the Java Flight Recorder (JFR)

As part of the product maintenance, the Java Service Wrapper, which is used to start and end the Java Virtual Machine (Java VM) of FirstSpirit, was adapted to changes of Java 16. Beyond that, the Java Flight Recorder (JFR) that has been available since Java 11 is also supported.

The changes are delivered with the installation and update archives of the current FirstSpirit Release (Version 2.1.0).

- These changes are not only applied automatically in the case of **New Installations** but also with updates of an existing FirstSpirit Servers via **Tar-Gzip Update Archive** (file `fs-update-[version].tar.gz`). A prompt update is recommended for existing installations. If necessary, the settings that are rolled out with the current release can be adapted manually (see below).
- In the case of an update of the FirstSpirit Server via **Auto-Update** or **In-place-Upgrade** (exchange of the file `fs-isolated-server.jar` in the file system), the files of the Java Service Wrapper will **not** be updated automatically. The Java Service Wrapper should be updated promptly via the Tar-Gzip Update Archive (file `fs-update-[version].tar.gz`) in this case as well.

#### Change of the default value of `illegal-access`

The parameter `illegal-access` controls access by reflection on the class path. With Java 16, the default value was changed from *permit* to *deny*: Access to the class path is thereby no longer possible. The parameter is deprecated and can be omitted in a later version. Access to the class path would thereby no longer be permitted.

To facilitate an easier conversion, the corresponding parameter in the FirstSpirit Wrapper has now been set from *permit* to *warn*:

```
wrapper.java.additional.32---illegal-access=warn
```

Every corresponding access to class paths is thereby recorded as a warning in the log:



```
WARNING: An illegal reflective access operation has occurred
```

This method can be used to identify and add potentially missing information in customer-specific FirstSpirit modules. If this information is missing, it is possible that functional changes or losses in later versions may occur.

To reduce the message frequency, the parameter can be set manually to *permit* again:

```
wrapper.java.additional.32=--illegal-access=permit
```

In this case, a warning is only issued for the first illegal access, e.g.

```
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective  
access operations  
WARNING: All illegal access operations will be denied in a future release
```

## Addition of *add-opens* in the Vendor file

In the Vendor file, *add-opens* were added so that based on the new configuration *illegal-access=warn*, no warnings are output for FirstSpirit Servers in the default configuration.

If information is missing, warnings are recorded in the log in the following format:

```
WARNING: Illegal reflective access by de.espirit.firstspirit.common.xml.XmlSerializer  
(file:/opt/firstspirit/.../fs-isolated-server.jar)  
to field java.util.concurrent.atomic.AtomicReference.value
```

In this case, check if the use stems from a customer-specific module or from FirstSpirit. If in doubt, please contact e-Spirit Technical Support.

## Change on the Garbage Collection Log

With the current Wrapper Version, file logging of the Garbage Collector occurs rotating again, which means a maximum of 9 log files with a maximum size of 10 Mb are stored. When these values are reached, new log files will overwrite existing log files.

The corresponding parameter is:



```
wrapper.java.additional.33=-Xlog:gc*,gc+age=trace,safepoint,heap*,phases*:  
file=log/fs-gc.log::filecount=9,filesize=10M
```

To restore the previous status (no rotation, no overwriting of files), this parameter should be replaced with the following parameter in the `fs-wrapper.conf` file:

```
wrapper.java.additional.33=-Xlog:gc*,gc+age=trace,safepoint,heap*,phases*:log/fs-gc.log
```



As a result of the parameter changes, the numbering of the Vendor file has changed. In the case of customer-specific overwriting of values, the overwrite values must be checked and the numbering adjusted, if necessary.

## New: Configuration for the Java Flight Recorder (JFR)

As of Java 11, the JFR can be used to retrieve additional information ([https://access.redhat.com/documentation/en-us/openjdk/11/pdf/using\\_java\\_flight\\_recorder\\_for\\_java\\_mission\\_control/using-java-flight-recorder-for-java-mission-control.pdf](https://access.redhat.com/documentation/en-us/openjdk/11/pdf/using_java_flight_recorder_for_java_mission_control/using-java-flight-recorder-for-java-mission-control.pdf)).

The installation and update archives of the current FirstSpirit Release contain a default configuration for the JFR.

By default, the JFR is deactivated. To activate it, the `fs-recording.conf.disabled` file in the `conf` directory must be renamed to

```
fs-recording.conf
```

The default configuration in this file is as follows:

```
#encoding=UTF-8  
-XX:FlightRecorderOptions=repository=work/recording  
-XX:StartFlightRecording=name=FirstSpirit,disk=true,dumponexit=true,  
filename=log/fs-recording.jfr,maxsize=50m,maxage=1d
```

In the JDK Mission Control, the relevant JFR information can thereby be retrieved under “FirstSpirit”. In case of an unexpected shut-down of the server, a dump will be created and stored in the `fs-recording.jfr` file (directory `log`). It is configured for a maximum size of 50 Mb and a maximum age of one day.



**Using JFR for existing installations:** The JFR file is included in the `fs-update-[version].tar.gz` update archive under `conf/conf-all/fs-recording.conf.disabled.default.txt` and located there in the FirstSpirit Server directory after an update. This file must then be copied to `conf/fs-recording.conf.disabled` and/or `conf/fs-recording.conf` accordingly.

## Additional documentation

- on [Java Service Wrapper \(manual for administrators\)](#)
- on [Updating the Java Service Wrapper \(installation instructions\)](#)
- on [Java Flight Recorder \(JFR\): https://access.redhat.com/documentation/en-us/openjdk/11/pdf/using\\_java\\_flight\\_recorder\\_for\\_java\\_mission\\_control/using-java-flight-recorder-for-java-mission-control.pdf](https://access.redhat.com/documentation/en-us/openjdk/11/pdf/using_java_flight_recorder_for_java_mission_control/using-java-flight-recorder-for-java-mission-control.pdf)

## 2 ContentCreator

### 2.1 Support for Shadow DOM

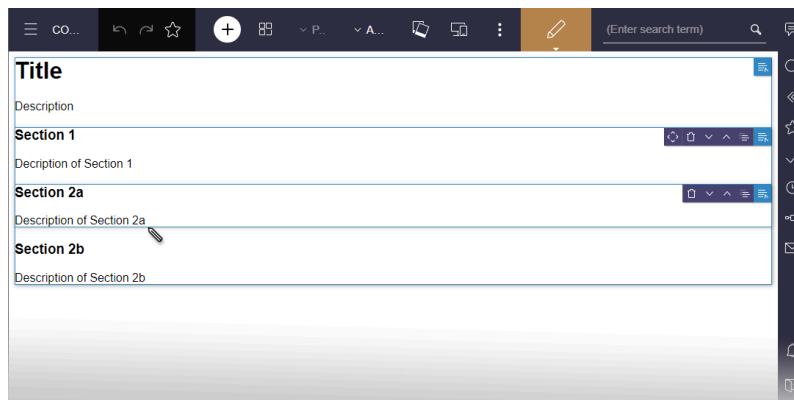
Nowadays, modern web solutions increasingly use content from different sources. To avoid collisions between markups, scripts and styles from different sources, Shadow DOM (e. g. ... `.attachShadow({mode: 'open'})`...) can be used: this technology enables an encapsulation of HTML elements. This method can be used to create reusable and interacting components. Shadow DOM is supported by the relevant browsers for FirstSpirit in their current versions.

With the current release, contents in nested Shadow DOM components can now also be edited in the FirstSpirit ContentCreator with EasyEdit and InEdit.

This requires the use of the `editorId`. Components that already use the `editorId` do not require any changes to use the new Shadow DOM-Support.







**Note:** Due to technical reasons, it is possible that when Shadow DOM elements are used for reloads, not only the changed partial sections are exchanged but the entire preview will be reloaded. This applies to automatic reloads as well as targeted reload operations via the `WE_API`, such as `WE_API.Preview.reload(Element)` or `WE_API.Preview.reload(String)`.

For more information, see

- <https://www.w3.org/TR/shadow-dom> i.a.
- <https://docs.e-spirit.com/odfs/template-develo/content-highlig/index.html>

### 3 FirstSpirit Content Experience Tools (CXT)

#### 3.1 Latest module versions

FirstSpirit 2021-06 supports the following module versions for “FirstSpirit Content Experience Tools”:

Module / file name	Version number
FirstSpirit CXT Plattform	2.2
<code>platform-[version].fsm</code>	
FirstSpirit CXT DAP Bridge	1.42
<code>dataservice-[version].fsm</code>	
FirstSpirit CXT FragmentCreator	3.2
<code>fragment-creator-[version].fsm</code>	
FirstSpirit Fragment DAP	1.38
<code>fragmentdap-[version].fsm</code>	



FirstSpirit Media DAP	1.30*
<code>mediadap-[version].fsm</code>	
FirstSpirit PageRef DAP	1.8
<code>pagerefdap-[version].fsm</code>	
FirstSpirit Markdown Editor	1.28*
<code>markdown-editor-[version].fsm</code>	
FirstSpirit Tagging Editor	1.28
<code>tagging-editor-[version].fsm</code>	
FirstSpirit CXT FragmentCreator - CaaS Integration	1.29
<code>caas-integration-[version].fsm</code>	

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

## 3.2 Status page: new security check

The parameter `cxt.dataservice.url` is used to specify the address used to reach the DAP Bridge in the FragmentCreator configuration.

If an *http* address is entered there, the attribute `secure` cannot be set to *true* (`secure="true"`) for the HTTP connector of the Tomcat because in this case, a connection between DAP Bridge and Tomcat is suppressed for security reasons.

The status page now checks (under the item "Configuration check") if `cxt.dataservice.url` has the value *http* or *https* and if the attribute `secure` was set for the HTTP connector of the Tomcat (`secure="true"`):

- If `cxt.dataservice.url` is an *http* address and the attribute `secure` of the connector is set to *true*, it will be seen as an ERROR. A connection will then not be possible.
- If the attribute `secure` is not set (or set to *false*) or if an *https* address is used with the attribute `secure="true"`, a connection will be possible.

If the respective set-up absolutely requires *http* address for `cxt.dataservice.url` and `secure="true"` for the Tomcat connector, two separate Tomcat connectors must be created (on different ports):



- for the external communication: This one can use `https` and / or `secure="true"`. The DAP Bridge must then be configured for the port of this connector.
- for the internal communication: This one can only have a `secure="true"` attribute when the value for `cxt.dataservice.url` is an `https` address.

For information on the configuration of Tomcat HTTP connectors, also refer to <https://tomcat.apache.org/tomcat-9.0-doc/config/http.html>.

### 3.3 Separation of CXT platform and FragmentCreator

FirstSpirit Content Experience Tools was designed as a microservice architecture right from the start. The aims of the module structure and independent processes include improving availability and scalability, as well as making service and maintenance easier.

Previously, the CXT platform was integrated into FragmentCreator and included in its scope of delivery. Services, which are required for the platform, were started up and managed every time a FragmentCreator instance was launched, even if they were not needed (e.g., OAuth, MicroService Controller, Eureka etc.).

To improve performance and control, the CXT platform has now been separated from FragmentCreator. The CXT platform and FragmentCreator now each operate as independent web applications. This continues to be in line with the principle of a microservice.

With the current release, the following versions of the modules concerned include this technological change:

- “Platform” module: Version 2.x
- “FragmentCreator” module: Version 3.x

The modules can be requested from [Technical Support](#).

**Requirements** for the use of the new technology:

- FragmentCreator and the platform each require a SOCKET connection to FirstSpirit Server.
- Both web applications must be accessible from the same external host (“same-origin”).

### Configuration



The modules come with a standard configuration which supports operation. The configuration of the modules can be customized in the Classpath under

```
/config/cxt-platform.properties  
/config/cxt-fragment-creator.properties
```

Alternatively, they can be configured using the `web.xml` file. However, an automatic update of FirstSpirit will overwrite/reset this file, as will the values of an existing properties file.

The parameter values are described here:

- [https://docs.e-spirit.com/odfs/edocs/cxt/installation-mo/installing-modu/plattform/index.html#web\\_xml\\_1](https://docs.e-spirit.com/odfs/edocs/cxt/installation-mo/installing-modu/plattform/index.html#web_xml_1) (Platform)
- [https://docs.e-spirit.com/odfs/edocs/cxt/installation-mo/installing-modu/fragmentcreator/index.html#web\\_xml](https://docs.e-spirit.com/odfs/edocs/cxt/installation-mo/installing-modu/fragmentcreator/index.html#web_xml) (FragmentCreator)

## Migration

Only a small number of changes have to be made to existing installations to use the new technology:

### Installation of the new “Platform” module

1) Install file in latest version (3.x):

```
platform-[version].fsm
```

(FirstSpirit Server Manager / “Server Properties / Modules”, “Install” button; see also <https://docs.e-spirit.com/odfs/edocs/admi/firstspirit-ser/server-properti/modules/index.html>)

2) Create global web application

Next, define and configure the web application as a separate, global web application under “Web Applications”.

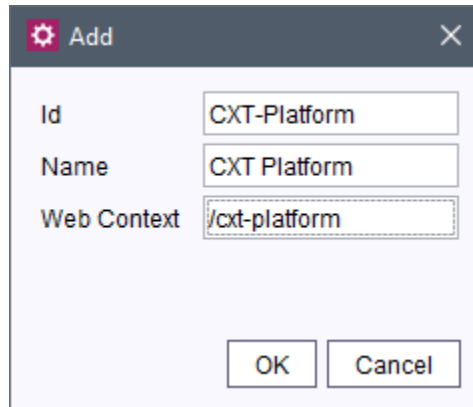
(FirstSpirit Server Manager / “Server Properties / Web Applications / Configure Global Web Apps”, “Add” button; see also <https://docs.e-spirit.com/odfs/edocs/admi/firstspirit-ser/server-properti/web-application/index.html>)

The value in the *Web Context* field **must** be



```
/cxt-platform
```

e.g.,



The image shows a dialog box titled "Add" with a gear icon and a close button. It contains three input fields: "Id" with the value "CXT-Platform", "Name" with the value "CXT Platform", and "Web Context" with the value "/cxt-platform". At the bottom, there are "OK" and "Cancel" buttons.

### 3) Add web components

Select a suitable web server for this global web application and then add the “CXT Platform” web component.

### 4) Edit web.xml

```
cxt.dataservice.url=http://localhost:8080/cxt/  
cxt.platform.internal-url=http://localhost:8080/cxt-platform/  
cxt.platform.external-url=https://external/cxt-platform/  
cxt.platform.internal-port=8080  
cxt.platform.eureka.password=[...]  
cxt.platform.firstspirit.hostname=localhost  
cxt.platform.firstspirit.port=1088  
cxt.platform.firstspirit.connection-mode=SOCKET  
cxt.platform.cors-allowed-origins=[...]  
cxt.platform.microapps.csp-origins=[...]  
cxt.platform.oauth.client-secret=[...]  
cxt.platform.oauth.jwt-signing-key=[...]  
cxt.platform.oauth.access-token-validity-seconds=3600  
cxt.platform.oauth.refresh-token-validity-seconds=43200
```

Alternatively, the configuration settings can also be made using a properties file, in the classpath under



```
/config/cxt-platform.properties
```

The configuration written to this file overwrites all other properties (even including the configuration in the web.xml file). In the event of an automatic FirstSpirit update, the settings saved in the properties file remain unchanged; they are not overwritten or reset.

### 5) Deploy

Finally, roll out the web application configured as described above for the CXT platform on the selected web server by pressing the “Install” button.

(See also <https://docs.e-spirit.com/odfs/edocs/admi/firstspirit-ser/server-property/web-application/index.html>.)

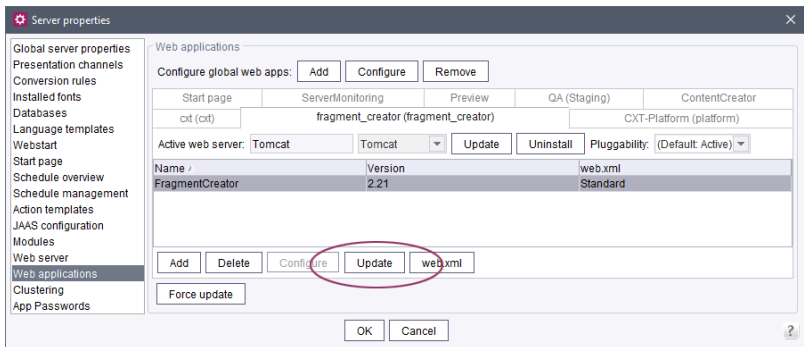
## Installing and adapting the configuration of the “FragmentCreator” module

### 1) Install file:

```
fragmentcreator-[version].fsm
```

### 2) Update web component

Under “Web Applications” on the tab for the global web app for FragmentCreator, update the “FragmentCreator” web component (“Update” button):



### 3) Edit web.xml

The parameters used previously



```
firstSpiritDataServiceBaseUrl=http://localhost:8080/cxt/  
webServiceBaseUrl=http://localhost:8080/FragmentCreator/  
externalBaseUrl=https://external/FragmentCreator/  
firstSpiritHost=localhost  
firstSpiritPort=1088  
firstSpiritConnectionMode=SOCKET  
oAuthClientSecret=[...]  
corsAllowedOrigins=*  
eurekaPassword=[...]  
accessTokenValiditySeconds=3600  
refreshTokenValiditySeconds=43200
```

have now been organized into a package structure and their names have been standardized:

```
cxt.fragmentcreator.internal-url=http://localhost:8080/FragmentCreator/  
cxt.fragmentcreator.external-url=https://external/FragmentCreator/  
cxt.fragmentcreator.platform.oAuth-client-secret=[...]  
cxt.fragmentcreator.platform.eureka-password=[...]  
cxt.fragmentcreator.cors-allowed-origins=*  
cxt.platform.firstspirit.hostname=localhost  
cxt.platform.firstspirit.port=1088  
cxt.platform.firstspirit.connection-mode=SOCKET
```

The previous parameters

```
firstSpiritDataServiceBaseUrl  
accessTokenValiditySeconds  
refreshTokenValiditySeconds  
cxt.platform.microapps.csp-origins
```

have been removed and are configured through the platform:

```
cxt.fragmentcreator.platform.internal-url=http://localhost:8888/cxt-platform/  
cxt.fragmentcreator.platform.external-url=https://external/cxt-platform/
```

(See `web.xml` for the platform module above)

If customer-specific values have been configured previously for FragmentCreator, they also have to be included in the configuration of the new FragmentCreator module.



Alternatively, the configuration settings can also be made using a properties file, in the class path under

```
/config/cxt-fragment-creator.properties
```

The configuration written to this file overwrites all other properties (even including the configuration in the `web.xml` file). In the event of an automatic FirstSpirit update, the settings saved in the properties file remain unchanged; they are not overwritten or reset.

#### 4) Deploy

Finally, roll out the web application configured as described above for FragmentCreator on the selected web server by pressing the “Update” button.

(See also <https://docs.e-spirit.com/odfs/edocs/admi/firstspirit-ser/server-properti/web-application/index.html>.)

### Adapting API URLs

If the Fragment DAP is used in ContentCreator, it becomes a MicroApp Client, i.e., it incorporates the CXT MicroApp API `api.js`.

(See also [https://docs.e-spirit.com/odfs/edocs/cxt/installation-mo/installing-modu/fragment-dap/index.html#fragment\\_dap\\_for\\_contentcreator](https://docs.e-spirit.com/odfs/edocs/cxt/installation-mo/installing-modu/fragment-dap/index.html#fragment_dap_for_contentcreator))

The “CxtMicroApp API URL” must be adapted to:

```
https://external/cxt-platform/microapps/api.js
```

The path must also be adapted accordingly for other clients which load the CXT MicroApp API `api.js`.

This completes the configuration of the modules.

### Further notes

**Cloud customers** do not have to take any action in this regard: e-Spirit makes all the necessary changes to the configuration.

Alternatively, the “FragmentCreator” module can continue to be used in a version < 3.x for a transitional period.





## 4 Compatibility

### 4.1 Modules and extensions for FirstSpirit 2021-06

The following modules and extensions are compatible with FirstSpirit 2021-06:

Module name/File name	Version number	Compatibility
FirstSpirit Update Archive fs-update- [version].tar.gz	2.1.0	-
FirstSpirit Install Archiv fs-install- [version].tar.gz	2.1.0	-
FirstSpirit Launcher FSLauncher.exe	1.0.40	as of FirstSpirit 2018-08
FirstSpirit Launcher JRE module fs-launcher-jre- [version].fsm	1.18	as of FirstSpirit 2020-11
FirstSpirit SAML Login module fs-saml-login- [version].fsm	1.2	as of FirstSpirit 2019-02
FSDevTools fs-cli-[version].tar.gz fs-cli-[version].zip	2.6.9	as of FirstSpirit 2020-08
FirstSpirit Module Gradle Plugin firstspirit-module- gradle-plugin- [version].jar	2.1.1	as of FirstSpirit 2019-06

## 5 System

### 5.1 Updates to integrated third-party software

The following internal software has been updated in the latest FirstSpirit release:



- **Java Service Wrapper** (configuration and monitoring of FirstSpirit Java VM)

Updated from **version 3.5.44** to **version 3.5.45**.

Note: When the FirstSpirit server is updated (auto-update, in-place upgrade), the Java Service Wrapper files are not automatically updated. The Java Service Wrapper can be updated via the tar gzip update archive (file fs-update-[version].tar.gz) as described in the FirstSpirit installation instructions.

Additional documentation:

- on [Java Service Wrapper \(manual for administrators\)](#)
- on [Updating the Java Service Wrapper \(installation instructions\)](#)

## 6 Template development

### 6.1 JSON: Improved output of references from remote projects

The current FirstSpirit version has improved the output of references from remote projects. In addition to the remote object itself, information on the remote project is included in the JSON output. For all remote references (type `IDProvider`, e.g., media and page references) the internal FirstSpirit unique identifier (UUID) of the remote project is now additionally output via the new attribute `remoteProject`.

The output of a remote medium via:

```
$CMS_VALUE(json(ref(media:"st_reference_MEDIA",remote:"remote-project").node))$
```

now indicates the new attribute `remoteProject` in the JSON output:

```
"fsType": "Media",  
  "name": "UPS",  
  "displayName": "UPS",  
  "identifier": "68baba6f-2d9c-422c-abe7-b339a3844d48",  
  "remoteProject": "eef72dea-d4fc-49b8-af51-80d3940713b7",  
  "uid": "UPS",  
  "uidType": "MEDIASTORE_LEAF",  
  (...)
```



## 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
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	



Functionality	Deprecated as of	Will be removed/ Was removed as of
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	
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	
Control files for Windows and Linux operating systems (old)	2020-08	February 2021
Database layer for Oracle Database 11g/12c	2020-12	July 2021



Functionality	Deprecated as of	Will be removed/ Was removed as of
FirstSpirit Developer API: redirectTemplateLogToDefaultLog() (Interface RenderingAgent.Renderer)	2021-05	

## 8 Overview

ID	Description	Categories
CORE-11593	<p>Database schemata in FirstSpirit access the data of the database via an OR Session. The access restrictions for these OR Sessions have been adapted with the current FirstSpirit release as follows:</p> <ul style="list-style-type: none"> <li>OR Sessions for Read Only schemata are always Read Only now. The data sets can no longer be changed via this session.</li> <li>OR Sessions that are generated from an order can only change data sets when an internal connection is used in the script action.</li> </ul> <p><u>Note:</u> Rights that are defined on a schema or Content2 Object will not be taken into account when changing data sets (Entities) via an OR Session.</p>	Database, FirstSpirit Administrator, Permissions, Security, Sessions, Tasks
CORE-13182	<p>Internal software has been updated in the latest FirstSpirit release.</p> <p>Further information can be found in chapter “System: Updates to integrated third-party software”.</p>	FirstSpirit Administrator, Integrated software, Java



ID	Description	Categories
CORE-13493	<p>JSON: The current FirstSpirit version has improved the output of references from remote projects. In addition to the remote object itself, information on the remote project is included in the JSON output. For all remote references (type <code>IDProvider</code>, e.g., media and page references) the internal FirstSpirit unique identifier (UUID) of the remote project is now additionally output via the new attribute <code>remoteProject</code>.</p> <p>Further information can be found in chapter “Template development: JSON: Improved output of references from remote projects”.</p>	Developer, Remote access, Support for JSON
CORE-13566	<p>Adaptations of the Java Service Wrapper and support of the Java Flight Recorder (JFR)</p> <p>Further information can be found in chapter “Administration: Adaptations of the Java Service Wrapper and support of the Java Flight Recorder (JFR)”.</p>	FirstSpirit Administrator, Java
CORE-13602	The speed of FS_CATALOG output has been improved.	Developer, Editor, FirstSpirit Administrator, Input Components, Performance
CORE-13606	<p>The following modules and extensions are compatible with FirstSpirit 2021-06.</p> <p>Further information can be found in chapter “Compatibility: Modules and extensions for FirstSpirit 2021-06”.</p>	Developer, FirstSpirit Administrator, Modules, Server Administrator
CORE-13636	<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>	ContentCreator, Developer, FirstSpirit Administrator, FirstSpirit Content Experience Tools (CXT), FragmentCreator, Modules



ID	Description	Categories
CXT-1289	<p>CXT platform and FragmentCreator have been split. Minimum adaptations have to be made to existing installations for non-Cloud customers.</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Separation of CXT platform and FragmentCreator”.</p>	Developer, FirstSpirit Administrator, FirstSpirit Content Experience Tools (CXT), FragmentCreator, Migration, Modules
CXT-2063	The display of the input element for formatted text input (FS_MARKDOWN) in conjunction with lots of text has been optimized.	Editor, FirstSpirit Content Experience Tools (CXT), FragmentCreator
CXT-2082	The <code>version.txt</code> file from the FragmentCreator web application is being used to automatically update the web application, e.g., <code>http://&lt;servername&gt;:&lt;port&gt;/&lt;webapp-id&gt;/version.txt</code> . It can now be read out directly without authentication, thereby avoiding unnecessary updates.	Developer, FirstSpirit Administrator, FirstSpirit Content Experience Tools (CXT), FragmentCreator, Modules, Performance
CXT-2111	<p>Support for Shadow DOM</p> <p>Further information can be found in chapter “ContentCreator: Support for Shadow DOM”.</p>	ContentCreator, Developer, Editor, Input Components, Template Development
CXT-2131	With soft line breaks ( <code>Shift + Enter</code> ), the FS_MARKDOWN input component in the FragmentCreator now generates the correct output <code>&lt;br /&gt;\n</code> instead of the previously mere <code>\n</code> .	Editor, FirstSpirit Content Experience Tools (CXT), FragmentCreator
CXT-2179	<p>The status page now checks the configuration of <code>cxt.dataservice.url</code> and the attribute <code>secure</code> of the Tomcat connector.</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Status page: new security check”.</p>	Developer, FirstSpirit Administrator, FirstSpirit Content Experience Tools (CXT), Modules, Security
CXT-2270	When using FS_INDEX to create or edit fragments in FragmentCreator or ContentCreator, content would temporarily not be displayed correctly when switching tabs (CMS_GROUP).	ContentCreator, Editor, FirstSpirit Content Experience Tools (CXT), FragmentCreator



ID	Description	Categories
CXT-2300	Objects (fragments, media) that are referenced in FS_INDEX are now displayed directly in the Fragment Creator again, and not just after a refresh.	Editor, FirstSpirit Content Experience Tools (CXT), FragmentCreator
CXT-2323	The display of data sources in the search report in ContentCreator has been improved.	Content Store, ContentCreator, Editor, Reports
CXT-2326	Media can now be uploaded to (sub)folders again in ContentCreator with the appropriate permissions, even if read-only permissions are assigned for the top level of the media management.	ContentCreator, Editor, FirstSpirit Administrator, Media, Media Store

## 9 Categories

### 9.1 Tasks

ID	Description
CORE-11593	<p>Database schemata in FirstSpirit access the data of the database via an OR Session. The access restrictions for these OR Sessions have been adapted with the current FirstSpirit release as follows:</p> <ul style="list-style-type: none"> <li>OR Sessions for Read Only schemata are always Read Only now. The data sets can no longer be changed via this session.</li> <li>OR Sessions that are generated from an order can only change data sets when an internal connection is used in the script action.</li> </ul> <p><u>Note:</u> Rights that are defined on a schema or Content2 Object will not be taken into account when changing data sets (Entities) via an OR Session.</p>

### 9.2 ContentCreator

ID	Description
CORE-13636	FirstSpirit Content Experience Tools: Latest module versions





ID	Description
	Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Latest module versions”.
CXT-2111	Support for Shadow DOM  Further information can be found in chapter “ContentCreator: Support for Shadow DOM”.
CXT-2270	When using FS_INDEX to create or edit fragments in FragmentCreator or ContentCreator, content would temporarily not be displayed correctly when switching tabs (CMS_GROUP).
CXT-2323	The display of data sources in the search report in ContentCreator has been improved.
CXT-2326	Media can now be uploaded to (sub)folders again in ContentCreator with the appropriate permissions, even if read-only permissions are assigned for the top level of the media management.

### 9.3 Database

ID	Description
CORE-11593	<p>Database schemata in FirstSpirit access the data of the database via an OR Session. The access restrictions for these OR Sessions have been adapted with the current FirstSpirit release as follows:</p> <ul style="list-style-type: none"> <li>■ OR Sessions for Read Only schemata are always Read Only now. The data sets can no longer be changed via this session.</li> <li>■ OR Sessions that are generated from an order can only change data sets when an internal connection is used in the script action.</li> </ul> <p><u>Note:</u> Rights that are defined on a schema or Content2 Object will not be taken into account when changing data sets (Entities) via an OR Session.</p>

### 9.4 Content Store

ID	Description
CXT-2323	The display of data sources in the search report in ContentCreator has been improved.



## 9.5 Input Components

ID	Description
CORE-13602	The speed of FS_CATALOG output has been improved.
CXT-2111	Support for Shadow DOM  Further information can be found in chapter “ContentCreator: Support for Shadow DOM”.

## 9.6 Developer

ID	Description
CORE-13493	JSON: The current FirstSpirit version has improved the output of references from remote projects. In addition to the remote object itself, information on the remote project is included in the JSON output. For all remote references (type <code>IDProvider</code> , e.g., media and page references) the internal FirstSpirit unique identifier (UUID) of the remote project is now additionally output via the new attribute <code>remoteProject</code> .  Further information can be found in chapter “Template development: JSON: Improved output of references from remote projects”.
CORE-13602	The speed of FS_CATALOG output has been improved.
CORE-13606	The following modules and extensions are compatible with FirstSpirit 2021-06.  Further information can be found in chapter “Compatibility: Modules and extensions for FirstSpirit 2021-06”.
CORE-13636	FirstSpirit Content Experience Tools: Latest module versions  Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Latest module versions”.
CXT-1289	CXT platform and FragmentCreator have been split. Minimum adaptations have to be made to existing installations for non-Cloud customers.  Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Separation of CXT platform and FragmentCreator”.



ID	Description
CXT-2082	<p>The <code>version.txt</code> file from the FragmentCreator web application is being used to automatically update the web application, e.g., <code>http://&lt;servername&gt;:&lt;port&gt;/&lt;webapp-id&gt;/version.txt</code>. It can now be read out directly without authentication, thereby avoiding unnecessary updates.</p>
CXT-2111	<p>Support for Shadow DOM</p> <p>Further information can be found in chapter “ContentCreator: Support for Shadow DOM”.</p>
CXT-2179	<p>The status page now checks the configuration of <code>cxt.dataservice.url</code> and the attribute <code>secure</code> of the Tomcat connector.</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Status page: new security check”.</p>

## 9.7 FirstSpirit Content Experience Tools (CXT)

ID	Description
CORE-13636	<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-1289	<p>CXT platform and FragmentCreator have been split. Minimum adaptations have to be made to existing installations for non-Cloud customers.</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Separation of CXT platform and FragmentCreator”.</p>
CXT-2063	<p>The display of the input element for formatted text input (FS_MARKDOWN) in conjunction with lots of text has been optimized.</p>
CXT-2082	<p>The <code>version.txt</code> file from the FragmentCreator web application is being used to automatically update the web application, e.g., <code>http://&lt;servername&gt;:&lt;port&gt;/&lt;webapp-id&gt;/version.txt</code>. It can now be read out directly without authentication, thereby avoiding unnecessary updates.</p>



ID	Description
CXT-2131	With soft line breaks ( Shift + Enter ), the FS_MARKDOWN input component in the FragmentCreator now generates the correct output <code>&lt;br /&gt;\n</code> instead of the previously mere <code>\n</code> .
CXT-2179	<p>The status page now checks the configuration of <code>cxt.dataservice.url</code> and the attribute <code>secure</code> of the Tomcat connector.</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Status page: new security check”.</p>
CXT-2270	When using FS_INDEX to create or edit fragments in FragmentCreator or ContentCreator, content would temporarily not be displayed correctly when switching tabs (CMS_GROUP).
CXT-2300	Objects (fragments, media) that are referenced in FS_INDEX are now displayed directly in the Fragment Creator again, and not just after a refresh.

## 9.8 FirstSpirit Administrator

ID	Description
CORE-11593	<p>Database schemata in FirstSpirit access the data of the database via an OR Session. The access restrictions for these OR Sessions have been adapted with the current FirstSpirit release as follows:</p> <ul style="list-style-type: none"> <li>▪ OR Sessions for Read Only schemata are always Read Only now. The data sets can no longer be changed via this session.</li> <li>▪ OR Sessions that are generated from an order can only change data sets when an internal connection is used in the script action.</li> </ul> <p><u>Note:</u> Rights that are defined on a schema or Content2 Object will not be taken into account when changing data sets (Entities) via an OR Session.</p>
CORE-13182	<p>Internal software has been updated in the latest FirstSpirit release.</p> <p>Further information can be found in chapter “System: Updates to integrated third-party software”.</p>
CORE-13566	Adaptations of the Java Service Wrapper and support of the Java Flight Recorder (JFR)



ID	Description
	Further information can be found in chapter “Administration: Adaptations of the Java Service Wrapper and support of the Java Flight Recorder (JFR)”.
CORE-13602	The speed of FS_CATALOG output has been improved.
CORE-13606	The following modules and extensions are compatible with FirstSpirit 2021-06.  Further information can be found in chapter “Compatibility: Modules and extensions for FirstSpirit 2021-06”.
CORE-13636	FirstSpirit Content Experience Tools: Latest module versions  Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Latest module versions”.
CXT-1289	CXT platform and FragmentCreator have been split. Minimum adaptations have to be made to existing installations for non-Cloud customers.  Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Separation of CXT platform and FragmentCreator”.
CXT-2082	The <code>version.txt</code> file from the FragmentCreator web application is being used to automatically update the web application, e.g., <code>http://&lt;servername&gt;:&lt;port&gt;/&lt;webapp-id&gt;/version.txt</code> . It can now be read out directly without authentication, thereby avoiding unnecessary updates.
CXT-2179	The status page now checks the configuration of <code>cxt.dataservice.url</code> and the attribute <code>secure</code> of the Tomcat connector.  Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Status page: new security check”.
CXT-2326	Media can now be uploaded to (sub)folders again in ContentCreator with the appropriate permissions, even if read-only permissions are assigned for the top level of the media management.

## 9.9 FragmentCreator

ID	Description
CORE-13636	FirstSpirit Content Experience Tools: Latest module versions



ID	Description
	Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Latest module versions”.
CXT-1289	<p>CXT platform and FragmentCreator have been split. Minimum adaptations have to be made to existing installations for non-Cloud customers.</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Separation of CXT platform and FragmentCreator”.</p>
CXT-2063	The display of the input element for formatted text input (FS_MARKDOWN) in conjunction with lots of text has been optimized.
CXT-2082	The <code>version.txt</code> file from the FragmentCreator web application is being used to automatically update the web application, e.g., <code>http://&lt;servername&gt;:&lt;port&gt;/&lt;webapp-id&gt;/version.txt</code> . It can now be read out directly without authentication, thereby avoiding unnecessary updates.
CXT-2131	With soft line breaks ( <code>Shift + Enter</code> ), the FS_MARKDOWN input component in the FragmentCreator now generates the correct output <code>&lt;br /&gt;\n</code> instead of the previously mere <code>\n</code> .
CXT-2270	When using FS_INDEX to create or edit fragments in FragmentCreator or ContentCreator, content would temporarily not be displayed correctly when switching tabs (CMS_GROUP).
CXT-2300	Objects (fragments, media) that are referenced in FS_INDEX are now displayed directly in the Fragment Creator again, and not just after a refresh.

## 9.10 Integrated software

ID	Description
CORE-13182	<p>Internal software has been updated in the latest FirstSpirit release.</p> <p>Further information can be found in chapter “System: Updates to integrated third-party software”.</p>



## 9.11 Java

ID	Description
CORE-13182	Internal software has been updated in the latest FirstSpirit release.  Further information can be found in chapter “System: Updates to integrated third-party software”.
CORE-13566	Adaptations of the Java Service Wrapper and support of the Java Flight Recorder (JFR)  Further information can be found in chapter “Administration: Adaptations of the Java Service Wrapper and support of the Java Flight Recorder (JFR)”.

## 9.12 Support for JSON

ID	Description
CORE-13493	JSON: The current FirstSpirit version has improved the output of references from remote projects. In addition to the remote object itself, information on the remote project is included in the JSON output. For all remote references (type <code>IDProvider</code> , e.g., media and page references) the internal FirstSpirit unique identifier (UUID) of the remote project is now additionally output via the new attribute <code>remoteProject</code> .  Further information can be found in chapter “Template development: JSON: Improved output of references from remote projects”.

## 9.13 Media

ID	Description
CXT-2326	Media can now be uploaded to (sub)folders again in ContentCreator with the appropriate permissions, even if read-only permissions are assigned for the top level of the media management.



## 9.14 Media Store

ID	Description
CXT-2326	Media can now be uploaded to (sub)folders again in ContentCreator with the appropriate permissions, even if read-only permissions are assigned for the top level of the media management.

## 9.15 Migration

ID	Description
CXT-1289	<p>CXT platform and FragmentCreator have been split. Minimum adaptations have to be made to existing installations for non-Cloud customers.</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Separation of CXT platform and FragmentCreator”.</p>

## 9.16 Modules

ID	Description
CORE-13606	<p>The following modules and extensions are compatible with FirstSpirit 2021-06.</p> <p>Further information can be found in chapter “Compatibility: Modules and extensions for FirstSpirit 2021-06”.</p>
CORE-13636	<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-1289	<p>CXT platform and FragmentCreator have been split. Minimum adaptations have to be made to existing installations for non-Cloud customers.</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Separation of CXT platform and FragmentCreator”.</p>





ID	Description
CXT-2082	The <code>version.txt</code> file from the FragmentCreator web application is being used to automatically update the web application, e.g., <code>http://&lt;servername&gt;:&lt;port&gt;/&lt;webapp-id&gt;/version.txt</code> . It can now be read out directly without authentication, thereby avoiding unnecessary updates.
CXT-2179	<p>The status page now checks the configuration of <code>cxt.dataservice.url</code> and the attribute <code>secure</code> of the Tomcat connector.</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Status page: new security check”.</p>

## 9.17 Performance

ID	Description
CORE-13602	The speed of FS_CATALOG output has been improved.
CXT-2082	The <code>version.txt</code> file from the FragmentCreator web application is being used to automatically update the web application, e.g., <code>http://&lt;servername&gt;:&lt;port&gt;/&lt;webapp-id&gt;/version.txt</code> . It can now be read out directly without authentication, thereby avoiding unnecessary updates.

## 9.18 Permissions

ID	Description
CORE-11593	<p>Database schemata in FirstSpirit access the data of the database via an OR Session. The access restrictions for these OR Sessions have been adapted with the current FirstSpirit release as follows:</p> <ul style="list-style-type: none"> <li data-bbox="391 1528 1430 1602">■ OR Sessions for Read Only schemata are always Read Only now. The data sets can no longer be changed via this session.</li> <li data-bbox="391 1646 1430 1719">■ OR Sessions that are generated from an order can only change data sets when an internal connection is used in the script action.</li> </ul>



ID	Description
	<u>Note:</u> Rights that are defined on a schema or Content2 Object will not be taken into account when changing data sets (Entities) via an OR Session.

## 9.19 Editor

ID	Description
CORE-13602	The speed of FS_CATALOG output has been improved.
CXT-2063	The display of the input element for formatted text input (FS_MARKDOWN) in conjunction with lots of text has been optimized.
CXT-2111	Support for Shadow DOM  Further information can be found in chapter “ContentCreator: Support for Shadow DOM”.
CXT-2131	With soft line breaks (Shift + Enter), the FS_MARKDOWN input component in the FragmentCreator now generates the correct output <code>&lt;br /&gt;\n</code> instead of the previously mere <code>\n</code> .
CXT-2270	When using FS_INDEX to create or edit fragments in FragmentCreator or ContentCreator, content would temporarily not be displayed correctly when switching tabs (CMS_GROUP).
CXT-2300	Objects (fragments, media) that are referenced in FS_INDEX are now displayed directly in the Fragment Creator again, and not just after a refresh.
CXT-2323	The display of data sources in the search report in ContentCreator has been improved.
CXT-2326	Media can now be uploaded to (sub)folders again in ContentCreator with the appropriate permissions, even if read-only permissions are assigned for the top level of the media management.

## 9.20 Remote access

ID	Description
CORE-13493	JSON: The current FirstSpirit version has improved the output of references from remote projects. In addition to the remote object itself, information on the remote project is included in the JSON output. For all remote references (type IDProvider, e.g., media and page references)



ID	Description
	<p>the internal FirstSpirit unique identifier (UUID) of the remote project is now additionally output via the new attribute <code>remoteProject</code>.</p> <p>Further information can be found in chapter “Template development: JSON: Improved output of references from remote projects”.</p>

## 9.21 Reports

ID	Description
CXT-2323	The display of data sources in the search report in ContentCreator has been improved.

## 9.22 Server Administrator

ID	Description
CORE-13606	<p>The following modules and extensions are compatible with FirstSpirit 2021-06.</p> <p>Further information can be found in chapter “Compatibility: Modules and extensions for FirstSpirit 2021-06”.</p>

## 9.23 Security

ID	Description
CORE-11593	<p>Database schemata in FirstSpirit access the data of the database via an OR Session. The access restrictions for these OR Sessions have been adapted with the current FirstSpirit release as follows:</p> <ul style="list-style-type: none"> <li data-bbox="391 1560 1430 1633">■ OR Sessions for Read Only schemata are always Read Only now. The data sets can no longer be changed via this session.</li> <li data-bbox="391 1675 1430 1749">■ OR Sessions that are generated from an order can only change data sets when an internal connection is used in the script action.</li> </ul>



ID	Description
	<p><u>Note:</u> Rights that are defined on a schema or Content2 Object will not be taken into account when changing data sets (Entities) via an OR Session.</p>
CXT-2179	<p>The status page now checks the configuration of <code>cxt.dataservice.url</code> and the attribute <code>secure</code> of the Tomcat connector.</p> <p>Further information can be found in chapter “FirstSpirit Content Experience Tools (CXT): Status page: new security check”.</p>

## 9.24 Sessions

ID	Description
CORE-11593	<p>Database schemata in FirstSpirit access the data of the database via an OR Session. The access restrictions for these OR Sessions have been adapted with the current FirstSpirit release as follows:</p> <ul style="list-style-type: none"> <li>▪ OR Sessions for Read Only schemata are always Read Only now. The data sets can no longer be changed via this session.</li> <li>▪ OR Sessions that are generated from an order can only change data sets when an internal connection is used in the script action.</li> </ul> <p><u>Note:</u> Rights that are defined on a schema or Content2 Object will not be taken into account when changing data sets (Entities) via an OR Session.</p>

## 9.25 Template Development

ID	Description
CXT-2111	<p>Support for Shadow DOM</p> <p>Further information can be found in chapter “ContentCreator: Support for Shadow DOM”.</p>

