

Previously released versions: 5.0.105, 5.0.106, 5.0.114, 5.0.210, 5.0.318, 5.0.424

## Ensuring Compatibility with Java Version 7 Update 45

Generally, FirstSpirit is released for use with a major version of a JDK, e.g. Oracle Java 7 (JDK 1.7).

In FirstSpirit Quality Assurance processes, JDKs are tested for compatibility with FirstSpirit. These tests revealed incompatibilities in Java Version 7 Update 45 (1.7.0\_45).

Due to an incompatible change in the JDK, it was not possible to launch the JavaClient using Java Web Start, for example.

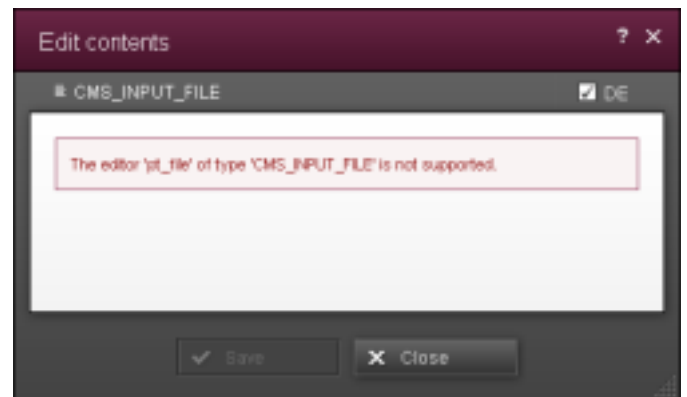
FirstSpirit 5.0.425 contains programmatic changes that ensure compatibility.

## Release management: Deprecation warnings in log file

The following input components were already deprecated in FirstSpirit Version 4.2.

- CMS\_INPUT\_CONTENTAREALIST
- CMS\_INPUT\_CONTENTLIST
- CMS\_INPUT\_FILE
- CMS\_INPUT\_LINKLIST
- CMS\_INPUT\_OBJECTCHOOSE
- CMS\_INPUT\_PAGEREF
- CMS\_INPUT\_PICTURE
- CMS\_INPUT\_SECTIONLIST
- CMS\_INPUT\_TABLIST

These input components have not been supported in WebClient since the initial release of FirstSpirit Version 5.0. A corresponding error message is displayed in the client:



In JavaClient, these input components can currently still be used, however they are no longer developed and maintained and will be completely removed in a later version. Therefore, conversion to the new input components has been strongly recommended for some time.

To make it easier to find existing uses, as of FirstSpirit Version 5.0.425, "WARN" messages which contain the identifier for the input component in question (in this example *pt\_file*) are logged in the log file during generation, e.g.:

```
WARN 03.09.2013 10:48:03.970{g-node=145474} (de.espirit.firstspirit.generate.AbstractGenerationContext): usage of deprecated form element CMS_INPUT_FILE for variable 'pt_file'
```

In addition, "WARN" messages are also logged in the log file for uses of static **link templates**, which were replaced in Version 4.2 Release 4 by the generic link templates. Since FirstSpirit Version 4.2.461 these have been logged as "INFO" messages.

**For information on the conversion to the "FS\_" input components and generic link templates, see the FirstSpirit Release Notes for Version 4.2 Release 4.**

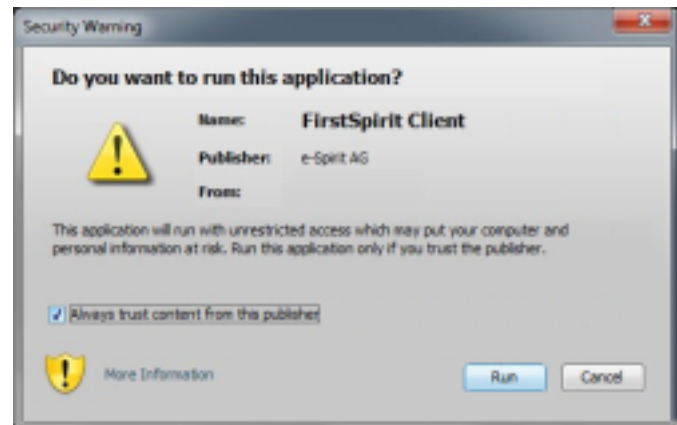
## New code signing certificate

The content of FirstSpirit JAR files is signed with a certificate. This procedure is also called code signing.

From FirstSpirit Version 5.0.425, the content is signed with a new certificate that is valid until May 22, 2015.

When a JavaClient is first started or during the Server and Project Configuration via Java Web Start, the adjacent confirmation dialog appears for the user.

To prevent the confirmation dialog from appearing again, the “Always trust content from this publisher” option must be activated.



## Automatic cookie acceptance in the browser engine

Some HTTP servers can require user authentication to establish the connection or for communication. In this case, a cookie is used to store information (e.g., a ticket number) after successful authentication on the HTTP client (e.g., a web browser) to prevent having to re-authenticate when called repeatedly.

These authentication cookies can be used for HTTP communication between the FirstSpirit JavaClient and the HTTP server, i.e., the cookie is passed from the web browser via Java Web Start to a called FirstSpirit JavaClient.

The type of cookies to be used for passing can be defined using the `clientCookieNames` parameter in the `fs-server.conf` file.

From FirstSpirit 5.0.425, these cookies are also passed to the browser engine configured for the project and are thus available in the integrated preview of the JavaClient. The same cookie is then used in three different session contexts (web browser: HTTP client, JavaClient: client/server communication, JavaClient: integrated browser engine).

**It is NOT possible to re-inject the cookie(s), e.g., when changing the browser engine.**

## Database contents: Subsequent changes to the “Allow empty value” option

Subsequent changes to the “Allow Empty value” option within the FirstSpirit database schema configuration are not applied in the database (not even if the “Schema sync” option is activated). This can lead to problems when exporting and reimporting a project.

From FirstSpirit 5.0.425 this situation is checked when a project is exported: If the project to be exported already contains maintained database content with an empty value in a column, for which the “Allow Empty value” option was subsequently deactivated, then the project export is not successfully completed (with corresponding error message).

## FirstSpirit API: Permanent plug-ins

JavaClient and WebClient can be enhanced on a customer-specific basis in many areas using plug-ins.

“Permanent plug-ins” can be used when a client is started to register services which are available for the entire time that the client is running and are equally available in both clients (JavaClient and WebClient).

For this, the `JavaClientPermanentPlugin` and `WebClientPermanentPlugin` interfaces are offered (each in the `de.espirit.firstspirit.client.plugin` package of the FirstSpirit Developer API).

Further information on permanent plug-ins can also be found in the FirstSpirit V5.0 online documentation (menu item “Plug-In Development” / “Universal Extensions” / “Permanent Plug-ins” / “Functional Overview”).

## Queries: Changing the sorting behavior for foreign keys

Two tables can be linked to each other by a foreign key relationship in a database schema.

Foreign key relationships can also be used in queries to sort the results.

In the case of "to N" foreign key relationships, it was possible for duplicate datasets to appear in the results, thus resulting in sorting that did not meet expectations.

For this reason, the standard behavior has been changed so that "to N" foreign key relationships are not taken into account as sorting criteria (e.g., in the ORDERCRITERIA tag of a query).

## Input components: Potentially modification in behavior when using the optional parameter „convertEntities“ by error correction

In FirstSpirit characters can be converted by using conversion rules. By this way, characters can be displayed correctly for each template set, e.g. HTML characters ("&quot;").

In the case of the input components CMS\_INPUT\_DOM and CMS\_INPUT\_DOMTABLE the conversion rules are usually defined in the used format templates.

Outside of these input components the methods "convert" and "convert2" can be used for applying the conversion rules which are deposited for the template set.

Besides of these input components and the both mentioned methods, some other input components provide the optional parameter "convertEntities" for conversion of input characters, too, e.g. CMS\_INPUT\_TEXT.

Unfortunately, this parameter was by mistake not taken into account for multiple pages (sections basing on data sources) and generic links.

From FirstSpirit 5.0.425 on, this parameter will now be taken into account also within multiple pages and generic links.

If you use the parameter "convertEntities" and the methods "convert" or "convert2" at the same time, this can lead to an multiple conversion.

For this reason, it is recommended to check existing projects if you use multiple pages or generic links before upgrading to FirstSpirit version 5.0 Release 4 and adjust the templates adequately.

## New functionalities

| ID     | Role                      | Category   | Sub Category   | Description   |
|--------|---------------------------|------------|----------------|---|
| 122864 | FirstSpirit Administrator | JavaClient | Template Store | You can define for each column of a table (Template Store, schema) if an empty value is allowed in the database or not. If values have been already entered, changing this option afterwards is dangerous because this can lead to invalid datasets. The export of projects has been improved so that such misconfiguration can be identified and logged. |

## Bug-fixes

| ID     | Role      | Category   | Sub Category     | Description   |
|--------|-----------|------------|------------------|---|
| 52704  | All Users | JavaClient | All Stores       | In JavaClient, the term "Unique name" has been replaced with the more appropriate identifier "Reference name".  |
| 116894 | All Users | JavaClient | All Stores       | Under specific conditions, no scrollbar was shown in the translation help in JavaClient (menu: Extras / Translation help).  |
| 125806 | All Users | JavaClient | All Stores       | Occasionally while working in JavaClient, the application closed automatically when the key combination <Ctrl>+<Alt>+<Print> was pressed.   |
| 137531 | All Users | JavaClient | All Stores       | New objects can be added to the project via the "New" context menu entry in JavaClient. It is possible to expand the selection in this context menu item using customer-specific plug-ins. Standard and customer-specific entries are now visually separated more clearly.                            |
| 139587 | All Users | JavaClient | All Stores       | When indexing PDF files with a certain date stamp, malfunctions could have occurred.  |
| 140133 | All Users | JavaClient | All Stores       | The JavaClient editing area provides a horizontal tab navigation bar to the user. Right-clicking with the mouse on the "X" icon could mistakenly close the workspace.   |
| 134098 | All Users | JavaClient | Content Store    | In JavaClient, it is possible to determine objects that are being edited in the current session in the "Search" menu item (under: "Locked objects (Session)"). Unfortunately, the currently selected dataset was incorrectly returned in the search dialog although the data source was in view mode. |
| 140963 | All Users | JavaClient | Content Store    | When a dataset was edited in the Data Store, certain changes were not properly taken into account in an FS_LIST input component (type DATABASE).  |
| 144654 | All Users | JavaClient | Content Store    | In JavaClient, in rare cases the "Save" icon was incorrectly inactive in the data source (Data Store) following the creation of a new dataset.  |
| 136568 | All Users | JavaClient | ContentTransport | When using the "ContentTransport" function, the added elements were not taken into account when uploading a new feature if the feature had not been saved in advance.   |

| ID     | Role      | Category   | Sub Category           | Description   |
|--------|-----------|------------|------------------------|---|
| 137140 | All Users | JavaClient | ContentTransport       | In the case of ContentTransport, hierarchical structures (e.g., menu folders in the Site Store) can be added to a feature. The order of the elements may change following a change in the source project. These changes are also taken into account when importing a feature into the target project. In some rare cases, the new order was not fully taken into account for sections (Page Store) and menu folders (Site Store).   |
| 141118 | All Users | JavaClient | ContentTransport       | When using the "ContentTransport" function, an error occurred when importing a feature into the target project if the feature contained a folder with the same name from the Template Store, Data Store or the Global Settings.   |
| 142872 | All Users | JavaClient | ContentTransport       | Datasets can be transported from one project to another using the "ContentTransport" function. Several datasets can be linked to each other using foreign key relationships. In very rare cases, foreign key relationships were not completely taken into account when importing into the target project.   |
| 119565 | All Users | JavaClient | Database Configuration | The handling of foreign key relationships in sorting criteria (e.g., ORDERCRITERIA in queries) has been changed. Further information can be found in the introduction (under "Queries: Changing the sorting behavior for foreign keys").  |
| 142785 | All Users | JavaClient | Dom Editor             | In JavaClient, ampersand, less than and greater than symbols specified for the link text are now displayed unchanged in the CMS_INPUT_DOM input component.  |
| 138751 | All Users | JavaClient | Dynamic Forms          | Date and time-based rules ("dynamic forms") can be defined for checking the selected value for the CMS_INPUT_DATE input component. The evaluation of these rules has been improved.   |
| 139261 | All Users | JavaClient | Dynamic Forms          | Input components can be reset to the fallback value using rules ("dynamic forms" function). In JavaClient, the user was shown a confirmation dialog in this case. The behavior here has been improved, i.e., if a fallback value is set per rule, a confirmation dialog is not shown.   |
| 139262 | All Users | JavaClient | Dynamic Forms          | In dynamic forms, a fallback value can be set for the CMS_INPUT_DOM input component by means of rules. In this case, an error occurred when editing the input component.  |
| 141444 | All Users | JavaClient | Dynamic Forms          | Table templates can contain mandatory fields, which are defined by rules ("dynamic forms"). When creating a new dataset without making any further changes and immediately saving it, these rules were not taken into account.  |
| 127752 | All Users | JavaClient | Input Components       | A self-reflexive foreign key relationship can be defined for a table in a database schema. The maintenance of self-reflexive "N to M" foreign key relationships led to an error in very rare cases.   |
| 134441 | All Users | JavaClient | Input Components       | In the case of some input components (e.g., CMS_INPUT_TEXT), the "convertEntities" parameter can be used to convert special characters, which were entered in the input components, into HTML characters during output. If input components with this configuration are used in generic links and data source sections, the "convertEntities" parameter is now taken into account (see the subsection in the introduction).   |
| 135500 | All Users | JavaClient | Input Components       | In very rare cases, the actions ADD and REMOVE in the FS_LIST input component (Inline type, StackedView layout component, Panel toolbar display) were only carried out once an entry had been expanded.   |
| 137835 | All Users | JavaClient | Input Components       | In the FS_DATASET input component it was unfortunately possible to edit the content of the referenced dataset without an active component-specific editing mode.  |
| 138971 | All Users | JavaClient | Input Components       | The performance of the FS_LIST input component (DATABASE type) has been optimized for the maintenance of many entries in numerous languages.  |
| 139274 | All Users | JavaClient | Input Components       | The CMS_INCLUDE_OPTIONS data element is used to select datasets from a data source. The number of datasets selected from the data source can be limited using parameters in a query. A rule ("dynamic forms" functionality) is used to set parameters based on the selection of another CMS_INPUT_COMBOBOX input component. In this case, it is possible to select a different number of datasets, depending on the selection. Unfortunately, in some rare cases an error occurred when the parameter value had been changed by making a different selection. |
| 139455 | All Users | JavaClient | Input Components       | You can use FS_LIST, type DATABASE, for creating lists of datasets. Changing the order of an entry within the FS_LIST input component marked the referenced datasets as being changed if a CMS_INPUT_DATE input component was used in a dataset.  |
| 139747 | All Users | JavaClient | Input Components       | The CMS_INCLUDE_OPTIONS data element can be used to make selections from datasets in the CMS_INPUT_COMBOBOX input component. When using a version of Java 7, an error might have occurred when displaying special characters.   |
| 139768 | All Users | JavaClient | Input Components       | Selecting and displaying data sources can be restricted by using the SOURCES or CONTENT tag for the FS_DATASET input component. When migrating the CMS_INPUT_OBJECTCHOOSEER input component to the FS_DATASET input component, the table template must be specified using the LEGACYTEMPLATE tag. Unfortunately, the data sources and table templates specified in the CONTENT and LEGACYTEMPLATE tags were previously not included in the reference graph.   |
| 139776 | All Users | JavaClient | Input Components       | The values that can be selected in the CMS_INPUT_COMBOBOX input component can be taken from a data source using the CMS_INCLUDE_OPTION data element. This selection quantity can be limited to specific datasets by means of a query. Using rules ("dynamic forms"), dynamic limiting can also be performed based on the selection of another CMS_INPUT_COMBOBOX input component. If the selection was changed in the other input component, the display of the input component was not updated if the selection had already been made.                       |
| 139867 | All Users | JavaClient | Input Components       | It is also possible to connect external databases in FirstSpirit. In contrast to internal databases, only read access is possible for external databases, not write access. When using an external database, an error could have occurred while selecting datasets in the FS_LIST (DATABASE type) input component.  |
| 140017 | All Users | JavaClient | Input Components       | In the CMS_INPUT_DOMTABLE input component it is possible to transfer selected text to a link. In this case, the selected text is used as the link text. Unfortunately, the link type was incorrectly duplicated when it was applied.  |
| 140271 | All Users | JavaClient | Input Components       | In the FS_LIST input component (DATABASE type), an error occurred in rare cases when adding an entry if the underlying dataset was identified via the advanced search in the selection dialog.  |
| 140312 | All Users | JavaClient | Input Components       | In WebClient, an apostrophe for the link text is now displayed unchanged in the CMS_INPUT_DOM input component.  |
| 140395 | All Users | JavaClient | Input Components       | In rare instances, an error occurred when pressing the right-mouse button in the CMS_INPUT_OBJECTCHOOSEER input component without selecting a dataset.  |
| 141351 | All Users | JavaClient | Input Components       | When nesting two FS_LIST input components of the types INLINE and PAGE, a warning message could have incorrectly appeared in the log file if rules ("dynamic forms") were used. However, the warning messages did not lead to any function limitations.   |
| 141559 | All Users | JavaClient | Input Components       | In the CMS_INPUT_IMAGEMAP input component, a malfunction sometimes occurred when using map area objects.  |

| ID     | Role      | Category                 | Sub Category     | Description   |
|--------|-----------|--------------------------|------------------|---|
| 142465 | All Users | JavaClient               | Input Components | In the case of the FS_DATASET and FS_LIST (DATABASE type) input components, the discarding of changes has been improved ("Cancel editing" function, <Ctrl>+<Shift>+<E>).  |
| 143801 | All Users | JavaClient               | Input Components | Transferring values within the translation help in JavaClient led partially to an error when the used form contained the input component FS_LIST.   |
| 145483 | All Users | JavaClient               | Input Components | Duplicate IDs for entries could have been assigned in error in the FS_LIST (INLINE type) input component.   |
| 146031 | All Users | JavaClient               | Input Components | The parameter "sections" can be used for the input component FS_REFERENCE to affect or define the behavior of selecting references from the Site Store. If you use the value "ONLY", only the sections from the current page can be selected. If a section which contained an FS_REFERENCE input component with such a configuration was copied or moved, the original page was by mistake taken into account for identifying the sections. |
| 117881 | All Users | JavaClient               | Media Store      | The content of a selected folder can be viewed on the Media Store "Overview" tab. Settings options on the "Properties" tab can be used to adjust this display. Changes to the settings did not take effect right away.  |
| 118242 | All Users | JavaClient               | Media Store      | In JavaClient, the evaluation of rights when copying media has been improved in the Media Store.  |
| 139723 | All Users | JavaClient               | Media Store      | In very rare instances, the selectable options were not displayed on the "Properties" (Media Store) tab in JavaClient.  |
| 140849 | All Users | JavaClient               | Media Store      | Multiple resolutions can be defined for images in FirstSpirit. A unique identifier must be specified for each resolution. The two resolutions "ORIGINAL" and "preview" are used in FirstSpirit by default. These two designated resolutions therefore cannot be used as unique identifiers. When adding a new resolution, these two identifiers are not accepted – regardless of whether upper or lower case is used.                       |
| 141037 | All Users | JavaClient               | Media Store      | In JavaClient, images can be cropped. Occasionally, an error could have occurred when moving the cropped image.   |
| 141076 | All Users | JavaClient               | Media Store      | Malfunctions sometimes occurred in the media import wizard in the JavaClient.   |
| 142121 | All Users | JavaClient               | Media Store      | Not all changes were taken into account when saving following simultaneous changes to metadata and the resolution of an image (Media Store).  |
| 50855  | All Users | JavaClient               | Package Pool     | In Corporate Content, an error could have occurred if the package was edited again while the package version was created.   |
| 138476 | All Users | JavaClient               | Package Pool     | In the case of Corporate Content (formerly: PackagePool), a "Lost&Found" folder is created for objects that could not be created in the target project. When creating this folder, the options "Display in navigation menu?" and "Display navigation menu in sitemap?" were incorrectly activated by default at menu level.   |
| 138326 | All Users | JavaClient               | Page Store       | Some FirstSpirit projects contain a number of languages. In order for the editor to be able to efficiently select the language(s) to be edited when there a large number of languages, the languages that can no longer be displayed in the window are accessible via a drop-down menu. The display of long language abbreviations has been improved in this drop-down menu.  |
| 139207 | All Users | JavaClient               | Page Store       | An error could have occurred while using the FS_LIST (DATABASE type) input component and adding a new dataset (NEW action) after changing the language if the input component was used to add a "1 to N" foreign key relationship.  |
| 139975 | All Users | JavaClient               | Page Store       | In Corporate Content (formerly: PackagePool), a page in the target project was not automatically released if the associated sections were no longer in the package following an update.   |
| 144313 | All Users | JavaClient               | Page Store       | Links can be created in the CMS_INPUT_DOM input component. When copying these links with images to the clipboard, the clipboard was incorrectly not updated after the second link.  |
| 137219 | All Users | JavaClient               | Remote Projects  | In a page reference, a reference can be made to a page of a related project under the item "Link". Here, the user is provided with an option to select from one or more related projects. In a few rare cases, selection was incorrectly not possible (from valid, related projects) if an invalid user was stored in a configuration for a related project.  |
| 132187 | All Users | JavaClient               | Search           | In JavaClient it is possible to view objects that are currently being edited (menu item: Search / Objects being edited (session)). Unfortunately, datasets that were no longer being edited were mistakenly displayed in this dialog.   |
| 139985 | All Users | JavaClient               | Search           | In FirstSpirit it is possible to initiate a global search using the input window in the top left area of JavaClient. The search results are displayed in a search area. The results in the search area can be filtered using a dialog. Unfortunately, the opened dialog was not closed when a search result was selected.   |
| 140722 | All Users | JavaClient               | Search           | In JavaClient, users can search a project for terms in the global search. During entry, auto completion of the search term takes place and suggested terms are shown. The display of the suggested terms following subsequent amendment of a search term has been improved.   |
| 140813 | All Users | JavaClient               | Search           | In JavaClient, thumbnails can be displayed in the search results (e.g., for the corresponding snippet definition). In some rare cases, the current version of the thumbnail was not immediately displayed.  |
| 141586 | All Users | JavaClient               | Search           | In JavaClient, the determination of the search results in the global search has been optimized.   |
| 141659 | All Users | JavaClient               | Search           | In JavaClient, the limitations are now structured more clearly when searching.  |
| 141801 | All Users | JavaClient               | Search           | In JavaClient, the number of search results can be limited to one language in the global search via the system filter. In some cases, the filter continued to be used for the next search after it had been removed.  |
| 141825 | All Users | JavaClient               | Search           | In JavaClient, the user guidance has been improved in the "Search" area.  |
| 142521 | All Users | JavaClient               | Search           | In JavaClient, search results can be limited in the global search by means of facet configuration. In very rare cases, the removal of a facet led to a malfunction.   |
| 138378 | All Users | JavaClient               | Template Store   | In very rare cases an error occurred in JavaClient when saving a new query (Template Store) if the "Wizard mode" setting had previously been changed.   |
| 140283 | All Users | JavaClient               | Version History  | Restoring an older version of a page in JavaClient could led to an error when the page contained a data source section and when the permission "Read" was not set for all data sources.   |
| 136601 | All Users | JavaClient and WebClient | Input Components | In some rare instances, selected text in the CMS_INPUT_DOM input component was discarded if the text was selected from right to left using the mouse.   |
| 102954 | All Users | None                     | Media Store      | Media can be uploaded per drag & drop in JavaClient and WebClient. Media in JavaClient can also be uploaded using the Media Import Wizard (menu: Extras / Media Import Wizard). Unfortunately, capital letters in the reference name were not converted into lowercase letters in these cases.  |
| 139398 | All Users | None                     | None             | In FirstSpirit, the management of sessions has been improved.   |

| ID     | Role      | Category                         | Sub Category           | Description  |
|--------|-----------|----------------------------------|------------------------|--|
| 138725 | All Users | Server and Project Configuration | Database Configuration | In the Server and Project Configuration, database configurations can be created for use in projects. When creating a database configuration, the data can be checked using the "Test connection" function. If an error occurs during the connection test, this is recorded in the log file ("INFO" log level).   |
| 138257 | All Users | Server and Project Configuration | None                   | The calculation of references has been improved in remote projects.  |
| 138631 | All Users | Server and Project Configuration | None                   | In the server configuration file (fs-server.conf), the titles for Server Monitoring, Server and Project Configuration, and JavaClient can be configured using the "WEBAPP_ROOT_TITLE" and "SYMBOLIC_HOSTNAME" parameters. If the "WEBAPP_ROOT_TITLE" and "SYMBOLIC_HOSTNAME" parameters are not configured, a default value from the server configuration is used.   |
| 137351 | All Users | Server-Monitoring                | None                   | In Server Monitoring (FirstSpirit / Configuration / Logging), the "log4j.appender.fs.maxFileSize" parameter for configuring the maximum file size was not always taken into account. A possible correct configuration would be as follows: "log4j.appender.fs.maxFileSize=3MB". In this case, the actual log file would automatically be converted to a zip file if the maximum size of 3 MB is reached. Logging then continues in a new file.   |
| 137653 | All Users | WebClient                        | All Stores             | Navigation can be edited using the menu in WebClient. This was incorrectly hidden in Microsoft Internet Explorer 9 when resizing the text editor window.   |
| 137776 | All Users | WebClient                        | All Stores             | Unfortunately, no message was displayed when attempting to remove metadata for the element in JavaClient and the metadata had been edited in WebClient.  |
| 137548 | All Users | WebClient                        | Dom Editor             | While generating a line break in a list element in the CMS_INPUT_DOM input component in WebClient (<SHIFT>+<ENTER> key combination), the line break was not displayed correctly.   |
| 138598 | All Users | WebClient                        | Dom Editor             | In WebClient a malfunction occurred in the CMS_INPUT_DOM input component in very rare cases when using Microsoft Internet Explorer 9 and adding a link to include an e-mail address (refer to the "E-mail link" example in the FirstSpirit online documentation).  |
| 137356 | All Users | WebClient                        | Dynamic Forms          | The CMS_GROUP design element is used to display input components in groups. In dynamic forms, rules can be used to hide these groups. Unfortunately, this did not work in WebClient for the very first group.  |
| 139464 | All Users | WebClient                        | Dynamic Forms          | In WebClient, rules ("dynamic forms" functionality) can be used to filter the selectable datasets dynamically with the help of a query and the CMS_INCLUDE_OPTIONS data element. In some rare instances the quantity selected was mistakenly not updated.  |
| 131752 | All Users | WebClient                        | Input Components       | In WebClient, the drag-and-drop behavior for Microsoft Internet Explorer has been improved when an object is dragged from the report area to a suitable input component.   |
| 137083 | All Users | WebClient                        | Input Components       | The evaluation of permissions has been improved in the FS_LIST input component (DATABASE type) in WebClient.   |
| 138818 | All Users | WebClient                        | Input Components       | When using Microsoft Internet Explorer in WebClient and selecting a table row in the CMS_INPUT_DOMTABLE input component, the first table row was also incorrectly selected.  |
| 138901 | All Users | WebClient                        | Input Components       | Links can also be added to CMS_INPUT_DOM and CMS_INPUT_DOMTABLE input components in bullet points. Unfortunately, it was not possible to transfer a complete, selected bullet point to a link in Microsoft Internet Explorer 8.  |
| 138975 | All Users | WebClient                        | Input Components       | In WebClient, an error could have occurred in the Comparison View and when making edits if the CMS_INPUT_DOMTABLE input component contained a link.  |
| 140507 | All Users | WebClient                        | Input Components       | The dialog for uploading media for the FS_REFERENCE input component in WebClient did not always appear when using Microsoft Internet Explorer 8.   |
| 141762 | All Users | WebClient                        | Input Components       | In WebClient, the display and specification of floating-point numbers in the CMS_INPUT_NUMBER input component has been improved.   |
| 131748 | All Users | WebClient                        | Media Store            | In WebClient, images from a report can be copied to the FS_REFERENCE input component using drag-and-drop. Unfortunately, it was impossible to reverse or repeat this step.   |
| 137206 | All Users | WebClient                        | Media Store            | In WebClient, when editing an image section in the Microsoft Internet Explorer 9 browser, the image to be edited was not always initially displayed properly.  |
| 138443 | All Users | WebClient                        | Media Store            | When creating a new image in WebClient, the first selection is no longer taken into account when a file is selected again and then canceled.   |
| 142671 | All Users | WebClient                        | Media Store            | In the Server and Project Configuration, the active editorial languages can be configured in the project properties. In WebClient, a selection option for editing the metadata is also offered when uploading a new medium. This was incorrectly only offered for the active editorial languages.  |
| 130290 | All Users | WebClient                        | None                   | In WebClient, the action "Create copy" has been improved in the bookmark report for page references.   |
| 137047 | All Users | WebClient                        | None                   | In WebClient multiple pages may be based on datasets (known as content projections). On very rare occasions, the current state of a dataset that had been changed by multiple users might not have been displayed right away.  |
| 139566 | All Users | WebClient                        | None                   | In WebClient, the configuration of the required languages has been improved when creating a new page.  |
| 144890 | All Users | WebClient                        | None                   | In WebClient, a display problem sometimes occurred in the CMS_INPUT_DOM and CMS_INPUT_DOMTABLE input components when an unusual abbreviation was selected for the project language (e.g., "de_ch").  |
| 134905 | All Users | WebClient                        | Page Store             | The evaluation of page viewing permissions has been improved in WebClient.   |
| 135982 | All Users | WebClient                        | Page Store             | When adding a new section in WebClient, the reference name given is based on the used section template. To ensure that a reference name is assigned to only one section, a prefix is now appended automatically to the reference name (e.g., "_1") if a section with that reference name already exists on the page.   |
| 140862 | All Users | WebClient                        | Page Store             | In WebClient, the display of the dialog for creating a new page with the browser Microsoft Internet Explorer Version 9 has been improved.  |
| 141668 | All Users | WebClient                        | Page Store             | If content is acquired in parallel in the JavaClient and WebClient, the structure of the Page and Site Store may deviate from one another. In contrast, the structures of both stores is normally the same when maintenance only takes place via the WebClient. If a new page is created in WebClient, a matching page reference is also created at the same time in the Site Store. In very rare cases, a different structure in the Page and Site Store, resulted, in this case, in the reference name of the parent element (folder) being changed. |
| 142120 | All Users | WebClient                        | Page Store             | In WebClient, bookmarks can be displayed and managed in the report area. When selecting a bookmark, the user is shown an icon, among other things, for the "Create copy" action if this bookmark is configured as a copy template. This was sometimes incorrectly shown depending on the user.   |

| ID     | Role                      | Category                         | Sub Category         | Description  |
|--------|---------------------------|----------------------------------|----------------------|--|
| 143494 | All Users                 | WebClient                        | Search               | In WebClient, not all datasets were taken into account following the indexing of a project when searching (e.g., in the FS_DATASET input component).   |
| 132638 | All Users                 | WebClient                        | Software Interface   | The template snippet definitions are used to display content in many locations in WebClient. When defining a label, it is possible to highlight certain parts of it in bold or in italics using the "bold()" and "italic()" methods. This type of highlighting was displayed incorrectly in some locations in WebClient.   |
| 135767 | All Users                 | WebClient                        |                      | The objective of the "CorporateMedia" concept is to create all media in a separate media project (remote project) and manage it centrally there. In WebClient, a thumbnail was incorrectly not displayed in the search results for media from the remote project.  |
| 137899 | Developer                 | JavaClient                       | Input Components     | Deleting a template which was still used as restriction for an input component (e.g. CMS_INPUT_DOM) could by mistake lead to an error.   |
| 141827 | Developer                 | JavaClient                       | Scripting            | The ScheduleEntry (Access API, package "de.espirit.firstspirit.access.schedule") interface provides the "removeGroup(Group group)" and "removeUser(User user)" methods for removing a group or user from a schedule. In rare cases, could have occurred when calling up these methods several times in direct succession.  |
| 142435 | Developer                 | JavaClient                       | Scripting            | When the "setField(String)" method of the interface "OpenElementDataFormOperation" (developer API, package "de.espirit.firstspirit.ui.operations") was used, an error could have occurred if the "setFormData(FormData)" method was not called up in advance.  |
| 140121 | Developer                 | JavaClient                       | Template Development | In JavaClient, queries for a database schema can be defined in the Template Store. There is a graphical editor available for this, the "Wizard mode", in the "Conditions" tab. In very rare cases, this resulted in a malfunction.   |
| 140159 | Developer                 | JavaClient                       | Templates            | In some rare cases, multiple combinations of logical and comparison expressions without parentheses led to an error.   |
| 137558 | Developer                 | JavaClient                       | Template Store       | In the JavaClient Template Store, it is possible to use functions in a template set, such as in the header. When saving the template, it is checked for errors, and any errors are displayed to the user. If an incorrect attribute was specified in the contentSelect header function for the ORDERCRITERIA sort criterion, an error instead of an informational message was displayed to the user. |
| 143897 | Developer                 | JavaClient                       | Template Store       | In JavaClient, the use of the key combination <Ctrl>+<Z> (action: undo last change) sometimes led to a malfunction.  |
| 120826 | Developer                 | None                             | Scripting            | The interface "FileHandle" (de.espirit.firstspirit.io.FileHandle) and the Enum "FileType" (de.espirit.firstspirit.io.FileType) were included into the FirstSpirit Developer API.   |
| 138030 | Developer                 | None                             | Scripting            | The "isLockedOnServer(boolean)" method of the "Dataset" interface (Access API, de.espirit.firstspirit.access.store.contentstore.Dataset) always incorrectly returned "false" as the return value, even if the dataset was locked.  |
| 143163 | Developer                 | None                             | Scripting            | The formatting of some examples in the API and Developer API documentation has been adjusted.  |
| 140502 | Developer                 | None                             | Security             | Safety improvements in the field of the API documentation.   |
| 141608 | Developer                 | Server and Project Configuration | Scripting            | A special group or users can be authorized for executing a schedule using the methods "addGroup(Group group)" and "addUser(User user)" of the interface "ScheduleEntry" (Access API, de.espirit.firstspirit.access.schedule.ScheduleEntry). Calling one of these methods could lead to an error in very rare cases.  |
| 142082 | Developer                 | Server and Project Configuration | Tasks                | In FirstSpirit, schedules can be changed via API functions. When adding groups or users, sometimes this change was not directly displayed in the Server and Project Configuration.   |
| 138780 | Editor                    | JavaClient                       | Content Store        | Sorting special foreign key columns in the data store could lead to an error in very rare cases.   |
| 140015 | Editor                    | JavaClient                       | Content Store        | Activating the editing mode for a data set could lead to an error in very rare cases when the forms were nested in a special way.  |
| 146232 | Editor                    | JavaClient                       | Content Store        | Moving one single data source within the data store could lead to an error in very rare cases.   |
| 135371 | Editor                    | JavaClient                       | Input Components     | Editing an entry in many languages within an FS_LIST input component (and other input components) has been optimized.  |
| 138457 | Editor                    | JavaClient                       | Input Components     | The time it takes to save data has been optimized for situations where multiple FS_LIST input components (INLINE type, SectionTemplates mode) are used within each other (nested).   |
| 139556 | Editor                    | JavaClient                       | Input Components     | In very rare cases, an error may have occurred while using the FS_LIST (DATABASE type) input component and adding a new dataset with the help of the "NEW" action when the input component was used to enter a "1 to N" foreign key relationship.  |
| 143644 | Editor                    | JavaClient                       | Input Components     | After selecting a dataset in the release state and editing it subsequently within the input component FS_LIST (type DATABASE) an error could have occurred.  |
| 146087 | Editor                    | WebClient                        | Input Components     | Merging table cells within the input component CMS_INPUT_DOMTABLE in the WebClient could lead to an error in very rare cases.  |
| 139571 | FirstSpirit Administrator | Administration                   | Modules              | The "FirstSpirit DynamicPersonalization" module can be used to authenticate a user in a web app, including via third-party systems. The termination of the LDAP connections has been optimized when using LDAP authentication.   |
| 133690 | FirstSpirit Administrator | Administration                   | None                 | Using an external Apache Tomcat webserver could lead to an error when starting the global FirstSpirit web applications in very rare cases.   |
| 139586 | FirstSpirit Administrator | Administration                   | None                 | Due to password protection or an external link in a document, parts of the document or the complete document may not be indexed. The error handling for this situation has been improved.  |
| 139713 | FirstSpirit Administrator | Administration                   | None                 | In FirstSpirit it is possible to authenticate a user using an LDAP server ("LDAP authentication", which can be configured in the "fs-jaas.conf" file). In this case, the termination of the LDAP connections has been optimized.   |
| 142679 | FirstSpirit Administrator | Administration                   | None                 | Starting the server anew could lead to an error in very rare cases when the maintenance mode was active.   |
| 140758 | FirstSpirit Administrator | JavaClient                       | Content Store        | In rare cases, incorrect conditions and parameters were stored when editing a database query in the Template Store.  |
| 117450 | FirstSpirit Administrator | JavaClient                       | Generation           | In some very rare cases, an error could have occurred during generation.   |
| 146254 | FirstSpirit Administrator | JavaClient                       | None                 | User guidance was optimized for defining SEO and Short URLs.   |
| 132206 | FirstSpirit Administrator | JavaClient                       | Package Pool         | In Corporate Content (formerly: PackagePool), a clearer error message is now displayed when creating a packet update with unfulfilled dependencies.  |

| ID     | Role                      | Category                         | Sub Category | Description   |
|--------|---------------------------|----------------------------------|--------------|---|
| 140313 | FirstSpirit Administrator | JavaClient                       | Package Pool | In the case of Corporate Content (formerly: PackagePool), packages with a lot of datasets resulted in long loading times.   |
| 80258  | FirstSpirit Administrator | JavaClient and WebClient         | Security     | Security improvements have been made to the FirstSpirit BasicSearch and FirstSpirit DynamicPersonalization modules.   |
| 111683 | FirstSpirit Administrator | None                             | Generation   | The configuration options of the "Advanced URL Creator" (SEO URLs) have been extended and include now the new optional parameter "removeDeleted". Use this parameter to control if URLs of objects which has been deleted already from the project are to be deleted from the registry or not. For further information please see Chapter "Weiterführende Themen / Generierung / Advanced URLs / Konfiguration" (currently only available in German language) in the "Online Documentation FirstSpirit V5.0". |
| 117855 | FirstSpirit Administrator | None                             | License      | The maximum number of permitted projects specified in the license will be better taken into account from now on.  |
| 120638 | FirstSpirit Administrator | None                             | Security     | Security improvements for the BasicSearch module.   |
| 142143 | FirstSpirit Administrator | None                             | Security     | Security improvements to the FirstSpirit DynamicPersonalization module.   |
| 140488 | FirstSpirit Administrator | Server and Project Configuration | Generation   | In FirstSpirit, the actions "Generation" and "Deployment" can be carried out in a schedule. When using the "FirstSpirit Security" module the generated state of the project files is compared on the FirstSpirit Server and the live system via a CRC transfer servlet. If the project contained a lot of media and these were excluded from the generation (Option "Generate Media in the generation directory" not selected), the generation could have taken a long time.                                  |
| 141600 | FirstSpirit Administrator | Server and Project Configuration | Generation   | Generating within a cluster in FirstSpirit could led in some very rare cases to an error.   |
| 117847 | FirstSpirit Administrator | Server and Project Configuration | None         | An update of the web applications can be forced using the Server and Project configuration (Server / Properties / Web applications / Force update). By mistake, only web applications were taken into account for the update, for which the web server "InternalJetty" was not selected.  |
| 139019 | FirstSpirit Administrator | Server and Project Configuration | None         | External databases can be connected in FirstSpirit. In contrast to internal databases, only read access is possible for external databases, not write access. When using an external database and a setting was misconfigured, a generation error could have occurred if the "SEO-URL" functionality was used.  |
| 140835 | FirstSpirit Administrator | Server and Project Configuration | None         | Under the Mac OS X operating system, in the Server and Project Configuration, calling up the menu items "Project/Import", "Server/Properties", and "Project/Create" sometimes led to a malfunction.   |
| 138538 | FirstSpirit Administrator | Server and Project Configuration | Tasks        | Parallel execution for schedules (Server and Project Configuration) can be allowed or forbidden. If a parallel execution of a schedule is not allowed the schedule will start automatically after the end of the current execution (if existing). The waiting schedules were by mistake stopped, too, if the current schedule was canceled.   |
| 138659 | FirstSpirit Administrator | Server-Monitoring                | None         | It is possible to use "start options" (Configurations / Start options) in Server Monitoring to edit the "fs-wrapper.conf" FirstSpirit configuration file. The "wrapper.ignore_sequence_gaps" parameter is used to force or ignore gapless numbering of parameters. When using the Boolean value "true" (ignore gapless numbering), an error was incorrectly displayed during the saving process.  |
| 133051 | Server Administrator      | Administration                   | None         | In the Server and Project Configuration, the user receives a warning message when attempting to modify a project if other users are logged onto the project. The warning message shows the number of open sessions. However, WebClient sessions were mistakenly not included.   |
| 138199 | Server Administrator      | None                             | None         | The code signing certificate has been updated (see the "New code signing certificate" subsection in the introduction).  |