

ConSol Software GmbH

# Release Notes ConSol CM 6.10.7

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## General update and installation instructions

For an update of **ConSol CM** from one version to another two possible ways exist:

- **Distribution installation:**  
The distribution is installed into the application server. For an update every local configuration, like the data source configuration, has to be saved before and reconfigured afterwards.  
This type of update ensures that really every change between the versions is installed. This type of update is recommended for updates of the major or minor version, e.g. for an update from 6.10.5 to 6.11.1.
- **EAR / WAR Update:**  
For this type of update of the ConSol CM, the EAR (`cm6.ear`, `cmrf.ear`) and WAR (`cm-track.war`) files of the new version have to be installed into the application server. Additionally every installation related change described in the chapters “Update and installation instructions” have to be applied manually. The changes have to be applied for every version between your original CM version and the new CM version, e.g. for an update from 6.10.2 to 6.10.5 the instructions of the versions 6.10.3, 6.10.4 and 6.10.5 have to be checked.  
This type of update is only recommended for updates within a minor version.

Additionally for every type of update, the “Update and installation instructions” chapter has to be checked for further important notes.

If available, the solution specific Release Notes have to be checked too.

## 1. Version 6.10.7.0 (04.07.2017)

Version 6.10.7.0 includes all **ConSol CM** changes and additions of

- 6.10 versions up to 6.10.6.0
- 6.9 versions up to 6.9.4.7
- 6.8 versions up to 6.8.5.8

Newer versions and the respective changes are not included in this **ConSol CM** version.



## 1.1 Update and installation instructions

Please read all information on update and installation of **ConSol CM** specific for version 6.10.7.0 in this section before performing a system update or installation. Please consult the general product documentation on update and installation procedures as well as earlier version Release Notes, if applicable.

### 1.1.1 System upgrade from 6.10.6 and earlier versions

This section informs about specific steps when upgrading **ConSol CM** from 6.10.6 or earlier versions to version 6.10.7.0.

The changes introduced by [Cross-Site Request Forgery prevention mechanism introduced for ConSol CM Web Client \(#631506\)](#) will affect all external systems trying to access the **Web Client** by HTTP. These attempts will be blocked, if the new criteria for requests are not met, namely providing the **Origin** or **Referer** HTTP header in requests. This will also block monitoring systems which send insufficient HTTP headers. It can be addressed by configuring the monitoring system to send proper header information.



Please be aware that monitoring systems will be blocked as well, if they do not send the **Origin** or **Referer** header in HTTP requests. Adjust the requests issued by monitoring systems, if necessary!

### 1.1.2 REST API client modification requirements

The following REST API enhancements may require to adjust clients accessing **ConSol CM** by using the REST API. Possibly the changes can offer a potential for client optimization.

- [Qualified REST status response for oversized attachments \(#631262\)](#)
- [REST API ticket attachment delete functionality \(#631552\)](#)
- [REST responses show no stack traces \(#631148\)](#)

### 1.1.3 Script modification requirements

This release features some interface changes in API methods. **Please be aware that scripts using the respective methods may need adjustments!** The affected methods are listed in the following sections of this document:

- [Task script progress handling improvement \(#631157\)](#)

### 1.1.4 Configuration modification requirements

The changes in this release require several configuration items to be reviewed and possibly adjusted. Please see the following sections for details:

- [Cross-Site Request Forgery prevention mechanism introduced for ConSol CM Web Client \(#631506\)](#)
- [Specific default configuration properties for IMAP \(#631266\)](#)

No further instructions available.

## 1.2 New features

The features newly introduced in this **ConSol CM** version 6.10.7.0 are described in detail in this section.

### 1.2.1 Cross-Site Request Forgery prevention mechanism introduced for **ConSol CM Web Client** (#631506)

A specific attack type could have posed a potential security vulnerability in versions before 6.10.7.0 of the **ConSol CM Web Client**. In this kind of Cross-Site Request Forgery (CSRF) attacks, when an engineer was logged in to the **Web Client** (i.e. with valid session cookie and the browser still open) and visited a malicious 3rd party website containing an embedded URL which points to the **ConSol CM** instance, requests could be executed via this URL using the identity of the logged-in engineer.

A new mechanism was integrated to prevent these potential attacks on framework components. This is achieved by checking the **Origin** and **Referer** HTTP headers for cross domain requests. By default it only checks requests that try to perform an action on a component, such as a form submit or a click on a link.

The functionality will abort a request and return an HTTP error **400 BAD REQUEST**, if the headers are not meeting its conditions. This will happen in case the **Origin** or **Referer** HTTP header are present, but do not match the requested URL, if these headers are missing, or if the **Origin** HTTP header is present and has the value "null" since it is considered to be from a "privacy-sensitive" context.

In order to accept certain cross domain requests from a range of hosts, a whitelist can be applied for those domains. It must be supplied in the value of a newly introduced system property. The following two new **ConSol CM** system properties have been made available in this context:

- **csrf.request.filter.enabled** (module **cmweb-server-adapter**): It allows to disable the CSRF request filter by setting the value to "false".
- **csrf.domain.white.list** (module **cmweb-server-adapter**): The value is the list of domains (split with '|') which are allowed and thus will not be checked by CSRF filter, e.g.: "example.com | consol.de"

These properties are added in the update process activating the request filter by setting the corresponding property to "true". There is no reasonable default setting for the whitelist property which could be defined independent from the specific installation, thus, there will be no value set automatically.



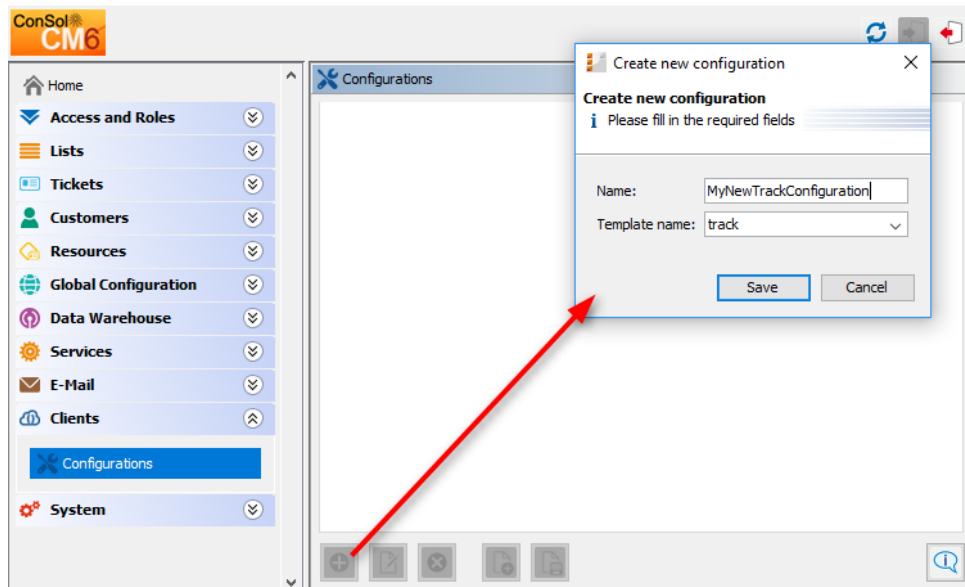
Please be aware that monitoring systems will be blocked as well, if they do not send the **Origin** or **Referer** header in HTTP requests. Adjust the requests issued by monitoring systems, if necessary!

### 1.2.2 REST client configuration in **Admin Tool** (#630496)

This **ConSol CM** release features a new functionality in the **Admin Tool** for configuring the REST API clients accessing the server backend.

The new feature enables an administrator to configure some REST client configuration and localization features, for example for **CM/Track V2**. For this client it allows field layout definitions and label text adaptations. No development work (in the form of a customer-specific project) is required. Several configurations can be managed, each consisting of configuration and/or localization files.

The new feature can be found in a new navigation group *Clients* under the single navigation item *Configurations*.

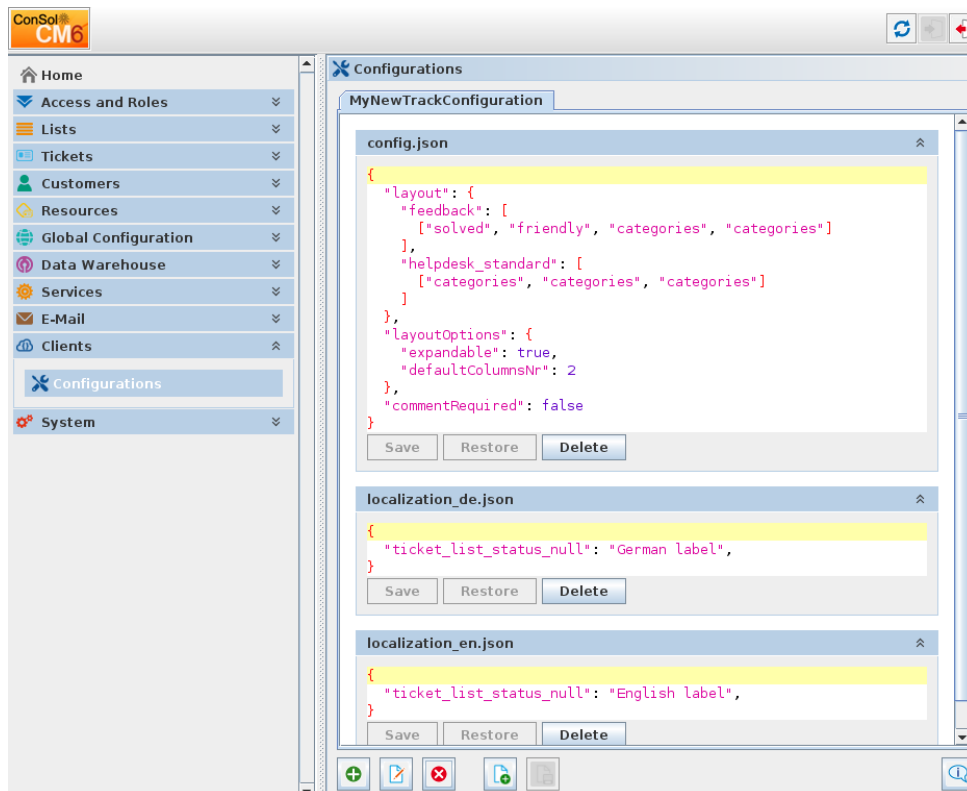


The configuration panel features a tab for each existing configuration labeled with the configuration name. A configuration consists of a number of files, commonly in the JSON format, which will be provided to the client upon request. In the tab the files are shown each one after another to be edited. On the bottom of the panel are buttons to organize the configurations. These can be used (from left to right) to achieve the tasks addressing a configuration as a whole:

- *Create new configuration* opens a dialog to name the configuration and choose a template to base it on.
- *Edit configuration* opens a dialog to rename the selected configuration and choose the template.
- *Delete configuration* removes the configuration as a whole and its tab will not be present anymore.
- *Create new file* in the current configuration opens a dialog to set the file name and extends the configuration with an empty file with this name.
- *Save all files* saves all unsaved changes in all files in the currently selected configuration.
- *Examples* opens a window with examples from templates with each template showing in a tab.

Currently there is only one template, named *TrackV2*, available for selection of the client type in the *Create* and *Edit* dialogs. The information can also be seen in the *Examples* window. The following example shows a modified configuration, based on the default *trackV2* configuration.





The individual files shown in the example are part of a standard **CM/Track V2** configuration. Their usage and content is described in more detail below.

The editing section for each file shown in the tab shows the file name in the header. On the right side of the header is a double arrow symbol to fold/unfold the editor section. Clicking the header line with this symbol will toggle the file section to only show the header or restore the whole section. This can be used for better focusing on the specific file when working on complex multi-file configurations. Below the file name header the file content is displayed for editing. The content can be edited in place. In order to make changes permanent and available to the client these have to be saved.

The file-oriented functions are located in the button bar directly below the file content editing section. The available functions are listed below, beginning on the left side:

- *Save* stores the changes made to the file to deliver them to the client.
- *Restore* sets the file content back to the state after the last time it was saved.
- *Delete* removes the whole file from the configuration.

The configurations can apply to any REST API client for **ConSol CM**, so the API has been extended with a request to retrieve the file contents from such a configuration. The request to retrieve a complete configuration is a GET request to the resource path `/configuration/{name}`. A full real life request example with the corresponding response can be seen below. Please note that the response has been heavily reformatted for better legibility!

```

curl -u username:password
http://localhost:8080/restapi/configuration/MyNewTrackConfiguration -H "Accept:
application/xml"

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>

<configuration
uri="http://localhost:8888/restapi/configuration/MyNewTrackConfiguration?v=RVyxXQI
j6uT9sz561cqtxA%3D%3D"
  name="MyNewTrackConfiguration">
  <entry mime="application/json" name="config.json">
    <content variant="main">      {
      &quot;layout&quot;: {
        &quot;feedback&quot;: [
          [&quot;solved&quot;, &quot;friendly&quot;, &quot;categories&quot;,
&quot;categories&quot;]
        ],
        &quot;helpdesk_standard&quot;: [
          [&quot;categories&quot;, &quot;categories&quot;,
&quot;categories&quot;]
        ]
      },
      &quot;layoutOptions&quot;: {
        &quot;expandable&quot;: true,
        &quot;defaultColumnsNr&quot;: 2
      },
      &quot;commentRequired&quot;: false
    }
  </content>;
</entry>;
<entry mime="application/json" name="localization.json">
  <content variant="de">
    {
      &quot;ticket_list_status_null&quot;:&quot;German label&quot;;
    }
  </content>
  <content variant="en">
    {
      &quot;ticket_list_status_null&quot;:&quot;English label&quot;;
    }
  </content>
</entry>
</configuration>

```



Please be aware that the file content is included in these responses for each file and that special characters in the content are escaped as HTML entities!

It is possible to add several configurations for different REST client applications, i.e. specific configurations can be provided for several different parallel **CM/Track V2** installations accessing the same **ConSol CM** server. This can be achieved by mapping the installation URLs to the configuration name by using system properties introduced for this purpose. Each configuration must then have a property `domain.map.for.client.config.[ConfigurationName]` in the module `cmas-restapi-core` with one or more domain domains as its value. Multiple values are separated by commas, please compare the examples:

- `domain.map.for.client.config.track_internal: cm.company.com/internal`
- `domain.map.for.client.config.track_customers: cm.company.com/CustomerA, cm.company.com/CustomerB`

The second example maps two domains to the same configuration. Please note that the domain values do not have a protocol identifier.

As long as there is only the default configuration, no system property is needed since all requests for a configuration will return the only available one. The single default configuration for this usage **must** be called *trackV2*, if no domain property is defined. In order to retrieve its configuration data the client sends its own domain in the request to the server. In case it is not explicitly configured the default configuration is returned. If there is no default configuration the application's built-in defaults will be used.

The information of all configurations is included in a scene export and will be imported when importing the scene. A future release may feature a specific option to include/exclude the REST API configurations from the scene export and to specifically export this kind of configuration. Scene exports from older **ConSol CM** versions cannot provide any configuration of this kind.

In a system update only the configuration template will be added. Even a default configuration must be added manually.

### CM/Track V2 configuration details

The remainder of this section will describe information about the configuration of **CM/Track V2** using this **Admin Tool** functionality. This currently is the only application of this feature in a standard **ConSol CM** installation and will be illustrated for a regular **CM/Track V2** instance which is not customized. The information which configuration is retrieved by a specific installation is mentioned above. Changes made to a configuration will reflect in **CM/Track V2** only after a user re-login.

The following configuration files are consumed by the **CM/Track V2** client:

- `config.json`: Configuration items for the application (after login)
- `public.json`: Configuration items (localization keys) for the public pages of the application including login pages
- `localization_[Language].json`: Localization for the language identified in the file name by the two-letter-code, for example:
  - `localization_en.json`: Localization for English
  - `localization_de.json`: Localization for German

Keys which are not present in the respective configuration file will have their values taken from the application's built-in default values.

The examples below describe the different types of configuration file for the application, however, the files are simplified and do not show every possible configuration.

The first example is a valid configuration file `config.json`:

```

{
  "layout": {
    "feedback": [ ["solved", "friendly", "categories"] ],
    "helpdesk_standard": [ ["product", "priority", "severity"] ]
  },
  "layoutOptions": {
    "expandable": true,
    "defaultColumnsNr": 2
  },
  "commentRequired": false
}

```

The value of the key `layout` defines the custom field arrangement and order. Sub-values are arrays of arrays and the whole structure is in principle the same as for the earlier **CM/Track** (Version 1) product, so the existing descriptions on how to achieve a specific layout still apply. The same holds true for the `layoutOptions`. In the example `expandable` implies that the fields shown are not strictly limited to the ones listed in the layout value and the `defaultColumnsNr` value determines the number of columns used to arrange the fields. The boolean value of `commentRequired` defines, if it is mandatory to enter a comment when creating a ticket (value “true”).

The example file `public.json` illustrates that this file currently only holds the localization of the public application pages which can be accessed without/before login:

```

{
  "signin": {
    "i18n" : {
      "en" : {"nav_track_brand" : "ConSol CM Track V2 (English)",
              "signin_header"  : "Sign in (English)"},
      "de" : {"nav_track_brand" : "ConSol CM Track V2 (German)",
              "signin_header"  : "Sign in (German)"}
    }
  }
}

```

The `signin` key identifies the group of pages for which the configuration items are used with the next level specifying the usage for localization. The keys `en` and `de` identify the respective language by their two-letter code and the value is a list of key-value pairs setting the localized string for one specific application UI element each.

The last file shown is a short English localization file `localization_en.json` for the application pages after login.

```

{
  "nav_create_ticket"      : "Issue a new ticket",
  "ticket_create_queue_label" : "Issue type",
  "ticket_create_submit"   : "Save data",
  "workflow_activities"    : "Ticket operations",
  "ticket_list_pageSize_label" : "Number of tickets on page",
}

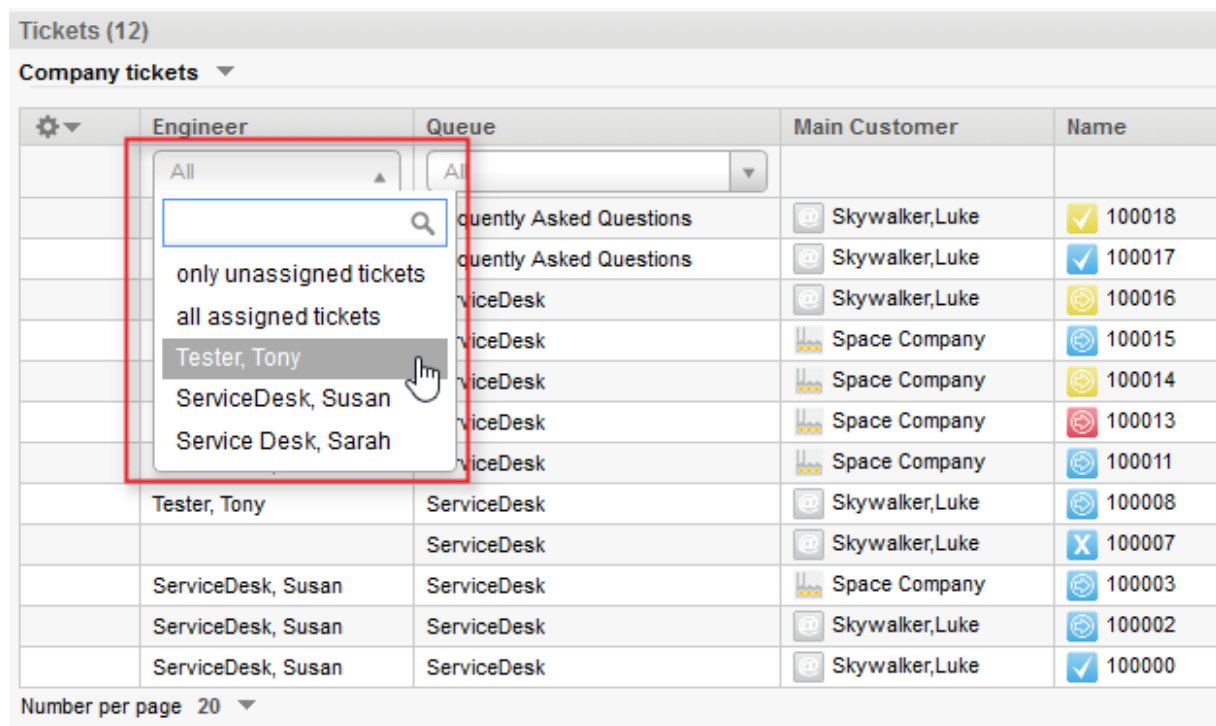
```

The keys identify specific **CM/Track V2** UI elements in the different application sections. The values will replace the built-in default values for the application language English determined by the Browser setting.

**i** A full list of all configuration keys with example values available in all legit configuration files can be found in the examples dialog in the **Admin Tool**.

### 1.2.3 Queue and engineer filters for customer page ticket list (#630761)

The tickets in the ticket tables on contact and company pages can now be filtered by engineer and/or queue. The *Engineer* filter contains all the engineers which are present in the table rows and two additional options to filter for all assigned tickets and all unassigned tickets. The *Queue* filter contains all the queues which are present in the ticket table. Both filters take into account all pages of the table for determining the values offered. If one filter is already applied, the options in the other filter are updated according to the new table content.



Tickets (12)

Company tickets ▾

Engineer	Queue	Main Customer	Name
All	All	@ Skywalker,Luke	100018
only unassigned tickets		@ Skywalker,Luke	100017
all assigned tickets		@ Skywalker,Luke	100016
Tester, Tony		Space Company	100015
ServiceDesk, Susan		Space Company	100014
Service Desk, Sarah		Space Company	100013
		Space Company	100011
Tester, Tony	ServiceDesk	@ Skywalker,Luke	100008
	ServiceDesk	@ Skywalker,Luke	100007
ServiceDesk, Susan	ServiceDesk	Space Company	100003
ServiceDesk, Susan	ServiceDesk	@ Skywalker,Luke	100002
ServiceDesk, Susan	ServiceDesk	@ Skywalker,Luke	100000

Number per page 20 ▾

This feature is disabled by default. It is enabled by setting the Page Customization attribute `enabled` to "true". In addition, the filters are only displayed if the ticket table contains more tickets than configured in the Page Customization attribute `compactViewLimit`. Depending on the scope where you set the attribute, the feature is enabled for both company and contact pages (scope `customerTickets`), company pages only (scope `companyEditPage` or `CompanyTicketsSection`), or contact pages only (scope `contactEditPage` or `ContactTicketListSection`).

**⚠** You need to re-index the tickets in the installation before using this feature. Otherwise, the filters are empty and a warning is written to the log files.

### 1.2.4 Default sort order introduced for customer page ticket list (#631515)

On the customer page there was no pre-defined sort order previously for the list of tickets for this customer. Such a default order has been introduced with this release so that the tickets are now ordered in a descending order by creation date, if no other ordering applies. This sorting criterion is fixed since it will rarely apply. Once the engineer has selected some sort order manually by clicking on a table header marked with a sorting symbol this specified order will be used. Thus, this new default sorting will only be used, if there is no other information available about sorting this ticket table.

## 1.3 Changes

This section illustrates all relevant software product changes for version 6.10.7.0 of **ConSol CM**.

### 1.3.1 Performance improvements

#### Caching and execution of autocomplete scripts (#631260)

The caching and execution of autocomplete scripts proved to be inefficient previously. The causes of these inefficiencies have been addressed and thus the performance when handling autocomplete scripts is improved now.

#### Delay on email address selection (#631151)

Using the email selector to set a recipient email address showed some observable delay, if the ticket had a higher number of customers assigned. This overly long initialization period has been significantly reduced and there is no unacceptable delay anymore.

### 1.3.2 Java Webstart applications enabled for High resolution displays (#631451)


The Java Webstart applications **Admin Tool** and **Process Designer** have been adapted to better support high resolution displays. Now, the UI elements of these applications will have a user-friendly size and correct arrangements on displays with high resolutions.

### 1.3.3 Customer detail search for phone number ignores customer group (#631391)

When previously searching for customer or company information on the detail search page by phone number (a custom field with the annotation `dialable`) a `NullPointerException` occurred and the search failed. This was due to the undefined customer group information which in this case of a search is necessarily so. This contradictory situation has been addressed so that in such a case of an unknown customer group the phone number validation caused by the annotation will not be carried out and thus no exception will occur.

### 1.3.4 Detail search now combines criteria within lists of STRUCTs via AND operator (#631289)

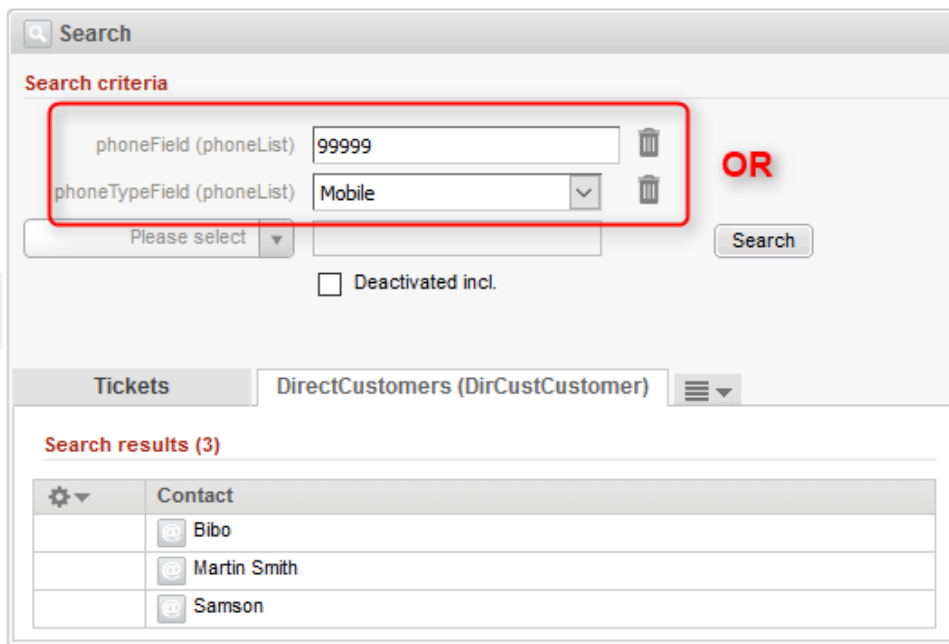
In **ConSol CM** versions lower than 6.10.7.0, in the detailed search, the search criteria which represent different fields of one list of STRUCTs were combined by an `OR` operator meaning that any value present in a STRUCT element was considered a match. This has been changed to the use of `AND` to return the desired results in more cases. For example a list of STRUCTs contains the fields *Phone (number)* and *Phone type*, with three persons having the same number, but only two of them sharing the same phone type.

 <b>Bibo</b> ▾ DirectCustomers bibo@sportsinc.de	Phone	Phone type
	1234567	Office
	11111	Fax
	99999	Mobile

<b>Martin Smith</b> ▾ DirectCustomers ms@consol.de	Phone	Phone type
	1234567	Office
	99999	Mobile




<b>Samson</b> ▾ DirectCustomers samson@consol.de	Phone	Phone type
	1234567	Private
	99999	Fax

The old behavior of the detailed search yielded three results, all persons who have either the desired phone number or the selected type:



The screenshot shows a search window with the following elements:

- Search criteria:**
  - phoneField (phoneList) 99999
  - phoneTypeField (phoneList) Mobile
  - A red box highlights both criteria fields.
  - An "OR" operator is visible between the two criteria.
  - A "Search" button is present.
  - A checkbox for "Deactivated incl." is unchecked.
- Results:**
  - Entity: DirectCustomers (DirCustCustomer)
  - Search results (3):
 

Contact
 Bibo
 Martin Smith
 Samson

The new behavior in **ConSol CM** 6.10.7.0 requires all criteria in a STRUCT to apply simultaneously to consider the line a match. So the criteria from above will produce only two results where both values match:



The screenshot shows a search interface with the following elements:

- Search criteria:**
  - Phone (phoneList): 99999
  - Phone type (phoneList): Mobile
  - AND
  - Please select: [dropdown]
  - Deactivated incl.
  - Search button
- Tickets:** DirectCustomers (DirCustCustomer)
- Search results (2):**

Contact
Martin Smith
Bibo

This is the normally expected result showing only the contacts which have both the specified *Phone (number)* and *Phone type*. The previous result showed unexpected lines which had to be reviewed by the user unnecessarily. This unwanted manual step has been eliminated now.

### 1.3.5 Qualified REST status response for oversized attachments (#631262)

In earlier **ConSol CM** releases the REST API response for oversized attachments was rather unspecific. This response was sent on requests trying to upload attachments with a larger file size than allowed by the server configuration. This has been changed so that now an HTTP error status **413 Payload Too Large** is returned with an error message clearly specifying that the attachment file size exceeds the limit. The portal client **CM/Track V2** also takes advantage of this change in the current version. Details can be found under the heading "Qualified message when attempting upload of oversized attachments (#631262)" in the section [CM/Track V2 Improvements](#).

### 1.3.6 REST API ticket attachment delete functionality (#631552)

Previously, it was not possible to delete attachments from a ticket using the REST API by using the specified syntax. This deficit has been addressed, with the current release attachment deletion is possible via REST request.

An attachment entry can be removed from a ticket by sending a DELETE request to the server using a path like `/tickets/{name}/histories/attachment/{contentId}` at the end of the URI. Ticket name and content ID must be supplied from responses to earlier requests querying these ticket data.

Additional optimizations have been made to improve the handling of the operation. A GET request using the path `/tickets/{name}/histories` for information about the ticket history will not list the deleted attachment entries anymore after the delete operation. A second DELETE request with the path `/tickets/{name}/histories/attachment/{contentId}` and identical values for ticket name and attachment content ID will return an error **404 NOT FOUND**.

### 1.3.7 REST responses show no stack traces (#631148)

For some REST requests, a stack trace was displayed within or instead of the REST response. This should never be the case when accessing the REST API. This undesired response content will not be part of a response anymore. Stack traces are not sent to a REST client, but will still be visible in the log files and available on the server console, if configured accordingly.

### 1.3.8 Specific default configuration properties for IMAP (#631266)

New default configuration settings for fetching emails using the IMAP protocol have been introduced. During the initial setup of a **ConSol CM** system, the following system properties values from the module `cmas-nimh` are set now:

- `mailbox.default.session.mail.imap.fetchsize`: Value "1048576" (equals 1 MB)
- `mailbox.default.session.mail.imap.partialfetch`: Value "false"


During an update of an existing **ConSol CM** system, the values of the properties are left unchanged, if the properties are already present. In case the properties are not present yet, they are added with the default values listed above.

### 1.3.9 Engineer removal prohibited by workflow scripts (#630955)

Engineer removal was prohibited by dependent scripts changing ticket and engineer information. It was not possible to delete an engineer in the **Admin Tool** even if the engineer only had closed tickets assigned. After the selection of the engineer to whom the tickets should be transferred, an exception occurred under certain circumstances. These circumstances were tied to (different) scripts updating ticket and engineer information in the workflow, for example initiated by an event trigger. This could cause an infinite loop of ticket changes by modifying the engineer data resulting in a `StackOverflowError`.

A new system property has been introduced to cope with this type of problem. When enabling the functional change controlled by this property, the ticket change detection now stops on the second level breaking the loop. Please note that when enabling it changes on the second call level will now only be detected at the end of the first level loop. Third level changes will not be detected at all anymore. Please take this change into consideration before switching, if your installation relies on this formerly potentially infinite loop, however, it should not affect most systems. When enabled, additional information is logged regarding the entities not completely processed, for example in an `IllegalStateException`.

The property must be added to the configuration manually. It will not be added to a system configuration during setup or update. It must be added to the module `cmas-core-server` with the name `serial.mods.tracking.enabled` and type `Boolean`. The property value "true" will enable the restricted ticket change detection as described above.

 Please enable the restricted ticket change behavior described in this section only when advised by a **ConSol** representative! It is a low level technical flag with intricate consequences for system behavior and thus should not be used without thorough scrutiny.

### 1.3.10 Task script progress handling improvement (#631157)

In some cases a task script to be used by the Task Execution Framework could abort with an error when trying to update the progress information while executing. The progress value setting will now work as expected in the scripts. The handling of the deadlock situation causing this has been

improved. However, in certain script configurations this cannot be avoided except for adjusting the script. As a consequence, the definition of a new execution date may have to be modified. While setting a new script execution date in the task descriptor of main script code still is possible the now recommended way to do this is in the execution specification of the return value like this:

```
return new ExecutionSpecification().setRetryRequested(true).setExecutionDate(date)
```

### 1.3.11 Log entries of `InfiniteWorkflowLoopException` extended (#631591)

The logging of an `InfiniteWorkflowLoopException` has been improved. Now, the name of the workflow which caused the exception will be written to the log file as well. Previously, only the name of the trigger was provided.

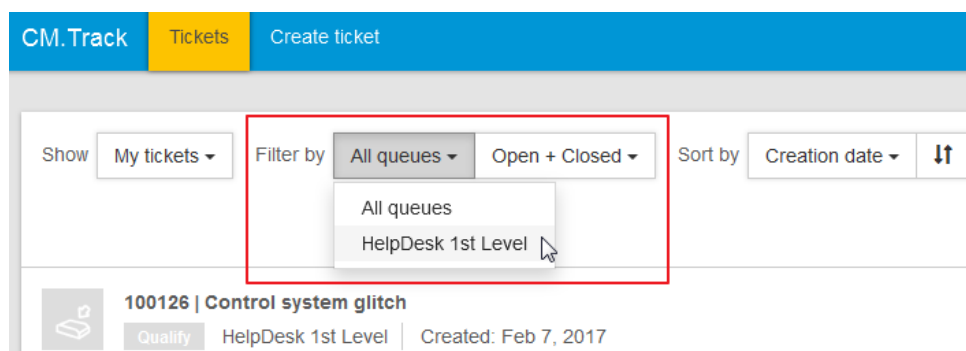
### 1.3.12 *CM/Track V2* improvements

#### *CM/Track V2* configuration options in *Admin Tool* (#630500)

*CM/Track V2* previously did not feature any external configuration. All client behavior not defined by the *ConSol CM* backend configuration was kept inside the application and modifications of standard behavior were implemented in a custom project. This strict limitation has been loosened and a subset of options to control application appearance and behavior has been made available in the *Admin Tool*. It is achieved by using the newly introduced mechanism to configure REST clients. *CM/Track V2* is the prime example for its utilization. Further details are elaborated in the section [REST client configuration in Admin Tool \(#630496\)](#). This section also illustrates *CM/Track V2* configuration options using this new *Admin Tool* capability. Please see this section on details about *CM/Track V2* configuration possibilities with this functionality.

#### Filtering the ticket list by queue (#630703)

The ticket list has been extended by a new filtering option. There is an additional drop-down list to show only the tickets in a specific queue which can be observed in the screenshot. The first selection is the setting to show tickets from all accessible queues.



#### Loading in progress indicator (#630826)

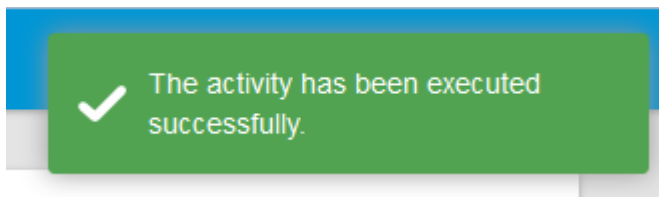
The loading of new data from the *ConSol CM* server will be indicated by progress information now. The loading activity will be visualized as a moving orange line below the top navigation bar until it is completed.

### Prevention of multiple concurrent click actions (#630812)

Previously **CM/Track V2** tried to fulfill all action requests caused by clicking on a corresponding UI element. In the past this could lead to unexpected behavior, for example when an earlier click returned the corresponding content while the content of the last click setting the expectation took longer to load. A new mechanism has been introduced which cancels the earlier operation, so that only the operation initiated by the last click will show its content on the screen.

### Activity execution success message (#631171)

The execution of activities introduced in the latest version of **CM/Track V2** did not provide explicit information about successful completion. A new feedback message has been introduced which will notify the end user about successful activity execution. This enhancement can be seen in the illustration below.



### Number field validation (#630835)

The entry values in number fields were validated too late previously which caused an error message on invalid input. This deficit in validation behavior has been changed so that now the values entered are validated and a validation message is shown correctly instead of an error.

### Error message on engineer assignment with insufficient privileges (#630766)

In the case of a user assignment misconfiguration there was no visible feedback to the end user previously. A **CM/Track V2** user must have a **ConSol CM** user profile assigned. However, there was no visible information or feedback, if the engineer profile chosen did not have sufficient privileges to access the customer group the end user is under. Login just failed with showing the login screen again. This has been improved so that now an *Unauthorized access* message is shown pointing to the misconfiguration.

### FAQ search triggered by pressing "Enter" (#631146)

The search in the FAQ tickets had to be initiated by clicking the *Search* button. This search can now also be triggered by pressing the *Enter* key after typing the search term.

### Validation messages without entry field overlap (#630471)

In previous versions of **CM/Track V2** the messages shown when a value entered in an entry field was not valid for it, could overlap a neighboring entry field and thus obscure its value. The display behavior of the validation message areas adjacent to their data entry fields has been changed so that such an overlap cannot occur anymore. The next field will remain unimpaired now.

### Scopeless ticket display enhancement (#631168)

A ticket which did not have scope information to show was displayed with its second line indented in the ticket list. This unpleasant indentation has been removed and the second line for tickets with this structure is now justified with the headline like any other ticket.

### Search field visual refinement (#631173)

The search field on the ticket list page has been refined. The magnifying glass symbol is darker with a better visibility now and the field shows the informational term "Search..." in a lighter color as long as no search string has been entered.

### Vertical lines separating activities less obtrusive (#631170)

The vertical lines separating several activities shown in the ticket header bar were visually overly striking. The brightness of these lines has been reduced to be less obtrusive.

### Filter settings cleared on session timeout (#631322)

The filter settings made in the ticket list are kept while using **CM/Track V2**. These settings are cleared when the user logs out. However, this did not take place previously when the user's session timed out and a new login was required. In order to provide consistent behavior, now a session timeout also causes the filter settings in the ticket list to be cleared.

### Qualified message when attempting upload of oversized attachments (#631262)

When a user tried to upload an attachment exceeding the configured size limit for attachments, **CM/Track V2** only showed an unqualified standard message relating to an internal server error. This has been changed so that a specific error status is available (see [Qualified REST status response for oversized attachments \(#631262\)](#)) and the client now displays a qualified error message specifically informing about the fact that the attachment is too large .

### Messages for password reset (#631683)

The messages in **CM/Track V2** instructing the user on how to reset the password have been modified for improved usability.

### Incorrect error message when requesting a password change (#631251)

The confirmation after requesting a password change erroneously was replaced by an error message on certain occasions. Sending out the email containing the link to the page for completing the password change took slightly longer than expected in these cases. This duration now is being considered and the incorrect error message will not be displayed anymore.

### Logout attempt after session timeout without error (#631121)

The **CM/Track V2** server returned an error status code **403 FORBIDDEN** on logout problems, specifically when attempting to logout after the session timed out in the meantime. This resulted in wrong error messages being displayed for the customer. This has been changed so that the **CM/Track V2** server returns the correct and expected **401 UNAUTHORIZED**.

### German localization for Rich Text Editor (#631118)

The Rich Text Editor used for entering comments previously did show English labels generally. This was most obvious for the font and paragraph style selectors when using a Browser in a German locale. With this release German labels are shown in the case described.

### Browser locale "de-de" sets German localization (#631682)

When using the language setting of the browser to determine the language of **CM/Track V2**, all sub-locales of "de" are now interpreted as German localization. Previously the value "de-de" was not recognized correctly in this way.

### Configuration of mandatory comment on ticket creation (#631516)

It is now possible to configure that entering a comment is mandatory when creating a ticket in **CM/Track V2**. This configuration can be done in the *Client Configurations* sections of the **Admin Tool** by adding the following code to the configuration file `config.json` (see [REST client configuration in Admin Tool \(#630496\)](#)):

```
"commentRequired": true
```

### Invalid character removed from “Location” element of response header on POST request (#631568)

When creating a ticket in **CM/Track V2** using a POST request, the “Location” element of the response header contained a superfluous colon resulting in an error message. This colon has been removed so that the error does not occur anymore.

## 1.4 Bugs fixed

The following defects have been corrected in this **ConSol CM** version.

Number	Description
627954	<p><b>Customer <i>CM/Track</i> user setting removed and data change not stored on edit</b></p> <p>In a customer data model containing a STRUCT list, for example for multiple phone numbers, and a filled <b><i>CM/Track</i></b> user setting editing the customer data in the STRUCT list did not always yield the desired results. Mostly, but sometimes only on the second attempt, the data change was not stored as expected and furthermore the <b><i>CM/Track</i></b> user name associated with this customer was removed. This disabled portal access for the customer as an unwanted side effect. The problem was resolved, the data changes will now be saved and the <b><i>CM/Track</i></b> user name will not be removed anymore.</p>
630693	<p><b>Export of (too) large email from <i>Admin Tool</i> not working under <i>Oracle</i></b></p> <p>When using an <b><i>Oracle</i></b> database with correct configuration of email error notification for an administrator, emails that failed because of exceeding the size limit could not be exported from the <b><i>Admin Tool</i></b>. The database storage of the email content had failed so that no data were available for export. This error has been corrected and oversized email export is now possible again on <b><i>Oracle</i></b> databases.</p>
630751	<p><b>Empty context menu entry for contact on the company page</b></p> <p>After loading (or refreshing) the contact page and display of the company information extended, the context menu for the contact showed an empty entry line. The extra line was gone when closing the menu and opening it a second time. The undesired line has been removed and the menu entry list is now uniform again.</p>
630799	<p><b>Saved grid view search did not store the engineers correctly</b></p> <p>Storing a search grouped by engineer displayed in a grid did not include the exact engineer selection. This could be observed when changing the engineer set to be displayed in the grid view using the drop down selector and then storing the search as a favorite. The engineer selection was not the one used at the time of saving the search when re-accessing it from the favorite. This deficit has been eliminated and the engineer selection in the saved search now is as it could be expected.</p>
630913	<p><b>Email display name containing a semicolon disabled editor when replying</b></p> <p>An email address containing a semicolon in its display name (not in the address itself, usually shown in angle brackets) caused the email editor to be disabled when trying to reply to an email from this sender. It was interpreted as a secondary defective address. This error has been corrected and sending email to an address as described is possible again.</p>
631166	<p><b>Setting font values via script did not show in the Rich Text Editor</b></p> <p>Setting the font family and font size for the Rich Text Editor by using a Page Customization script did not work correctly. The settings made by the script did not show in the dropdown list selections of the editor for these settings. This error has been corrected and the settings from the script show in the editor selections.</p>

Number	Description
631224	<p><b>Exception when switching the main customer by script</b></p> <p>When entering the data for a new customer in an Activity Control Form and then using these data to create a new customer which immediately will become the main customer for the ticket in the corresponding script, the operation succeeded, but a <code>NullPointerException</code> occurred nevertheless. The irritating exception has been removed so that this operation will succeed without exception.</p>
631293	<p><b>NullPointerException when executing a saved search referencing a deleted contact</b></p> <p>A <code>NullPointerException</code> occurred when executing a saved search from the favorites referring to a contact which had been deleted in the meantime. This error has been fixed, contacts not existing anymore are filtered out, and the exception does not occur anymore.</p>
631307	<p><b>Search result configuration from previous search used</b></p> <p>When performing two saved searches configured for grid view display one after the other, and then changing the search criteria of the second one and executing this modified search, the display configuration was wrong. The display showed the results in the way the previous search should be presented and not in the way expected for the last, modified search. This display configuration mismatch was corrected and the results are now presented in the expected way.</p>
631316	<p><b>Password policy setting "1" for mandatory change the next day inoperational</b></p> <p>The setting with the value "1" for the system property <code>policy.password.age</code> from the module <code>cmas-core-security</code> which should enforce a password change on login the next day or later did not work properly. There was no forced password change on the following day(s) as could be expected. This omission has been resolved and both values "1" for the forced password change the next day and "0" for the forced change on the next login work as desired now.</p>
631318	<p><b>Sporadically invalid email addresses for addresses from engineer preferences</b></p> <p>An email address taken from the engineer preferences was sporadically turned invalid, depending on the address, if it was selected for an outgoing email. These addresses are offered, if the page customization <code>engineerPersonalMailsIncluded</code> is set to "true". In consequence this email could not be sent without manually correcting the email address. This misbehavior was corrected so that the valid address is supplied correctly and sending the email works again.</p>
631320	<p><b>Serialization error connected with <i>Undo</i> link</b></p> <p>A serialization error could occur from the server side generation of the <i>Undo</i> link in a context menu. This usually did not interfere with usage of the <b>Web Client</b>. The cause for the error has been fixed so the serialization error should not even show in the log files anymore.</p>



Number	Description
631429	<p><b>Email without subject cannot be imported with strict UTF BMP enabled</b></p> <p>An email without subject could not be imported into a system using the <i>MySQL</i> database with the system property <code>strict.utf.bmp.enabled</code> (module <code>cmas-core-server</code>) recently introduced set to "true". The problem only appeared when using the New Incoming Mail Handler component for mail processing and has been fixed so that it does not occur anymore.</p>
631512	<p><b>Text class menu item click area displaced</b></p> <p>In the menu to set the text class of a ticket history entry, the area reacting to clicks was slightly displaced so that the beginning of its line in the menu was not clickable, but some area to the right of the menu accepted the click. This has been corrected so that the clickable area is exactly the row of the entry in the menu. Additionally inconsistent horizontal adjustments of icons and text in this menu (and others) have been corrected.</p>
631540	<p><b>Ampersands of links in emails and comments wrongly escaped</b></p> <p>The ampersands which can be an essential element in links were wrongly escaped in emails and comments in tickets, so that they could not be recognized correctly and opening the links was not possible. This too excessive escaping was corrected so that the links are fully usable again now.</p>
631580	<p><b>Downloaded .zip files did not get the correct file format in Internet Explorer</b></p> <p>When downloading a ZIP file using <i>Internet Explorer</i>, the file was saved with the wrong extension. This problem was solved, so the correct extension is applied automatically without relying on the detection mechanism of <i>Internet Explorer</i>.</p>
631658	<p><b>Data warehouse "ADMIN" mode update failed after LIST or STRUCT field removal</b></p> <p>A data warehouse update failed when started in "ADMIN" data warehouse mode, if it was executed after removing custom fields of the types LIST or STRUCT. This was caused by a wrong processing order of the data warehouse changes resulting in exceptions. The data warehouse mode "LIVE" was unaffected as was removing the whole custom field group containing these fields. The issue has been fixed and removing this kind of field will not result in an "ADMIN" mode data warehouse update failure anymore.</p>

## 2. Version 6.10.7.1 (15.09.2017)

Version 6.10.7.1 includes all **ConSol CM** changes and additions of

- 6.10 versions up to 6.10.7.0
- 6.9 versions up to 6.9.4.8
- 6.8 versions up to 6.8.5.8

Newer versions and the respective changes are not included in this **ConSol CM** version.

## 2.1 Update and installation instructions

Please read all information on update and installation of **ConSol CM** specific for version 6.10.7.1 in this section before performing a system update or installation. Please consult the general product documentation on update and installation procedures as well as earlier version Release Notes, if applicable.

### 2.1.1 System upgrade from 6.10.6 and earlier versions

This section informs about specific steps when upgrading **ConSol CM** from 6.10.7.0 or earlier versions to version 6.10.7.1.

### 2.1.2 Configuration modification requirements

The changes in this release require several configuration items to be reviewed and possibly adjusted. Please see the following sections for details:

- [REST API customer access to object restriction enforcement \(#632232\)](#)

No further instructions available.

## 2.2 Changes

This section illustrates all relevant software product changes for version 6.10.7.1 of **ConSol CM**.

### 2.2.1 REST API customer access to object restriction enforcement (#632232)

The REST API when used with valid customer credentials did allow accessing the data of other unrelated objects, if a REST request with a manipulated structure and a valid ID was crafted manually and issued. This access is undesired for most use cases. Usage of REST calls with engineer credentials will generally apply the desired access restrictions.

A new system property has been added which controls REST customer data access with customer credentials. It can be found in the module `cmas-restapi-core` and is called `security.restrict.unit.access.to.own.data`. It will be introduced automatically by the update with its value defaulting to “true”.

The new restricted unit object data access policy applied by the property value “true” will activate an additional check for requested customer data. The requested information will then only be returned, if either

- the requested item is the company for the customer logged in or
- the requested item is another contact of the company for the customer logged in.

Requests for other unit object data will get a response status `403 FORBIDDEN` in return. This policy is enforced for all requests for customer data, no matter if they are requested by ID or by search criteria.

Setting the property value to “false” will allow the less restricted data access as previously for backwards compatibility.

### 2.2.2 Text escaping improved in ticket history (#632233)

The text in a history entry like a comment or an email generally gets escaped to avoid execution of script code in the texts. The code in effect is not executable anymore after this change. The escaping was not fully applied specifically to the content of a collapsed section, which in theory could be exploited to execute script code within the browser page display. The text escaping in the ticket history has been revised to fully escape all content of history entries in all display modes, so that this potential injection vector conceptually cannot succeed anymore, no matter how the script code has been added to the ticket history.

### 2.2.3 Code escaping in search result tables improved (#632230)

In data fields the text content is usually escaped in a way so that executable code sequences in a value cannot be executed. The implementation providing this security for the table cells in the search result tables on the detail search page was not working as desired. Therefore, it was not fully excluded that such a code section could be executed when the data field was listed as a match in a search result. The gap in the escaping implementation of search result data cells has been closed and code execution is now consequently prohibited in this context.

### 3. Version 6.10.7.2 (13.01.2020)

Version 6.10.7.2 includes all **ConSol CM** changes and additions of

- 6.10 versions up to 6.10.7.1
- 6.9 versions up to 6.9.4.8
- 6.8 versions up to 6.8.5.8

Newer versions and the respective changes are not included in this **ConSol CM** version.

## 3.1 Update and installation instructions

Please read all information on update and installation of **ConSol CM** specific for version 6.10.7.2 in this section before performing a system update or installation. Please consult the general product documentation on update and installation procedures as well as earlier version Release Notes, if applicable.

### 3.1.1 System upgrade from 6.10.6 and earlier versions

This **ConSol CM** release needs specific planning for an update from earlier releases.

### 3.1.2 Data Warehouse update

When updating the ConSol CM system to version 6.10.7.2, the DWH needs to be updated due to the extension of the supported dates. The update scripts for each database are available from your ConSol representative. Please follow the instructions in [DWH adapted to support dates until 01.01.2100 \(#642422\)](#).

No further instructions available.

## 3.2 Changes


This section illustrates all relevant software product changes for version 6.10.7.2 of **ConSol CM**.

### 3.2.1 DWH adapted to support dates until 01.01.2100 (#642422)

The DWH table `dim_date` has been adapted to support dates until 01.01.2100. Previously, only dates until 01.01.2020 were supported.

The DWH database needs to be updated for this change. Please perform the following steps:

1. Before starting the **CMRF**, manually execute the database update script for your database engine. Please ask the ConSol CM support or your ConSol CM consultant for the update script.
2. Start the **ConSol CM** server. If the DWH is in LIVE or ADMIN mode and the **ConSol CM** system contains data fields with dates between 01.01.2020 and 01.01.2100, DWH tasks are created automatically to update these fields in the DWH.
3. Run the created DWH tasks in the section *Data Warehouse -> Tasks* of the **Admin Tool**.

 DWH tasks are also created for data fields which are not annotated as “reportable”. During the execution of the DWH tasks, these tasks are handled automatically.

## 4. Web applications expiry

**ConSol CM** includes several **Java Web Start** tools and **Java applets**. These technologies validate the downloaded programs by validating a certificate. This applies to all recent and supported versions of the Java platform at the time of writing. Any certificate for this purpose includes an expiry date after which it will not validate anymore. After this date a program containing this certificate will not be considered valid anymore as well and an update to a version with a newer certificate is required to have the tool operational.

The **ConSol CM** releases covered in this document include Java Web Start tools and Java applets with the following certificate expiry dates:

Release version(s)	Certificate expiry date
6.10.7.0 and 6.10.7.1	28.10.2019
6.10.7.2	08.03.2022

The **Java Web Start** tools and **Java applets** of **ConSol CM** affected by this expiry date are these:

- **Admin Tool**
- **Process Designer**
- **CM/Doc**



Please make sure you always have a **ConSol CM** version with a valid certificate installed to guarantee uninterrupted usage of the **Java Web Start** tools and **Java applets**!