FirstSpirit™
Unlock Your Content

Release Notes
FirstSpirit™ 2018-06

Status	**RELEASED**
Department	FS-Core
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e-Spirit

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$First Spirit^{TM}$
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1   New release names

e-Spirit releases a new FirstSpirit version approximately 12 times per year. All releases are generally equivalent and compatible with the previous version, which means that it is no longer necessary to make a distinction between "maintenance", "release," "minor", and "major" builds. In this way, new FirstSpirit functions are quickly provided to customers and the software quality is continuously enhanced. There is a balanced mix of bug fixes and new features in each release.

This strategy will now be reflected more clearly in the names of individual releases. For this purpose, a new release name schema is being implemented with the latest FirstSpirit release. This is based on the release year and month:

```
FirstSpirit <YYYY>-<MM>
```

FirstSpirit version 5.2R21, which was released in mid-May, is being followed by the latest version, "FirstSpirit 2018-06". A version released in July 2018 would be called "FirstSpirit 2018-07", and so on. This makes it possible to determine the release period quickly and easily based on the release name and, therefore, identify whether the software status of a FirstSpirit installation is up to date.

As well as being used in familiar places (in info dialogs, for example), the version name is also displayed in a dialog which appears when you click the version information on the FirstSpirit start page.
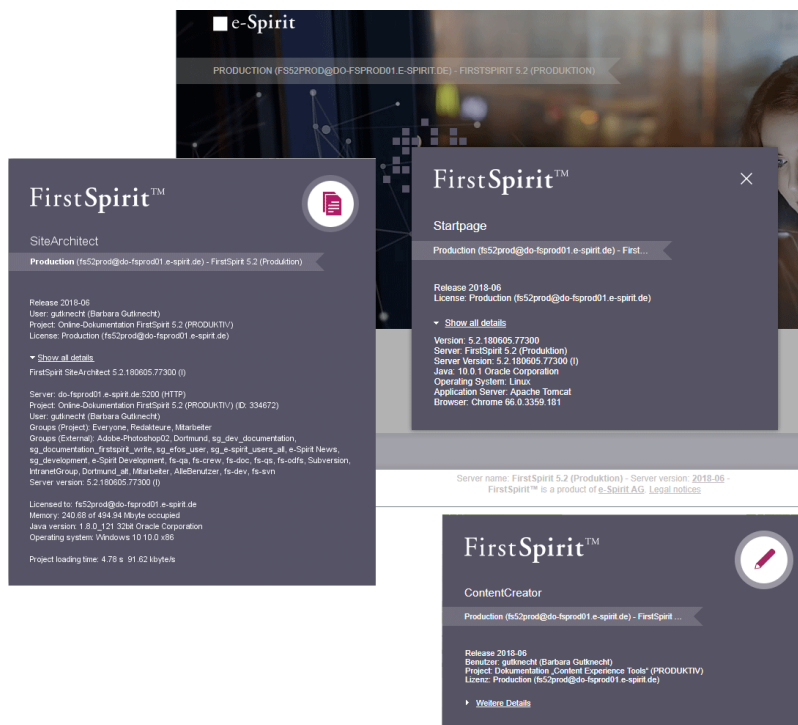
The technical version numbers consisting of major, minor, and build numbers continue to be used in the background. These version numbers also now include the number of the month and year, e.g., "5.2.180605.77284" or "5.2R1806-180605".

Designations identifying previously released versions (e.g., "5.2R21" or "5.2.2108.77241") are being retained and will not be renamed.

For more information on the FirstSpirit release strategy, see the FirstSpirit Community (https://community.e-spirit.com/docs/DOC-2073).

2 Java: Current status and outlook

Java 7: Cessation of support

As scheduled, support for Java 7 has ceased with the latest version of FirstSpirit: FirstSpirit Servers will no longer be able to run with Java 7. This affects both Oracle Java and the OpenJDK variant. Cessation of support also means that e-Spirit AG will no longer implement any measures designed to eliminate errors or problems associated with Java 7.

Oracle itself has not provided any public updates for Java 7 since 2015 and recommends that developers and end users transition to more recent versions of Java in order to continue receiving public updates and security enhancements.

Java 8, 9, and 10

FirstSpirit will continue to support Oracle Java 8. However, Oracle is planning to discontinue support for Java 8 at the start of 2019. As Oracle has now ceased development of Java 9 and security updates are no longer being issued, this version will no longer be maintained in FirstSpirit.

e-Spirit is currently recommending that Oracle Java 8 continues to be used for all productive systems for the time being. Due to Oracle's product release plans, FirstSpirit customers will certainly need to make plans for/consider migrating to a more recent version in the foreseeable future.

In this regard, please note that when FirstSpirit ceases to support Oracle Java 8, it will also no longer support the Windows Installer (an executable file used to install the FirstSpirit Server on Windows systems) and thus the Windows Installer will no longer be available (Oracle has announced that public support for Oracle Java 8 will cease in January 2019).

Java 10 is being released with the latest version of FirstSpirit. The FirstSpirit server component is already running reliably under Java 10 and, although tests are still ongoing on the client side, there have been no problems thus far. The incompatibility issue affecting the use of Oracle Java 9+ for the FirstSpirit Server and Java 8 or earlier for FirstSpirit SiteArchitect (restoration of older revisions in SiteArchitect, error message: `java.io.InvalidClassException: java.util.EnumSet; local class incompatible:`...) has been resolved.

According to the latest product release information from Oracle, manufacturer support for Oracle Java 10 will be discontinued in September 2018.

Oracle Java vs. OpenJDK

In previous years, many Java versions have been beset by security vulnerabilities and bugs time and time again. e-Spirit has always responded to these quickly. Oracle's new release policy continues to be a source of uncertainty for e-Spirit. It is unclear, for example, to what extent Java versions that are free of charge will be available in the future. Furthermore, there is a chance that fundamental functions (e.g., "Java Web Start" in particular) will no longer be supported. This technology, which provides users with a convenient way of starting FirstSpirit SiteArchitect and ServerManager from within a browser, is being discontinued by Oracle and will likely cease to be available at all from the end of 2018.

To reduce dependency on Oracle's Java development and also so that longer-term plans can be made for the benefit of our customers, e-Spirit will increase its focus on the use of OpenJDK. OpenJDK is the officially free to download implementation of Java SE ("Java Platform, Standard Edition"). It is published under the GNU General Public License (GPL). OpenJDK does not support the full functional scope of Oracle Java. In technical terms, the version numbers of Oracle Java and OpenJDK are comparable: Oracle Java 10 (18.3 according to the new version schema) is thus comparable with OpenJDK 10.

We plan to test the latest OpenJDK versions regularly for use with FirstSpirit, release them and also designate them as reference versions.

The use of OpenJDK (version 10) with FirstSpirit is being released for the first time with the latest version of FirstSpirit. Since OpenJDK does not support an option to start Java applications with browsers, OpenJDK 10 is initially being released for the FirstSpirit Server. Conversely, Oracle Java 10 is being released in addition to Oracle Java 8 for FirstSpirit SiteArchitect and ServerManager.

See also the *FirstSpirit Technical Data Sheet* for information about supported Java versions. For information about Oracle product releases, see http://www.oracle.com/technetwork/java/eol-135779.html.

Java Web Start alternative

We are also looking to cease dependency on Oracle Java on the client side. As an alternative to the Web Start technology which is likely to be discontinued at the end of the year, e-Spirit is currently developing a new and optimized version of the FirstSpirit Launcher. The Launcher has for some time supported starting and running FirstSpirit SiteArchitect and ServerManager without Java being installed on FirstSpirit users' workstation PCs. To make this work, the FirstSpirit Launcher rolls out its own JRE during the installation process. The Java version used in the Launcher is being selected and extensively tested by e-Spirit. The use of Java versions that have previously been identified as problematic can thus be avoided. Another positive feature of the Launcher is that incompatibilities or version conflicts with other Java products installed on the system can no longer occur. An initial version of a new Launcher that supports both Windows and Mac OS will be made available in a future FirstSpirit release.

Migration from Java 8 to Java 10

Using existing FirstSpirit installations with Java 10 will require slight changes to configuration files in the file system:

1. An in-place upgrade must first be performed on the required FirstSpirit Server (for more information, see the FirstSpirit installation instructions, "Via tar archive" chapter for non-Windows systems or "Updating via the installation program" chapter for Windows systems). This updates the start script automatically (`fs5` for Linux, `fs5.cmd` for Windows).

2. Replace the `fs-wrapper.conf` file (or, for servers running in "isolated mode", the `fs-wrapper.isolated.conf` file) from the FirstSpirit *~\conf* subdirectory with the content of the `fs-wrapper.conf.default.txt` file (or the content of the `fs-wrapper.isolated.conf.default.txt` file) from the *~\conf\conf-all* subdirectory and apply the specific changes made in the `fs-wrapper.conf` file.

If you are using FirstSpirit with Java 9 and higher as a Windows service, in the `fs-wrapper.conf` or `fs-wrapper.isolated.conf` file, the line

```
#include.required ../conf/fs-wrapper-j1.include.conf
```

must be changed to:

```
#include.required ../conf/fs-wrapper-j2.include.conf
```

In the case of **new installations**, the files listed above do not have to be replaced.

Installation in Microsoft Windows

For an installation in Windows, a FirstSpirit server in Java 8 must first be installed via Windows Installer, as outlined in the FirstSpirit installation instructions in the chapter "Installation under Windows". Installation using the Windows installation programs `firstspirit-setup-<version number>.exe` or `firstspirit-isolated-setup-<version number>.exe` is not possible.

Then the path to Java 9 (`wrapper.java.command` parameter) and other parameters must be entered in the `fs-wrapper.conf` or `fs-wrapper.isolated.conf` file in order to meet prevailing individual requirements.

In addition, in the `fs-wrapper.conf` or `fs-wrapper.isolated.conf` file, the line:

```
#include.required ../conf/fs-wrapper-j1.include.conf
```

must be changed to:

```
#include.required ../conf/fs-wrapper-j2.include.conf
```

Restrictions

The following restrictions are currently known relating to the use of Oracle Java 9 and higher; they cannot be bypassed by programming:

- Oracle no longer offers Java version 9 and higher in a 32-bit variant, i.e., when using Oracle Java 9 and higher, FirstSpirit can now only run on 64-bit platforms or with 64-bit applications.

- Due to advanced security checks in Java 9 and higher, delays arise in particular on launching on the client side and when first running functionalities that have been loaded afterwards.

- There may be compatibility problems between version 8 and versions 9 and higher of the Oracle Java Runtime Environment (JRE) that is required to launch FirstSpirit SiteArchitect. In Windows, the FirstSpirit Launcher permits a simpler change back to Java 8.

- Some functions in FirstSpirit are based on third-party software. Not all vendors of this third-party software have undertaken conversion work to ensure compatibility with Java 9 and higher. Consequently, functions that are based on third-party software of this kind will not be available if FirstSpirit is running with Oracle Java 9 and higher. Operating system-specific third-party applications in the AppCenter of FirstSpirit SiteArchitect is no longer supported in Oracle Java 9 and higher, for example (exception: the browser integration).

- The parameters of the wrapper files `fs-wrapper-j#.include.conf` cannot be edited like the default wrapper file `fs-wrapper.conf` via FirstSpirit ServerMonitoring. However, the file can be edited in the file system.

- The Jetty web server integrated into FirstSpirit will not run under Oracle Java 9. The `fs-jetty.fsm` (EAP) module can be used instead.

- The "Keep temporary files on my computer" option for Java Web Start must be selected under Oracle Java 9 and higher so that FirstSpirit SiteArchitect and FirstSpirit ServerManager can be launched. Under Oracle Java 8 this could also be deselected. Therefore, we recommend checking this setting when changing to Oracle Java 9 and higher (tab "Web settings / Temporary Files Settings"):
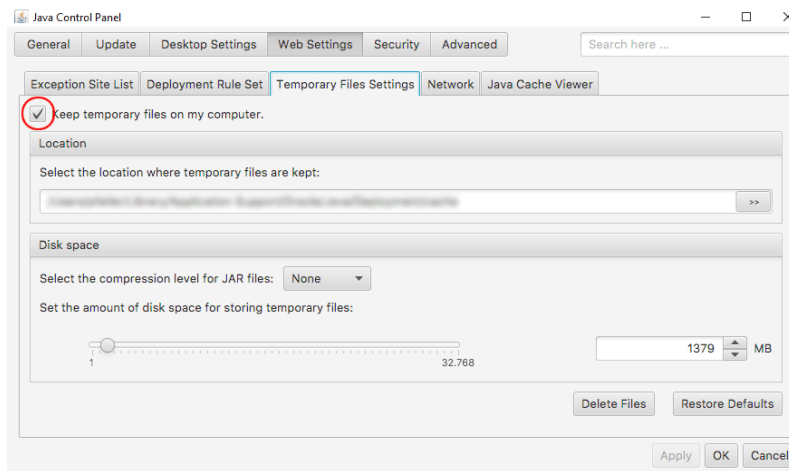
Downgrade notice

Oracle Java 9 and higher differs from Oracle Java 8 in terms of its encryption options and standard encryption. Changing a JDK is problematic (e.g., from Oracle Java 9 to Oracle Java 8) if the repository has been encrypted using a method that is not supported by the destination JDK. The project will then no longer start following a change of JDK. However, this problem can be resolved by making a change to the `java.security` configuration file under "[JRE_home]/lib/security/".

For more information, see also http://www.oracle.com/technetwork/java/javase/8u151-relnotes-3850493.html.

3   Tomcat support

Tomcat 9 is released for use with FirstSpirit from the latest version of FirstSpirit.
Version 8.5 is "actively" supported. We recommend using Apache Tomcat version 8.5.14 or higher. This is because errors in earlier versions of Apache Tomcat could impair the operation of FirstSpirit.

Versions 7 and 8.0 are no longer being maintained. The manufacturer will cease support for version 8.0 on June 30, 2018.

For more information, see the *FirstSpirit Technical Data Sheet* and http://tomcat.apache.org/whichversion.html.

4   Notes about General Data Protection Regulation (GDPR)

The General Data Protection Regulation (GDPR) is a regulation of the European Union which protects European citizens' basic right to privacy and regulates the handling of personal data. Personal data is

any information through which a person can be identified either directly (e.g. name, e-mail address) or indirectly (e.g. customer account number, IP address).

Editorial data:

The content management system FirstSpirit stores data and documents that may be published in various publication channels. The character and amount of that data - in the following, this shall be called **editorial data** - depends on the specific uses of the product.

> **!** The vendor e-Spirit explicitly indicates that the customer is responsible for auditing editorial data to identify if it contains personal data and for taking appropriate measures.

Personal system data:

In addition to editorial data, FirstSpirit also stores personal data (contact data of editors) which is used in various places in the software, e.g. in the version history and in release workflows, such that the editor of a page may be contacted if necessary. In the following, this data shall be called **personal system data**.

e-Spirit AG takes the protection and security of your data very seriously. Naturally, we adhere to the statutory data protection regulations and handle personal data and also non-personal data of our users with appropriate care. We only collect personal data when it is necessary for the security and operability of FirstSpirit:

1. Data for authorization and authentication of users in FirstSpirit: FirstSpirit works with a pervasive user and permissions system. This ensures that only authenticated users can gain access to FirstSpirit and that these users may edit project content only according to the permissions that are granted to them. The login credentials of single users are stored in the XML file `user.xml` (located in the subdirectory `data/users` within the FirstSpirit server directory).

2. Data for error analysis and error remediation in FirstSpirit (logging): FirstSpirit uses log files in order to log actions on the FirstSpirit server and within FirstSpirit client applications (e.g. SiteArchitect, ServerManager). Log files can be used to analyze and remediate error states. Some of the log files used by FirstSpirit contain - among other data - IP address, login name, date, time, and request, and thusly personal data. Log files are written to the subdirectory `/log` of the FirstSpirit server directory.

3. Data for versioning and restoration of editorial processes (repository): One goal of data storage in FirstSpirit is the gapless traceability of all editorial modifications ("Version history"), but also

the access to "system states of the past" (e.g. "Restore deleted objects"). For this purpose, FirstSpirit provides a content repository. In standard installations of FirstSpirit, an embedded Berkeley database is used as storage backend.

More detailed information on storing, processing and removing this personal system data can be found at *FirstSpirit Manual for Administrators*, Chapter "Notes about GDPR".

5 Administration

5.1 Berkeley: Default for new FirstSpirit installations is now version 7

Oracle Berkeley DB is used as standard in FirstSpirit as a repository for saving content data – for reasons of compatibility in versions 3, 5, and 7. All three versions can be used in tandem on the same server within different projects. Upgrading to a later Berkeley version is straightforward and involves selecting it from a list.

Berkeley version 7 is now the default for new FirstSpirit installations (FirstSpirit server which are installed with FirstSpirit 2018-06 or higher).

For more information please see *FirstSpirit Manual for Administrators*, "FirstSpirit ServerManager / Project properties / Repository".

5.2 Database Handling: Internal Derby database will no longer be used by default in newly created projects

During creation of a new FirstSpirit project (FirstSpirit ServerManager / "Project / Add new"), an administrator may choose whether the internal database (Apache Derby) which is provided as part of FirstSpirit should be activated for the project and thus if write access to this database should be enabled for this project. Until now, this option in the dialog "Project Configuration" was active ("on") by default, such that the internal Derby database could be used by default during every project creation process.

As of the current release of FirstSpirit, this option is inactive ("off") by default:
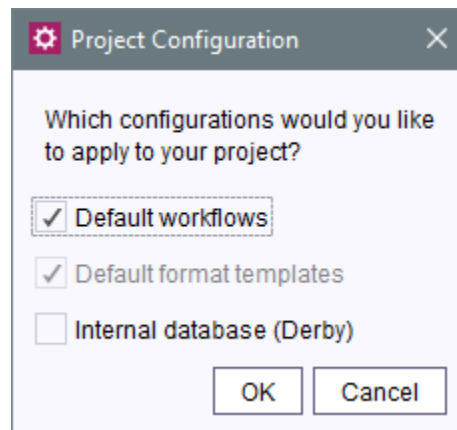
If this option remains "off" (inactive), the project must be configured to use a different database (FirstSpirit ServerManager / "Project properties / Databases / Selected") such that a database layer may be selected during creation of a database schema in the project (FirstSpirit SiteArchitect / "Templates / Database Schemata / New / Create new schema" or "Create schema from db"):
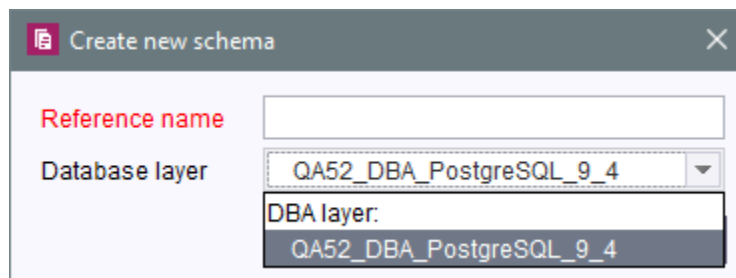
The option in the dialog "Project Configuration" will now always be regarded correctly.

The integrated Apache Derby database is not suitable for use in production scenarios and should only be used for testing. In order to further emphasize this distinction, the label of this option has now also been changed from "Default database" to "Internal database (Derby)".

5.3   Possible problems when updating FirstSpirit with external application servers

When using an external application server (Apache Tomcat, Jetty-Modul, ...), where FirstSpirit web applications are automatically installed as WAR files, updating FirstSpirit (e.g. to version 2018-06) can cause problems. As a result the application server will start up much slower than usually, rendering the FirstSpirit start page inaccessible. You can avoid these problems by:

- making sure that the application server is active during the update, i.e. neigher shut down before nor during the update, until all FirstSpirit web applications are updated.

- deleting the application engine's webapps directory (e.g. `~Tomcat/webapps` or `~first-spirit/data/modules/FirstSpirit Jetty Server.JettyService/webapps`).

Application servers, where the update is not automated with WAR files, are not affected; an update should not cause problems.

Note: the root of the problems has been eliminated with version 2018-06. But since older webapps are not fixed yet, the problems described here can still occur during the update process.

5.4 Setting restrictions on the use of action templates

Defining action templates

In FirstSpirit ServerManager, the table of action templates ("Server properties / Action templates") has been augmented with a new column "Copy allowed":
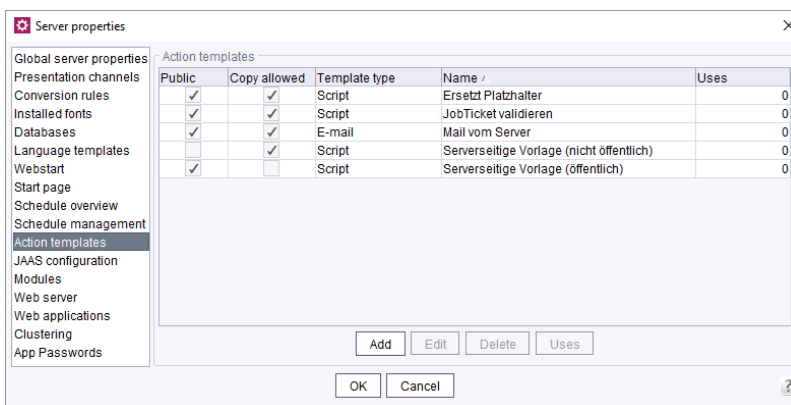
Copy allowed: If this option is active, the action template may be added to a schedule task as a copy, and this copy can subsequently be edited there. If this option is inactive, the action template can only be added to a schedule task as a reference.

Using action templates

In the server or project properties, page "Schedule management", an action template may then be used to add a new action to a schedule task:
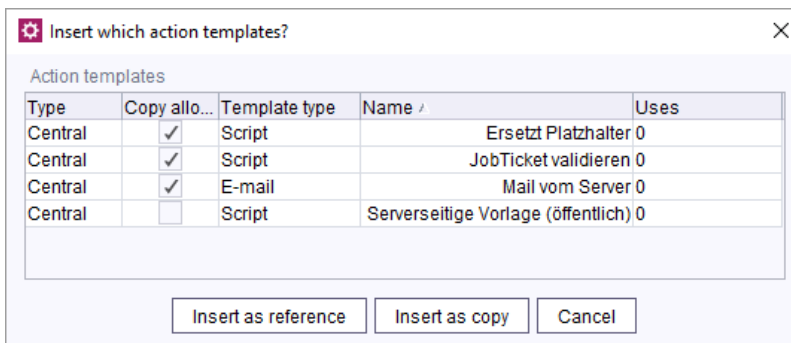
- Using **Insert as copy**, the action will be added to the schedule task as a copy. Copies of an action can subsequently be edited as usual.

- Using **Insert as reference**, the action will be added to the schedule task as a reference. References of an action cannot be edited within a schedule task; they will be displayed in the table with italic type.

6   ContentCreator

6.1   "NewSectionExecutable": Support for Global Content

In ContentCreator, the class `de.espirit.firstspirit.webedit.server.executa-bles.NewSectionExecutable` (short: `NewSection`) may be used on pages to create sections by way of accordingly configured FS_BUTTON input components. This requires that the FS_BUTTON component is referenced by the function `fsbutton(...)` within the HTML template set of the desired page template. The parameters `page` and `body` are used to specify the page and the content area, respectively, into which the new section should be inserted.

As of the current version of FirstSpirit, `NewSection` may now be used to create sections within "Global Pages" as well.
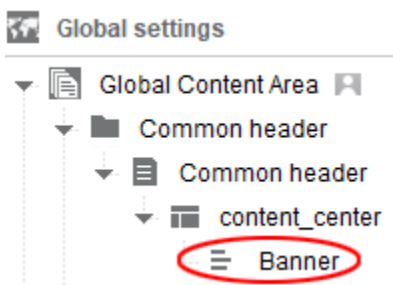
In order to achieve this, the new parameter `store` must be passed to the executable, carrying the value "globalstore".

Example code for an HTML template set in the page template of a Global Page within which new sections should be inserted:

```
<span$CMS_VALUE(fsbutton(editorName:"pt_createSection",
       parameter:{"page":#global.page.id,
                  "store":"globalstore",
                  "body":"content_center"}))$>
</span>
```

where "pt_createSection" is the identifier of the FS_BUTTON input component and "content_center" is the identifier of the content area.

If the parameter `store` is not specified, the Page Content store is considered as the target by default (`"store":"pagestore"`).

For further information, see *FirstSpirit Online Documentation*, "Template development / ContentCreator / Functional scope".

7   General

7.1   Code signing certificate updated

The content of FirstSpirit JAR files is signed with a certificate. This procedure is also called "code signing". In the current FirstSpirit version, the content is signed with a new certificate that is valid until 22.07.2020.

7.2   Display of Version Information

In the course of introducing the new release naming scheme (for more information, see the separate passage in the introduction chapter of these release notes), the display of version information in FirstSpirit has been modified and/or extended.

- **FirstSpirit Start Page:** Clicking on the version number in the footer ("Server version") will cause a dialog to open which displays information about the server (server name, FirstSpirit

version, license). Clicking on "Show all details" in that window will reveal more information: Java version, operating system, web server, browser.

▪ **FirstSpirit SiteArchitect:** The splash screen which is displayed while FirstSpirit SiteArchitect starts as well as the dialog "Help / About FirstSpirit" have been redesigned and now show the server name, the FirstSpirit version in use, names of the user and of the current project, and the license. In the dialog "Help / About FirstSpirit", clicking on "Show all details" will reveal further information which is less relevant for editors (e.g. group memberships, Java version, operating system, etc.).

▪ **FirstSpirit ContentCreator:** The "About" dialog which will be shown when clicking on the FirstSpirit icon at the far left of the menu bar now primarily displays the server name, the FirstSpirit version in use, names of the user and of the current project, and the license. Clicking on "Show all details" will reveal further information which is less relevant for editors (Java version, operating system, web server, browser).

8 Module Development, Scripts, API

8.1 Read out FirstSpirit version name via API

The name of a FirstSpirit version can now be read out via the API with the new `getReleaseName();` method in the `ServerInformationAgent` interface (`de.espirit.firstspirit.agency` package, FirstSpirit Access API).
For example:

```
import de.espirit.firstspirit.agency.ServerInformationAgent;
vers = context.requireSpecialist(ServerInformationAgent.TYPE);
vers.getServerVersion().getReleaseName();
```

The following is returned, for example:

```
2018-06
```

The technical version information can still be determined via `getFullVersionString();` as before; for example:

```
vers.getServerVersion().getFullVersionString();
```

The following is then returned, for example:

```
5.2.2101.77500
```

8.2   Releasing elements via API

The new interface `ReleaseOperation` in package `de.espirit.firstspirit.store.opera-tions` (FirstSpirit Access API) makes it possible to release FirstSpirit elements via API on the server-side.

In contrast to `AccessUtil.release(...)` (Package `de.espirit.firstspirit.access`, FirstSpirit Access API) the new interface supports the release of multiple elements at once, as well as the release of datasets.

The following methods can be applied on the result:

- `releaseResult.isSuccessful()`
  Returns `true`, when all affected elements could successfully be released, or `false`, when there were problems with (at least) one element.
  (Note: When requesting release fro an element that is already released nothing will be released, yet `true` will be returned).

- `releaseResult.getReleasedElements()`
  Returns a list of all released elements. The list can contain more elements than the release had been requested for because it includes all elements that actually were released. When requesting release of a page reference the list can additionally include the page referred to, as well as the media used in it.

- `releaseResult.getReleaseFailedElements()`
  Returns a list containing the elements that release had been requested for, but which could not be released.

- `releaseResult.getProblematicElements()`
  Returns a list containing the elements that prevented the release from succeeding.

An `EnumMap<ReleaseProblem, Set<BasicInfo>>` (new as well, package `de.espir-it.firstspirit.access.store`, FirstSpirit Access API) will be returned. With this you can detect the problem that prevented the release, e.g. if an element does not support release, or if a parent node is not released yet etc.

Example script for releasing an element via the `ReleaseOperation` interface:

```
import de.espirit.firstspirit.agency.OperationAgent;
import de.espirit.firstspirit.store.operations.ReleaseOperation;
import de.espirit.firstspirit.access.store.IDProvider;
elements = new ArrayList();
elements.add(context.getElement());
operationAgent = context.requireSpecialist(OperationAgent.TYPE);
releaseOp = operationAgent.getOperation(ReleaseOperation.TYPE);
releaseOp.releaseParentPath(true);
releaseOp.ensureAccessibility(true);
releaseOp.checkOnly(false);
releaseOp.withComment("The ReleaseOperation was used for this release");
releaseOp.dependentReleaseType(IDProvider.DependentReleaseType.
   DEPENDENT_RELEASE_NEW_AND_CHANGED);
releaseResult = releaseOp.perform(elements);
context.logInfo("isSuccessful: " + releaseResult.isSuccessful());
context.logInfo("********************************************");
context.logInfo("getReleasedElements: " + releaseResult.getReleasedElements());
context.logInfo("getReleaseFailedElements: " + releaseResult.getReleaseFailedElements());
context.logInfo("getProblematicElements: " + releaseResult.getProblematicElements());
```

Directly detecting the elements for a specific problem class is also possible, e.g.

```
if(releaseResult.getProblematicElements().get(ReleaseProblem.MISSING_PERMISSION).
   size() > 0)
context.logInfo("Release failed because of insufficient permissions for: "
   + releaseResult.getProblematicElements().get(ReleaseProblem.MISSING_PERMISSION));
```

The following enums for release preventing problems can be queried correspondently:

- MISSING_PERMISSION

- LOCK_FAILED

- `RELEASE_FAILED`

- `RELEASE_UNSUPPORTED`

- `MISSING_START_NODE`

- `NEVER_RELEASED_START_NODE`

- `NEVER_RELEASED_PAGE`

- `INVALID_STARTNODE_PATH`

- `NEVER_RELEASED_DOCUMENTGROUP_ELEMENT`

- `NEVER_RELEASED_SOURCE_SECTION`

- `INCOMPLETE_PARENT_PATH`

- `VALIDATION_FAILED`

(The FirstSpirit API documentation has not been updated yet. It will only be adjusted with the next release. But new interfaces / methods can already be used.)

Together with these API additions the following methods are "deprecated", and may be removed from a future FirstSpirit version:

- Interface `AccessUtil`:
  - `release(IDProvider toRelease, boolean checkOnly)`

  - `release(IDProvider releaseStartNode, boolean checkOnly, boolean ensureAccessibility, boolean recursive, IDProvider.DependentReleaseType dependentType)`

  - `release(IDProvider releaseStartNode, boolean checkOnly, boolean ensureAccessibility, boolean recursive, IDProvider.DependentReleaseType dependentType, String comment)`

  - `release(IDProvider toRelease, boolean checkOnly, String comment)`

Where the above-mentioned methods are being used a switch to the new interfaces and methods is recommended.

8.3   UrlAgent: Read Access to SEO/Short URLs of a Project

Newly created API functionality allows read access to a list of all SEO and short URLs defined in a project, namely by using the methods `getSEOUrls()` and `getShortUrls()` of the interface `UrlAgent` (package `de.espirit.firstspirit.agency`, FirstSpirit Developer API).

9   System

9.1   Integrated Software

With the current FirstSpirit version, the following, internally used software has been updated:

- **Java Advanced Imaging Image I/O Tools** (“JAI”, library for displaying and scaling images in FirstSpirit SiteArchitect)
  Update to version 1.4.0

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
Oracle Java 7 Support	5.2R15	2018-06

Functionality	Deprecated as of	Will be removed/ Was removed as of
FirstSpirit Developer API: de.espirit.firstspirit.agency.GroupsAgent	5.2R15	
Integrated preview for content (Mozilla Firefox, v3 and v15)	5.2R18	August 2018
Integrated Jetty	5.2R18	August 2018
FirstSpirit Access API: de.espirit.firstspirit.access.AccessUtil#delete	5.2R18	
Operating-system specific third-party applications in the AppCenter of the FirstSpirit SiteArchitect (exception: browser Integration)	5.2R19	September 2018
Oracle Berkeley DB 5 Support	5.2R21	November 2018
Oracle Berkeley DB 3 Support	5.2R21	November 2018
Windows installation program	2018-06	
FirstSpirit Access API: de.espirit.firstspirit.access.AccessUtil#release	2018-06	

11 Overview

ID	Description	Categories
136380	Newly created API functionality allows read access to a list of all SEO and short URLs defined in a project (interface `UrlAgent`, package `de.espirit.firstspirit.agency`, FirstSpirit Developer API). Further information can be found in chapter "Module Development, Scripts, API: UrlAgent: Read Access to SEO/Short URLs of a Project".	Advanced URL, Developer, FirstSpirit API, Generation
175438	It is now possible to restrict the use of action templates. Further information can be found in chapter "Administration: Setting restrictions on the use of action templates".	FirstSpirit Administrator, Server Administrator, ServerManager, Tasks

ID	Description	Categories
184122	The most recently selected dataset was not marked when switching from the brief overview to the overview of a data source.	SiteArchitect
188651	When creating a feature via a schedule task, erroneous behavior could arise if an element that is included in the feature collection has been deleted from the project in the meantime.	Content Transport
195327	Login-related security improvements on the start page.	FirstSpirit home page, Security
202119	Logging after a successful project export was improved.	Project export / import
204591	The new interface `ReleaseOperation` in package `de.espirit.firstspirit.store.operations` (FirstSpirit Access API) makes it possible to release FirstSpirit elements via API on the server-side. The new interface also supports the release of multiple elements at once, as well as the release of datasets. Further information can be found in chapter "Module Development, Scripts, API: Releasing elements via API".	Database, Developer, FirstSpirit API, Release
207488	In the current FirstSpirit version, updated internally used software. Further information can be found in chapter "System: Integrated Software".	Integrated software, Media Store, SiteArchitect
208203	In the preview, erroneous behavior could arise due to links pointing at IDs within the current document (`<a href="#...">`).	Preview, SiteArchitect
208414	Improved synchronisation when contents are deleted from CMS_INPUT_LINK input components in the source project.	Corporate Content
208676	The name of a FirstSpirit version can now be read out via the API with the new `getReleaseName();` method in the `ServerInformationAgent` interface (`de.espirit.firstspirit.agency` package, FirstSpirit Access API). Further information can be found in chapter "Module Development, Scripts, API: Read out FirstSpirit version name via API".	Developer, FirstSpirit API

ID	Description	Categories
208724	Cleanup of the repository files during archiving has been improved.	Archiving
208819	As of the current release of FirstSpirit, when creating new projects, the default setting for use of the integrated database "Apache Derby" has been changed to "off" (inactive). Further information can be found in chapter "Administration: Database Handling: Internal Derby database will no longer be used by default in newly created projects".	Database, Developer, FirstSpirit Administrator, Server Administrator, ServerManager
208836	Optimized visualization of selected values in the database-driven input component CMS_INPUT_CHECKBOX.	ContentCreator
208939	Berkeley version 7 is now the default for new FirstSpirit installations. Further information can be found in chapter "Administration: Berkeley: Default for new FirstSpirit installations is now version 7".	FirstSpirit Administrator, Integrated software, Repository
208947	`NewSectionExecutable` is now supported for use with Global Content. Further information can be found in chapter "ContentCreator: "NewSectionExecutable": Support for Global Content".	ContentCreator, Developer, Editor, FirstSpirit API, Template Development
208949	Erroneous behaviour could occur when restoring pages.	Java 10 (EAP)
209170	Security improvements related to user management.	FirstSpirit Administrator, Security
209189	Improved validation behavior related to nested CMS_INPUT_IMAGEMAP input components in projects with many languages.	SiteArchitect
209352	When using an external application server (Apache Tomcat, Jetty-Modul, ...), where FirstSpirit web applications are automatically installed as WAR files, updating FirstSpirit (e.g. to version 2018-06) can cause problems. Further information can be found in chapter "Administration: Possible problems when updating FirstSpirit with external application servers".	FirstSpirit Administrator

ID	Description	Categories
209364	The content of FirstSpirit JAR files is signed with a certificate. In the current FirstSpirit version, the content is signed with a new certificate that is valid until 2020-07-22 (22 July 2020). Further information can be found in chapter "General: Code signing certificate updated".	Webstart
209368	Optimized evaluation of lock status subsequent to editing inner entries in the input components FS_LIST and FS_CATALOG via InEdit.	ContentCreator
209378	Security improvements related to redirects by FirstSpirit.	Security, Server Administrator
209406	Improvements related to class loading.	Isolated mode (BETA)
209415 208881 208883	In the course of introducing the new release naming scheme, the display of version information in FirstSpirit has been extended. Further information can be found in chapter "General: Display of Version Information".	ContentCreator
209498	In rare cases, erroneous behavior could arise during login of users whose login data is imported via LDAP.	Security
209609	Saving information on the order of entries in the input component FS_INDEX was improved.	SiteArchitect
209911	The evaluation of `previewId()` return values for datasets using `PreviewIdAgent` (FirstSpirit Developer API) was improved.	Developer

12 Categories

12.1 Advanced URL

ID	Description
136380	Newly created API functionality allows read access to a list of all SEO and short URLs defined in a project (interface `UrlAgent`, package `de.espirit.firstspirit.agency`, FirstSpirit Developer API).

ID	Description
	Further information can be found in chapter "Module Development, Scripts, API: UrlAgent: Read Access to SEO/Short URLs of a Project".

12.2   Archiving

ID	Description
208724	Cleanup of the repository files during archiving has been improved.

12.3   Content Transport

ID	Description
188651	When creating a feature via a schedule task, erroneous behavior could arise if an element that is included in the feature collection has been deleted from the project in the meantime.

12.4   ContentCreator

ID	Description
208836	Optimized visualization of selected values in the database-driven input component CMS_IN-PUT_CHECKBOX.
208947	`NewSectionExecutable` is now supported for use with Global Content. Further information can be found in chapter "ContentCreator: "NewSectionExecutable": Support for Global Content".
209368	Optimized evaluation of lock status subsequent to editing inner entries in the input components FS_LIST and FS_CATALOG via InEdit.
209415 208881 208883	In the course of introducing the new release naming scheme, the display of version information in FirstSpirit has been extended. Further information can be found in chapter "General: Display of Version Information".

12.5   Corporate Content

ID	Description
208414	Improved synchronisation when contents are deleted from CMS_INPUT_LINK input components in the source project.

12.6   Database

ID	Description
204591	The new interface `ReleaseOperation` in package `de.espirit.firstspirit.store.operations` (FirstSpirit Access API) makes it possible to release FirstSpirit elements via API on the server-side. The new interface also supports the release of multiple elements at once, as well as the release of datasets. Further information can be found in chapter "Module Development, Scripts, API: Releasing elements via API".
208819	As of the current release of FirstSpirit, when creating new projects, the default setting for use of the integrated database "Apache Derby" has been changed to "off" (inactive). Further information can be found in chapter "Administration: Database Handling: Internal Derby database will no longer be used by default in newly created projects".

12.7   Developer

ID	Description
136380	Newly created API functionality allows read access to a list of all SEO and short URLs defined in a project (interface `UrlAgent`, package `de.espirit.firstspirit.agency`, FirstSpirit Developer API). Further information can be found in chapter "Module Development, Scripts, API: UrlAgent: Read Access to SEO/Short URLs of a Project".

ID	Description
204591	The new interface `ReleaseOperation` in package `de.espirit.firstspirit.store.operations` (FirstSpirit Access API) makes it possible to release FirstSpirit elements via API on the server-side. The new interface also supports the release of multiple elements at once, as well as the release of datasets. Further information can be found in chapter "Module Development, Scripts, API: Releasing elements via API".
208676	The name of a FirstSpirit version can now be read out via the API with the new `getReleaseName();` method in the `ServerInformationAgent` interface (`de.espirit.firstspirit.agency` package, FirstSpirit Access API). Further information can be found in chapter "Module Development, Scripts, API: Read out FirstSpirit version name via API".
208819	As of the current release of FirstSpirit, when creating new projects, the default setting for use of the integrated database "Apache Derby" has been changed to "off" (inactive). Further information can be found in chapter "Administration: Database Handling: Internal Derby database will no longer be used by default in newly created projects".
208947	`NewSectionExecutable` is now supported for use with Global Content. Further information can be found in chapter "ContentCreator: "NewSectionExecutable": Support for Global Content".
209911	The evaluation of `previewId()` return values for datasets using `PreviewIdAgent` (FirstSpirit Developer API) was improved.

12.8   Editor

ID	Description
208947	`NewSectionExecutable` is now supported for use with Global Content. Further information can be found in chapter "ContentCreator: "NewSectionExecutable": Support for Global Content".

12.9   FirstSpirit API

ID	Description
136380	Newly created API functionality allows read access to a list of all SEO and short URLs defined in a project (interface `UrlAgent`, package `de.espirit.firstspirit.agency`, FirstSpirit Developer API). Further information can be found in chapter "Module Development, Scripts, API: UrlAgent: Read Access to SEO/Short URLs of a Project".
204591	The new interface `ReleaseOperation` in package `de.espirit.firstspirit.store.operations` (FirstSpirit Access API) makes it possible to release FirstSpirit elements via API on the server-side. The new interface also supports the release of multiple elements at once, as well as the release of datasets. Further information can be found in chapter "Module Development, Scripts, API: Releasing elements via API".
208676	The name of a FirstSpirit version can now be read out via the API with the new `getReleaseName();` method in the `ServerInformationAgent` interface (`de.espirit.firstspirit.agency` package, FirstSpirit Access API). Further information can be found in chapter "Module Development, Scripts, API: Read out FirstSpirit version name via API".
208947	`NewSectionExecutable` is now supported for use with Global Content. Further information can be found in chapter "ContentCreator: "NewSectionExecutable": Support for Global Content".

12.10   FirstSpirit Administrator

ID	Description
175438	It is now possible to restrict the use of action templates.

ID	Description
	Further information can be found in chapter "Administration: Setting restrictions on the use of action templates".
208819	As of the current release of FirstSpirit, when creating new projects, the default setting for use of the integrated database "Apache Derby" has been changed to "off" (inactive). Further information can be found in chapter "Administration: Database Handling: Internal Derby database will no longer be used by default in newly created projects".
208939	Berkeley version 7 is now the default for new FirstSpirit installations. Further information can be found in chapter "Administration: Berkeley: Default for new FirstSpirit installations is now version 7".
209170	Security improvements related to user management.
209352	When using an external application server (Apache Tomcat, Jetty-Modul, ...), where FirstSpirit web applications are automatically installed as WAR files, updating FirstSpirit (e.g. to version 2018-06) can cause problems. Further information can be found in chapter "Administration: Possible problems when updating FirstSpirit with external application servers".

12.11 FirstSpirit home page

ID	Description
195327	Login-related security improvements on the start page.

12.12 Generation

ID	Description
136380	Newly created API functionality allows read access to a list of all SEO and short URLs defined in a project (interface `UrlAgent`, package `de.espirit.firstspirit.agency`, FirstSpirit Developer API).

ID	Description
	Further information can be found in chapter "Module Development, Scripts, API: UrlAgent: Read Access to SEO/Short URLs of a Project".

12.13 Integrated software

ID	Description
207488	In the current FirstSpirit version, updated internally used software. Further information can be found in chapter "System: Integrated Software".
208939	Berkeley version 7 is now the default for new FirstSpirit installations. Further information can be found in chapter "Administration: Berkeley: Default for new FirstSpirit installations is now version 7".

12.14 Isolated mode (BETA)

ID	Description
209406	Improvements related to class loading.

12.15 Java 10 (EAP)

ID	Description
208949	Erroneous behaviour could occur when restoring pages.

12.16 Media Store

ID	Description
207488	In the current FirstSpirit version, updated internally used software. Further information can be found in chapter "System: Integrated Software".

12.17 Preview

ID	Description
208203	In the preview, erroneous behavior could arise due to links pointing at IDs within the current document (`<a href="#...">`).

12.18 Project export / import

ID	Description
202119	Logging after a successful project export was improved.

12.19 Release

ID	Description
204591	The new interface `ReleaseOperation` in package `de.espirit.firstspirit.store.operations` (FirstSpirit Access API) makes it possible to release FirstSpirit elements via API on the server-side. The new interface also supports the release of multiple elements at once, as well as the release of datasets. Further information can be found in chapter "Module Development, Scripts, API: Releasing elements via API".

12.20 Repository

ID	Description
208939	Berkeley version 7 is now the default for new FirstSpirit installations. Further information can be found in chapter "Administration: Berkeley: Default for new FirstSpirit installations is now version 7".

12.21 Security

ID	Description
195327	Login-related security improvements on the start page.
209170	Security improvements related to user management.
209378	Security improvements related to redirects by FirstSpirit.
209498	In rare cases, erroneous behavior could arise during login of users whose login data is imported via LDAP.

12.22 Server Administrator

ID	Description
175438	It is now possible to restrict the use of action templates. Further information can be found in chapter "Administration: Setting restrictions on the use of action templates".
208819	As of the current release of FirstSpirit, when creating new projects, the default setting for use of the integrated database "Apache Derby" has been changed to "off" (inactive). Further information can be found in chapter "Administration: Database Handling: Internal Derby database will no longer be used by default in newly created projects".
209378	Security improvements related to redirects by FirstSpirit.

12.23 ServerManager

ID	Description
175438	It is now possible to restrict the use of action templates. Further information can be found in chapter "Administration: Setting restrictions on the use of action templates".
208819	As of the current release of FirstSpirit, when creating new projects, the default setting for use of the integrated database "Apache Derby" has been changed to "off" (inactive).

ID	Description
	Further information can be found in chapter "Administration: Database Handling: Internal Derby database will no longer be used by default in newly created projects".

12.24 SiteArchitect

ID	Description
184122	The most recently selected dataset was not marked when switching from the brief overview to the overview of a data source.
207488	In the current FirstSpirit version, updated internally used software. Further information can be found in chapter "System: Integrated Software".
208203	In the preview, erroneous behavior could arise due to links pointing at IDs within the current document (`<a href="#...">`).
209189	Improved validation behavior related to nested CMS_INPUT_IMAGEMAP input components in projects with many languages.
209609	Saving information on the order of entries in the input component FS_INDEX was improved.

12.25 Tasks

ID	Description
175438	It is now possible to restrict the use of action templates. Further information can be found in chapter "Administration: Setting restrictions on the use of action templates".

12.26 Template Development

ID	Description
208947	`NewSectionExecutable` is now supported for use with Global Content.

ID	Description
	Further information can be found in chapter "ContentCreator: "NewSectionExecutable": Support for Global Content".

12.27 Webstart

ID	Description
209364	The content of FirstSpirit JAR files is signed with a certificate. In the current FirstSpirit version, the content is signed with a new certificate that is valid until 2020-07-22 (22 July 2020). Further information can be found in chapter "General: Code signing certificate updated".