

Version 5.10 Literal Manager

Manual

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1 Concept

The FORCAM FORCE™ Literal Manager monitors, integrates and configures languages and their literals, shown in tabular form. A literal is made up of types, keys, translations and other information, e.g. date created (see section 3.3).

The Literal Manager is generally designed for authorizations and roles. Depending on individual task areas, the options for role distribution and authorizations range from the user role without change function to the administrator role (see section 2).

The standard languages in FORCAM FORCE™ are German (DE), English (GB) (US), and Chinese (CH). Customer specific languages can be imported by authorized users. This language configuration is described in more detail in Chapter 5.

There is also the possibility of a GIT connection. The GIT repository allows versioning so that traceability is guaranteed (see section 4).

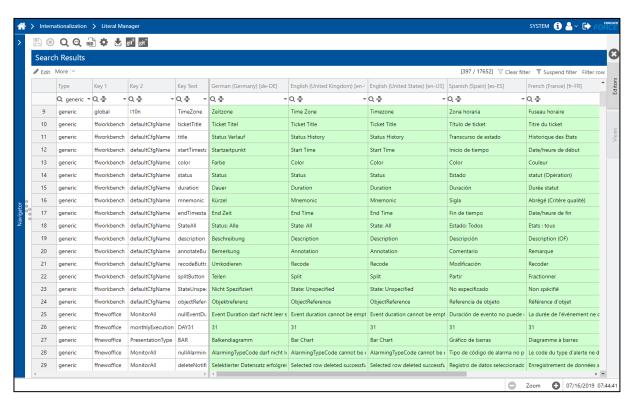


Fig. 1: Literal Manager



2 Requirements

Using the Literal Manager depends heavily on rights and roles. The standard literals are viewed and edited according to individual task areas and authorizations granted.

The roles and authorizations are distributed as follows:

- Edit configuration
- Edit literals
- Import and export literals
- Open mask
- Perform a search
- Push/pull function (GIT connection) synchronizes system literals centrally
- i For configuring rights and roles, see the Manual Master Data and System Configuration.



3 Functions

3.1 Starting the Literal Manager

Path: Internationalization > Literal Manager

The Literal Manager is started by clicking on the tile **Internationalization**. Additionally, the Literal Manager can be called up via a customized configured tile.

For more information on configuring tiles, see the Manual - Master Data and System Configuration.

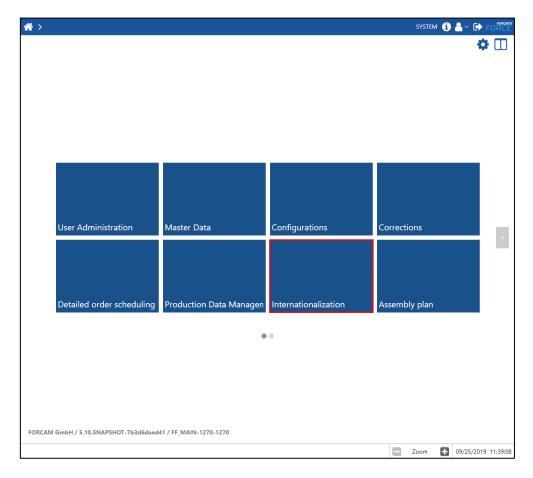


Fig. 2: Start page – calling up the Literal Manager

Page layout Internationalization

- Languages
- Literal Manager
- Time zones



3.2 Initial Call-up of Literal Table

When calling up the Literal Manager for the first time, it will show an empty table. The table with the literals appears when an initial search is performed. This is done by clicking on the search icon. The search can be narrowed down further using **Filter literals** (see section 3.6).

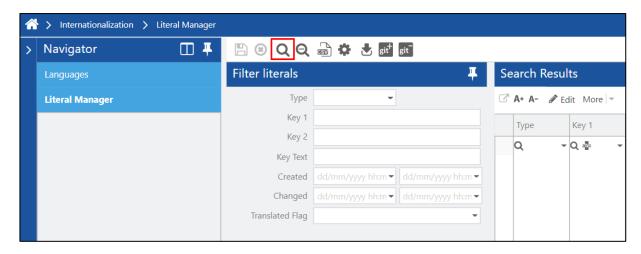


Fig. 3: Calling up all literals

The search may take longer, depending on the quantity of data.



3.3 Overview of Main Page

The literal table contains all literals for the languages selected in the **Languages** section. In addition to the standard languages German (DE), English (GB) (US) and Chinese (CN), other languages can be freely selected or deselected in the configuration (see section 5).

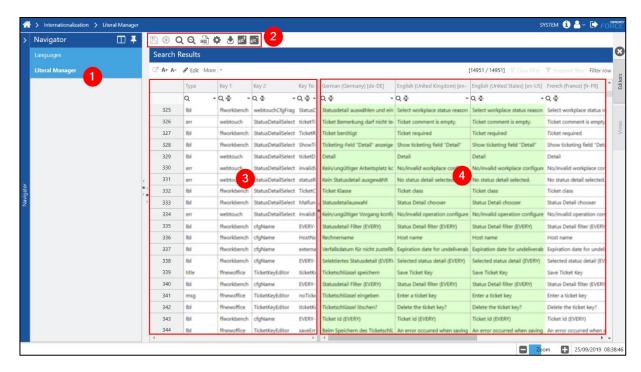


Fig. 4: Main literal table (display without filters)

- (1) Literal Manager selection
- (2) Literal Manager menu bar
- (3) Literal key (not editable)
- (4) Literal text with translations and information texts (editable if authorization is given)

One row represents one literal. A literal consists of keys and translations. The left columns with white fields are the literal key (3). The fields in the literal key are database-specific and cannot be edited.

The literal key consists of the following columns:

- Type Type group (e.g. msg = messages, err = errors)
- Key 1
- Key 2
- Key text description text

The literal text (4) to the right of the literal key, contains editable terms or translations, starting with the German language. Only authorized users can make changes to these texts. Customer-specific languages can also be configured and added here (see section 5).



The fields for the literal texts are color-coded:

- Red
 - The term is entirely missing
- White
 - The term exists, but is unverified (the translation is not valid)
- Green

The term exists and is verified (the translation is valid)

In addition to the term descriptions, the columns on the right with the information texts **Created**, **Changed**, and **Edited**, also help to further narrow down the data search. The columns of the literal text can be sorted either freely or via context menus (see section 3.6).

The following columns are available for each literal:

- Term description or translation for the different languages (editable)
- Created
 Shows the creation date
- ChangedShows the date changed
- EditorShows the editor



3.4 Menu Bar

Table 1: Description of the menu bar

| Menu icon | Description | |
|------------------|--|--|
| | Saves the changes. | |
| ® | Discards the changes. | |
| Q | Calls up the local literals. If no filter is set, the complete list of literals will be shown. | |
| Q | Resets the search. | |
| CSV | Exports the selected literals in CSV file format. | |
| * | Calls up a dialog window for selecting or deselecting parameters. | |
| . | Imports literals in CSV file format. | |
| git ⁺ | GIT push. Sends the data to the shared storage for literals (only if GIT connectivity is configured). This button will only show up for authorized users. For further information see the Manual - Master Data and System Configuration. | |
| git ⁻ | GIT pull. Gets the data from the GIT Repository (only if GIT connectivity is configured). This button will only show up for authorized users. For further information see the Manual - Master Data and System Configuration. | |

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3.5 Overview of the Filter Bar



Fig. 5: Filter bar

Table 2: Functions of the filter bar

| | | T T T T T T T T T T T T T T T T T T T |
|---|-----------------------------------|--|
| 1 | Displays the row data in a dialog | Displays the row data in a pop-up dialog. Changes can be made here just as in the row view. Scrolling forward and backward is also possible. To get out of the dialog view, click in an area outside the dialog or press the Esc key. |
| 2 | View larger and smaller | The literal table is enlarged by A+ or reduced by A- like a zoom function. |
| 3 | Edit | Unlocks the literal table to allow editing. Clicking on Edit switches between editing enabled/disabled. (see 3.7.1). |
| 4 | More | Opens a drop-down menu for further functions (see 3.8). |
| 5 | Number of literals | Shows the number of literals. The left is the number of filtered literals, and the right is the total number of literals. |
| 6 | Clear filter | Resets all the filters. |
| 7 | Suspend filter | Switches and toggles between filter on and off. |
| 8 | Filter row | Either shows or hides the filter row. |



3.6 Filtering and Sorting

A configurable list of search fields (filters) can be used to find specific literals. The search for literal texts is possible in any language and is case-insensitive. The literals found in the search can be edited. All changes must be saved in order to be accepted.

3.6.1 Filtering Literals with Search Fields

A list of search fields (filtering) can be used to find specific literals. The literals found in the search can be edited directly in the language columns.

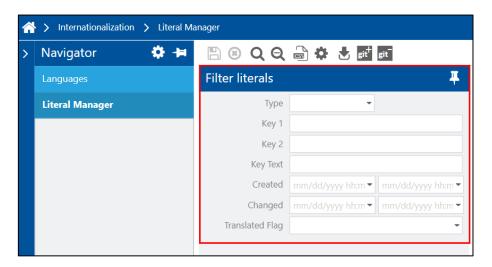


Fig.6: Filtering literals

Table 3: Search fields for filtering literals

| Name of search field | Description |
|----------------------|--|
| Туре | Filters according to type description. |
| Key 1 | Filters the literals according to the column Key 1 . |
| Key 2 | Filters the literals according to the column Key 2 . |
| Key Text | Filters the literals according to the Key Text . |
| Created | Searches for created literals between two dates. |
| Changed | Searches for changed literals between two dates. |
| Translated Flag | A system internal marking signifying that the literal is translated. |

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3.6.2 Filtering via the Filter Row

Clicking on **Filter row** (1) at the top right of the table, displays or hides the filter row (2). The filter row allows filtering literals by specific terms. The search for current literal texts can be carried out in any language and all language columns are available for editing in the search results.

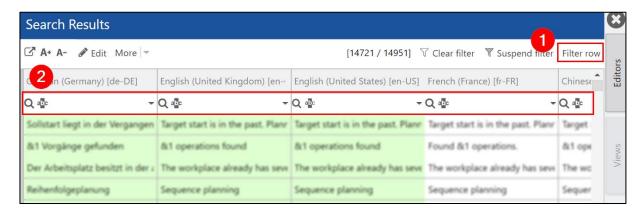


Fig.7: Searching and filtering literals



3.6.3 Drop-down Menu for the Filter Row

Clicking on the arrow in the filter row shows a drop-down menu for further search options. The search takes place in real-time, which means the terms are searched and filtered directly during the input.

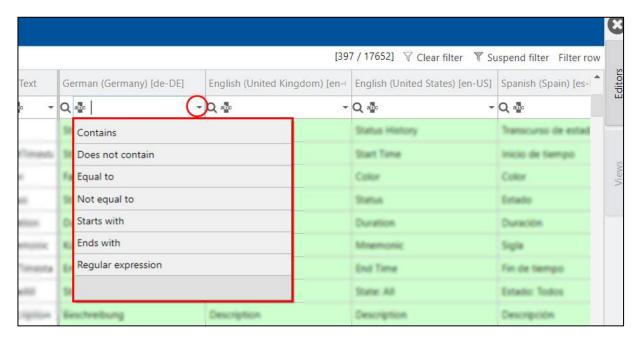


Fig.8: Drop-down menu for searching and filtering literals

Table 4: Drop-down menu for further search options

| Search option | Description |
|--------------------|--|
| Contains | Only shows those literals with these characters. |
| Does not contain | Only shows the literals without these characters. |
| Equal to | Only shows those literals that exactly match these characters. |
| Not equal to | Shows all literals not equal to this character(s). |
| Starts with | Shows all literals that begin with this character. |
| Ends with | Shows all literals that end with this character. |
| Regular expression | Shows all literals that correspond with this character chain or pattern. |



3.6.4 Drop-down Menu of the Filter Row – Search by Date

The columns **Created** and **Changed** are filtered according to date. Clicking on the arrow opens a drop-down menu that offers several options for filtering.

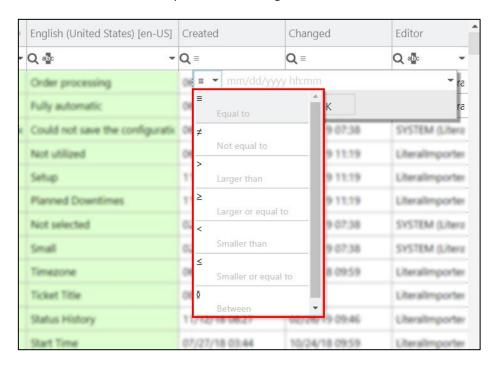


Fig.9: Drop-down menu for searching by date

Table 5: Description of the search options for the drop-down menu

| Search command | Description |
|---------------------|---|
| Equal to | Searches for literals equal to the date. |
| Not equal to | Searches for literals not equal to the date. |
| Larger than | Searches for literals newer than the date. |
| Larger or equal to | Searches for literals newer than, or equal to the date. |
| Smaller than | Searches for literals older than the date. |
| Smaller or equal to | Searches for literals older than, or equal to the date. |
| Between | Searches for literals created or changed between the two dates. |

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3.6.5 Clear or Suspend Filter

Clicking on **Clear filter** resets all filters. Clicking on **Suspend filter** toggles between enabling/disabling the filter.

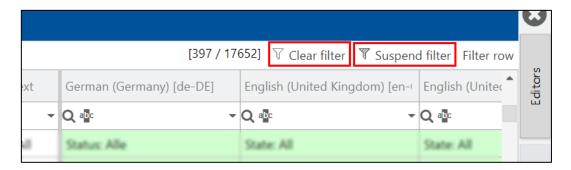


Fig.10: Resetting or suspending the search filters

3.6.6 Sorting

In general, the literal table can be sorted freely. Clicking on the header line of a column sorts the literals in relation to that column.

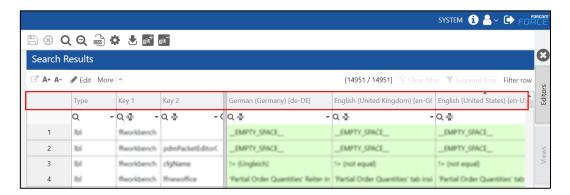


Fig. 11: Filtering literals according to columns

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3.7 Editing and Configuration

The Literal Manager only allows editing of the literal texts. The keys are internal to the system and cannot be changed. Changes can only be made by authorized persons.

For configuring permissions and rolls, see the Manual - Master Data and System Configuration.

3.7.1 Change Configuration

The **Change Configuration** icon (1) is used to set the parameters for the filter search configuration (2). This is where the searchable columns of the table are selected. The currently selected columns are located on the left and the available ones are on the right side.

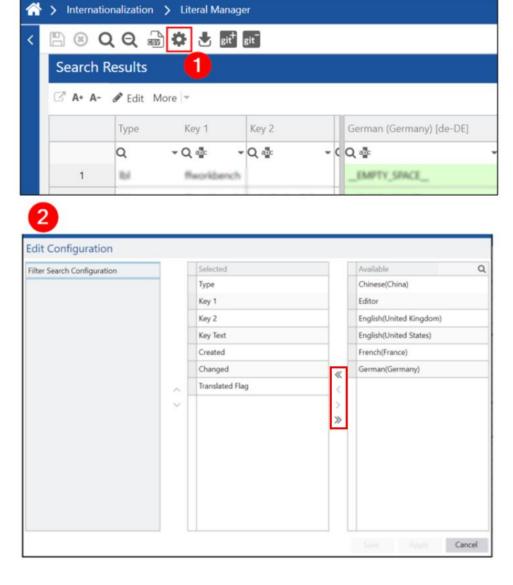


Fig. 12: Filter search configuration

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3.7.2 Locking or Unlocking the Edit Function

Located in the middle menu bar, the **Edit** icon is used to lock or unlock the literal table, enabling or disabling the edit function. Clicking on this icon toggles between the two.

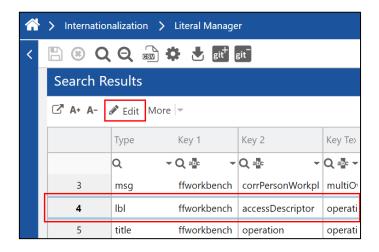


Fig. 13: Enabling or disabling editing

A blue border or shading serves as orientation and marking aid. Moving a mouse over the screen shades those rows the mouse moves over. Clicking on a row will outline that row with a blue border. Several rows can be marked this way for orientation by simultaneously holding down the control key of the keyboard and marking a row.

3.7.3 Editing and Saving Literals



Fig. 14: Identifying edited literals

To edit and save the literals:

- 1. Edit the desired literals.
- The changed literals are identified by a small red triangle in the upper left part of the field.
- 2. Save.
- The literals are saved locally and the red triangle in the field disappears.



3.8 Further Display Options and Functions

Clicking on the icon **More** opens a drop-down menu for further functions. Available functions are indicated by a dark text, whereas the grayed out texts are unavailable functions.

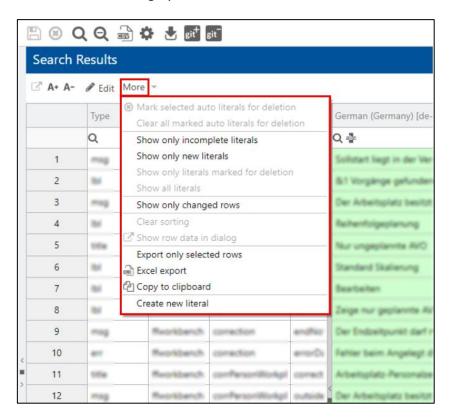


Fig. 15: Drop-down menu "More"

Table 6: Description of functions for the "More" drop-down menu

| Function | Description |
|---|--|
| Mark selected auto literals for deletion | Marks the selected auto literals for deletion. These literal fields are indicated by violet shading. |
| Clear all marked auto literals for deletion | Clears and cancels the marking for deleting auto literals. |
| Show only incomplete literals | Shows only the incomplete literals. This means only those literals are shown for which there is no term (red background) or which are not verified and therefore invalid (white background). |
| Show only new literals | Only shows the literals that have not yet been saved locally. |
| Show only literals marked for deletion | Only shows the literals that are marked for deletion. The marked literals are indicated by violet background. |
| Show all literals | This option makes it possible to show all literals while they are still filtered and marked, without losing those markings. It is |





| Function | Description |
|---------------------------|---|
| | possible to toggle between "Show all literals" and the other filtered display functions. |
| Show only changed rows | Only literals marked with a red triangle are shown. These literals have been changed but have not yet been saved. |
| Clear sorting | Clears all filters and restores the sorting order to the original. |
| Show row data in dialog | Opens a pop-up dialog that shows the contents of the row. The size of the pop-up dialog can be changed, and it is possible to scroll forwards or backwards. |
| Export only selected rows | If this option is checked, only the selected rows will be exported. |
| Excel export | Exports all literals that are currently shown in the literal table. |
| Copy to clipboard | Opens a pop-up dialog with the selected rows. Using Ctrl + C copies the contents to the clipboard. |
| Create new literal | Creates a new auto literal row to the end of the table which can be filled out. |



3.8.1 Row Context Menu for Further Functions

A right click on a field of a literal row opens a pop-up context menu for further functions. Available functions are indicated by a dark text, whereas the grayed out texts are unavailable functions.

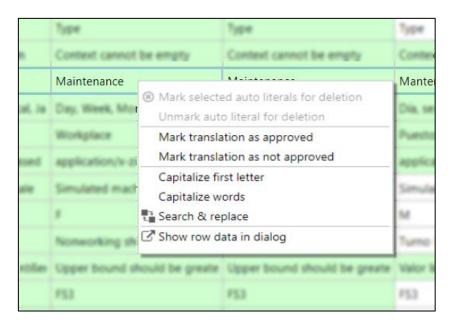


Fig. 16: Row context menu for further functions

Table 7: Description of functions for the row context menu

| Function | Description |
|--|--|
| Mark selected auto literals for deletion | Marks the selected auto literals for deletion. These literal fields are indicated by violet background. |
| Unmark auto literal for deletion | Clears and cancels the marking for deleting auto literals. |
| Mark translation as approved | Marks the translation as approved. The field is indicated by green background and marked with a red triangle in the upper left of the field. The changes are accepted only after they are saved. |
| Mark translation as not approved | Marks the literal as not approved. The field is indicated by a white background and is marked with a red triangle at the top left. The changes are accepted only after they are saved. |
| Capitalize first letter | Capitalizes the first letter of the text in the field. The field is marked with a red triangle at the top left. The changes are accepted only after they are saved. |
| Capitalize words | Capitalizes all first letters of words in the field. The field is marked with a red triangle at the top left. The changes are accepted only after they are saved. |
| Search & replace | Opens a pop-up dialog with a search and replace function. The replacements are accepted only after they are saved. |
| Show row data in dialog | Opens a pop-up dialog that shows the contents of the row. The size of the pop-up dialog can be changed, and it is possible to scroll forwards or backwards. |



3.8.2 Creating a New Literal

Only authorized users may create new literals. Therefore, only authorized users will see the highlighted darker text in the drop-down context menu, indicating whether the function is available or not. Only auto literals can be created, not system literals.

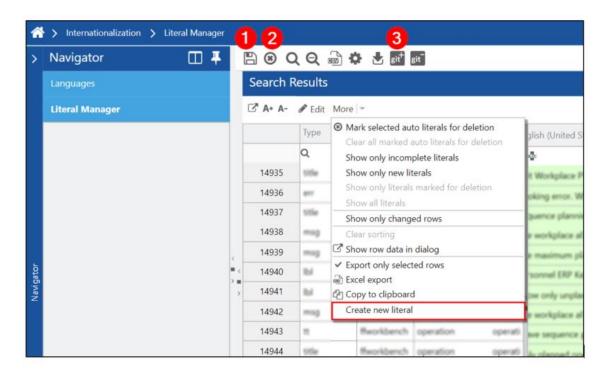




Fig. 17: Creating a new literal

To create a new literal:

- 1. In the drop-down context menu More, click on Create new literal.
- → A new editable row appears at the end of the literal table.
- 2. Enter the new literal in the editable row.
- 3. Save (1).
- The literal will be saved locally.
- 4. If a connection to a GIT Repository exists, click on git+ (3) (see section 4).
- The literal will be pushed to the GIT Repository.
- (i) Changes can be cancelled and discarded by clicking on the icon **Change Configuration** (2) as long as they have not yet been saved.



3.8.3 Deleting Literals

Only authorized users may delete literals. Therefore, only authorized users will see the highlighted darker text in the drop-down context menu, indicating whether the function is available or not. Only auto literals may be deleted.

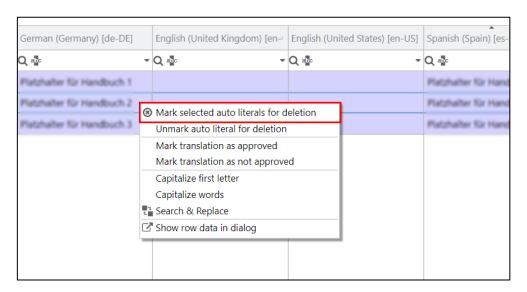


Fig. 18: Selecting literals for deletion

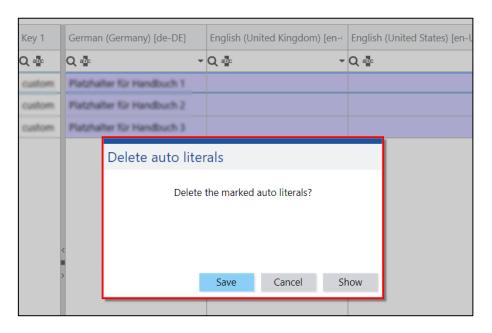


Fig. 19: Delete auto literals



To delete literals:

- 1. In the context drop-down menu More, click on Mark selected auto literals for deletion.
- → The fields of literals marked for deletion will appear with a violet background.
- Save.
- A pop-up dialog appears with the request to delete auto literals.
- 3. Click on Save.
- → The literal or literals are deleted.

OF

- 4. Click on **Show**.
- → Only the literals marked for deletion will be shown.
- 5. Save
- → A pop-up dialog appears with the request to delete the auto literals.
- 6. Click on Save.
- → The literal or literals are deleted.

To return to the complete literal list:

- 1. Click on **Show all literals** in the context menu **More**.
- The entire table with all the literals will appear.

3.8.4 Exporting and Importing CSV Files

For exchanging data, it is possible to export or import literals as CSV files. Optionally, only the selected literals or the whole literal table can be exported. The selected literals are recognized by a blue border.

To only export the selected literals, a check must be set at **Export only selected rows** in the context menu **More**. Otherwise, the entire table of literals will be exported.

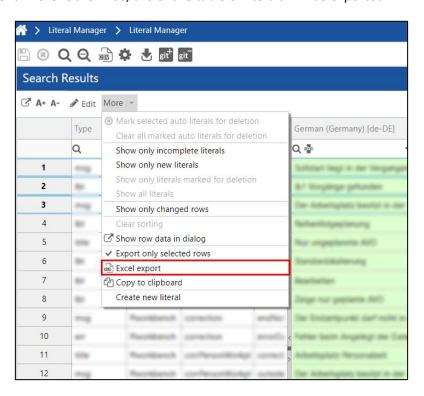


Fig. 20: Exporting only the selected rows



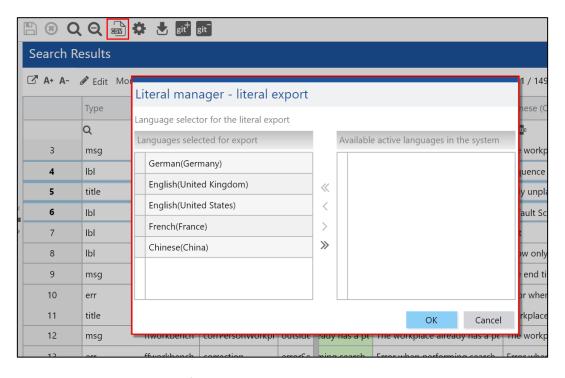


Fig. 21: Exporting literals as a CSV file

To export literals:

- 1. Mark the desired literals to be exported.
- 2. If necessary, click on **Export only selected rows** in the context menu **More**.
- 3. Click on the icon **Export in CSV format**.
- → A pop-up dialog for selecting the languages to be exported appears. As a default, all the languages are selected for exporting (left table).
- 4. Select or de-select the desired languages using the arrows.
- 5. Click on OK.
- → A CSV file with the selected language literals is created and can be saved to a desired location locally.

Do not open or edit the CSV file in MS Excel. Opening or editing the file in MS Excel leads to data loss and formatting errors. It is recommended to use an external text editor such as Notepad++ for example.



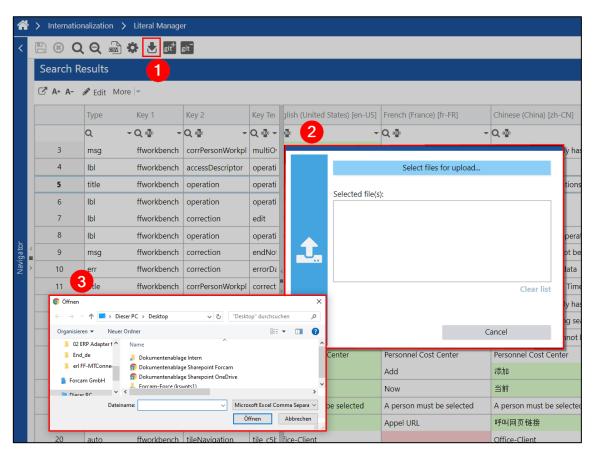


Fig. 22: Importing literals from a CSV file

To import literals:

- 1. Click on the icon **Import in CSV format** (1).
- > Pop-up dialogs requesting a file to be selected appear (2 and 3).
- 2. Select a CSV file.
- → A pop-up window for selecting the language appears.
- 3. Select the desired languages using the arrows and pull them to the right.
- ① One arrow pulls only one of the selected languages to the right. Using the double-arrow, all the available language literals are pulled to the right.
- 4. Click on OK.
- → The CSV file with the selected languages is imported.
- (i) A confirmation appears in the status line at the bottom left if the import was successful.

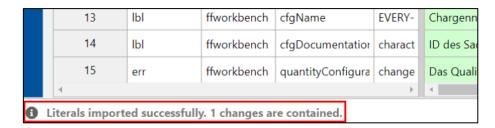


Fig. 23: Status line confirmation at successful import



3.8.5 Exporting and Processing External Excel Files

For exchanging data or external processing, literals can be exported as Excel files. These can then be processed and converted into CSV files because only CSV files can be imported back into the Literal Manager. It is possible to only export selected literals or the entire literal table. Once literals have been selected, they are recognized by a blue border.

To only export the selected literals, a check must be set at **Export only selected rows** in the context menu **More**. Otherwise, the entire table of literals will be exported.

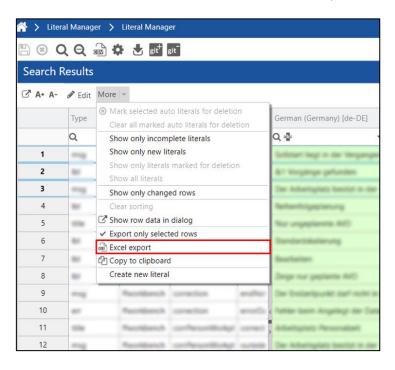


Fig. 24: Exporting literals as an Excel file

To export literals as an Excel file:

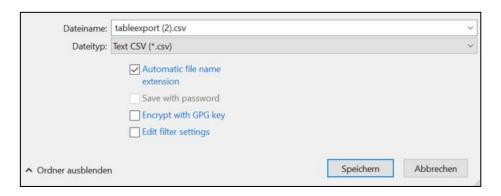
- 1. Click on **Export only selected rows** in the context menu **More**.
- 2. Mark the desired literals to be exported.
- 3. Select **Excel export** in the context menu.
- → A CSV file with the selected language literals is created, which is automatically saved locally in the download folder and can be saved to a desired location.
- The exported file must never be opened directly in MS Excel. If the file is opened with the wrong MS Excel version, it will trigger structural changes and importing the data will no longer be possible. Instead, we recommend saving the file locally with a right-click and editing it with the alternative, LibreOffice Calc.
- ⚠ Only CSV files may be imported. See the description below and chapter 3.8.4.



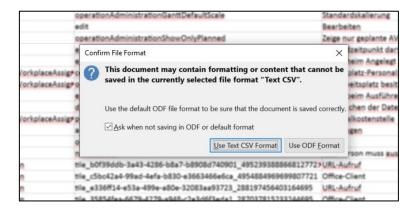
3.8.6 Processing Excel Files in LibreOffice Calc and Saving as CSV File

To save the processed LibreOffice Calc literals as a CSV file:

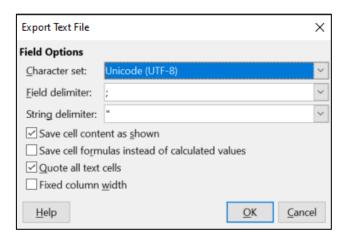
1. Click on Save as in the menu File.



- 2. Select **Text CSV (*.csv)** under **Filename** and save.
- 3. In the next dialog, click on Use Text CSV Format.



→ The pop-up dialog Export Text File is displayed.



- 4. Fill out the **Field Options** (see the following table).
- → The file will be exported as CSV character set Unicode (UTF-8).



Table 8: Elements for the pop-up dialog Export Text File

| Name | Input |
|---|-----------------|
| Character set | Unicode (UTF-8) |
| Field delimiter | ; |
| String delimiter | " |
| Save cell content as shown | Selected |
| Save cell formulas instead of calculated values | Not selected |
| Quote all text cells | Selected |
| Fixed column width | Not selected |

⚠ The displayed layout must be adhered to.



3.8.7 Correcting the CSV File Before Importing to the Literal Manager

A CSV file generated by an unsupported program may contain unwanted characters such as multiple quotation marks """, €, Å, â, etc. These can lead to errors when imported into the Literal Manager. Before importing, the CSV file must therefore be "corrected", which means these characters must be deleted. For this, we recommend using a text editor like Notepad++.

```
"title"; "Trnewoffice"; "IriggerMaramterDefinition"; "description"; "Beschreibung"; "Description"; "Uescription"; "title"; "ffworkbench"; "TracingReportSearchConfigurator"; "TracingUpstreamReportDynamicFilterTitle"; "Dynamische 6655" "er"; "webtouch"; "EditTicketDataActivityStepUIT"; "errorWhileRequestExecution"; "Fehler bei der Ausführung des Al 6666 "lbl"; "ffworkbench"; "cfgName"; "wpStatusMalRecActStepUICfgRecodingMode"; "Modus"; "Mode"; "Mode"; "Codage de panne 7 "lbl"; "ffworkbench"; "cfgName"; "wpStatusMalRecActStepUICfgRecodingMode"; "Modus"; "Mode"; "Codage de panne 7 "lbl"; "ffworkbench"; "cfgName"; "wpStatusMalRecActStepUICfgRecodingMode"; "Modus"; "Mode"; "Codage de panne 7 "lbl"; "ffworkbench"; "cfgName"; "wpStatusMalRecActStepUICfgRecodingMode"; "Modus"; "Mode"; "Codage de panne 7 "lbl"; "ffworkbench"; "Show ticketing field "Detail" "in anzeigen"; "Show ticketing field "Detail" ""; "Show ticketing field "Detail" ""; "Show ticketing field "Detail" ""; "Show ticketing field "Detail" "; "Show ticketi
```

Fig. 25: Correcting the CSV file in Notepad++ by removing unwanted characters

```
| Type"; "Key 1"; "Key 2"; "Key Text"; "German (Germany) [de-DE]"; "English (United Kingdom) [en-GB]"; "English (United States) [en-US]"

| "title"; "ffworkbench"; "operation"; "operationAdministrationOnlyUnplannedOperations"; "Nur ungeplannte AVO"; "Only unplanned operations"; "Onl
| "title"; "ffworkbench"; "OperationAdministrationCreateOperation"; "operationAdministrationCreator"; "AVO erstellen"; "Create Operation"; "Create
| "title"; "ffworkbench"; "OperationAdministrationChangeOperation"; "operationAdministrationCreator"; "AVO bearbeiten"; "Edit Operation"; "Edit Operation"; "Edit Operation"; "Edit Operation"; "OperationTypeConfigurator"; "typeDefinitions"; "Auftragsarten"; "Order Types"; "Order Types"
| "title"; "ffworkbench"; "operation! "operationAdministrationGantt"; "Gantt"; "Gantt"; "Gantt"; "Gantt"; "Gantt"
| "title"; "ffworkbench"; "OperationAdministrationGantf"; "operationAdministrationConfigurator"; "AVO-Verwaltung"; "Operation Management"; "Operation Managemen
```

Fig. 26: Example of a correct CSV file structure



4 GIT Repository for Literals

As an additional option to locally stored literals, it is possible to connect to a GIT repository. The GIT repository enables versioning, so that traceability is guaranteed. Authorizations are used for this, which means there is a clear distinction made between normal users and superusers. Only the superusers are authorized to send and receive data to and from the GIT repository.

With this option, the GIT repository is the main location for the literals. In order to change literals, they must first be retrieved from the GIT repository (git pull) and stored locally. When changes are made, they are first saved locally, and then written to the GIT repository using git push.

The icons used to carry out these functions are **git+** (git push) and **git-** (git pull). These icons are only visible if there is a GIT repository connection and the user is authorized to make changes.

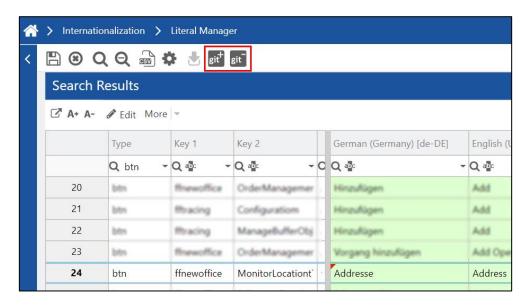


Fig. 27: git- (Pull) and git+ (Push)

To edit literals that are stored in a GIT repository:

- 1. Click on the icon git- (git pull).
- 2. Save.
- → The data taken from the repository is saved locally.

 The message "GIT pull successful" in the status line on the bottom.
- 3. Make the desired edits to the literals.
- → A small red triangle appears in the upper left part of the field (see figure) if changes were made to literals.
- 4. Save.
- 5. Click on the icon git+ (git push).
- → The literals in the GIT repository are overwritten by the local literals and saved.
- → The message "Git Push successful" appears in the status line at the bottom.
- The red triangle in the field disappears.



4.1 Message: Literals are older than the GIT Version

Several people work on the Literal Manager at the same time and make changes. If this is the case, this message appears when saving:

"The literals in the manager are older than the GIT version. To perform GIT push, synchronize first. This will overwrite local changes. Click OK to export your local changes."

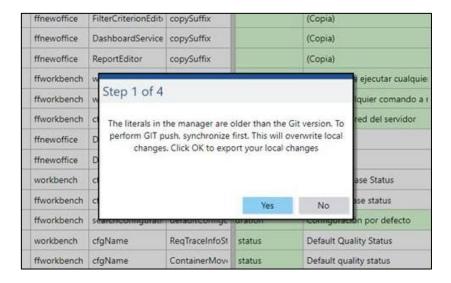


Fig. 28: Message: Literals are older than the GIT version

To make sure that all the literals are imported into the repository from every place, it is necessary to synchronize. This means it is required that CSV files are first exported and then imported again.

The further procedure is the same as described in section 3.8.4.



5 Languages

Path: Internationalization > Languages

The languages defined in the Literal Manager can be configured. The standard languages are German (DE), English (GB) (US), and Chinese (CN). However, it is also possible to create or import customer specific language literals.

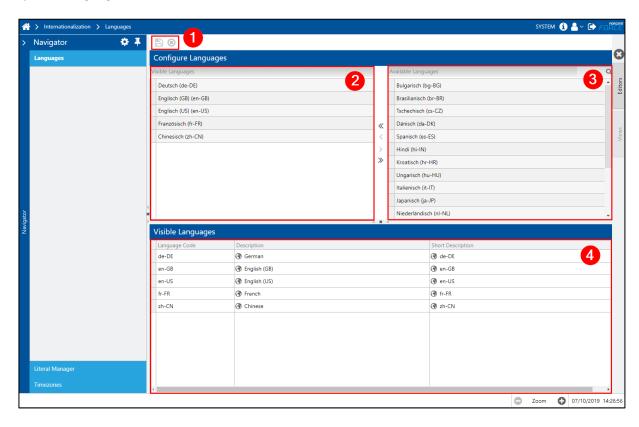


Fig. 29: Configuring languages

- (1) Menu Save or cancel changes
- (2) Languages currently used in the Literal Manager
- (3) Available languages
- (4) Listing of visible languages

The languages for the Literal Manager can be selected from the available languages. German, English and Chinese are standard languages and cannot be made invisible. The available languages are listed in the table at the top right (3) and are selected and moved to the left table for **Visible Languages** (2) using the arrows in the middle.

If a language is configured in the Literal Manager for which there are no literals existing, no literal text is displayed in the new language column. Instead, the key is displayed.



6 Annex

6.1 Change Protocol

Table 9: List of all changes in release version 5.10

| Date | Туре | Description | Chapter |
|----------|-------|---|---------|
| 26.02.20 | Added | Exporting and Processing External Excel Files | 3.8.5 |
| 03.03.20 | Added | Processing Excel Files in LibreOffice Calc and Saving as CSV File | 3.8.6 |
| 03.03.20 | Added | Correcting the CSV File Before Importing to the Literal Manager | 3.8.7 |

6.2 Abbreviations

Table 10: Abbreviations used

| Abbreviation | Description |
|--------------|---|
| CSV | CSV is a simple file format that is used to store table files, e.g. spreadsheets or databases. |
| GIT | A distributed versioning system to track changes and data storage repository. It was concepted for coordinating work between programmers but can also be used to track changes in any set of files. |



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