

ConSol Software GmbH

Release Notes ConSol CM 6.16

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1. 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 6.12.1 to 6.13.0.

- **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 6.13.0.3 to 6.13.0.7 the instructions of the versions 6.13.0.4, 6.13.0.5 and 6.13.0.6 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.

2. Breaking changes and mandatory actions

The following table lists the breaking changes which need to be checked before performing an update.

Version	Change	Affected area	Required action
6.16.4.0	New wording for editing a contact (#659652)	Web Client	Review label text
6.16.3.0	Support for PostgreSQL changed (#658805)	Update	Update PostgreSQL
6.16.1.0	Support for Java 17 added (#656720)	Scripting	Update Groovy syntax
6.16.0.0	Support for Oracle 12c dropped (#657402)	Update	Update Oracle
6.16.0.0	Drivers for Microsoft SQL Server and Oracle updated (#657385)	Update	Update database drivers
6.16.0.0	Support for WildFly changed (#657182)	Setup	Update WildFly
6.16.0.0	Standalone deployment of CMRF changed (#656819)	Update	Change deployment mode
6.16.0.0	Method in TicketService removed (#656797)	Scripting	Replace removed method
6.16.0.0	Process Designer removed (#656641)	Workflows	Use Web Admin Suite
6.16.0.0	Admin Tool removed (#656640)	Configuration	Use Web Admin Suite
6.16.0.0	New positioning mechanism for forms (#649058)	REST API	Update custom REST clients
6.16.0.0	Contacts page improved (#656271)	Page customization	Check page customization script
6.16.0.0	Support for Java 8 dropped (#655934)	Update	Update to Java 11
6.16.0.0	Support for Pentaho Data Integration changed (#655113)	ETL	Update PDI
6.16.0.0	SSO support for the Web Client changed (#654895 #654896, #656120)	SSO	Change SSO provider
6.16.0.0	Specific workflow permissions removed (#648472)	Users	Check permissions
6.16.0.0	Third-party library Jericho removed (#647877)	Scripts	Check scripts
6.15.6.0	Security and third-party library updates	CM/Doc	Update CM/Doc

Version	Change	Affected area	Required action
6.15.5.0	JODConverter disabled by default (#657361)	Scripts	Check system property
6.15.5.0	New URL for authenticating in CM/EBIA (#657127)	CM/EBIA	Modify authentication URL
6.15.3.0	Security and third-party library updates	CM/Doc	Update CM/Doc
6.15.2.0	Disabled fields hidden in CM/Track (#654515)	CM/Track	Check disabled fields
6.15.2.0	Change to transaction handling (#654432)	Update	Change settings for MySQL
6.15.2.0	Editor behavior changed (#643896)	Templates	Check script templates for blanks
6.15.0.0	Support for WildFly changed (#651775)	Update	Update WildFly
6.15.0.0	Support for JBoss changed (#650952)	Update	Update JBoss
6.15.0.0	Display of additional engineers modified (#651054)	Web Client	Check page customization
6.15.0.0	Support level of Internet Explorer 11 changed (#650442)	Update	Update browser
6.15.0.0	Usage of Joda-Time deprecated (#635223)	Scripts	Check scripts
6.15.0.0	Ticket subject pattern exported (#632737)	Email	Check email configuration
6.14.0.8	Third-party libraries updated in CM/Doc (#652086)	CM/Doc	Update CM/Doc
6.14.0.5	Automatic expiry of CM/EBIA tokens added (#651094)	CM/EBIA	Update JWT key
6.14.0.4	API method for retrieve engineers removed (#650971)	Scripts	Check scripts
6.14.0.3	Third party library updated in CM/Doc and CM/Archive (#650183, #650186)	CM/Doc	Update CM/Doc
6.14.0.3	Support for CM/Doc changed (#649135)	CM/Doc	Update Microsoft Office
6.14.0.3	SSO support for CM/Track added (#648118)	CM/Track	Check custom projects
6.14.0.2	Property added to XML configuration files (#649965)	Update	Update XML configuration files

Version	Change	Affected area	Required action
6.14.0.2	Contact and resource IDs added to the DWH (#649261, #649262, #649931)	DWH	Execute task script
6.14.0.1	New columns added to data warehouse (#649055)	DWH	Perform DWH update
6.14.0.1	Information of failed email notifications enhanced (#648335)	Emailing	Update template
6.14.0.1	Stricter password policy (#648272)	Security	Check password policy
6.14.0.0	Third-party library updated in (#647557)	CM/Doc	Update CM/Doc
6.14.0.0	Fixed-point number support modified (#647060, #647656)	Data models, DWH	Execute update script
6.14.0.0	Method of embedding in an iFrame changed (#645520)	CM/Track	Update JBoss / Tomcat configuration
6.14.0.0	Scope of condition scripts changed (#645473)	Workflow	Check workflow
6.14.0.0	Handling of update events for password changes via REST API adapted (#645279, #646194)	CM/Track	Check scripts
6.14.0.0	Wicket upgraded (#630774)	Monitoring	Check monitoring
6.14.0.0	Support for MySQL 8 added (#642079)	Update	Update JBoss configuration, JDBC connector and MySQL
6.13.0.11	Support for Tomcat changed (#649926)	CM/Track	Update Tomcat
6.13.0.9	Handling of incoming emails with disallowed attachments improved (#649455, #649457)	Web Client	Check system property
6.13.0.8	Property to define allowed attachment types modified (#648115)	Web Client, CM/Track	Check system property
6.13.0.8	Third-party library updated in CM/Doc (#647557)	CM/Doc	Update CM/Doc
6.13.0.7	Third-party libraries updated in CM/Doc (#646853)	CM/Doc	Update CM/Doc
6.13.0.6	Display of empty fields in CM/Doc changed (#645572)	CM/Doc	Update CM/Doc
6.13.0.4	Support for Tomcat for CM/Track changed (#645504)	Update	Update Tomcat

Version	Change	Affected area	Required action
6.13.0.4	Bouncycastle removed from distribution package (#645459)	Update	Update JBoss configuration
6.13.0.2	DWH performance improved (#644165), API for generating DWH cubes (#643922)	DWH	Execute update script
6.13.0.1	Machine learning improvements (#644231, #644243)	Scripting	Adapt scripts
6.13.0.0	JBoss configuration changed (#643782)	Setup	Update JBoss configuration
6.13.0.0	CSV export feature adapted (#643579)	Web Client	n/a
6.13.0.0	Support for Wildfly changed (#642632)	System requirements	Update Wildfly
6.13.0.0	Support for JBoss EAP 7 changed (#642631, #643350)	System requirements	Update JBoss
6.13.0.0	Support for JBoss EAP 6.4 dropped (#642630)	System requirements	Update JBoss
6.13.0.0	Support for Oracle 11g dropped (#641966, #641967)	System requirements	Update Oracle
6.13.0.0	New layout for data fields (#641891)	Web Client	Check layout
6.13.0.0	commons-fileupload library removed (#633754)	Scripting	Check scripts
6.13.0.0	Behavior of readonly annotation changed (#632772)	CM/Track	n/a

3. Version 6.16.0 (20.04.2023)

Version 6.16.0 includes all **ConSol CM** changes and additions of

Release	Date	Scope	Merged versions
6.16.0.0	20.04.2023	New major version, includes new features, changes and bug fixes	6.15.4.0
6.16.0.1	16.05.2023	Hotfix version, includes several bug fixes	
6.16.0.2	24.05.2023	Hotfix version, includes two bug fixes	
6.16.0.3	06.06.2023	Hotfix version, includes two bug fixes	

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



Please check the [Breaking changes and mandatory actions](#).

3.1 Update and installation instructions

Please read all information on update and installation of **ConSol CM** specific for version 6.16.0 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.

3.1.1 System upgrade from 6.15 and earlier versions

This section informs about specific steps when upgrading **ConSol CM** from 6.15 or earlier versions to version 6.16.0.

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

3.1.2 Support for *Pentaho Data Integration* changed (#655113)

The support for the ETL software **Pentaho Data Integration** (Community Edition) has been updated to version 9.3. The previous version 5.0.1 is not supported anymore.

 You need to update both **Pentaho Data Integration** and the ETL plugins.

3.1.3 Support for Java 8 dropped (#655934)

The support for Java 8 as a runtime environment for the **ConSol CM** server and **CM/Doc** has been dropped. Java 11 must be used instead.

3.1.4 Support for PostgreSQL added (#656078)

PostgreSQL 15.1 is now supported as a relational database for **ConSol CM** and the **CMRF**.

The following settings need to be made for PostgreSQL in the `postgresql.conf` file:

```
max_connections=200
max_prepared_transactions = 200
jit=off
```

The setting `jit=off` disables JIT for all PostgreSQL databases. If this is not desired, you can make this setting for the **ConSol CM** and the **CMRF** databases individually by executing:

```
> alter database cmas set jit=off;
```

Restart the database service and create the databases and database users for **ConSol CM** and the **CMRF**:

```
CREATE DATABASE cmdatabase;
CREATE DATABASE cmrf;
CREATE USER cmuser WITH PASSWORD 'password';
CREATE USER cmrf WITH PASSWORD 'password';
GRANT ALL PRIVILEGES ON DATABASE cmdatabase TO cmuser;
GRANT ALL PRIVILEGES ON DATABASE cmrf TO cmuser;
GRANT ALL PRIVILEGES ON DATABASE cmrf TO cmrf;
```

Grant access to the `public` schema of `cmdatabase`:

```
GRANT ALL ON SCHEMA PUBLIC TO cmuser;
```

Grant access to the `public` schema of `cmrf`:

```
GRANT ALL ON SCHEMA PUBLIC TO cmuser;  
GRANT ALL ON SCHEMA PUBLIC TO cmrf;
```

3.1.5 Support for WildFly changed (#657182)


The support for Wildfly as an application server for running **ConSol CM** has been changed. WildFly version 26.1.3 is supported now. The support for WildFly version 23.0.2 has been dropped.

3.1.6 Drivers for *Microsoft SQL Server* and *Oracle* updated (#657385)

The database drivers which need to be used when running **ConSol CM** with a *Microsoft SQL Server* and *Oracle* databases have been updated:

- **Microsoft SQL Server**: updated from version `mssql-jdbc-7.4.1.jre8` to `mssql-jdbc 10.2.3.jre8`
- **Oracle**: updated from version `ojdbc8` to `ojdbc11 21.5.0.0` and from `orai18n` to `orai18n-21.9.0.0`

 You need to update the drivers in your **ConSol CM** installation.

 The new driver for **Microsoft SQL Server** requires an encrypted connection. You need to add a trusted certificate to the **Microsoft SQL Server** installation.

3.1.7 Support for Oracle 12c dropped (#657402)

The support for Oracle version 12c as a database for **ConSol CM** has been dropped because this version is not supported by Oracle anymore. Oracle 19c must be used instead.

3.1.8 REST API client modification requirements

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

- [New positioning mechanism for forms \(#649058\)](#)

3.1.9 Script modification requirements

This release features some interface changes in API methods. These changes can either be improvements which offer the potential of simplifying your scripts or breaking changes. **Please be aware that scripts using the respective methods may need adjustments!** The affected methods are listed in the following sections of this document:

- [Third-party library Jericho removed \(#647877\)](#)
- [New positioning mechanism for forms \(#649058\)](#)
- [New method to retrieve the modification date of resources \(#652408\)](#)

- [New API methods to retrieve IDs \(#653351\)](#)
- [Page visualizations \(#655353\)](#)
- [Email script adapted for cases without contacts \(#656874\)](#)
- [Method in TicketService removed \(#656797\)](#)
- [New method signature for adding validation errors \(#656842\)](#)
- [DataTables library integrated into ConSol CM \(#656952\)](#)

3.1.10 Configuration modification requirements

The changes in this release require several system properties, configuration files or page customizations to be reviewed and possibly adjusted. Please see the following sections for details:

- [SSO support for the Web Client changed \(#654895 #654896, #656120\)](#)
- [Configurable recipients on reply all \(#655114\)](#)
- [Contacts page improved \(#656271\)](#)
- [Template generator for display templates \(#656615\)](#)

No further instructions available.

3.2 New features


The features newly introduced in this **ConSol CM** version 6.16.0 are described in detail in this section.

3.2.1 Session management in the **Web Admin Suite** (#651964)

The **Web Admin Suite** has been extended with the new page *Sessions* in the *Operations* menu. It gives the administrator a quick overview of the current sessions, so that he can easily identify users who have more than one open session and thus consume several licenses. If needed, the administrator can free licenses by ending such sessions.


The page shows the sessions from the `cmas_user_session` table. For each session, the user name, client (*Web Client*, *CM/Track*, *Web Admin Suite* or *REST*), start date, last activity and type (type of user - can be *User* or *Contact*) are shown. Finished session also have a value for the end date. The table can be filtered by source client and session status.

The administrator can end one or several sessions by clicking the *End session* icon. The affected users will be logged out and their unsaved work will be lost.

 The administrator cannot end his own session, even when using the table action to end several sessions at once.

3.2.2 SSO support for the **Web Client** changed (#654895 #654896, #656120)


SSO for the **Web Client** is now done using a new authentication mechanism based on OpenID Connect, which can be set up using Microsoft Active Directory Federation Services or Azure AD.

 The support for Kerberos for SSO authentication in the **Web Client** has been dropped.

The SSO configuration on the **ConSol CM** side is done using the following system properties:

- **oidc.web.enabled.default**: Indicates whether user authentication using SSO via OIDC is enabled.
- **oidc.web.authority.default**: Indicates the URL of the authenticating authority, e.g. ADFS. Example: `https://localhost/adfs`
- **oidc.web.clientId.default**: Indicates the client ID (application ID) of the application, as registered in ADFS or Azure AD.
- **oidc.web.clientSecret.default**: Indicates the secret of the client, generated using ADFS or Azure AD.
- **oidc.web.redirectUri.default**: Indicates the redirect URI where authentication responses can be received. This is either the OIDC endpoint on the CM server or on the load balancer. Example: `http://localhost/cm-client/oidc/`
- **oidc.web.usernameClaim.default**: Indicates the name of the claim in the ID token which is used to map the user to a login in CM. The value depends on the ADFS settings; the default values are "upn" and "unique_name".
- **oidc.web.usernameRegexp.default**: Defines the regular expression used for mapping the user name claim values to CM logins.

- **“upn” as claim:** `(.*)@.*` will transform the claim value “user1@sso.yourdomain.com” to “user1” and look up “user1” in the CM database.
- **“unique_name” as claim:** `.*\((.*)` will transform the claim value “SSO\user1” to “user1” and look up “user1” in the CM database.

 If SSO is enabled, users are redirected to the `/logout` page when they click the *Logout* button in the **Web Client**. If the system property `urlLogoutPath` from the module `cmweb-server-adapter` is set, the users are redirected to the specified URL instead.

3.2.3 Page visualizations (#655353)

A new mechanism to add visualization scripts to a page in the **Web Client** has been added. It allows to execute JavaScript code to modify the page. Page visualizations can be used, for example to improve the user guidance in activity forms, to add a progress bar to the case header, to help the user with filling out dates, and to display info boxes.

The new script type *Page visualization* has been added for this purpose. The script needs to be written on the *Scripts* page of the **Web Admin Suite**. Afterwards it is referenced in the page customization of the **Web Client** in the new attribute `pageVisualizationScripts`, which is available in the following places:

- **Cases:** New page customization type `ticketPage`
- **Contacts:** New page customization type `unitPage`
- **Resources:** New page customization type `resourcePage`

The attribute can contain the names of one or several scripts in a comma-separated list.

The context is available in the page visualization script as object of the new class `PageVisualizationContext`:

- **All locations:** type of client (WEB or TRACK), type of page (TICKET or UNIT or RESOURCE), page mode (CREATE or EDIT)
- **Cases:** ticket (only in edit mode, is “null” in create mode)
- **Contacts:** unit (only in edit mode, is “null” in create mode)
- **Resources:** resource (only in edit mode, is “null” in create mode)

In the page visualization script, the following four methods can be implemented:

- **scriptForPage(PageVisualizationContext pContext):** code to be executed when the page is loaded
- **scriptForACF(PageVisualizationContext pContext):** code to be executed when a form is opened
- **styles(PageVisualizationContext pContext):** CSS styles to be added
- **resources(PageVisualizationContext pContext):** files from the resources folder of the data directory or external files from a CDN, which are needed for the page visualization

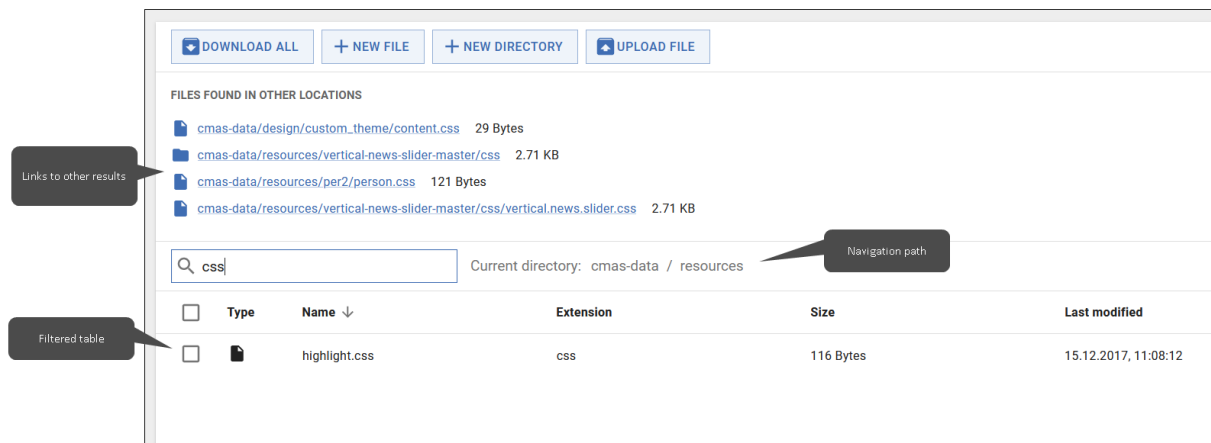
3.2.4 Data directory management (#656140)

The **Web Admin Suite** has been extended with the new page *Data directory* in the *Staging* menu. It allows to manage the content of the `design` and `resources` folders in the **ConSol CM** data directory.

The users can browse the folders and upload and download files. Therefore, they do not need access to the file system of the **ConSol CM** server anymore to work with field, widget and page visualizations or to change the layout of the **Web Client**.

The page consists of a table which acts as a file browser. The table shows the type of object (file or folder), name, extension (only files), size and last modification date. When hovering over the *Type* icon of an image, an image preview is shown.

The user can double click to open a folder and navigate the directory. Above the table, the navigation path with links is shown. In addition, the user can navigate with the browser back button. When entering a keyword in the search field, the table is filtered accordingly. Links to search results in other locations are displayed above the table.



Double-clicking a file with the extension **.csv**, **.css**, **.html**, **.js**, **.json**, **.md**, **.txt** or **xml** opens the file in an editor, where it can be edited directly.

The users can download the complete **design** and **resources** folders by clicking the *Download all* button. Individual files or folders can be downloaded by clicking the *Download* icon in the respective rows. Folders are downloaded as ZIP files.

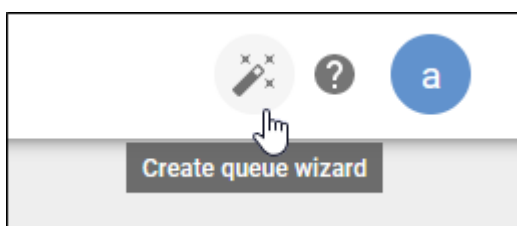
The users can upload files to the current path by clicking the *Upload file* button. It is possible to upload a ZIP file containing several files and / or folders. It will be unpacked automatically.

New files or folders can be created in the current path by clicking the *New file* or *New directory* button. The user can rename files or folders by clicking the *Rename* icon in the respective row.

3.2.5 Wizard to create a queue (#656429, #656591)

The **Web Admin Suite** has been extended by a wizard which allows to create a new queue easily. This helps novel users to get started with configuring their ConSol CM system by guiding them through the required steps. In addition, it speeds up to queue creation process for expert users by enabling them to create a queue without making settings on many different pages.

The wizard is started by clicking the magic wand icon next to the help icon in the upper right corner of the page.




When you have an empty system, a welcome window which points the user to the wizard, the scene import and the email configuration is shown to indicate how to get started.

The wizard can be used in two scenarios:


- **Create the first queue in an empty system:** All other required entities, e.g. workflow and contact model, are created as well.
- **Create a new queue in an existing system:** It is possible to either create new related entities, e.g. workflow or contact model, or select existing ones.

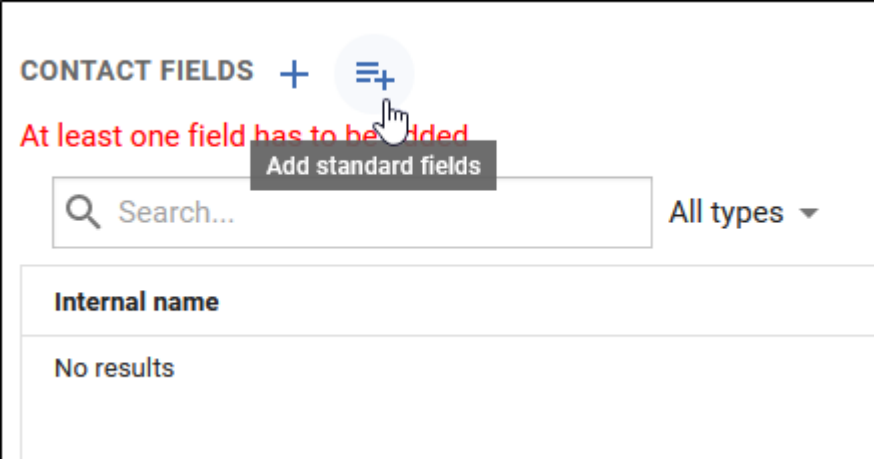
The wizard consists of several steps which can be filled out in any order. The following settings can be made:

- **Process:** workflow (new or existing), queue (new)
- **Cases:** decision whether cases should have contacts, case field group (new or existing).

 If you choose to create a new field group, you need to create at least one field for it.

- **Contacts** (only for queues with contacts): customer group (new or existing), contact model (new or existing, only if a new customer group is created), contact objects (person and / or company, only if a new contact model is created)
- **Contact data** (only if a new contact model is created): contact field group (new or existing) to be used in person and / or company object.

 If you choose to create a new field group, you need to create at least one field for it. You can click the *Add standard fields* icon to automatically create fields for the first name, last name and email address with the correct settings.



- **Access:** view (new), role (new), user (new or existing)

You can save a draft of the settings, which you already made in the wizard, in the browser's local storage by clicking the *Save draft* button. Click the *Create queue* button to create the queue. A summary of all created entities is shown when the creation succeeds.

Notes:

- To create a new entity, enter the desired name in the selector and click the *Create* option.
- Only fields of simple data types can be created in the wizard. It is not possible to create lists or tables.
- If you create a new contact model, the default display template for the company and / or person object are created automatically. They contain all fields of the created or selected contact field group.



You need to check the display template afterwards and remove unneeded fields, especially if you create a new contact object with an existing contact field group which contains many fields.

- If no case field group with fields for the internal storage of the case contacts exists, the group `queue_fields` is created automatically. It contains a field of the type *Contact reference* and a field of the type *List* with the setting *Contains contacts*. The group is not displayed in the **Web Client** and automatically assigned to all queues which are created later.


3.3 Changes

This section illustrates all relevant software product changes for version 6.16.0 of **ConSol CM**.

3.3.1 Usability improvements

Validation of required fields improved (#626115)

When leaving a data field of the types *Enumerated list*, *Hierarchical list*, *Autocomplete* or *Text* on a case, contact or resource page of the **Web Client** without providing a value, the corresponding validation message that the field is required is now displayed directly.

 Date fields are still validated when the user tries to save his changes.

Technical user for webhook operations (#633445)

For operations carried out by a webhook, the author of the operation displayed in the case history of the **Web Client** is now “Webhook”.

Participant role preselected (#655194)

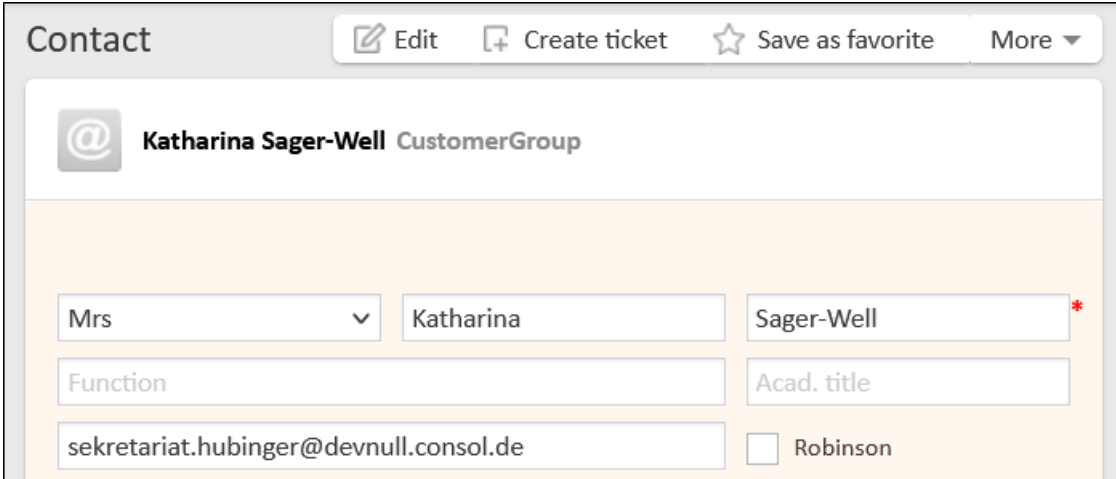
When adding an additional participant to a case in the **Web Client**, the role is now preselected if all the users which can be selected in the *Participant* field have only one available role.

Space between sections increased (#655518)

The space between the sections of the case, contact and resource pages of the **Web Client** has been increased to adjust the spacing to the latest layout changes.

Header for contacts (#655534)

The contact page of the **Web Client** now has a header which separates the contact name, icon and customer group from the data fields.



Header for resources (#655535)

The resource page of the **Web Client** now has a header which separates the basic resource information and the resource icon from the data fields.

Section for related cases of resources improved (#655544)

The section for related cases on the resource page of the **Web Client** has been improved. It does not have different visibility levels anymore as they were not needed. There is now one table for each relation type and the name of the relation is displayed as a header instead of in table column. In addition, the filter has a more speaking label, so that its purpose is clear to the user.

When adding a new relation, only the panel where the case is selected has an orange background now to indicate that it is in edit mode. The table with the existing relations remains in the view mode because these relations are not modified.

Related cases (1) + Add ^				
View as List				
Related		Status Open and closed cases		
⚙	Date	Name	Subject	Actions
	1/5/23, 2:15 PM	100418	history improvements	X
Export Table				

Improved margins on user profile (#656063)

The user profile of the **Web Client** has been enhanced by removing unneeded margins to the left, in order to improve the space usage.

Improved wording for text template variables (#656074)

When editing a text template in the **Web Client**, the variables which can be added to the template are shown in a box below the editor. The heading of this box has been changed from *Library of markers* to *Library of template fields*. *Double click on a field to insert it to the template*. In addition, it is not possible anymore to drag and drop a variable to the template, because only variables which are inserted using a double click work properly.

New design for the email editor (#656152)

The editor to send emails from cases in the **Web Client** has been redesigned. The features to insert template content and quote entries of the case history are now located directly above the editor buttons because they refer to the email body which is written in the rich text editor.

The toggles to show or hide the *Cc*, *Bcc* and *Reply-To* fields are now displayed as buttons instead of links. In addition, the layout of the header fields and the attachment selector has been changed to match the general layout with round corners.

Contact and resource actions deactivated in edit mode (#656646)

When the user clicked the *Edit* button of a contact or resource in the **Web Client**, the available actions are now grayed out, so that it is not possible to execute a contact or resource action while the page is in edit mode.

Display of link to archive improved (#656888)

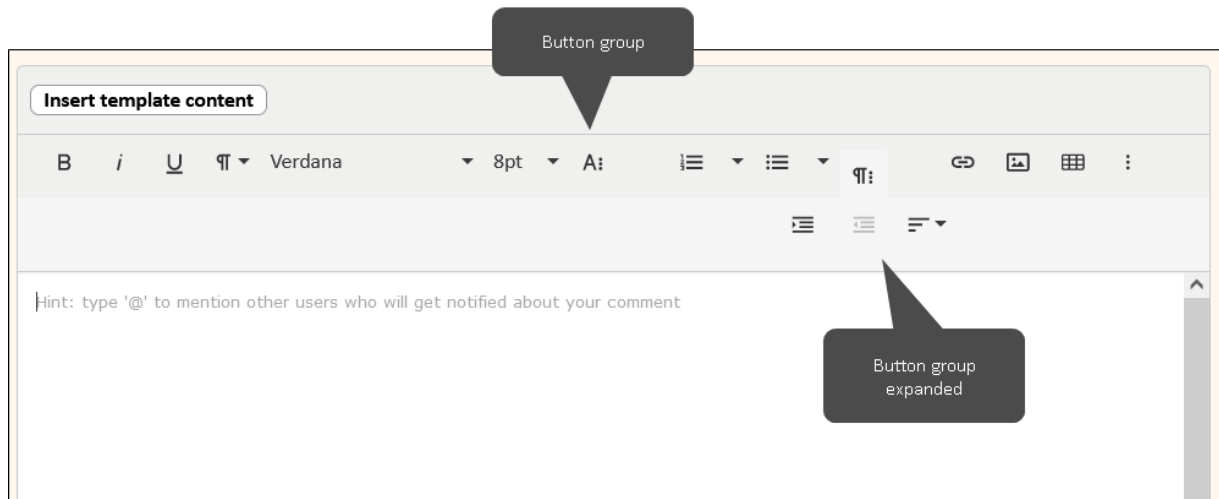
The button *Open in archive application*, which is shown for archived cases in the **Web Client**, is now displayed only if **CM/Archive** is enabled and the user has permissions to view the case in **CM/Archive**.

Wording of edit button changed (#656932)

The wording of the *Edit* button, which is shown in the upper right corner of *Header* and the *Details* section of cases, contacts and resources in the **Web Client**, has been changed to *Edit data* to illustrate that it allows the user to modify the main and details data of the object.

Editor toolbar improved (#656953)

The toolbar of the rich text editor in the **Web Client** is now responsive. It is always displayed in one line. If there is not enough screen space, some buttons are merged to a button group. This is indicated by three dots next to the group symbol. The user can click a button group to show the individual buttons below.



The toolbar is now the same for all places where a rich text editor is used, i.e. the comment and email editor, the editor for rich text fields and the editor for templates. The buttons have been reordered according to their purpose and the features “Undo” and “Redo” have been added. The features “Subscript” and “Superscript” have been removed.

User template considered for user name in emails (#656969)

When writing an email to a user in the **Web Client**, the user display template now determines how the user name is shown in the email recipients. Previously, it was hard-coded to “last name, first name”.

Menu entry expanded after jumping to another page (#657018)

When jumping from one page of the **Web Admin Suite** to another one by clicking an arrow icon, the menu group to which the new page belongs is now opened automatically, so that the user sees the current page in the menu.

Value column of system properties always shown (#657063)

The *Value* column on the *System properties* page of the **Web Admin Suite** is now shown also when the details panel is opened, so that the user can see the values of related properties when editing a property.

Contact model localization optional (#657102)

Providing a localized name for the contact model on the *Contact models* page of the **Web Admin Suite** is now optional, because the localized model name is only used for system documentation, but not shown in the **Web Client**. When creating a new model, it is no longer filled with the internal name automatically.

3.3.2 Security and third-party library updates

The following third-party libraries have been updated in this **ConSol CM** version:

- **Apache Xerces (#657035)**: updated from version 2.8.1 to 2.12.2
- **Froala (#656353, #656941)**: updated from version 4.0.14 to 4.0.17
- **Hibernate (#656318)**: updated from version 5.6.0 to 5.6.14
- **Infinispan (#655453)**: updated from version 11.0.6 to 11.0.16
- **Jersey (#653035)**: updated from version 2.29.1 to 2.37
- **jQuery DataTables (#656915)**: updated from version 1.10.24 to 1.13.2
- **Spring Boot (#657012)**: updated from version 2.3.12 to 2.7.9
- **Spring Security (#656395)**: updated from version 3.2.10 to 5.6.9
- **Wicket (#655884)**: updated from version 8.13.0 to 9.12.0

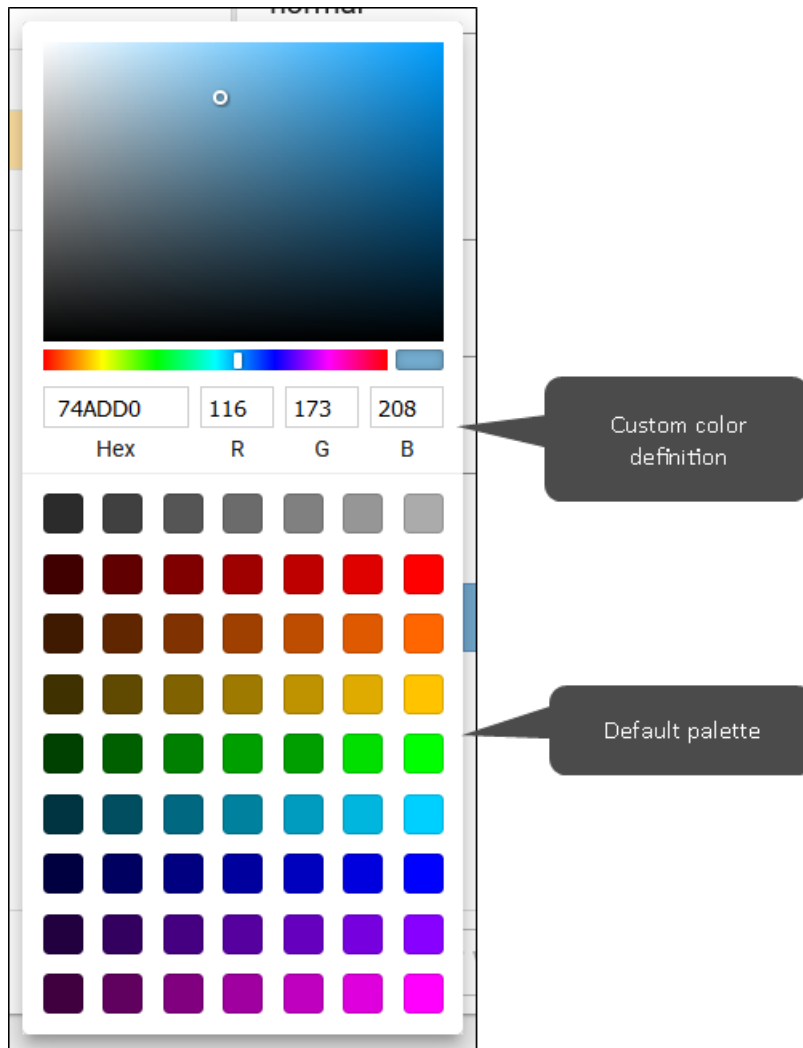
The following components have been removed because they are not used anymore:

- JMX Mbean in infinispan cache manager

3.3.3 Color selection for list values improved (#646256)

List values can have a color which is used as background color for the case icon in the **Web Client** if the case field which references the list has the setting *Color of the case icon*.

The default palette which is shown when clicking the *Color selection* field of a list value on the *Sorted lists* page of the **Web Admin Suite** has been extended. It now includes seven shades of the nine base colors gray, red, orange, yellow, green, light blue, dark blue, lilac and pink. In addition it is now possible to define custom colors by entering the Hex or RGB value.



3.3.4 Third-party library Jericho removed (#647877)

The third-party library *jericho-html*, which can be used to parse HTML, has been removed.



If you used Jericho in your scripts, you need to switch to another library. The recommended HTML parser is *Jsoup*.

3.3.5 Specific workflow permissions removed (#648472)

The permissions which could be granted to users, who should be allowed to work with workflows in the **Process Designer**, have been removed because they are not needed anymore. This affects the following permissions:

- Read workflow
- Write workflow
- Deploy workflow

Users who should have access to workflows now need the general administrator permissions (*Administrate full system + access all entities* or *Administrate full system*). As workflows are closely integrated with other parts of the system in the **Web Admin Suite**, e.g. activity forms, queues, scripts or views, it does not make sense to have separate permissions for workflows only.



You need to grant administrator permissions to the users, who had only workflow permissions and should be allowed to access workflows in the **Web Admin Suite**.

3.3.6 Check for expired passwords added to the REST API (#648955)

When a user whose password has expired tries to log in using the REST API, access is now denied with error code 401 or 403 and the message “Your password has expired”.

3.3.7 New positioning mechanism for forms (#649058)

Form fields can now be positioned in a more flexible way. For each field, you can define its position in the grid and size using the same mechanisms as for the data fields. This approach provides more flexibility because you can enlarge single fields which need more space, which is especially useful for tables which do not fit into one column, but do not need to occupy the whole width either.



During the update to **ConSol CM** version 6.16.0, the existing form configuration is automatically transformed to the new grid. Therefore, no immediate action is required. Nevertheless, you might want to optimize your forms using the new capabilities.



In **CM/Track**, both the height and empty spaces at the beginning or in the middle of a row are ignored.

3.3.7.1 Web Admin Suite changes

The *Activity forms*, *Contact forms*, *Resource forms* and *Search forms* pages of the **Web Admin Suite** have been extended with a *Field positioning* tab. The user can drag and drop the fields to the desired places and modify their height and width using the arrows. Both the field and the group names are shown for the fields because forms can contain fields from different groups.

The position selector in the *Assigned fields* list of the *Fields* tab has been removed because it is not needed anymore.


3.3.7.2 REST changes

The REST API has been adapted to include the new positioning information in the `activityformfieldssets` endpoint. When retrieving an activity form, the response contains the new `fieldPosition` attribute.

Example output:

```
"fieldPosition": {
  "row": 1,
  "column": 2,
  "rowspan": 1,
  "colspan": 1
}
```

The previously used `position` attribute is now deprecated because it is not needed anymore. It is filled with the fixed value `"NEXT"` for backward compatibility purposes.

 Custom REST clients which use the deprecated `position` attribute must be adapted to support the new `fieldPosition` attribute. The `position` attribute will be removed in a future release.

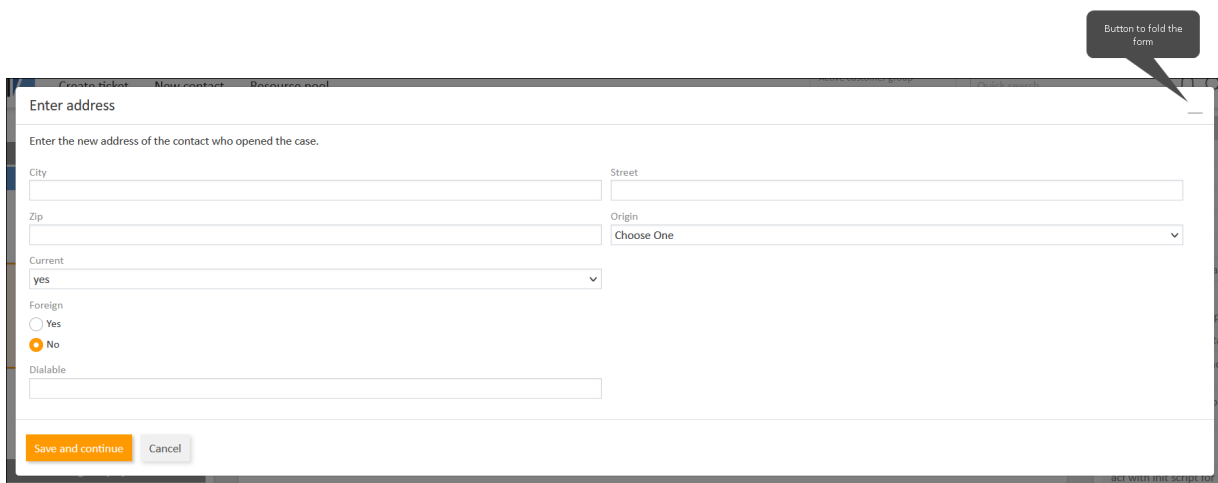
3.3.8 New display of forms (#650362)

Forms are now displayed as modal windows in the **Web Client**. This affects the following places:

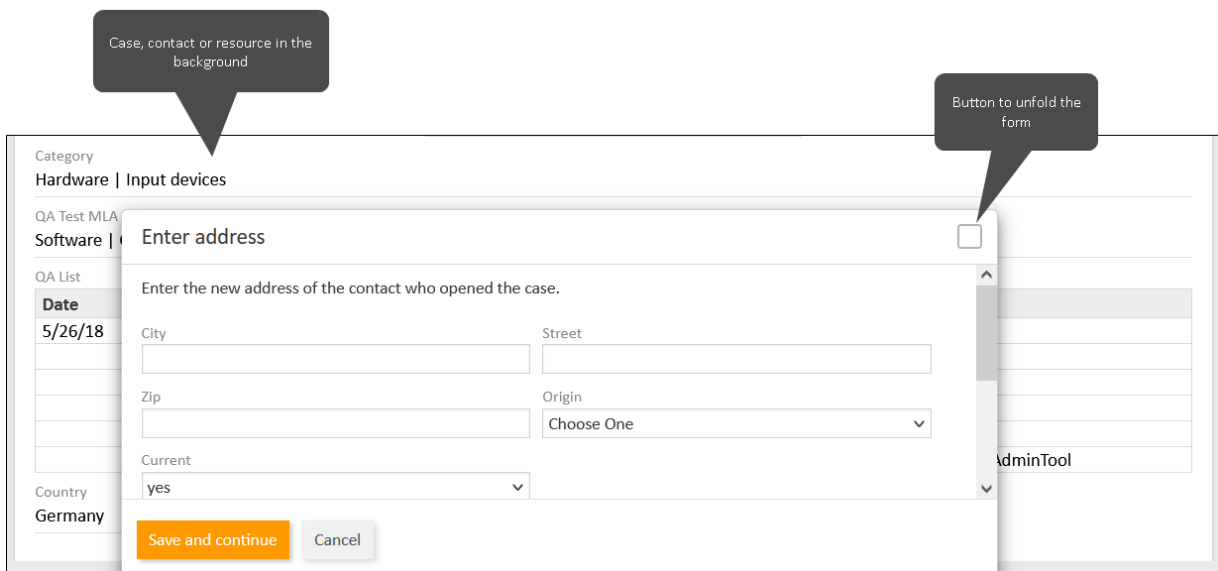
- Activity forms for cases
- Action forms for contacts, resources and search results

When clicking the respective activity or action, the form is opened in a modal window. The modal window can be moved and folded / unfolded.

Unfolded form (default):



Folded form:



When the form is folded, it is possible to scroll the underlying case, contact or resource page to check its content and copy data needed for filling out the form. The user can change the visualization of the page, i.e. fold and unfold page section, change the visibility level or switch tabs in the *Details* section,

but he cannot perform any action on the page. Leaving the page is only possible by opening a case from the case list. The current object will be saved to the workspace in this case. The user needs to save or cancel the form before performing any other action.

The page customization type `cmApplicationCustomization` has been extended with the new attribute `formsRenderingType`. By default, it is set to “modal” to display forms in a modal window. It can be set to “section” to restore the old behavior, i.e. rendering forms in the upper part of the page.

3.3.9 Troubleshooting page with creation of thread dumps (#652332, #654715)

The **Web Admin Suite** has been extended with the new *Troubleshooting* page in the *Operation* menu. It consists of two sections: *Actions* and *Further information*.

In the *Actions* section, you can create thread dumps. Click the *Generate* button and provide the number of thread dumps and the time interval in seconds. The thread dumps are created in the background. Once they are finished, they can be downloaded to analyze errors and performance problems. After the analysis, the thread dumps can be deleted by clicking the *Delete all* button.

In the *Further information* section includes links to documents about **ConSol CM**.

3.3.10 New method to retrieve the modification date of resources (#652408)

The **ConSol CM** API has been extended with a new method to retrieve the last modification date of resources as a `date` object. The method `getModificationDateAsDate()` has been added to the class `Resource` for this purpose.

3.3.11 Notification for emails with too large attachments (#652482)

The maximum size of attachments allowed in **ConSol CM** is determined by the system property `attachment.max.size` from the module `cmas-core-server`. Emails which contain attachments which exceed this size are not processed.

Now, the senders of such emails receive a notification which explains that they need to remove the attachments or reduce their size for their emails to be correctly imported to **ConSol CM**. The notification is based on the newly added template `mail-receive-attachment-too-large`, which is created on the *Templates* page of the **Web Admin Suite** during the update.

On the *Email backups* page of the **Web Admin Suite**, emails whose attachments exceed the defined size are shown with the backup cause “Attachment too large”.

3.3.12 New API methods to retrieve IDs (#653351)

The **ConSol CM** API has been extended by methods to retrieve the IDs of the cases, contacts and resources which match certain criteria. The following methods have been added:

- **Cases:** `ticketService.getIdsByCriteria(TicketCriteria pTicketCriteria)`
- **Contacts:** `unitService.getIdsByCriteria(UnitCriteria pUnitCriteria)`
- **Resources:** `resourceService.getIdsByCriteria(ResourceCriteria pResourceCriteria)`


The methods return a list of IDs.

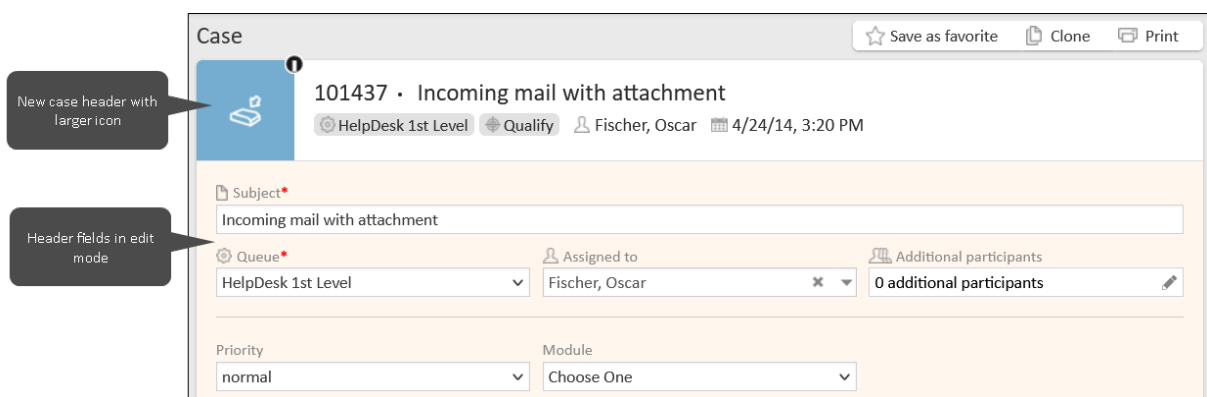
3.3.13 New header section for cases in the *Web Client* (#653795)

The header section for cases in the *Web Client* has been redesigned. The case icon is larger, so that it is easy to see the status of the case and there is more space for the overlays. The color for the case icon is now the exact color which is defined for the respective enum on the *Sorted lists* page of the *Web Admin Suite*. The case number is now displayed next to the case subject to avoid problems with large case numbers. The queue, scope, assignee and creation date are displayed below the case number and subject.

In the edit mode, the header section remains at the top. The header fields can be edited in the respective fields above the regular case fields.

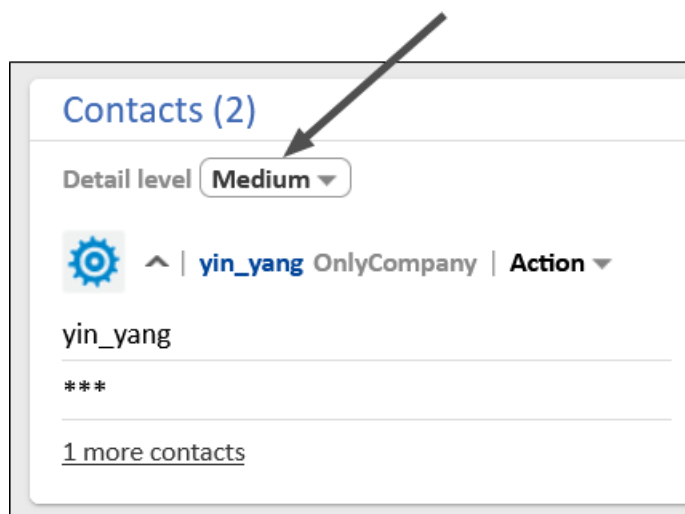
When hovering the case number, a tooltip is displayed that the case number can be copied to the clipboard by clicking it.

 Copying the case number to the clipboard only works on https or on localhost. If http is used, the tooltip is not shown.



3.3.14 Detail level selection improved (#653797, #655472)

The user can now choose the detail level of sections for cases, contacts and resources in the *Web Client* using a selector below the section header.



In addition, the detail levels have been renamed:

- Basic -> Low
- Extended -> Medium
- Detail -> High

It is now easier for the user to understand the detail levels, and the usage of the screen space has been optimized by removing the blank space below the icons which were used previously to select the detail level.

The detail level selector is not displayed if the section is in the edit mode. Instead, the detail level *Low* is assumed in this case.

3.3.15 User selector in activity forms modified (#654256)

The behavior of the user selector which can be shown in activity forms for cases in the **Web Client** has been aligned with the behavior of the user selector available when editing case data. When selecting a user in an activity form, all users which can be assigned to cases in the queue are now available. Permissions to customer groups are not checked anymore because this lead to problems with cases without contacts.

Therefore, both user selectors now show the same users.

3.3.16 Standalone webhook configuration page removed (#654714)

The page `<CM URL>/intg/<webhook name>/config` to configure webhooks has been removed. Webhooks can now be configured only on the *Webhooks* page of the **Web Admin Suite**.

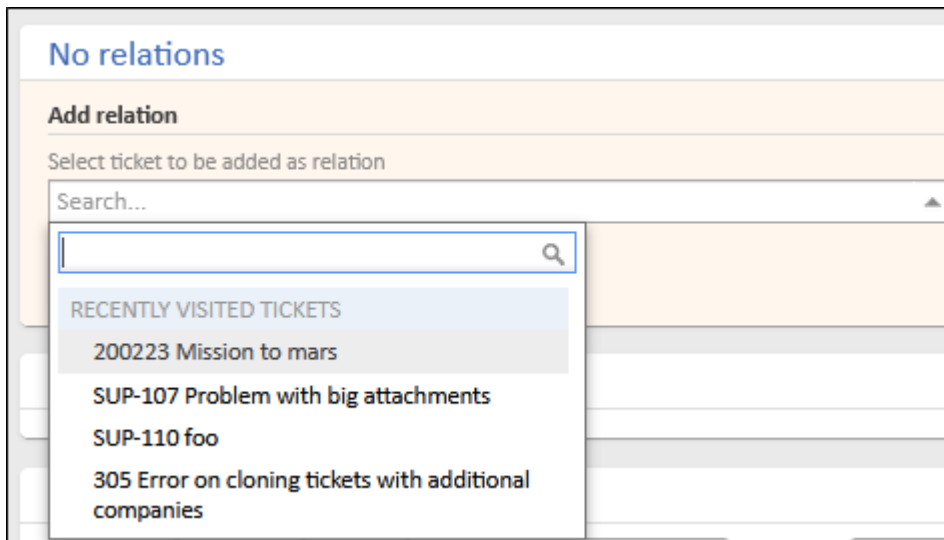
3.3.17 Configurable recipients on reply all (#655114)

When clicking the *Reply all* option of an email in the **Web Client**, by default, the *Cc* field is filled with all recipients. This leads to the situation that the email address through which the email was received, i.e. the address polled by **ConSol CM**, is included in the list of recipients. Therefore, after sending the email, the case history contains the email twice: as an outgoing email and as an incoming email.

The attribute `replyToAllFilteredAddresses` has been added to the type `mailTemplate` of the page customization to allow suppressing certain email addresses. You can enter a comma-separated list with the email addresses which should not be preset as recipients when clicking the *Reply all* option.

3.3.18 Previously visited cases recommended for new relations (#655209)

Previously visited cases are now shown as a recommendation when clicking the autocomplete selector to add a new relation in the *Relations* section of a case in the **Web Client**. Therefore, the user can find relevant cases faster and easier when creating a relation. As soon as the user enters a search term, the suggestions which match the search are shown. In addition, the watermark "Search..." has been added to the autocomplete selector.



3.3.19 Default settings for rich text editor aligned (#655481)

The rich text editor in the **Web Client** now has the same default settings for all places where the editor is used, i.e. the comment and email editor in cases, the editor in rich text fields and the editor for text templates.

3.3.20 Option to export only labels (#655523)

The *Export* page of the **Web Admin Suite** has been extended with the option *Labels*, which allows to export a scene containing only labels.

3.3.21 Design of the case history improved (#655887)

The usability and visual presentation of the case history in the **Web Client** has been improved to make it more intuitive and appealing.

The screenshot shows the 'Communication and history' section of a software interface. At the top, there are controls for 'Detail level' (set to 'High'), 'Show' (set to 'All entries'), and 'Sort by' (set to 'Newest entries first'). Below these are buttons for '+', 'Comment', 'Email', 'Attachment', and 'Time booking'. The main content is a vertical timeline of entries. The first entry is highlighted in light blue and is from user 'HH' (Harald Huber) at 09:19, with the text 'I will check it tomorrow at your desk'. The second entry is highlighted in light orange and is from user 'w' (webadmin) at 09:13, with the text 'My monitor is not working properly. It shows a dark screen sometimes. Please check.' Below this is a list of system actions. Callouts on the left point to specific features: 'Set visibility level' points to the 'Detail level' dropdown; 'Button to change text class' points to the '+' button; 'Comment highlighted by text class' points to the blue highlight bar; 'User initials' points to the 'HH' and 'w' circles; and 'Time of individual entries' points to the vertical timeline line.

The following changes to the visual presentation were made:

- **Visibility level:** The visibility level is now determined by selecting *Low*, *Medium* or *High* from the new *Detail level* selector. The visibility level of an entry cannot be changed anymore by clicking the entry header, except for expanding an entry when lazy loading is used.
- **Text classes:** Text classes only highlight the comment, email or attachment, but not the other changes from the same history group. They can be changed by clicking the new button which spans the text class icon and name. The defined color is shown in the bar on the left of the entry. It is faded as a background of the entry to make the text more readable.
- **Date and time:** The date is now indicated in the headline of the history group and each history entry has its own time indication. The date and time format is the same in all detail levels.
- **User initials:** The initials of the author of an entry are shown in circles in the timeline next to the entries to give a better overview of the participating users.
- **Links to history groups:** Links to history groups can now be created by clicking the *Copy link to clipboard* option in the *Actions* button.

The following page customization attributes used to define the data formats are not needed anymore and were removed from the `acimSection` type:

- `acimGroupActionEntryDateFormat`
- `acimGroupTextEntryDateFormat`
- `acimItemActionEntryDateFormat`
- `acimItemTextEntryDateFormat`

3.3.22 Checksum calculation for determining required updates improved (#656077)

When updating **ConSol CM** to a new version, checksums are used to determine which update scripts need to be executed. The calculation of these checksums has been improved to avoid the situation that the system tries to execute an already applied update script again because the checksums differ due to the migration of the **ConSol CM** system from one operating system to another one. Now, the calculated checksum does not depend on the operating system anymore.



If you need to migrate **ConSol CM** from one operating system to another one, please perform an update to **ConSol CM** version 6.16.0 first to generate the OS-independent checksums.

3.3.23 Editor behavior on Enter changed (#656085)

The behavior of the editor, which is used for writing emails and comments and filling out rich text fields in the **Web Client**, has been changed for the situation when the user presses the Enter key. Now, a `<p>` tag is used to indicate the new line. Previously, a `
` tag was used for this purpose.

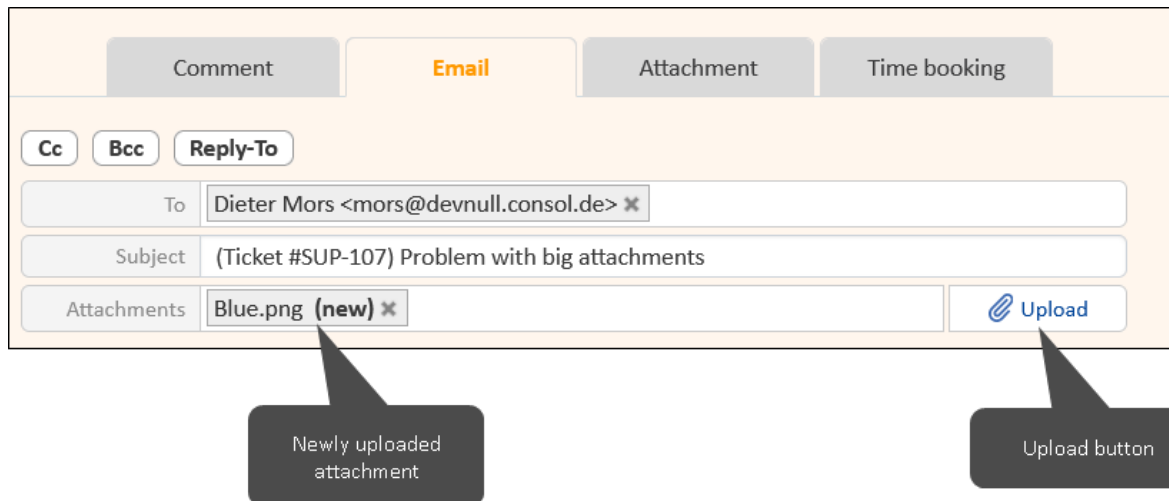
3.3.24 Behavior of password fields for users streamlined (#656092)

The behavior of the password field in the user details of the *Users* page of the **Web Admin Suite** has been adapted to match the requirements of the different authentication methods and their combinations:

- **Password mandatory:** Database authentication as only configured authentication method
- **Password optional:** Combination of database and LDAP authentication, or SSO authentication configured (new behavior)
- **Password hidden:** LDAP authentication as only configured authentication method

3.3.25 Adding new attachments to emails (#656153)

It is now possible to add new attachments directly in the *Email* tab of the *Communication and history* section of the **Web Client**. In their emails, the users can now easily use attachments which have not been added to the case yet. The attachments can be added by clicking the *Upload* button next to the *Attachments* selector or by dragging the attachment to the editor. Newly uploaded attachments are indicated by the text *(new)* after the file name.



After sending the email, the newly uploaded attachments are available in the *Attachments* section of the case.

i If you drag only images to the editor, they are added to the text of the email as in previous **ConSol CM** versions.

3.3.26 Field positioning copied with groups (#656155)

When copying a data field group on the *Case fields*, *Contact fields* or *Resource fields* page of the **Web Admin Suite**, the field positioning is now copied along with the group, so that the fields in the new group have the same values for the *Position*, *Height* and *Width* settings as they had in the source group.

i When copying single fields, the position settings are omitted to avoid collisions.

3.3.27 Contacts page improved (#656271)

The *Contacts* page in the **Web Client** has been streamlined. The page customization type `customerSectionPanel` has been renamed to `unitSectionPanel` to match the general terminology which uses the term “unit” to refer to persons and companies in a technical context. In addition, the attributes `additionalCustomersSortStrategy` and `suggestionsDisabled` have been removed because they are not relevant on the *Contacts* page.

! If a page customization script was referenced in the *configuration script* field of the renamed `customerSectionPanel`, you need to add it manually to `unitSectionPanel` after the update.

i These changes do not affect the *Contacts* section of cases. There, the page customization type `customerSectionPanel` remains with both attributes.

In addition, the watermark in the search field, which is shown when transferring data from one contact to another one, has been improved to make its meaning clearer.

3.3.28 Queue export improved (#656392)

The queue export feature, which is available when selecting the option *Queue-based data* on the *Export* page of the **Web Admin Suite** has been improved. The following items are now filtered according to the selected queue:

- Resource data model, including resource fields
- Actions and action forms
- Address autocomplete definitions


Previously, all entities of these types were exported together with the queue. Now, only the entities which are related to one of the selected queues are exported.

In addition, the queue selector is now disabled when the option *All* to export all configuration data is selected, because the option to export the complete configuration automatically exports all queues.

3.3.29 Default text class added automatically on setup (#656458)

The default text class *default_class* is now automatically created when setting up a new **ConSol CM** system. It is available for comments, incoming emails and outgoing emails and has the visibility setting *all levels full*, so that the complete email or comment is shown regardless of the selected visibility level in the **Web Client**.

In this way, cases are displayed correctly in the **Web Client**, even though the text classes have not been configured explicitly yet.

 The default text class can be modified as desired on the *Text classes* page of the **Web Admin Suite**.

3.3.30 Behavior of case transfer after import changed (#656549)

When importing a scene which requires a case transfer because it includes new workflow version, the transfer is now executed asynchronously directly after the import, instead of as the last step of the import. This reduces the time during which the **Web Admin Suite** is blocked, as it is now blocked only during the import but not during the case transfer. Therefore, the case transfer in the scope of an import now behaves in the same way as the case transfer after a workflow deployment.

3.3.31 User display template added on setup (#656600)

The template `engineer description template name`, which determines the display name of the users in the **Web Client**, is now automatically created when setting up a new **ConSol CM** system. By default, the display name consists of the user's first name and the last name. As a fallback, the login name is used.

3.3.32 User display template removed (#656607, #656610)

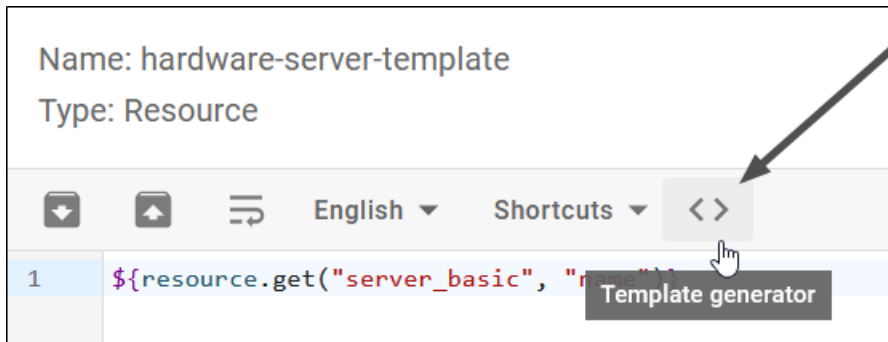
The template `engineer profile description template name`, which was used to determine the display name of the users in the user profile menu of the **Web Client**, is not needed anymore. Now, the user name defined in the template whose name is determined by the system property `engineer.description.template.name` of the module `cmas-core-server` is used in all places of the **Web Client**. Therefore, it is not required anymore to manage two templates for defining the user name.

The template `engineer profile description template name` is automatically removed when updating the **ConSol CM** system or importing a scene.

3.3.33 Template generator for display templates (#656615)

Templates which define the display names for contacts and resources can now be created using a graphical user interface.

The *Generate display template* window is shown automatically when creating a new template of the type *Contact* or *Resource*, either in the context of a contact or resource model or on the *Templates* page. When editing an existing template, the window can be opened by clicking the new *Template generator* button:



The *Generate display template* window allows to select the contact or resource fields which should be used in the template. The available fields can be filtered:

- **Show only required fields:** Displays only the fields which are set as “required” in the data model. This ensures that the fields have a value in the actual objects.
- **Show only recommended fields:** Displays only the fields of data types which are suitable for display templates, i.e. short text, integer number, fixed-point number, date and enum.
- **Select resource types:** Displays only the fields which belong to the selected resource types.
- **Select contact objects:** Displays only the fields which belong to the selected person or company objects.

To add a field to the template, select it and move it to the left. You can order the selected fields using the arrow icons.

The generated template code is displayed in the preview below.

Generate display template

Show only required fields

Show only recommended fields

Select the resource types which should use template

applications

Assigned fields

0 selected

name (applications_basic)

version (applications_basic)

Available fields

Search...

0 selected

scriptedEngineers (applications_basic)

scriptedResources (applications_basic)

scriptedTickets (applications_basic)

scriptedUnits (applications_basic)

field (applications_extended_tab1)

purchase_date (applications_extended_tab1)

support_months (applications_extended_tab1)

support_type (applications_extended_tab1)

comment (applications_extended_tab2)

field (applications_extended_tab2)

listScriptedFields (applications_extended_tab2)

manufacturer (applications_extended_tab2)

1 `<#if resource.getFieldValue("applications_basic", "name")?>${resource.getFieldValue("applications_basic", "name")}!</#if> <#if resource.getFieldValue("applications_basic", "version")?>${resource.getFieldValue("applications_basic", "version")}!</#if>`

GENERATE CANCEL

In addition, the syntax for referencing contact fields has been improved. It is now possible to use `person` and `company` to identify the contact objects:

```
person.getFieldValue("personData", "lastname")
```

```
company.getFieldValue("companyData", "name")
```

3.3.34 **Admin Tool** removed (#656640)

The **Admin Tool** application used for configuring and administrating **ConSol CM** has been removed. All its features are now integrated into the **Web Admin Suite**.

The system properties from the module `cmas-app-admin-tool` and the property `expert.mode` from `cmas-core-shared` have been removed because they are not needed anymore.

3.3.35 **Process Designer** removed (#656641)

The **Process Designer** application used for managing workflows in **ConSol CM** has been removed. It has been replaced by the **Workflows** page of the **Web Admin Suite**.

3.3.36 **Script generator for search scripts** (#656662)

Writing scripts to search for cases, contacts or resources is now easier because the `criteria` objects can be filled using a graphical user interface. The section *Scripts generators* in the *Code snippets* window in the script editor of the **Web Admin Suite** has been extended by the option *Search script* for

this purpose. This option opens a dialog where the user can define the search criteria to generate the search code. The generated code can be edited afterwards.

The available criteria depend on the selected object.

Generate search script

Search for cases | ▾

Closed cases | ▾

Select assignment | ▾

Select queues (disjunction) | ▾

🔍 HelpDesk_1st_Level ✕

Select scopes (disjunction) | ▾

Select case fields (conjunction) | ▾

🔍 helpdesk_standard:priority ✕

Select value for helpdesk_standard:priority

low, normal ▾

Text pattern (with * and ? wildcards)

CREATION DATE

from 03/01/2022 to 03/01/2023

MODIFICATION DATE

Search for cases:

- State
- Assignment
- Queues
- Scopes
- Case fields

- Free text
- Creation date
- Modification date
- Close date
- Search by contact

Search for contacts:

- Customer group
- Contact fields
- Free text
- Search for persons by their company

Search for resources:

- Resource type
- Resource fields
- Free text

When selecting a data field of the type *Sorted list*, the user must select the desired values in a selector below the data field.

3.3.37 Field values from activity forms always saved to case (#656734)

It is possible to assign fields which are not available in the current queue of the case to activity forms. If such fields are filled out by the user in the **Web Client**, they are now always saved to the case. It is not checked anymore if the current user has permissions to another queue which has the respective field group assigned.

The display of the fields has not been changed, i.e. if the field group is not assigned to the current queue, the field value is saved but not shown. Nevertheless, it is present when moving the case to a queue which has the field group assigned.

3.3.38 Method in TicketService removed (#656797)

The deprecated method `getByNameCaseSensitive` from `TicketService` has been removed. Please use `ticketService.getByName(String pTicketName)` instead.

3.3.39 Standalone deployment of **CMRF** changed (#656819)

The **CMRF** can now be deployed as a standalone application without its own application server. Therefore two deployment modes are now supported:

- **Overlay:** Deploy the **CMRF** as a `war` file in the same application server where **ConSol CM** is deployed.

You need to configure the database connection in the `cm6-config.properties` file, which is saved in the `bin` directory of the application server.

 The previously used `cm6-cmrf-config.properties` file is not needed anymore.

- **Standalone:** Execute **CMRF** as a `jar` file.

You need to configure the database connection in the `cmrf.properties` file, which needs to be saved in the same location from where the `cmrf.jar` file is executed. In this file, you can also add overwrites for changing the logging configuration.

When using the standalone mode with a MySQL database, you need to provide the path to the MySQL driver in the start command, e.g.:

```
java -Dloader.path=path/to/mysql-connector-java.jar -jar cmrf.jar
```

i For running **CMRF** in a **ConSol CM** cluster, both modes are supported, but you cannot run the **CMRF** on several nodes.

3.3.40 Editor behavior changed (#656840)

The behavior of the rich text editor in the **Web Client** has been changed to solve some problems with whitespaces and new lines. Now, if a script template contains several whitespaces next to each other, they are reduced to one in the output generated when using the script template in another template.

3.3.41 New method signature for adding validation errors (#656842)

The **ConSol CM** API has been extended with a new signature of the method `addValidationError` in `WorkflowContextService` to make it easier to add validation errors which are not bound to a specific field. You can use the following method to display a validation error as a general error message in the **Web Client**:

```
workflowApi.addValidationError("My error message")
```

3.3.42 Email script adapted for cases without contacts (#656874)

The email script `NimhMailToClosedTicket.groovy`, which is executed when an incoming email which belongs to a closed case is received, has been updated to support cases without contacts. When setting up a new **ConSol CM** system, cases without contacts are now supported automatically.

On existing systems, you need to update the script manually by adding a check for the queue type.

Replace:

```
UnitReference contactReference = closedTicket.getReferenceToMainContact  
().getValue();  
Unit contact = unitService.getById(contactReference.getUnitId())  
String contactUnitType = contact.getCustomerDefinition().getName()  
if (log.isDebugEnabled()) {  
    log.debug("Creating ticket $newTicket for contact of type $contactUnitType")  
}
```

with:


```

Unit contact = null
if(closedTicket.queue.customerAssignmentType ==
CustomerAssignmentType.MANDATORY) {
    UnitReference contactReference = closedTicket.getReferenceToMainContact
        ().getValue();
    contact = unitService.getById(contactReference.getUnitId())
    String contactUnitType = contact.getCustomerDefinition().getName()
    if (log.isDebugEnabled()) {
        log.debug("Creating ticket $newTicket for contact of type
            $contactUnitType")
    }
}
}

```

3.3.43 DataTables library integrated into *ConSol CM* (#656952)

The DataTables library, which can be used in visualization scripts to display data in tables, is now integrated into *ConSol CM*. Therefore, it is not necessary anymore to save the library in the `resources` folder of the data directory. Instead, it can be simply referenced in the `resources()` method in the field visualization script:

```

def resources(FieldKey pFieldKey, Object pFieldValue, String pClient,
FieldVisualizationContext pContext) {
    List<String> resources = [Resources.DATATABLES_JS, Resources.DATATABLES_CSS,
        Resources.DATATABLES_LOCALIZATION_DE] as String[];
    return resources;
}

```

The DataTables library is available in field visualization scripts on case, contact and resource pages, if it is added to the resources as described above. In widget visualizations, it is available directly.

If the table should be shown in German, use `dtLocaleDE` in the script. The following example adds German as a locale if the browser uses German:

```

def tableLang = currLocale == Locale.GERMAN ? "language: dtLocaleDE" : ""

```

English is the default language, if needed, it can be set explicitly by using `DataTable.defaults.language`.

The template for scripts of the type *Field visualization* has been adapted. It now includes information about the DataTables library in a comment.

3.3.44 Contact and resource forms exported with data models (#657009)

The export of the contact and resource data models using the *Export* page of the *Web Admin Suite* has been improved. When exporting a contact model, the contact forms are now exported as well. When exporting a resource model, the resource forms are also part of the export.

3.3.45 New dashboard widgets (#657109, #657011)

The dashboard of the *Web Admin Suite* has been extended by adding three new widgets to the newly created *Quick access* section:

- **Frequently visited pages:** Shows links to the pages which have been accessed most frequently. Up to 10 pages which have been opened more than 10 times can be shown.
- **Last visited pages:** Shows links to the last visited pages. Up to 10 pages can be shown.
- **Recent changes:** Shows links to open the last changed entities. Up to 12 entities of the following types can be shown:
 - User
 - Role
 - Views
 - Enums
 - Scripts
 - Templates
 - Workflows
 - Field groups
 - Queues
 - Customer groups
 - Contact models

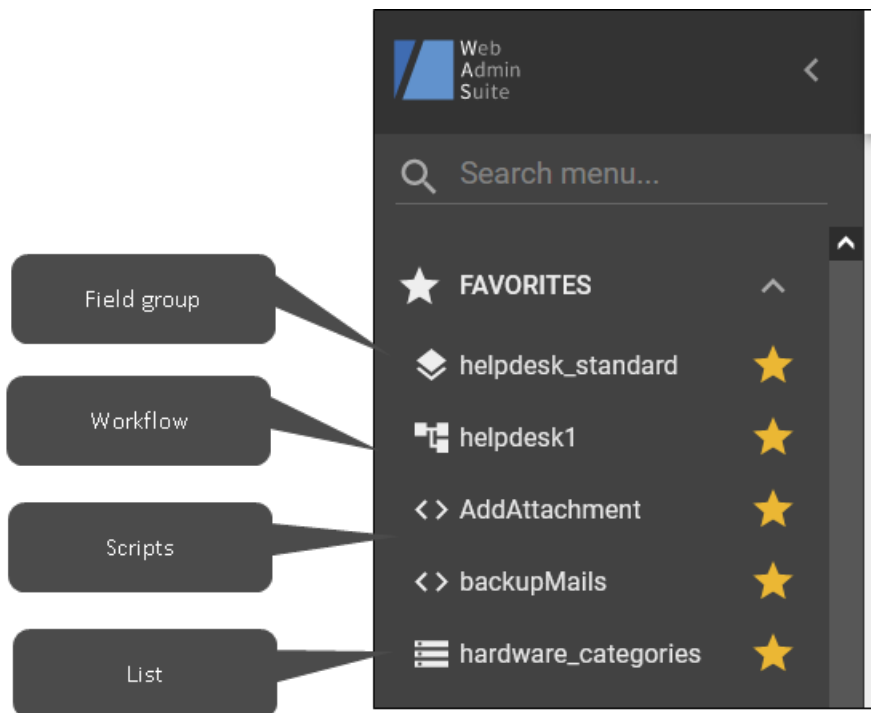
3.3.46 Favorites feature extended (#657164)

The favorites feature which allows to mark some entities with a star to pin them at the top of the table has been extended to the following pages:

- Sorted lists, *Lists* panel
- Workflows
- Case fields
- Contact fields
- Resource fields

On these pages, the user can click the star icon next to the entity name to mark it as a favorite. Favorites can be moved to the top of the table, so the user can find them easily.

In addition, all favorites are now displayed in the new *Favorites* menu item, which appears once there is at least one favorite entity.



The user can click the favorites to directly open the respective entity. Unselecting the star icon removes the entity from the favorites.

3.4 Bugs fixed

The following defects have been corrected in **ConSol CM** version 6.16.0.0.

Number	Description
624956	<p>Wrong template content for multilingual templates</p> <p>When using a text template in the Web Client, which was created by cloning a template and setting another language, the content of the original template was inserted instead of the content of the new template. This problem has been solved and cloned templates, which have the same name but a different language than their original template, are handled correctly now.</p>
628097	<p>Broken layout in quick search for long contact and resource names</p> <p>If a contact or resource, which was found in the quick search of the Web Client, had a long display name, the field with the quick search results spanned the whole page width. This problem has been solved and display names which do not fit into the regular size of the quick search results field are now truncated.</p>
630293	<p>Deactivated resources hidden on the detail search page</p> <p>Deactivated resources were not visible in the detail search in the Web Client when the user changed the number per page of the search results, although the option <i>Deactivated incl.</i> was selected. This problem has been solved and deactivated resources are now shown on all pages of the search results.</p>
630594	<p>Unneeded log message for uninitialized DWH</p> <p>Error message about missing <code>hlp</code> tables in the DWH were written to the log files even though the DWH had not been initialized yet. These messages have been suppressed as they do not mean an error when the DWH is uninitialized.</p>
630993	<p>Multiple warnings about exceeded limit for cases in grid view</p> <p>When the user tried to display too many cases in the grid view of the detail search in the Web Client, the corresponding warning message was shown several times if the grouping was changed. In addition, it was not removed when switching to the case page. These problems have been solved and the warning message is now displayed only once.</p>
632465	<p>Additional participant missing in single case export</p> <p>When selecting a single case for the scene export on the <i>Export</i> page of the Web Admin Suite, the additional participants of the case were not exported and thus missing after importing the scene. This problem has been solved and the additional participants are now exported when choosing the single case option.</p>
642544	<p>Text area fields did not keep their size after resizing</p> <p>Text fields, whose text display settings were set to <i>Text area</i>, did not keep the size defined manually by the user on case, contact and resource pages of the Web Client. If the cursor was placed in the text field, the size was set back to the default value when the user clicked outside the field. This problem has been solved and the size of the text area fields now remains as it was set by the user.</p>

Number	Description
647038	<p>Exception when clicking unavailable search action</p> <p>When trying to execute a search action in the Web Client, which is still displayed although it is not available anymore because the precondition required by its condition script is not fulfilled anymore, an error occurred. This problem has been solved and a red error message that the action is not available anymore is now shown in this situation.</p>
650042	<p>Missing columns in export of text templates table</p> <p>When exporting the text template table to a csv file using the <i>Export Table</i> option on the <i>Text templates</i> page of the Web Client, the columns <i>Template name</i>, <i>Language</i>, <i>Type</i> and <i>Usage</i> were missing in the export file. This problem has been solved and all columns are now exported.</p>
652987	<p>Cursor jumps to line above the list</p> <p>When using Firefox as a browser and creating a list in the rich text editor of the Web Client, the cursor jumped to the line above the list once the user started typing the first list item. This problem has been solved and list creation now works properly in all browsers.</p>
655190	<p>Missing JMX MBean for showing cache statistics</p> <p>The JMX MBean for showing statistics about the Infinispan cache was missing. This problem has been solved and the cache statistics can now be enabled again by setting the system property <code>statistics.enabled</code> from the module <code>cmas-core-cache</code> to "true".</p>
655574	<p>Unneeded log entries about indexing removed</p> <p>During the process of extracting text from attachments for indexing, unneeded warning messages were logged. This problem has been solved and warning messages about text extraction are not written to the log files anymore.</p>
655760	<p>Cases in case list did not match view after view change in other tab</p> <p>When working with the Web Client in several browser tabs, changing the view in one of the tabs lead to the situation that, in the other tabs, the cases displayed in the case list were changed to match the new view, although the old view was still selected in the <i>View</i> selector. Therefore, the displayed cases did not match the selected view. This problem has been solved and the displayed cases in the case list are not changed anymore when another view is selected in another tab. Instead, both the selected view and the displayed cases are changed to the last selection when the page is reloaded.</p>
655774	<p>Busy indicator overlapped dashboard headline</p> <p>The busy indicator which is shown when switching tabs in the dashboard in the Web Client overlapped the dashboard headline causing a flickering effect. This problem has been solved and the busy indicator now covers only the dashboard tabs and their content.</p>

Number	Description
656612	<p>Unneeded blanks at the end of German labels</p> <p>The German default values for the labels <code>cmweb.main.engineer.base.initlow</code> and <code>cmweb.main.engineer.plural.initlow</code> contained a blank space at the end of the value, which caused small layout problems in the Web Client. This problem has been solved for new setups, so that these labels do not contain unneeded blanks at the end of their values in new ConSol CM systems.</p>
656795	<p>Notification not sent from condition script</p> <p>If sending a notification was implemented in the condition script of an activity or action, the notification was not sent always when the corresponding case, contact or resource was opened in the Web Client. This problem has been solved and sending notifications from condition scripts now always works correctly.</p>
656870	<p>Not possible to export table with date for resources</p> <p>When trying to export a table which contains a date column on a resource page of the Web Client using the <i>Export Table</i> button below the table, an error occurred. This problem has been solved and it is now possible to export tables with dates for resources.</p>
657004	<p>Font size cut off</p> <p>The font size setting in the rich text editor in the Web Client was cut off and only the first digit followed by three dots was displayed. This problem has been solved and the whole font size is now visible.</p>
657345	<p>Error when trying to remove a participant</p> <p>When adding a participant to a case in the Web Client, remove it, adding it again and removing it again directly afterwards, before saving the changes, an error occurred when canceling the edit mode of the case. This problem has been solved and adding and removing participants does not cause errors anymore.</p>

The following defects have been corrected in **ConSol CM** version 6.16.0.1.

Number	Description
657675	<p>Attachment preview did not work</p> <p>The preview of attachments in the <i>Attachments</i> section of cases in the Web Client did not work. This problem has been solved and the preview is now available for images, text files and PDF files.</p>
657692	<p>Copying case ID not possible during or after editing the case</p> <p>The feature to copy the case ID to the clipboard by clicking it in the header of a case in the Web Client did not work when the case was in edit mode or after saving or canceling changes made in the edit mode. This problem has been solved and copying the case ID is now possible in combination with the edit mode.</p>
657703	<p>Wrong online help link</p> <p>The online help link of the Web Admin Suite pointed to the online help for ConSol CM version 6.15 instead of 6.16. This problem has been solved and the online help link now points to the correct help version.</p>

Number	Description
657711	Missing translations in <i>Attachments</i> section Some German translations were missing in the <i>Attachments</i> section of cases in the Web Client . This problem has been solved and the <i>Attachments</i> section is now completely localized.
657713	Text area size changed unexpectedly When clicking inside a data field of the type “text area” in the Web Client to focus the field and clicking outside the field afterwards, the size of the text area changed. This problem has been solved and text area fields now keep their size after losing the focus.
657727	Links on <i>Troubleshooting</i> page corrected The links in the <i>Further information</i> section of the <i>Troubleshooting</i> page of the Web Admin Suite have been corrected. There is now one link to the new <i>Setup and Operations Manual</i> , instead of separate links for each manual.

The following defects have been corrected in **ConSol CM** version 6.16.0.2.

Number	Description
657797	Not possible to upload attachment when SSO is used When using SSO as an authentication method for the Web Client , it was not possible to upload attachments in the <i>Attachments</i> section of a case because the session timed out before the upload was completed. This problem has been solved and uploading attachments now works correctly when SSO is used.
657808	Background color for text classes too light The background color for case history items as determined by the text class color was too light so that the color was hardly visible. This problem has been solved and the background color is a bit darker now.

The following defects have been corrected in **ConSol CM** version 6.16.0.3.

Number	Description
657872	Scene import not possible An error occurred when trying to import a scene using the <i>Import</i> page of the Web Admin Suite . This problem has been solved and scene imports are now possible.
657882	Wrong list formatting when replying to email When selecting the <i>Reply</i> option to reply to an email in the Web Client and using a list in the reply, the list was not formatted correctly. The quoted email and all lines of the reply text became one list item. This problem has been solved and lists are correctly formatted now when replying to emails.

4. Version 6.16.1 (24.07.2023)

Version 6.16.1 includes all **ConSol CM** changes and additions of

Release	Date	Scope	Merged versions
6.16.1.0	24.07.2023	New major version, includes new features, changes and bug fixes	6.15.5.0, 6.15.6.0

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



Please check the [Breaking changes and mandatory actions](#).

4.1 Update and installation instructions

Please read all information on update and installation of **ConSol CM** specific for version 6.16.1 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.

4.1.1 System upgrade from 6.16.0 and earlier versions

This section informs about specific steps when upgrading **ConSol CM** from 6.16.0 or earlier versions to version 6.16.1.

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

4.1.2 Script modification requirements

This release features some interface changes in API methods. These changes can either be improvements which offer the potential of simplifying your scripts or breaking changes. **Please be aware that scripts using the respective methods may need adjustments!** The affected methods are listed in the following sections of this document:

- [Support for changing case field group visibility added to CM/Track \(#631137\)](#)
- [Support for Java 17 added \(#656720\)](#)
- [New method to prefill form fields \(#657149\)](#)
- [New way to provide the task execution date \(#657343\)](#)

4.1.3 Configuration modification requirements

The changes in this release require several system properties, configuration files or page customizations to be reviewed and possibly adjusted. Please see the following sections for details:

- [Visibility configuration for customer content improved \(#629493, #657384\)](#)
- [Global date format \(#642601\)](#)
- [Oracle database connection URLs changed \(#656156\)](#)

4.1.4 Support for Java 17 added (#656720)

Java 17 is now supported as a runtime environment for the **ConSol CM** server.



Java 17 does not support some aspects of Groovy syntax. You need to update your scripts accordingly, see [Scripting changes](#) for details.



If you use LDAP on a JBoss version lower than 7.4.9, you need to add the following parameter to the start command of your application server:

```
--add-opens java.naming/com.sun.jndi.ldap=ALL-UNNAMED
```

The JMX bean for the Infinispan cache manager has been removed.

4.1.4.1 Scripting changes

In Groovy you can access private attributes of methods using reflection. Java 17 does not allow this anymore if the classes belong to different modules. Therefore, you need to check your scripts and update them, so that the attributes are accessed using the appropriate methods.


A common example is the size of a list. The syntax

```
if(myList.size < 1) {  
    // do something  
}
```

needs to be replaced by

```
if(myList.size() < 1) {  
    // do something  
}
```

If both classes belong to the same module, access is still possible. Therefore, you can still use `ticket.id` instead of `ticket.getId()`.

 A task script which helps you to identify problematic places in your scripts is available upon request.

No further instructions available.

4.2 Changes

This section illustrates all relevant software product changes for version 6.16.1 of **ConSol CM**.

4.2.1 Usability improvements

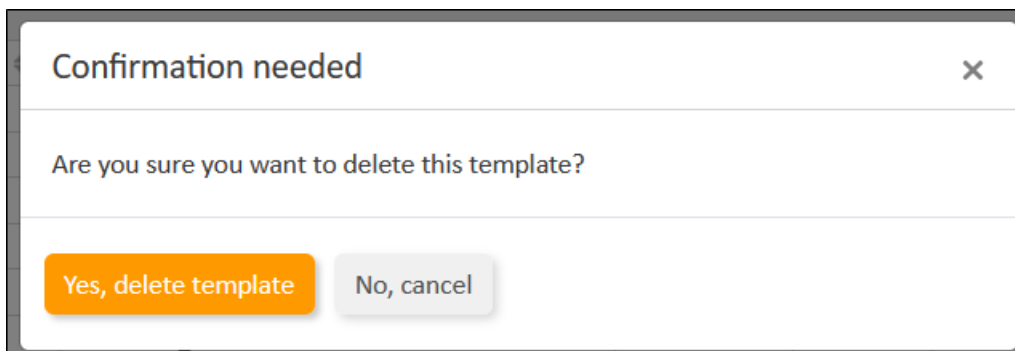
Icon for BMP images added (#629283)

Attachments with the extension `.bmp` are now properly recognized by the **Web Client** and have their own icon:



Confirmation for template deletion added (#631234)

When trying to delete a text template on the *Text templates* page of the **Web Client**, a confirmation dialog where the user can decide if he really wants to delete the template is now shown before the template is removed.



Additional horizontal scrollbar for detail search (#631483)

The grid view of the detail search in the **Web Client** now has a horizontal scrollbar at the top, in addition to the one at the bottom. This is helpful if the grid view contains many cases, because the users can see the columns on the right without scrolling to the bottom of the grid.

Logout page improved (#655857)

The logout page of the **Web Client** now shows a more user-friendly message: *You are now logged out of ConSol CM. See you soon.* In addition, the space between the message and the button to log in again has been increased.

Behavior when canceling script generator improved (#656924)

When canceling the modal window of a script generator in the **Web Admin Suite**, the *Code snippets* window was closed as well. This behavior has been changed so that the *Code snippets* window remains open and the user can select another script generator or snippet.

Length of input fields increased (#657068)

The length of the input fields on the detail search page of the **Web Client** has been increased, so that the user can see the complete values when entering longer values.

Centering of workflows changed (#657357)

When opening a workflow on the *Workflows* page of the **Web Admin Suite**, it is now centered according to its geometrical center. Previously, the centering was based on the start node instead.

Message for attachment selector improved (#657382)

When clicking the *Attachments* field in the email editor of a case in the **Web Client**, a selector which shows the available attachments is displayed. The text which is shown if no attachments are available has been changed to make it more user-friendly. It is now *No attachments yet. You can upload new files via the button to the right.*

Helper text for quick search (#657390)

When clicking the *Quick search* field in the top right corner of the **Web Client**, a window with assisting hints for the usage of the quick search is shown. They explain how to combine several search terms and use the asterisk (*) as a wildcard.

Participant role preselected (#657400)

When adding an additional participant to a case in the **Web Client**, the role is now preselected if the selected user has only one available role.

Better display of read-only fields (#657407)

The values of read-only fields are now displayed as text when editing cases, contacts or resources in the **Web Client** or filling out forms. The same layout as in the view mode is used. Empty read-only fields are not shown at all and read-only URLs are clickable.



This makes it easy for the user to distinguish between read-only and editable fields. In addition, it improves the visual presentation of the fields because no unneeded components are shown.

Wording of detail levels adjusted (#657500)

In [Detail level selection improved \(#653797, #655472\)](#), the wording for the different detail levels of the case history in the **Web Client** was changed. Now, the wording of the respective settings in the **Web Admin Suite** has been adjusted accordingly. The *Visibility in history* selector on the *Workflows* page, the *Visibility* selector on the *Text classes* page, and the *Visibility* selector on the *Case history* page now use the terms “low”, “medium” and “high” to refer to the detail levels.

Current objects preselected in template generator (#657501)

When creating a new display template from the *Templates* tab of a contact object or resource type in the **Web Admin Suite**, the object is now preselected in the selector to filter the available fields in the template generator:

- **Person template:** Person and company object are preselected
- **Company template:** Company object is preselected
- **Resource template:** Resource type is preselected

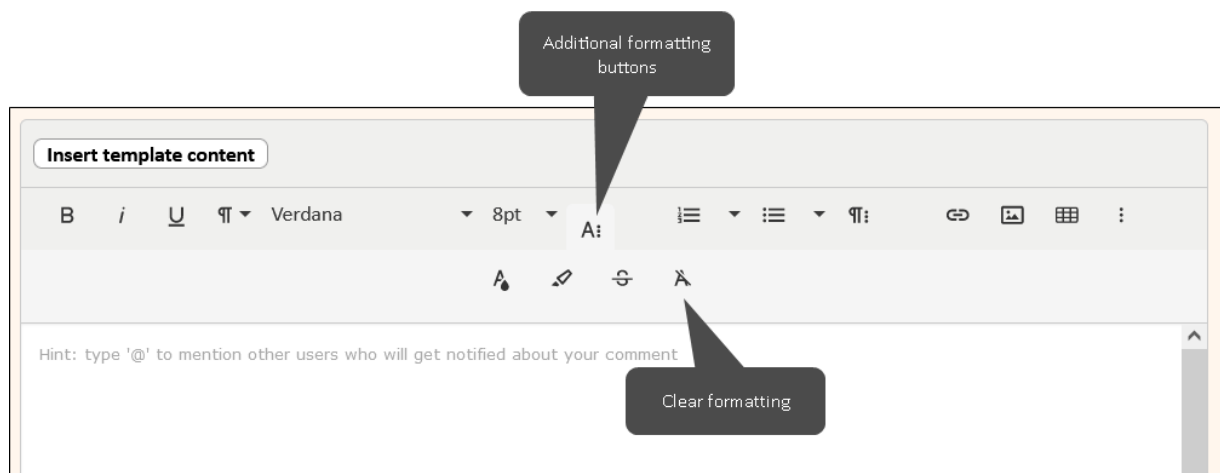
In addition the wording of the selectors has been improved. It is now *Select the contact model to see available template fields* and *Select the resource types to see available template fields* to indicate that the user can make a selection to see the fields which can be used in the given context.

Display of user fields in the queue wizard improved (#657509)

The user creation or selection in the *Access* tab of the queue wizard in the **Web Admin Suite** has been improved. Now, the *Create or select a user* field is mandatory, so that either an existing user needs to be selected or a new user needs to be created. The email and password fields are only shown if a new user is created.

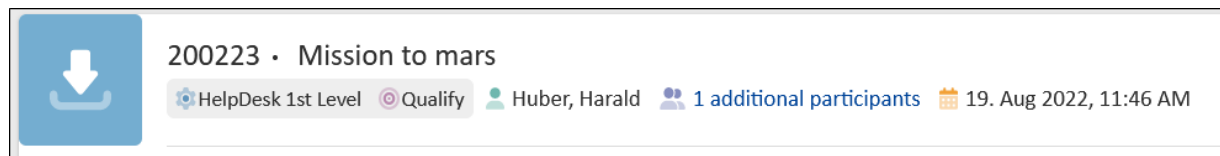
Button to clear formatting added to the editor (#657599)

The rich text editor in the **Web Client** has been extended by a button to clear text formatting. This is useful when pasting text from other applications which contains unneeded formatting markup. The *Clear Formatting* button has been added to the *More text* button group:



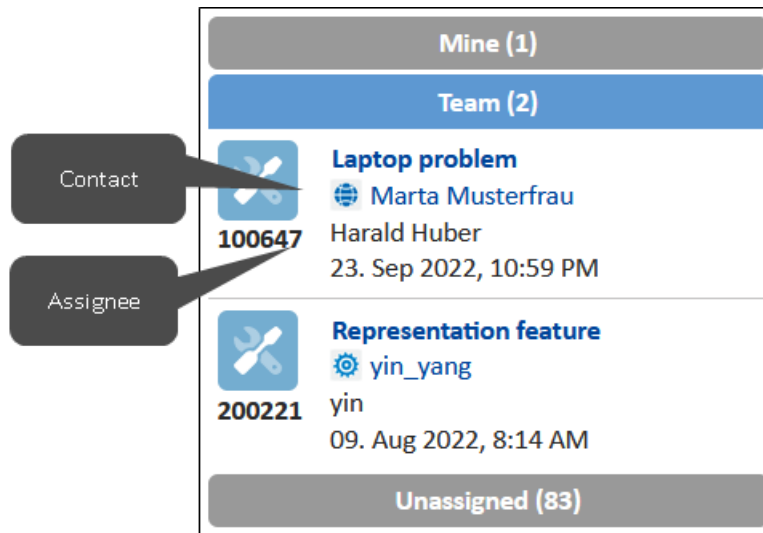
Icons for the case header (#657721)

The basic information which is displayed in the case header of the **Web Client** is now accompanied by icons which illustrate the meaning.



Improved display of case list entries (#657722)

The display of the contact and assignee in the case list entries in the **Web Client** has been improved. The labels *Contact* and *Assignee* have been removed. Instead, the contact icon is now displayed next to the contact name. When hovering the contact or assignee name, a tooltip indicating the type of object is shown.



Drag area of case icon enlarged (#657788)

The drag area of the case icon in the header of a case in the **Web Client** has been enlarged. It is now possible to click anywhere in the colored square to drag the case to the favorites or workspace. Previously, you needed to click the icon for dragging it.

Tooltip for scope improved (#657812)

The English tooltip which is shown in the **Web Client** when hovering the name of the scope in the case header or the case list has been improved. It is now *Current scope/state in the workflow* to better convey the meaning of the term "scope".

Warning for DWH initialization added (#657883)

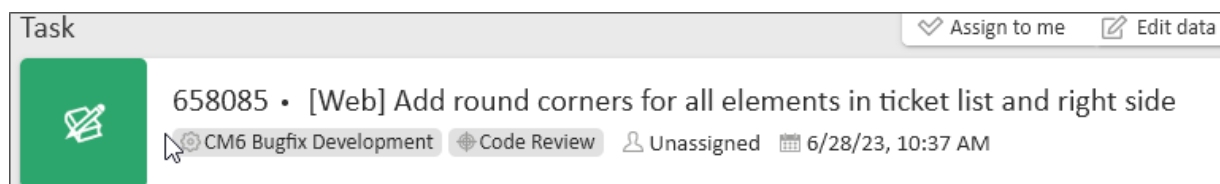
When selecting the *Delete existing data* option in the window to initialize the DWH on the *Administration* page of the **Web Admin Suite**, an info box with a warning is now shown below the checkbox if the DWH database is empty, because trying to delete data from an empty database will fail.

Smoother fade-in and fade-out for quick search results (#658023)

When using the quick search in the **Web Client**, the search results and the additional hints below, now have a smooth fade-in and fade-out effect.

Rounded corners for **Web Client** elements (#658085, #658104, #658149)

The case icon, the elements in the case list, the elements in the panel on the right of the **Web Client**, the dashboard widgets, the tab panels, and the buttons now have modern rounded corners which match the general design of the **Web Client**:



4.2.2 Security and third-party library updates

The following third-party libraries have been updated in this **ConSol CM** version:

- **Froala (#657962)**: updated from version 4.0.12 to 4.0.19 in the **Web Client** and **CM/Track**
- **MaterialUI (#657829)**: updated from version 5.4.1 to 5.13.3 in the **Web Admin Suite**
- **React (#657829)**: updated from version 17.0.2 to 18.2.0 in the **Web Admin Suite**
- **Spring (#657420)**: updated from version 5.3.20 to 5.3.27
- **Spring Boot (#657421, #657424, #658272)**: updated from version 2.7.9 / 2.7.10 to 2.7.11 / 2.7.13 in the **Web Admin Suite**, **CM/Archive** and the **CMRF**.
- **Tomcat dbcp (#657851)**: updated from version 9.0.72 to 9.0.74
- **Wicket (#657495)**: updated from version 9.12.0 to 9.13.0

4.2.3 Log level for the notification about case assignments changed (#618645)

When there is no email template for case assignment or unassignment configured for a queue, no emails to notify assigned or unassigned users are sent. The corresponding messages are now logged at the DEBUG level instead of at the INFO level. In addition, the message has been enriched by adding the affected case and user.

4.2.4 Visibility configuration for customer content improved (#629493, #657384)

It is now easier to make content, which is already known by the customer, visible to the customer in **CM/Track**. This can be comments or attachments added by the customer himself in **CM/Track** or emails which were sent or received by the customer. The *Text classes* page of the **Web Admin Suite** has been extended, so that it is now possible to handle this content automatically. Therefore, it is not required anymore to implement a specific handling of customer content in the workflow.

4.2.4.1 Comments and attachments

The set of default text classes has been extended by a new default text class for content from **CM/Track**, called `default_unit_class`. This text class is applied automatically to all comments and attachments which were added by the customer in **CM/Track** or using the REST API. On the *Text classes* page of the **Web Admin Suite**, it has the checkbox *All entries are visible to the customer* selected, so that the customers can see their own comments and attachments right away in **CM/Track**.

The *Set default classes* window has been extended with the entry *For content from CM/Track*, which references the new `default_unit_class`. You can select another text class for comments and attachments from **CM/Track** there. The text class which is set as default for content from **CM/Track** has a small D icon in the *Customer* column of the overview table.

The new `default_unit_class` is not assigned to the queues automatically. If you want to make it available for manual selection in the **Web Client**, you need to assign it to the respective queues in the *Text classes* tab of the *Queues* page. The default class for content from **CM/Track** is not overwritten by the queue-specific text class. An info box has been added below the selector of the queue-specific text class to clarify its impact.

The `default_unit_class` is created automatically when setting up a new **ConSol CM** system or updating **ConSol CM** to version 6.16.1.0.

4.2.4.2 Emails

The *Text classes* page of the **Web Admin Suite** has been extended with the new setting *Only emails (incl. email attachments) with the customer as sender or recipient are visible to the customer*. If checked, emails which were sent or received by the customer are visible to the customer in **CM/Track**. This applies also to the attachments which belong to these emails. Emails, which have the email address of the contact as a sender or recipient are covered by this setting.

You can select *Only emails (incl. email attachments) with the customer as sender or recipient are visible to the customer* for the text classes which are applied to incoming and outgoing emails to enable the customer to see his emails directly in **CM/Track**. If the customer should also see the email attachments, you need to apply the setting to the default attachment class as well.

4.2.5 Support for changing case field group visibility added to CM/Track (#631137)

Case field groups with the setting *Visible* set to “false” can now be made visible in **CM/Track** by using the method `setGroupProperty` in `workflowApi`:

```
workflowApi.setGroupProperty("group_name", GroupPropertyType.VISIBLE, "true")
```

Previously, this method worked for the **Web Client** only.


4.2.6 Return value for missing mailbox name for health check changed (#634710)

When retrieving information about the configured incoming email connections using the health check feature, the attribute `name` now has the value `"n/a"` instead of `null` if no name for the mailbox is set.


4.2.7 Global date format (#642601)

Dates are used in various places of the **Web Client**, e.g. in data fields, history entries or in the case header. The date format is now configured globally for all dates using the page customization. Two new attributes have been added to the type `cmApplicationCustomization` for this purpose:

- **globalDateEditFormat**: Determines how dates are displayed when editing them, e.g. in date fields. The default format is `dd.MM.yy` for German and `M/d/yy` for English and other languages. This results in dates being edited in the format “24.04.23” for German and “4/24/23” for English.

 The default values match the previous behavior.


- **globalDateViewFormat**: Determines how dates are displayed when viewing them, e.g. in a case. The default format is `dd.MMM yyyy` for both English and German. This results in dates displayed like “24. Apr 2023”.

 The default values introduce a new behavior.

You can change the format for each language independently, e.g.

`{"de": "dd.MM.yyyy", "en": "M/d/yy"}`. You can use `else` to indicate the format which should be used for all languages which are not configured explicitly.

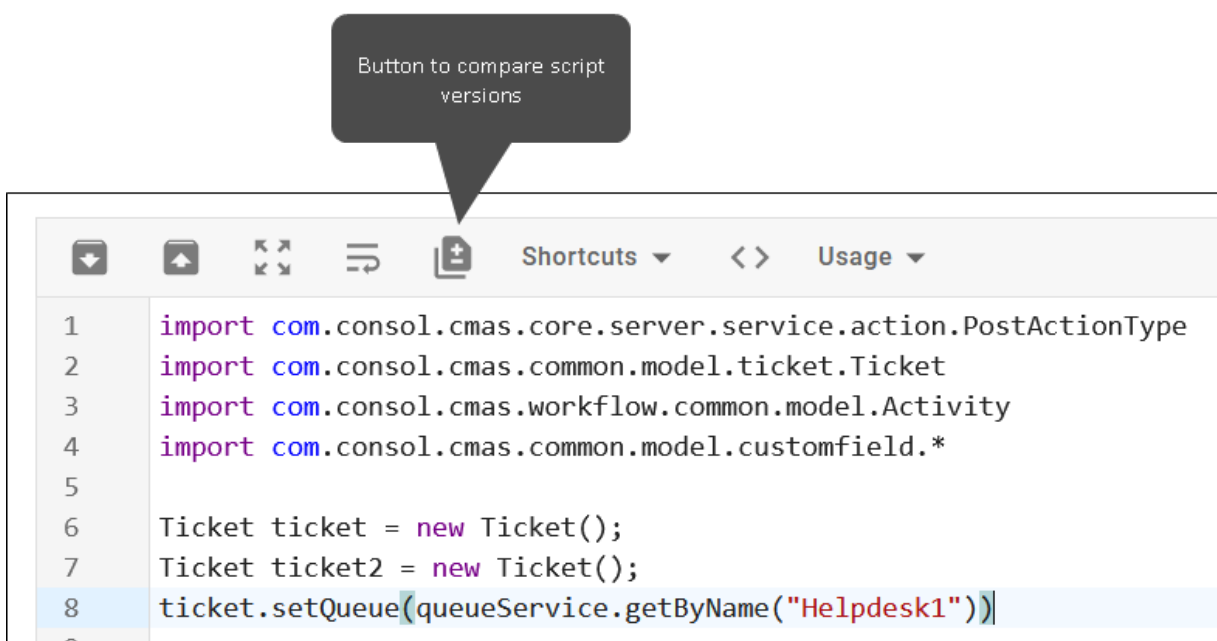
The global date format can be overwritten for data fields by setting *Date format* to the desired format for individual date fields.

 The global date format is not applied to the red error messages which are shown when an error occurred.

4.2.8 Viewing local changes to scripts (#646168)

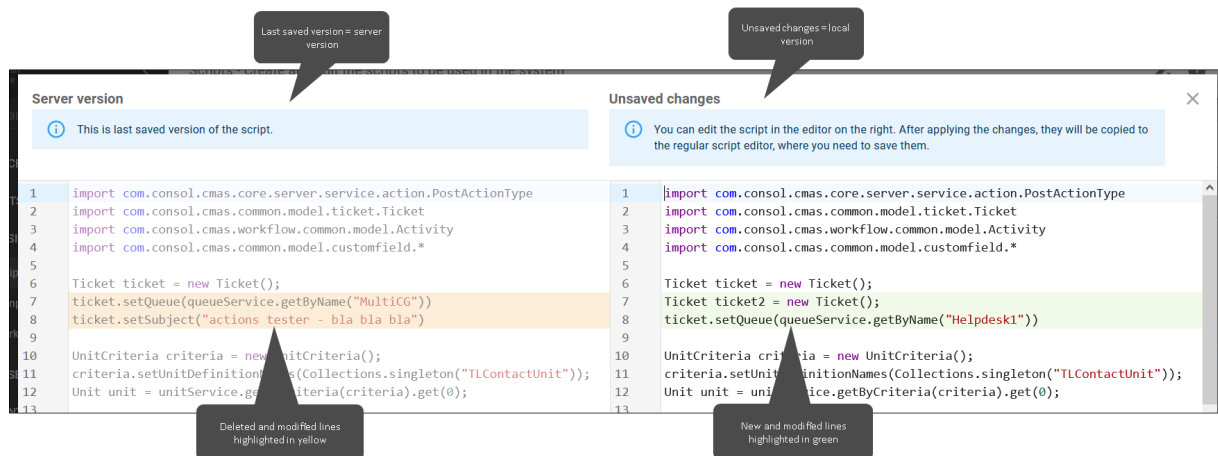
The script editor of the **Web Admin Suite** has been enhanced with a feature to compare unsaved changes in the current script with the last saved version. Therefore, the user can easily see what he changed before saving the script.

The *Compare with last saved version* button has been added to the toolbar of the script editor for this purpose.



It opens a modal dialog with a comparison between the two script versions. The comparison shows the last saved version on the left and the current version with unsaved changes on the right. The differences between the two versions are highlighted as follows:

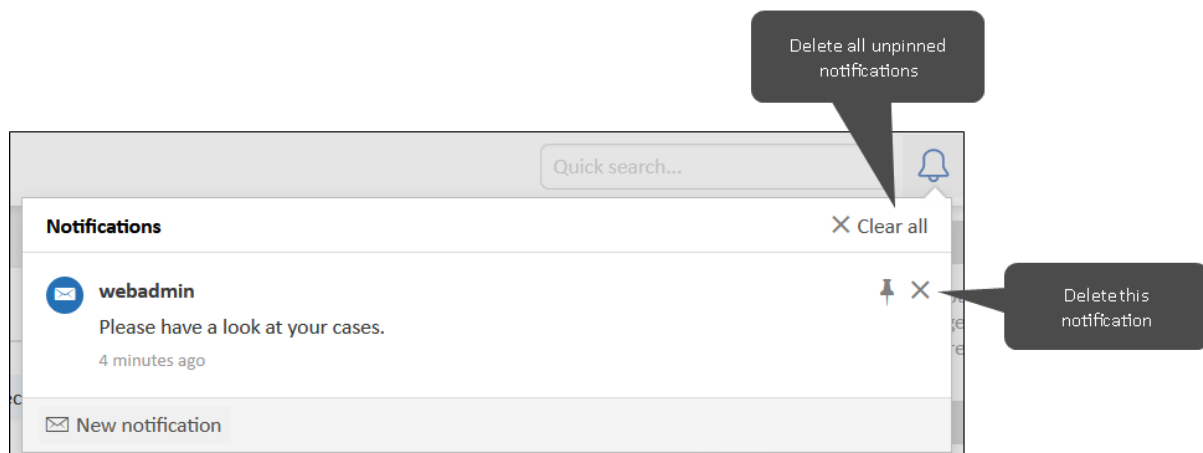
- Lines added to the current version are highlighted in green on the right.
- Lines modified in the current version are highlighted in green on the right and in yellow on the left.
- Lines removed from the current version are highlighted in yellow on the left.



You can edit the local version on the right. Click *Apply changes* to return to the editor where you can save your changes. Clicking *Discard changes* reverts your unsaved changes and resets the script to the server version. In addition, you can copy the server version to the clipboard.

4.2.9 Deletion of single notifications (#649979)

It is now possible to delete single notifications in the **Web Client**. An X icon as been added to the upper right corner of the notification for this purpose.



In addition, the paper bin icon has been replaced by an X icon in the *Clear all* button, which removed all unpushed notifications.

4.2.10 Disabling of field groups improved (#652133)

When disabling a data field group on the *Case fields*, *Contact fields* or *Resource fields* page of the **Web Admin Suite**, all fields which belong to the group are now disabled as well. Therefore, these fields will not be shown anymore in the **Web Client** and **CM/Track**. Previously, disabling a field group only had the effect that the group could not be assigned to queues, contact models or resource models.

Enabling a field which belongs to a deactivated field group automatically enables the field group.

i Enabling a field group does not enable all its field automatically. You need to enable the fields individually or using a bulk action.

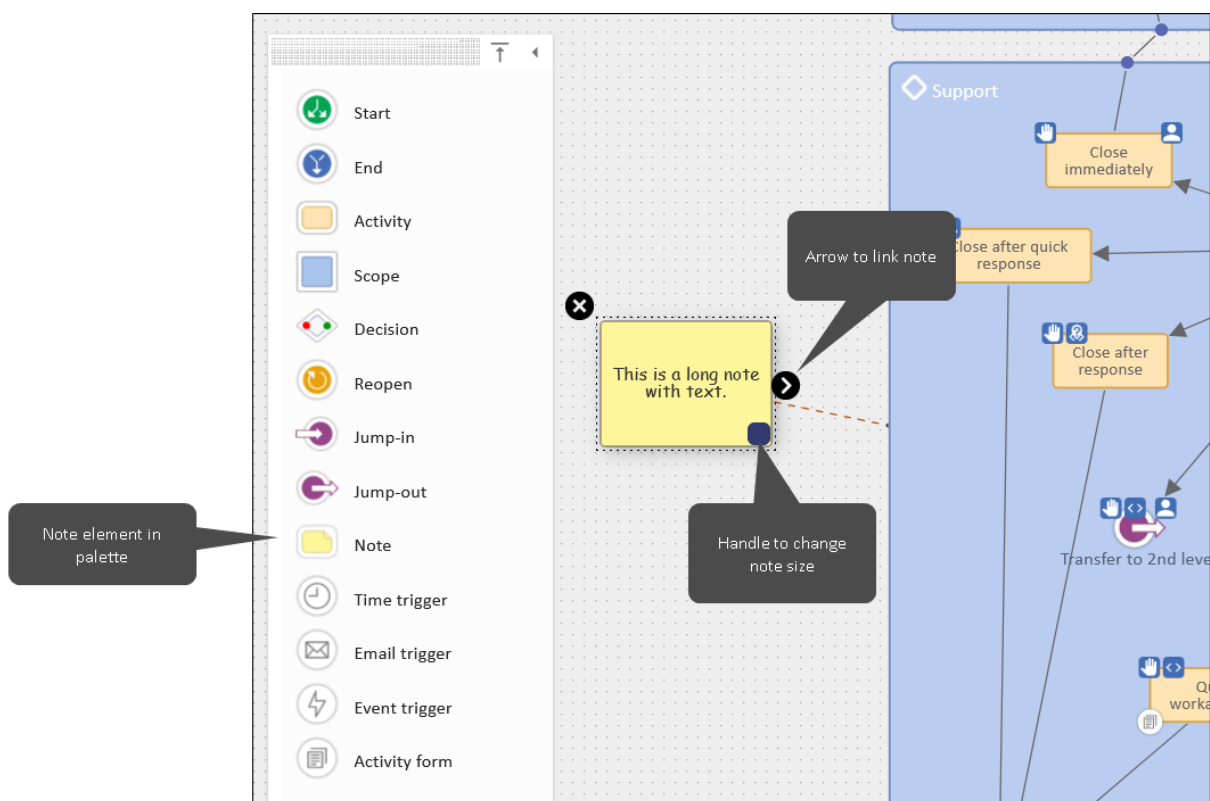
4.2.11 Notes element for workflows (#654557)

The workflows in the **Web Admin Suite** have been extended with the new element *Note*. Notes can be used to document the workflow, for example to add explanations about its logic or hints for the process developer. This facilitates knowledge transfer and improves the internal documentation.

Notes can be added to any place in the workflow, inside or outside scopes, by dragging them from the palette to the canvas. You can edit the text in the details panel or by double-clicking the note. By default, notes are yellow with a black text. In the details panel, the background color and the text color can be changed, so that it is possible to use different colors for notes with specific purposes. The size of a note can be changed using the handle in its lower right corner.

Notes can be connected to other workflow elements, e.g. scopes or activities, by using the arrow button on the right of the note. The connection is purely informative to indicate which element a note refers to. It does not have any impact on the process.

i If a note is connected to a scope, it should be placed outside of the scope.




4.2.12 Handling of **CM/Track** credentials improved (#654612, #657783)

The credentials for **CM/Track** are provided in the **Web Client** by filling out the contact fields with the settings *User name for CM/Track* and *Password for CM/Track*.

Contacts can now only log in to **CM/Track** if there is one field with *User name for CM/Track* set to "true" and one field with *Password for CM/Track* set to "true". Setting the user name and password settings to "false" or removing them disables the login, but does not delete the credentials from the database. Previously, contacts could still log in even if the settings had the value "false".

The credentials are created in the database when setting *User name for CM/Track* and *Password for CM/Track* to “true” or adding these settings with the value “true”. Previously, credentials were created when adding the setting regardless of its value.

 When importing a scene with these settings set to the value “true”, no credentials are created. You need to set the values to “true” manually on the target system.

Validation messages are shown when you try to assign the settings *User name for CM/Track* or *Password for CM/Track* to fields which would result in an incorrect configuration:

- The contact field belongs to a contact model which already has another user name or password field.
- The field which you would like to use for the user name is already filled out with non-unique values in runtime objects.

4.2.13 Method to set email headers (#655663)

The **ConSol CM** API has been extended by a method which allows to set a header for an email which is created via script. The method `setHeader()` has been added to the class `Mail` for this purpose.

Example to set a high priority for an email:

```
new Mail().setHeader("Importance", "High")
```

4.2.14 Improvements for log files

The *Log files* page of the **Web Admin Suite** has been extended with several features to improve its usability:

- **Download all log files (#646158):** The user can now download all log files by clicking the *Download all log files* button in the *Select log files to download* window.
- **Full screen mode (#655752):** The user can display the log file on the full screen by clicking the new *Full screen* button above the log entries.
- **Text wrapping (#655753):** The user can change the display of the log file by clicking the new *Wrap text / Unwrap text* button above the log entries. Unwrap text displays one log entry per line with a horizontal scrollbar if the length exceeds the available screen space. Wrap text displays a log entry in several lines, so that the whole entry is visible without scrolling. By default the text is wrapped.
- **Configurable refresh interval (#655757):** The user can now select how often the displayed log file is refreshed by choosing *Refresh every 5 seconds* (default), *Refresh every second* or *Do not refresh automatically*. In addition, the log file can be refreshed manually by clicking the new *Refresh* icon next to the selector. The icon spins while the log file is refreshing, so that the user sees that a refresh operation is in progress.

4.2.15 Oracle database connection URLs changed (#656156)

The default URLs for connecting to Oracle databases have been changed to use the service name instead of the service ID. This is needed because service IDs are no longer supported by Oracle.

The `cm6-config.properties`, `cm6-domain-config.properties` and `cmrf.properties` files now include the following default URL:

```
jdbc:oracle:thin:@localhost:1521/SERVICE_NAME
```

4.2.16 Logging of email connection errors improved (#656785)

When clicking the *Test connection* button on the *Email configuration* page of the **Web Admin Suite**, messages related to connection errors are now both displayed in a toast in the **Web Admin Suite** and written to the log files. Therefore, the users can check the exception later on the *Log files* page.

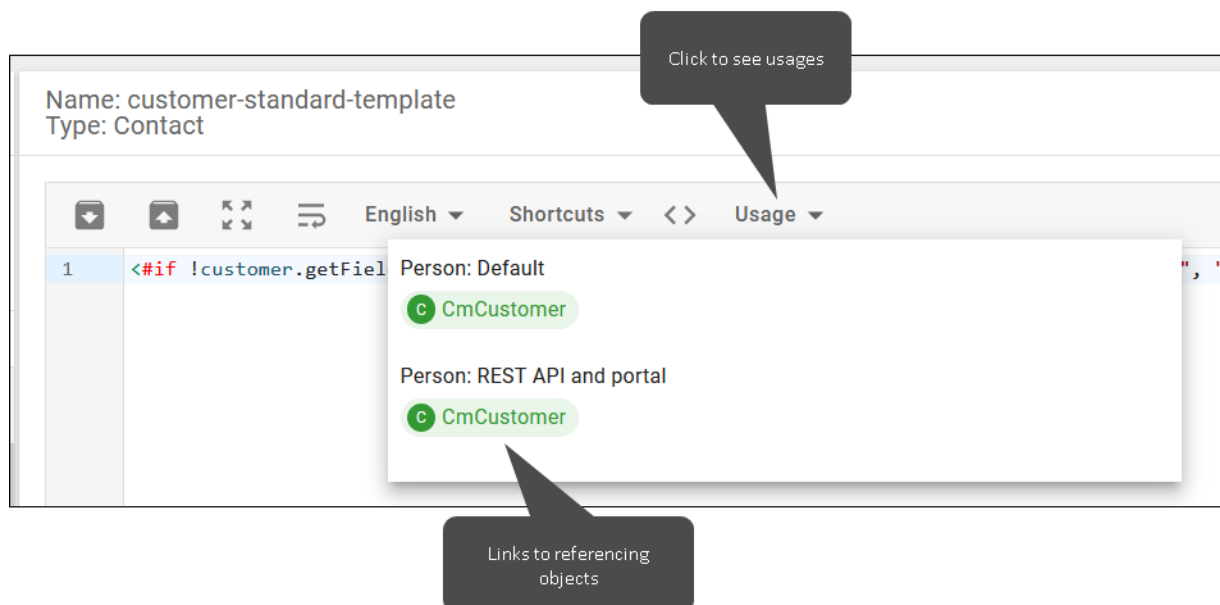
4.2.17 Possibility to view the usage of templates (#656821)

The template editor of the **Web Admin Suite** has been enhanced by providing the opportunity to view where a template is used and jump to the respective places. This makes it easier for the user to assess the impact of changes to the template.

The button *Usage* has been added for this purpose. It shows the usages of the template and allows the user to jump to the respective places. The following usages are covered:

- **Queues:** email template for case assignment / unassignment
- **Contact models:** display template for person / company objects in different situations
- **Resource types:** display template for resources in different situations
- **Scripts:** any script
- **Templates:** any other template

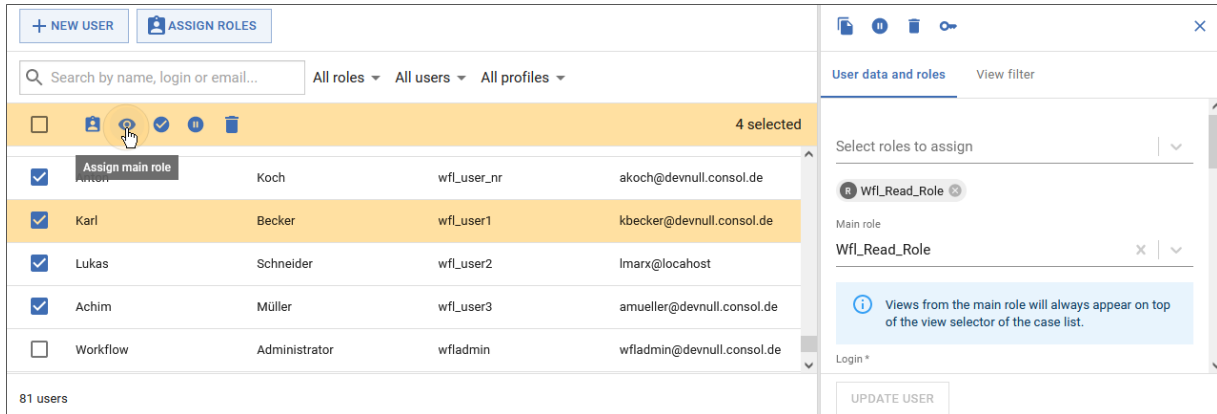
 The references inside scripts and templates are determined based on a full text search for the template name inside quotation marks.



If the template is opened in a modal window, the *Usage* panel is available but there are no links to jump to the referenced places.

4.2.18 Assign main roles to several users (#656948)

It is now possible to set the main role for several users at once on the *Users* page of the **Web Admin Suite**. You can click the new bulk action icon *Assign main role* to open a modal window which shows all the roles which are assigned to all the selected users. If the selected users do not share any role, an info box with a corresponding warning is shown.



Assign main role	Name	Role	Login
<input checked="" type="checkbox"/>	Koch	wfl_user_nr	akoch@devnull.consol.de
<input checked="" type="checkbox"/>	Karl Becker	wfl_user1	kbecker@devnull.consol.de
<input checked="" type="checkbox"/>	Lukas Schneider	wfl_user2	lmarx@localhost
<input checked="" type="checkbox"/>	Achim Müller	wfl_user3	amueller@devnull.consol.de
<input type="checkbox"/>	Workflow Administrator	wfladmin	wfladmin@devnull.consol.de

4.2.19 New default setting for field historization (#657042)

When creating a new data field on the *Case fields*, *Contact fields* or *Resource fields* page of the **Web Admin Suite** the setting *Field value omitted from history* is now set to “true” by default. The *Settings* tab is highlighted in orange with an asterisk to remind the user to review this setting before creating the field.

Fields which are used to store internal variables are usually not historized to avoid filling the database with unneeded history entries.

4.2.20 User settings added to the **Web Admin Suite** (#657085)

The **Web Admin Suite** has been extended by a *User settings* dialog. It is opened by clicking the *Settings* option in the user menu, which is accessible after clicking the blue circle with the user initials.

The dialog contains two options:

- Remove favorites
- Remove pages from quick access

They remove the respective data from the browser’s local storage. This can be needed if a **ConSol CM** installation uses an URL which was used by a different **ConSol CM** installation previously. In such a case, the favorites and quick access links can be incorrect.

4.2.21 New method to prefill form fields (#657149)

The **ConSol CM** API has been extended with a new method to prefill the fields of action forms. You can now set field values in the assigned form prefill script using the syntax `formFields.set("fieldGroup:field", "value")`.

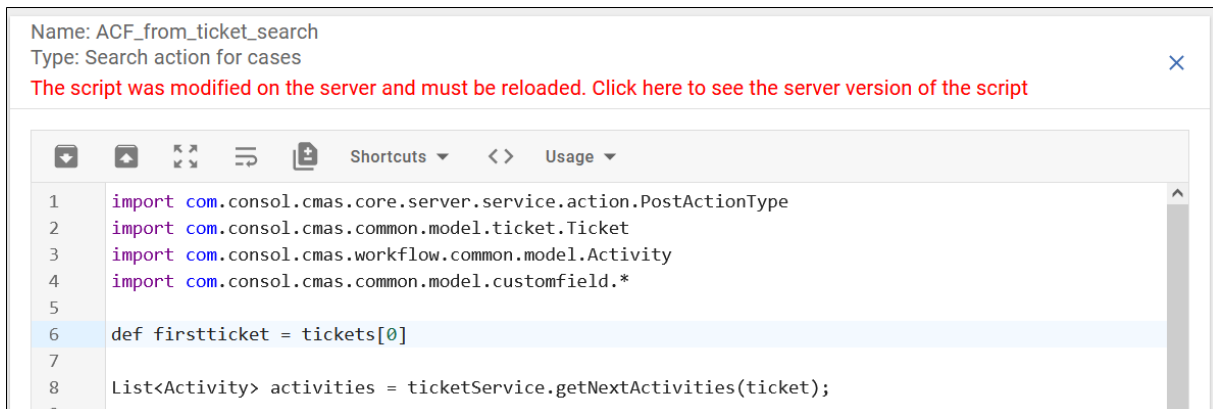
Example:

```
formFields.set("helpdesk_standard:country", "france")
```

4.2.22 Concurrent editing of scripts improved (#657931)

The behavior of the *Scripts* page of the **Web Admin Suite** regarding concurrent edits has been improved. Script which were saved by another user while the current user is working on the *Scripts* page are now reloaded automatically unless the current user has edited the same script. Therefore, it is not necessary anymore to reload the whole page because another script was modified in the meantime.

If a script which has unsaved modifications was saved by another user, a red warning text is displayed in the script header.



The screenshot shows a script editor window with the following content:

```

Name: ACF_from_ticket_search
Type: Search action for cases
The script was modified on the server and must be reloaded. Click here to see the server version of the script

import com.consol.cmas.core.server.service.action.PostActionType
import com.consol.cmas.common.model.ticket.Ticket
import com.consol.cmas.workflow.common.model.Activity
import com.consol.cmas.common.model.customfield.*

def firstticket = tickets[0]

List<Activity> activities = ticketService.getNextActivities(ticket);
  
```

The user can click the red message to open a preview where the changes are highlighted. The comparison shows the last saved version by the other user on the left and the current version with unsaved changes on the right. The differences between the two versions are highlighted as follows:

- Lines added to the current version are highlighted in green on the right.
- Lines modified in the current version are highlighted in green on the right and in yellow on the left.
- Lines removed from the current version are highlighted in yellow on the left.

4.2.23 New workflow template (#657172)

When creating a new workflow in the *Workflows* page of the **Web Admin Suite**, it is now possible to choose between two templates in the new selector below the workflow name:

- **Basic template:** Template with one scope, start and end node, and one activity (default).
- **Simple workflow:** Template with several scopes and activities which models a simple workflow where a ticket can be processed, put on hold, closed and reopened.

The user can remove the default template by clicking the x icon in the selector to start with an empty canvas.

When a template is selected, the workflow is automatically saved with version 0.1 after clicking the *Create workflow* button.

4.2.24 Form size configurable (#657202, #657203)

The size of activity and action forms in the **Web Client** can now be configured when defining the form in the **Web Admin Suite**. There are five sizes available: from S for small forms with few content to XXL for large forms with tables.

The *Field positioning* tab of the *Activity forms*, *Search forms*, *Contact forms* and *Resource forms* pages of the **Web Admin Suite** has been renamed to *Layout*. It has been extended by the *Form display size* selector which allows to define the form size. The following options are available:

- S (One field only with short description and label)
- M (Several fields in two columns with short labels)
- L (Several fields in two to three columns with short labels)
- XL (Several fields in three columns with longer labels)
- XXL (Several fields in three columns with longer labels or struct tables)

The *Number of columns* field has been moved from the *Fields* tab to the *Layout* tab, so that all layout-related settings are done in the same tab.

When updating to **ConSol CM** version 6.16.1.0, the form size is set automatically based on the number of columns defined for the form:

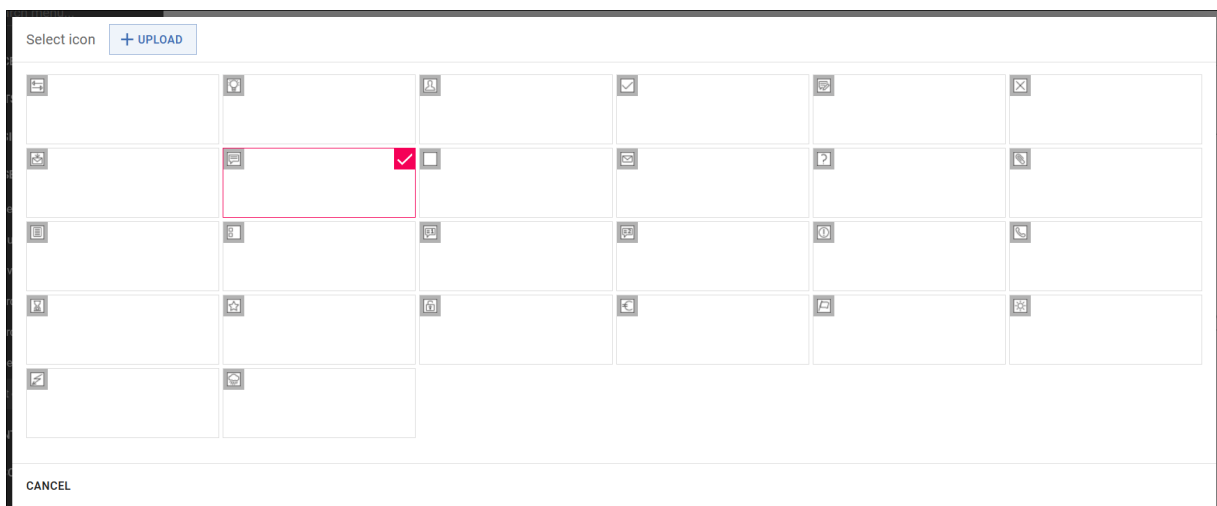
- 1 column -> M
- 2 columns -> L
- 3 columns -> XXL

The REST API has been adapted to include the size information in the `activityformfieldssets` endpoint. When retrieving an activity form, the response contains the new `displaySize` attribute.

```
"displaySize": "L",
```

4.2.25 New text class icons (#657336)

By default, a new set comprised of 26 icons is now available for selection on the *Text classes* page of the **Web Admin Suite**. The new icons are added automatically when setting up a new **ConSol CM** system or updating to **ConSol CM** version 6.16.1.0.



4.2.26 New way to provide the task execution date (#657343)

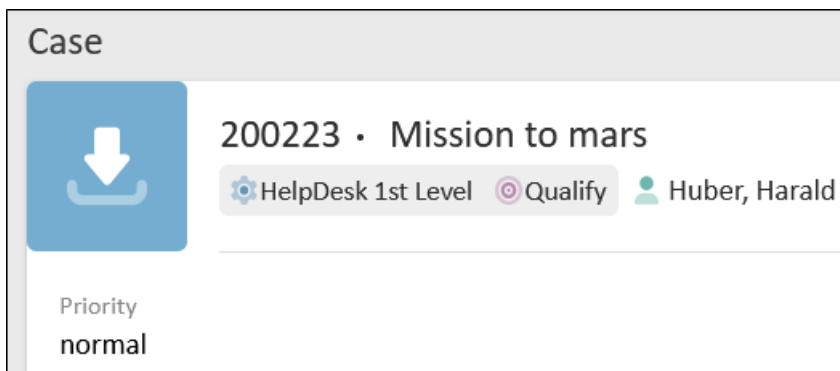
It is now possible to provide the execution date of a task when scheduling it via script. The method `setExecutionDate(Date executionDate)` has been added to the class `SchedulingSpecification` of the **ConSol CM** API for this purpose. Therefore, it is now possible to pass a date when creating a task via API.

Example:

```
SchedulingSpecification schedulingSpecification = new SchedulingSpecification
();
schedulingSpecification.setExecutionDate(new Date()).setGroup("test");
taskExecutionService.scheduleOneTimeTask(myTask, schedulingSpecification);
```

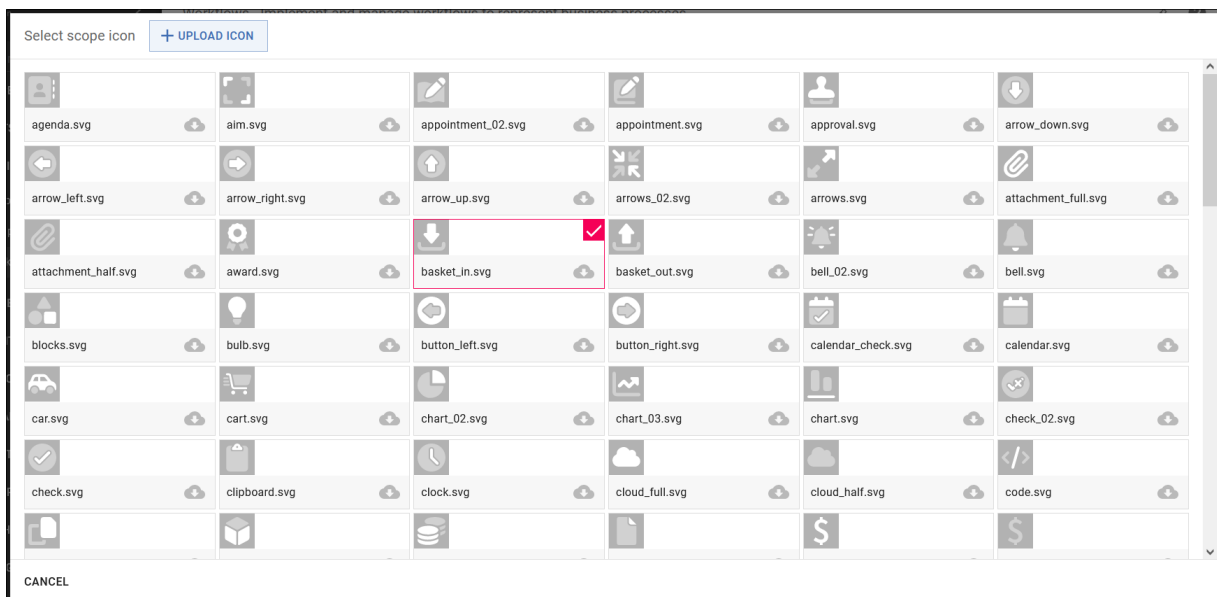
4.2.27 New case icons in SVG format (#657579, #657580, 657754)

The **.svg** format is now supported for case icons. You can now upload both PNG and SVG icons to scopes on the *Workflows* page of the **Web Admin Suite**. If you use SVG icons, they are now displayed larger in the **Web Client** and **CM/Track** so that they fit better into the new case header.



The new icons are displayed also in the case list, the detail search and the relations sections of different objects.

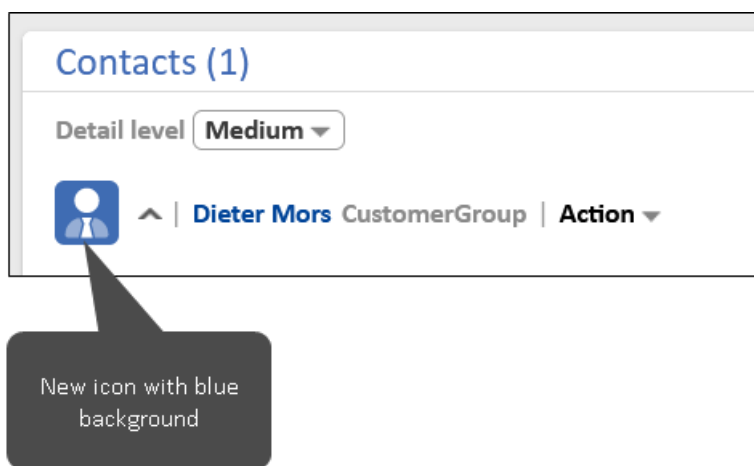
The default icons which are available for scopes in the **Web Admin Suite** have been changed to the SVG format. In addition, new icons have been added, so that the user can choose from 121 different icons. The new icons are available automatically on new **ConSol CM** systems and after updating an existing system to version 6.16.1.0.



i When updating an existing system, the icons which are currently in use are not modified. If you want to use the new icons in SVG format, you need to change the icons in your workflows manually.

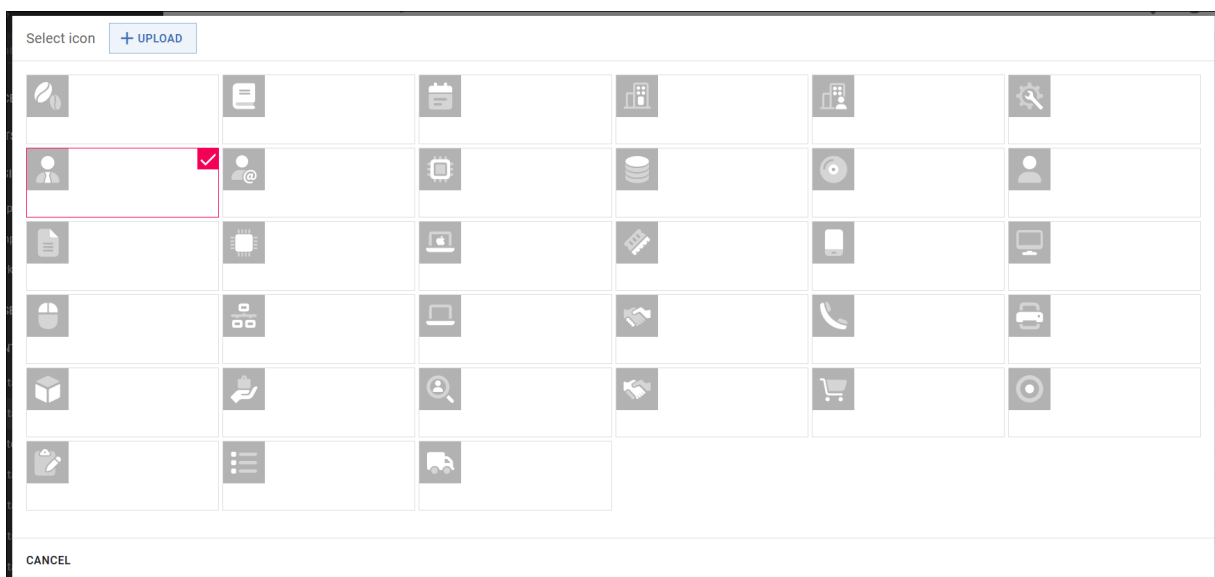
4.2.28 New contact and resource icons in SVG format (#657606, #657608)

The **.svg** format is now supported for contact and resource icons. You can now upload both PNG and SVG icons to contact and resource models in the **Web Admin Suite**. This is done in the *Person* and *Company* tab of the *Contact models* page, and in the *Basic* tab of a resource category or resource type on the *Resource models* page. Below the icon, a new field *Color selection* is shown. It allows to select a background color for the new SVG icons, which are transparent. By default, a blue background color is used.



The new icons are displayed in all relevant places of the **Web Client**, e.g. the contact and resource pages, the case list, the detail search, and the relations sections of different objects.

The default icons which are available for contacts and resources in the **Web Admin Suite** have been changed to the SVG format. In addition, new icons have been added, so that the user can choose from 33 different icons. The new icons are available automatically on new **ConSol CM** systems and after updating an existing system to version 6.16.1.0.



i When updating an existing system, the icons which are currently in use are not modified. If you want to use the new icons in SVG format, you need to change the icons in your data models manually.

4.2.29 Code snippet for adding table row improved (#657819)

In the *Code snippets* window of the **Web Admin Suite**, you can select the option *Add row to list* for fields of the type *List*. The code which is added to the script when selecting it for a list which has a child of the type *Columns* has been extended. It now inserts a row with all child fields, so that the user does not have to look up the field names.

Example:

```
add("helpdesk_standard:appointmentList", new Struct().set
  ("appointmentDate",).set("appointmentContact",).set("appointmentSubject",))
```

4.2.30 Scene for **CM/Ticketing** updated (#657846)

The scene for the **CM/Ticketing** product, which can be selected when setting up a new **ConSol CM** system, has been updated to use several new features introduced in this version.

4.2.31 Configuration file extended (#658038)

The XML configuration files for running **ConSol CM** in a cluster have been extended. The following line has been added to `cm6-mssql.xml`, `cm6-mysql-5.xml`, `cm6-mysql-8.xml`, `cm6-oracle.xml` and `cm6-postgresql.xml`:

```
<property name="jboss.as.management.blocking.timeout" value="360000"/>
```

This property is needed to avoid timeouts during the update of **ConSol CM**.

4.2.32 CSV export adapted (#658044)


The CSV export function, which allows creating a spreadsheet with the results of a detail search in the **Web Client**, has been adapted. Any field values starting with the symbols -, @, or + are prefixed with a single quotation mark in the output.

4.2.33 Image pasting in **CM/Track** changed (#658046)

For security reasons it is not possible anymore to paste images in the `.svg` format to comments in **CM/Track**. The `localization_en.json` and `localization_de.json` configuration files have been updated to include error messages which are shown when pasting incorrect images. The following attributes have been added for to the template on the *Client configurations* page of the **Web Admin Suite** this purpose:

- **request_too_large**: We are sorry, but your request size exceeds our configured protection limits. Typically the main reason is large embedded images, please remove or shrink some of them and try again.
- **image_max_size**: Image file is too large.
 Max size is {{imageMaxSize}} MB.

- **image_file_type:** Sorry, this image file type is not allowed. Please use a common image format like jpg or png.

 If you want to override the messages on an existing **ConSol CM** system, you need to add the attributes to your localization files manually.

4.3 Bugs fixed

The following defects have been corrected in **ConSol CM** version 6.16.1.0.

Number	Description
626593	<p>Unneeded validation message in detail search</p> <p>When entering a value for a field which is used as a search criterion for the detail search in the Web Client, a validation message was shown if the value was longer than defined in the <i>Maximum length</i> setting of the field. This problem has been solved and such validation messages are not shown on the detail search page anymore.</p>
628491	<p>Exception when using "a" as a name for data fields</p> <p>Using a data field with the name a in scripts could cause exceptions due to CfelAliasExtension. This extension has been removed, so that it is now possible to have data fields named a.</p>
631931	<p>Wrong version number in property documentation</p> <p>The properties of the module cmas-nimh which were introduced in ConSol CM version 6.9.4 had the indication <i>Since 6.4.0</i> in the window shown after clicking the <i>Documentation</i> icon on the <i>System properties</i> page of the Web Admin Suite. This problem has been solved and the properties are now correctly documented with <i>Since 6.9.4</i>.</p>
642110	<p>Wrong URL when accessing login page</p> <p>When the user enters the URL of the login page of the Web Admin Suite although he is already logged in, he is correctly redirected to the dashboard, but the URL of the login page is still shown in the browser. This problem has been solved and the URL now changes to the one of the dashboard when the user is redirected.</p>
647510	<p>Import progress not shown</p> <p>When working on a ConSol CM system which is accessed via proxy and importing a scene on the <i>Import</i> page of the Web Admin Suite after having imported another scene with the option to delete all data, the import progress was not shown. This problem has been solved and the import progress is now shown when importing several scenes on systems using proxies.</p>
647818	<p>Whitescreen after import</p> <p>Sometimes, a whitescreen was displayed after clicking the <i>Close and reload</i> button after a scene import was finished on the <i>Import</i> page of the Web Admin Suite. This problem has been solved and the page is correctly reloaded now.</p>
650306	<p>Missing text class in database</p> <p>Comments and attachments from incoming emails did not have text classes in the ConSol CM database, although the Web Client showed a default text class. This problem has been solved and the default text class is now properly applied to new comments and the default attachment class is now applied to attachments from incoming emails.</p>

Number	Description
656682	<p>Browser locale not recognized properly by the <i>Web Client</i></p> <p>When selecting a locale with country code in the language settings of the browser, e.g. <code>de_DE</code>, the locale was not recognized properly by the <i>Web Client</i> and text which was created using the methods of <code>localizationService</code> was displayed in the default locale instead. This problem has been solved and locales with country code are handled correctly by the <i>Web Client</i> now.</p>
656685	<p>Fixed point numbers with wrong separator were modified automatically</p> <p>When entering a value in a data field of the type <i>Fixed-point number</i> in the <i>Web Client</i> and using a separator which did not match the browser locale, e.g. a dot in a German browser instead of a comma, the separator was removed automatically when leaving the field. This could lead to wrong values being saved. This problem has been solved and instead of removing the separator, the corresponding validation message is now shown.</p>
656909	<p>Case icon color not refreshed</p> <p>The color of the case icon was not refreshed when changing the enum value which determines the color by dragging the case to another column in the grid view of the detail search of the <i>Web Client</i>. This problem has been solved and the color is updated according to the new enum value now.</p>
657165	<p>Orphaned sessions shown</p> <p>When a user without administrator permissions tried to log in to the <i>Web Admin Suite</i>, the session was shown on the <i>Sessions</i> page of the <i>Web Admin Suite</i> although the user was not logged in. This problem has been solved and such sessions are not displayed anymore when the <i>Active</i> filter is applied.</p>
657183	<p>Template for outgoing email subjects not overwritten during import</p> <p>When importing a scene, the template for outgoing email subjects on the <i>Email configuration</i> page of the <i>Web Admin Suite</i> was not overwritten if it had newer modification date than the template from the imported scene. This problem has been solved and the template for outgoing email subjects is now always overwritten when importing a scene.</p>
657354	<p>Database problem after time shift</p> <p>The change to daylight saving time could cause a database problem on MySQL if the monitoring date was written to the database in the very moment of the clock change, so that the date was incorrect. This problem has been solved by decreasing the frequency of updating the monitoring date to once per day on non-clustered systems.</p>
657410	<p>Exception in log files on DWH mode switch</p> <p>When switching the DWH mode from <i>Admin</i> to <i>Live</i> on a <i>ConSol CM</i> system where no SMTP connection is configured, an exception was written to the log files although the system worked normally. This problem has been solved and switching the DWH mode does not cause such an exception anymore.</p>

Number	Description
657508	<p>Missing required indication in queue wizard tab</p> <p>When creating a new contact model within the create queue wizard in the Web Admin Suite, the <i>Person</i> and <i>Company</i> tabs in the <i>Contacts</i> step were not highlighted in red if required fields were missing. This problem has been solved and these two tabs now have a red font if required fields inside the tabs have not been filled out yet.</p>
657519	<p>Template generator preview editable</p> <p>The preview, which is shown at the bottom of the <i>Generate display template</i> window of the Web Admin Suite after selecting some fields, was editable although the changes were not applied to the generated template. This problem has been solved and the preview is now read-only.</p>
657522	<p>Details panel of contact action not opened</p> <p>Sometimes, it could happen that clicking the <i>Jump to actions to edit</i> icon of an action in the <i>Actions</i> tab of the <i>Customer groups</i> page of the Web Admin Suite opened the <i>Contact actions</i> page without opening the details panel of the respective action. This problem has been solved and the details panel of the action is now always opened.</p>
657538	<p>Missing spacing between paragraphs in template preview</p> <p>When previewing a template on the <i>Templates</i> page of the Web Client or in the template selector above the comment or email editor of a case in the Web Client, paragraphs did not have spacing so that they looked like line breaks. This problem has been solved and paragraphs now have a larger spacing than line breaks in the template preview.</p>
657539	<p>Missing padding above default template</p> <p>When a default template for comments or emails is present in the comment or email editor of the Web Client, lines inserted above the template did not have padding. This problem has been solved and the correct padding is now applied to these lines.</p>
657571	<p>Background color copied</p> <p>When copying text from the case history to the comment or email editor of a case in the Web Client, the background color of the text class was copied along with the text. This problem has been solved and the background color is not copied anymore.</p>
657602	<p>Missing translations in field positioning GUI</p> <p>The tooltips of the buttons which are displayed for the fields on the <i>Field positioning</i> tab of several Web Admin Suite pages did not have German translations. This problem has been solved and the tooltips are properly translated now.</p>
657637	<p>Wrong information text for widget</p> <p>The explanation text which is displayed when hovering the info icon of the <i>Recent changes</i> widget on the dashboard of the Web Admin Suite was incorrect because it mentioned that some of the entities needed to be created using the queue wizard. This problem has been solved and the queue wizard is not mentioned anymore because it does not matter if the entities were created using the wizard or not.</p>

Number	Description
657673	<p>Missing hover effect on section buttons</p> <p>The buttons which are displayed in the headers of the different sections in the Web Client did not show a visual effect when hovering them with the mouse. This problem has been solved and the section buttons now have a darker background when hovering them.</p>
657719	<p>Login page reloaded after leaving tab</p> <p>The login page of the Web Client was reloaded after leaving the tab, so that it was not possible to copy and paste both the login and the password from another tab. This problem has been solved and the login page is now reloaded only when its tab was inactive for more than 30 minutes.</p>
657724	<p>User needs to provide credentials twice after session timeout</p> <p>When a session timeout occurred in the Web Client, the first login attempt failed and the user needed to enter the credentials again to log in. This problem has been solved and the first login attempt after a session timeout now succeeds.</p>
657757	<p>Not possible to submit form with enter</p> <p>It was not possible to submit an activity form in the Web Client by pressing the Enter key, if the form was displayed as a modal window. This problem has been solved and forms can now be submitted by using the Enter key.</p>
657798	<p>Wrong status of DWH widget on dashboard</p> <p>The <i>Data warehouse</i> widget on the dashboard of the Web Admin Suite showed a green status, although there were errors or warnings on the <i>Administration</i> page of the DWH. This problem has been solved and the widget status now matches the DWH and live mode status as indicated on the administration page.</p>
657805	<p>Localizations missing in text classes export</p> <p>When exporting the text classes on the <i>Export</i> page of the Web Admin Suite, the exported scene file did not contain the localized names of the text classes. This problem has been solved and the localizations are now exported together with the text classes.</p>
657827	<p>Not possible to select icon during text class creation</p> <p>When opening the details panel of a text class on the <i>Text classes</i> page of the Web Admin Suite and then clicking the <i>New text class</i> button to create a new text class, it was not possible to change the icon of the text class under creation. This problem has been solved and it is now possible to select an icon in the <i>Create text class</i> window even if the details panel of another text class is open.</p>
657833	<p>Incorrect form display when pressing the tab key</p> <p>When opening a form in the Web Client and pressing the tab key, it was not possible anymore to pick a date for a form field because the calendar was not opened when clicking the calendar icon. In addition the layout of the form was broken. This problem has been solved and the tab key now works correctly in forms.</p>

Number	Description
657843	<p>Not possible to select dependent enum value</p> <p>When trying to select a value in a dependent enum in the Web Client for the first time, the selector was closed directly after clicking it. The user had to click it again to select the value. This problem has been solved and dependent enum values can now be selected on the first try.</p>
657901	<p>Attachments section not responsive</p> <p>The layout of the <i>Attachments</i> section of cases in the Web Client was broken when the attachment description was longer than the width of the section. This problem has been solved and the description is now displayed in several lines in this situation.</p>
657912	<p>Wrong spacing and missing border highlighting in attachment table</p> <p>When selecting an entry of the table in the <i>Attachments</i> section of cases in the Web Client and expanding it by clicking the arrow icon on the right, not all entry borders were highlighted in orange. In addition, the spacing between the checkbox and the attachment name and description was not aligned. This problem has been solved and the whole border is highlighted in orange now and the proper spacing is applied.</p>
658024	<p>Current assignee shown twice in user selector</p> <p>When searching for a name in the <i>Assigned to</i> selector in the Web Client, the name of the current assignee appeared twice. The current assignee is always displayed on the top and it was shown a second time in the search results. This problem has been solved and the current assignee is now shown only once on the top of the search results.</p>
658077	<p>Property value could start with two backslashes</p> <p>It was possible to enter a value starting with two backslashes for the system property <code>data.directory</code> of the module <code>cmas-core-shared</code> on the <i>System properties</i> page of the Web Admin Suite, which could lead to security issues. This problem has been solved and it is not possible anymore to use values starting with <code>\\</code> for the data directory.</p>
658087	<p>Flickering minute field</p> <p>When filling out a date field in the Web Client by selecting a date first and entering an hour afterwards, the field for the minutes started flickering when the user placed the cursor in the field. This problem has been solved and the minutes fields does not flicker anymore.</p>
658089	<p>Page state reset when clicking its menu item</p> <p>When opening a page of the Web Admin Suite and opening the details panel of an entity, the details panel was closed when clicking the menu item of the page again. This problem has been solved and the current state of the page is now remembered when clicking its menu item.</p>
658220	<p>Company object null in person action script</p> <p>The <code>company</code> object was <code>null</code> in the script of actions which are executed for persons of the company. This problem has been solved and it is now possible to access the <code>company</code> using the <code>company</code> object in action scripts of persons.</p>

Number	Description
658226	Missing icon for expanding case list and right panel After hiding the case list or the panel on the right of the Web Client by clicking the arrow icon, it was not possible to expand the it again because there was no arrow icon to do so. This problem has been solved and the arrow icon to expand the case list and the panel on the right again is now shown.
658279	Incorrect state of workflow activities panel after closing form After closing an activity or action form by pressing the Esc key, the workflow activities panel in the Web Client did not work as expected and it was not possible to execute activities. This problem has been solved and closing forms with the escape key does not cause problems anymore.

5. Version 6.16.2 (26.09.2023)

Version 6.16.2 includes all **ConSol CM** changes and additions of

Release	Date	Scope	Merged versions
6.16.2.0	26.09.2023	New major version, includes new features, changes and bug fixes	
6.16.2.1	12.10.2023	Hotfix version, includes one bug fix	

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



Please check the [Breaking changes and mandatory actions](#).

5.1 Update and installation instructions

Please read all information on update and installation of **ConSol CM** specific for version 6.16.2 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.

5.1.1 System upgrade from 6.16.1 and earlier versions

This section informs about specific steps when upgrading **ConSol CM** from 6.16.0 or earlier versions to version 6.16.2.

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

5.1.2 Configuration modification requirements

The changes in this release require several system properties, configuration files or page customizations to be reviewed and possibly adjusted. Please see the following sections for details:

- [Page visualization support extended \(#658100\)](#)
- [Maximum height for case history entries \(#658468\)](#)
- [Possibility to explicitly set an email encoding \(#658721\)](#)

No further instructions available.

5.2 New features

The features newly introduced in this **ConSol CM** version 6.16.2 are described in detail in this section.

5.2.1 Custom export (#657858)

The *Staging* menu of the **Web Admin Suite** has been extended by the *Custom export* page. Custom exports allow creating scene files which contain specific entities selected by the user. The exported scene file can be imported on another system to transfer parts of the configuration.

Example use cases for custom exports are:

- Export a news queue to implement a news functionality on another system.
- Export a field or page visualization to reuse it on another system.
- Export a specific list, script or template to make it available on the target system without having to update the whole configuration.

The following entities can be selected as main entities after clicking the *New entity* button:

- Lists
- Scripts
- Templates (technical templates and text templates)
- Queues (with the option to add all dependent data automatically to the export)
- Case field groups (with the option to add all fields automatically to the export)
- Text classes
- System properties (you can export both custom properties and standard properties)
- Localized labels

Clicking the *Add* button adds the selected entities to the summary table. The table shows the types and technical names of all entities which will be exported. The dependencies which are required either from a technical or a business point of view for the entity are added automatically. The reason why such an entity was added is stated in the *Context* column.

The user can add more dependent entities to the export by clicking the *Add dependency* icon, which is available for some types of entities.

The user can remove both automatically and manually added dependencies by clicking the *Remove dependency* icon, so that he has the full control about the content of your exported scene.

The scene export includes the `content.csv` file which contains a list of all entities included in the export with their type, ID, name and transfer key.



It is the responsibility of the user to ensure that all required entities will be present on the target system after importing the generated scene file.

5.2.1.1 Changes to existing pages (#658417, #658666)

The existing export page has been renamed from *Export* to *Staging export* to clarify its purpose and make it easier to distinguish the two export features.

The option *Queue-based data* has been removed from the *Staging export* page. Its functionality is now covered by the custom export, where you can select one or several queues. If you select the checkbox *With all dependent entities* below the queue selector, you get the same content as with the old *Queue-based data* option.

5.3 Changes

This section illustrates all relevant software product changes for version 6.16.2 of **ConSol CM**.

5.3.1 Usability improvements

Text templates overview improved (#630730)

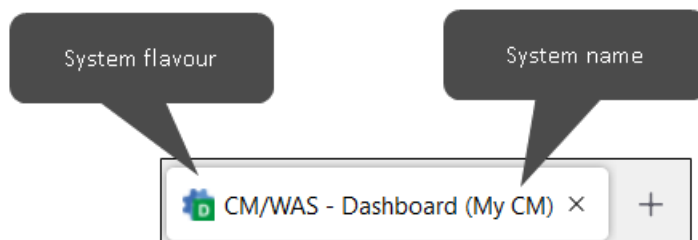
The table which is shown after clicking the *Text templates* menu item in the **Web Client** has been improved. The columns *For workflow*, *For email*, *For ticket create* and *For ticket edit* are now filled only for templates of the type *Letter* because the *Available in* setting is not relevant for other types of templates.

Better wording for attachment context menu (#632583)

The options of the attachment context menu in the *Communication and history* section of the **Web Client** have been renamed to *Open attachment file* and *Delete attachment* to make them clear and concise. The name and description of the attachment are not displayed in the context menu anymore.

System name shown in tab (#657230)

The name of the **ConSol CM** system, as defined in the system property `system.name` of the module `cmas-core-shared`, is now shown in the **Web Admin Suite** tab to make it easier to distinguish different systems in the browser.



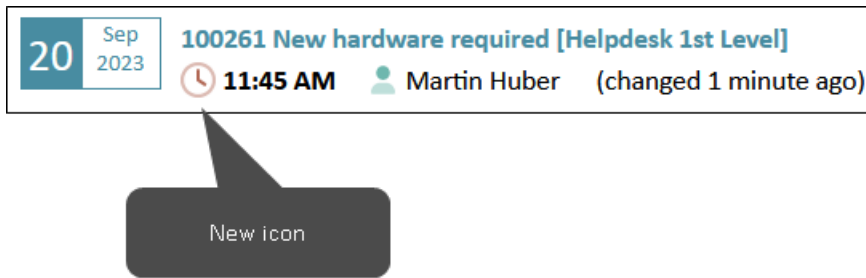
Close date in case header (#657296)

The close date is now shown in a more prominent way for closed cases in the **Web Client**. It is displayed next to the creation date in the case header and in sections with related cases. Therefore, the user can see this important information at the first glance and does not need to look it up in the case history anymore.



New clock icon for news (#657738)

The clock icon which is shown in entries of the news widgets in the **Web Client** and **CM/Track** has been replaced by one with a light purple color.



New browser warning dialog (#657879)

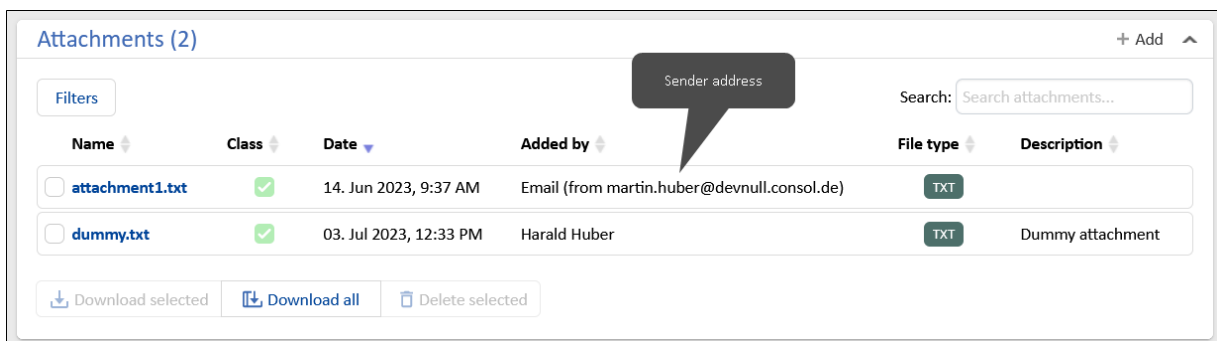
When having unsaved changes in the **Web Admin Suite** and trying to reload the page, leave the page or close the browser tab, the browser warning about unsaved changes is now shown to prevent that the user accidentally loses his work.

Better user guidance for indexing table and list fields (#658116)

When indexing data fields which belong to lists or tables, the parent fields (*List* and / or *Column*) and all the child fields which should be searchable need to have the same value for the setting *Indexed for search*. This is now indicated on the *Case fields*, *Contact fields* and *Resource fields* pages of the **Web Admin Suite**. A message is now shown below the *Indexed for search* setting for parent fields and for child field, provided that the parent fields are not yet indexed.

Sender address shown for email attachment (#658128)

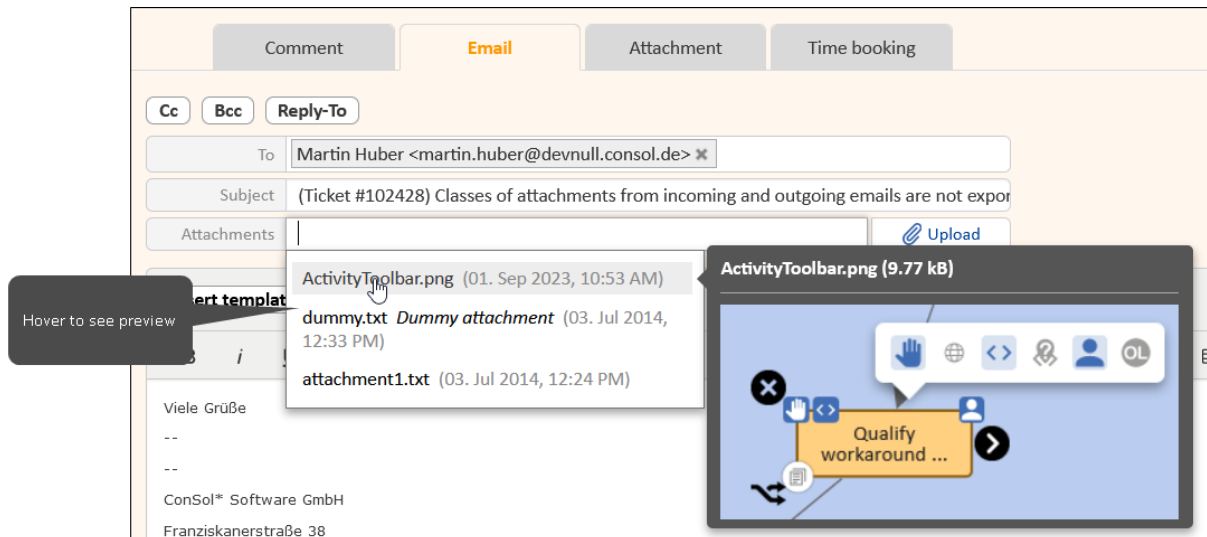
Attachments which originate from incoming emails now show the address of the email sender in the *Added by* column of the *Attachments* section of the **Web Client**. This helps the user to see at a glance who is the author of the attachment.



Attachment preview during email sending (#658129)

When drafting an email in the **Web Client**, it is now possible to preview the content of attachments before adding them to the email. This helps the users to verify that the attachments which they add to the email are the intended ones.

The preview is shown when hovering the attachment name in the selector. It is available for the following file types: TXT, CSV, HTML, XML, PNG, JPG, GIF, SVG, BMP, and PDF.

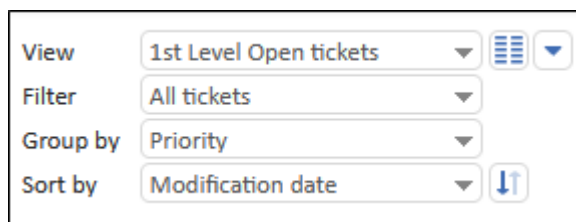


Modal window to assign main role enlarged (#658136)

The modal window which is shown on the *Users* page of the **Web Admin Suite** when setting a main role for several users at once has been enlarged so that longer role names are displayed completely.

Rounded corners for the view configuration (#658146)

The design of the view configuration in the **Web Client** has been improved by using rounded corners for the selectors and buttons, so that the styling is now consistent with the rest of the application. In addition, the colons after the labels have been removed.



Contact deletion panel improved (#658239)

The space between the explanatory text and the buttons to confirm or cancel the deletion of a contact in the **Web Client** has been increased to improve the appearance of the panel.

Unfolding of case history entries improved (#658250)

The scroll position now remains when unfolding a case history entry in the **Web Client**. Therefore, the user does not need to scroll back to the beginning of the entry anymore after clicking the unfold icon.

Message about unsupported file type improved (#658299)

The message which is displayed when trying to upload an image with an unsupported file type in the rich text editor of the **Web Client** has been aligned with the message which is displayed in **CM/Track** in this situation. It is now *Sorry, this image file type is not allowed. Please use a common image format like jpg or png.* in both clients.

Hint about email sending improved (#658300)

The hint which is shown above an email which is in progress of being sent in the **Web Client** is now yellow instead of red to indicate that the outcome of the action is not yet clear. In addition, the text has been changed to *Message is being sent* to clarify its meaning.



Field copying improved (#658319)

When copying a data field on the *Case fields*, *Contact fields* or *Resource fields* page of the **Web Admin Suite**, the suffix *_copy* is now appended to the internal field name only if the target field group already contains a field with the same name. Otherwise, the original internal name is used.

New color palette (#658397)

The color palette which is used on the *Sorted lists*, *Text classes*, *Contact models*, *Resource models* pages of the **Web Admin Suite** has been exchanged. The new colors combine better with the new icons and **Web Client** design.



[Saving of scripts improved \(#658416\)](#)

The scripts which can be edited directly on the *Workflows* page of the **Web Admin Suite** or in a modal window opened from another page now have two buttons for saving. The *Save changes* button allows to save the script without closing the modal window. The previous save button has been renamed to *Save changes and close* because it saves the script and closes it.

In addition, it is not possible anymore to accidentally close a script with unsaved changes using the escape key. A modal window with a warning is now displayed in this case to prevent the user from loosing his work on the script.

[Rounded corners on the login page \(#658495\)](#)

The design of the login page of the **Web Client** has been improved by using rounded corners for the page elements, so that the styling of this page is now consistent with the rest of the application.

[Filter for saved workflows \(#658560\)](#)

The *Workflows* page of the **Web Admin Suite** has been extended by the filter *Saved (old)* which allows to display only saved workflow versions, which are not the newest version of the respective workflow. This allows to quickly identify workflow versions which can be removed.

[Better styling of the selected case list entry \(#658648\)](#)

The styling of the selected case history entry has been improved by removing an unneeded gray line next to the orange one and rounding the corners of the orange line.

Rounded corners in the grid view of the detail search (#658650)

The design of the grid view of the detail search in the **Web Client** has been improved by using rounded corners for the case tiles and the columns, so that the styling is now consistent with the rest of the application.

Rounded corners in the menu bar (#658651)

The design of the menu bar of the **Web Client** has been improved by using rounded corners in the hover effect of the navigation buttons, the bell icon and the magnifying glass icon, so that the styling of the menu bar is now consistent with the rest of the application.

5.3.2 Security and third-party library updates

The following third-party libraries have been updated in this **ConSol CM** version:

- **Batik (#658594)**: Updated from version 1.16 to 1.17
- **Jackson (#658438)**: Updated from version 2.13.4 to 2.13.5
- **Spring Boot (#658362)**: Updated from version 5.6.9 to 5.6.12
- **Tomcat dbcp (#658624)**: Updated from version 9.0.75 to 9.0.80
- **Tomcat embed (#658438)**: Updated from version 9.0.76 to 9.0.80
- **Word-wrap (#658803)**: Updated from version 1.2.3 to 1.2.5

5.3.3 System properties page enhanced (#646160)

The *System properties* page of the **Web Admin Suite** has been modified to improve its clarity. Several changes were made:

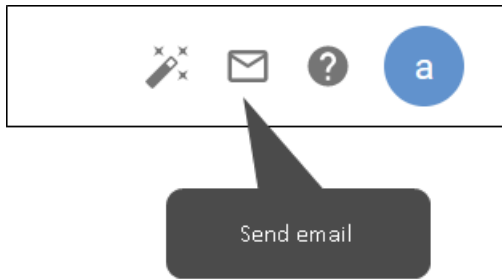
- Added the option *Standard properties* to the filter above the system properties table. It shows all properties which belong to the core product **ConSol CM**.
- Removed the *Restart required* setting from the details panel of the properties because it was purely informational. Its value can be checked in the documentation shown when clicking the *Documentation* icon.
- Removed the *Optional* setting from the details panel of the properties because it only affected if the property could be deleted in the **Web Admin Suite** or not.

New properties, which are created by using the creation or duplication features, are always deletable.

5.3.4 Sending emails from the Web Admin Suite (#656943)

The **Web Admin Suite** has been extended by an option to send an email to the users. This is useful for example if the administrator wants to notify all the users about a system downtime, or if a certain group of users should receive information about a change to the process which they work with.

The feature is accessed by clicking the email icon in the header row:



The administrator selects the roles whose users should receive the email and enters a subject. By default, the value of the currently logged in administrator, i.e. the person who sends the email, is used as a From and Reply-To address. You can overwrite it with another address if needed. You can select a template of the type *Email* for the email body and edit the text afterwards. Alternatively, you can write the whole body directly in the *Email text* field.

The email will be sent to all the users which have at least one of the selected roles. Each user will receive the email only once, even if they have several of the selected roles.

i Deactivated users are skipped and do not receive the email even if they have a selected role assigned.

The recipients will be split into sets of 50 and added as bcc to the email. The From address will be used as a To address in the email. Therefore, it will receive a copy for each set.

5.3.5 Saving user preferences (#657893)

The *Settings* dialog of the user menu of the **Web Admin Suite** has been extended with several settings which can be made on the *Scripts* and *Log files* pages:

- Scripts: Wrap text
- Log files: Wrap text
- Log files: Display newest lines first
- Log files: Refresh interval

Initially, they are set to the default values. Once the user changes the setting either on the *Scripts* and *Log files* pages or in the *Settings* dialog, the new values are saved. Changes to the preferences apply to all relevant places, regardless if they are made in the *Settings* dialog or on the respective pages.

5.3.6 Page visualization support extended (#658100)

The page visualization feature introduced in [Page visualizations \(#655353\)](#) has been extended to make it possible to use page visualizations on all **Web Client** pages.

The type `page` with the attribute `pageVisualizationScripts` has been added to the page customization of the **Web Client** for this purpose. You can add one or several page visualization scripts which should be executed on all pages. The previously used types `ticketPage`, `unitPage` and `resourcePage` have been removed because they are not needed anymore.

If a page visualization script should be executed on a specific page only, you can add it to the respective scope (subitem of the type `page`), e.g. `welcomePage` for the dashboard, or `ticketEditPage` for a case.

The class `PageVisualizationContext` has been extended with the method `getPageScopeName()` which returns the name of the current scope. This allows to implement a specific behavior of the page visualization depending on the page where the script is executed. In addition, the option `OTHER` has been added to the page context. It is used for all pages which are neither case, nor contact nor resource pages.

i When updating a **ConSol CM** system which already uses page visualizations to version 6.16.2.0, the scripts will be referenced in the scopes in which they were referenced before, so that they will be executed on the same pages as before the update.

5.3.7 Handling of missing email addresses improved (#658212)

When **ConSol CM** receives an email which has an unsupported attachment type and the email is rejected (system property `mail.attachments.validation.handling` of the module `cmas-nimh-extension` set to "reject_email"), a notification is automatically sent to the email sender. The From address of the notification is determined by the system property `mail.attachments.validation.info.sender` of the module `cmas-nimh-extension`, or if not set, by `mail.from` of the module `cmweb-server-adapter`.

If both properties are empty, the notification email cannot be sent. Now, a warning message is written to the log files to inform the administrator of intended recipient of the notification and the reason why it could not be sent.

5.3.8 Loop detection in workflows modified (#658251)

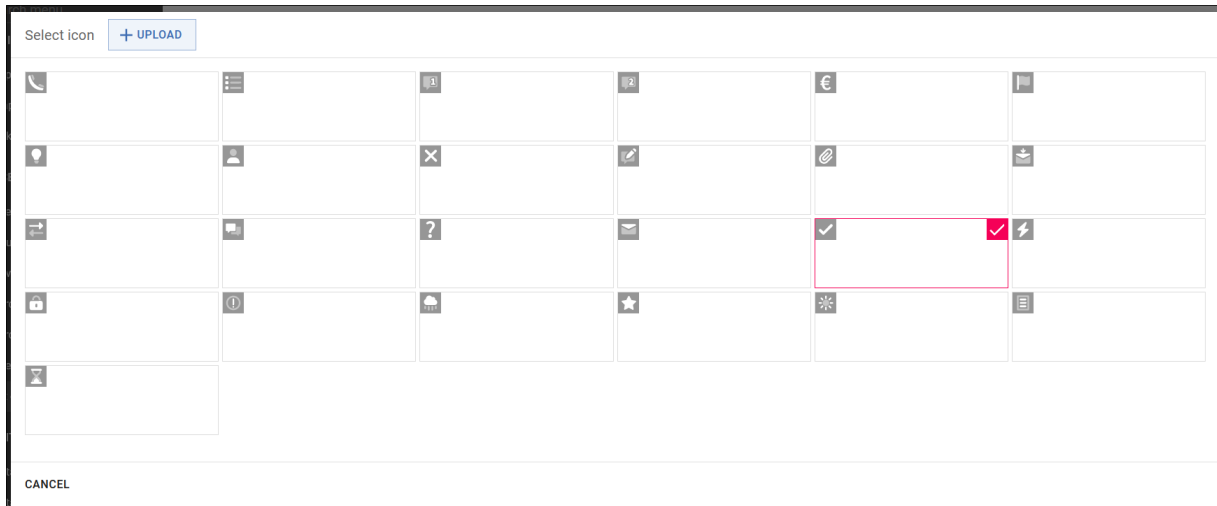
The mechanism to detect loops in event trigger executions has been modified. Now, the execution is only interrupted if an event trigger fires more than 20 times. This avoids problems which occurred when there is an event trigger for communication which fires several times when a user sends an email with several newly added attachments using the **Web Client**. In addition, it is not needed to use `disableLoopDetection()` for some use cases where the loop detection interrupted the flow unnecessarily.

i This change only applies to serial trigger executions. Nested trigger executions are still interrupted immediately.

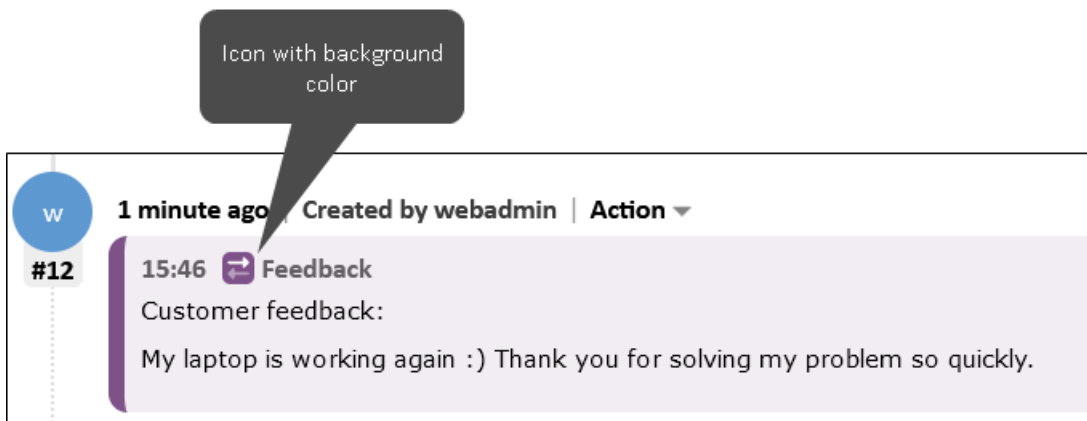
5.3.9 New text class icons (#658461)

The `.svg` format is now supported for text class icons. You can now upload both PNG and SVG icons on the *Text classes* page in the **Web Admin Suite**.

The default icons which are available for text classes have been changed to the SVG format. In addition, new icons have been added, so that the user can choose from 25 different icons.



The new icons are transparent. In the **Web Client**, the background color of the text class is used as a background color for the text class icon. This way the icon background matches the vertical line on the left of the history entry:



The new icons are available automatically on new ConSol CM systems and after updating an existing system to version 6.16.2.0.

- ⓘ When updating an existing system, the icons which are currently in use are not modified. If you want to use the new icons in SVG format, you need to change the icons for your text classes manually.


5.3.10 Maximum height for case history entries (#658468)

Comments and email entries in the case history of the **Web Client** now have a maximum height. If it is exceeded, the entry receives a scrollbar. The maximum height is defined in the new page customization attribute `unfoldedHistoryElementMaxHeight` of the type `acimSection`. The default value is 60, which means that a single comment or email can use up to 60% of the available height in the browser.

This makes it easier for the user to navigate the case history if it contains many large comment or email entries.


5.3.11 Possibility to delete user passwords (#658475)

It is now possible to remove the password of a user on the *Users* page of the **Web Admin Suite**. The *Clear password* icon has been added to the details panel of a user for this purpose. It is available when the *Password* field is shown, i.e. when database is configured as one of the authentication methods.

 The administrator cannot remove his own password.

5.3.12 Possibility to explicitly set an email encoding (#658721)

It is now possible to explicitly set an encoding for outgoing emails (**Content-Transfer-Encoding** header of the email). The system property **mail.outgoing.encoding** has been added to the module **cmas-core-server** for this purpose. By default, it is set to “auto”, so that the encoding is set automatically. You can set another encoding if the automatic encoding leads to problems with your email server.

 The property is added automatically when setting up a new **ConSol CM** system or updating an existing **ConSol CM** system.

5.4 Bugs fixed

The following defects have been corrected in **ConSol CM** version 6.16.2.0.

Number	Description
641345	<p>Not possible to close user menu by clicking the user avatar</p> <p>After clicking the user avatar in the upper right corner of the Web Admin Suite to display the user menu, it was necessary to click somewhere else inside the application to close it again. This problem has been solved and it is now possible to close the user menu by clicking the user avatar.</p>
646675	<p>Missing property documentation</p> <p>The <i>Documentation</i> icon was not shown for some properties with dynamic names on the <i>System properties</i> page of the Web Admin Suite. This affected for example the properties whose names include mailbox numbers or configuration names. This problem has been solved and the documentation is now shown for all system properties provided by the product ConSol CM.</p>
650567	<p>Loop during email backup</p> <p>When an incoming email could not be processed directly by ConSol CM due to a constraint preventing it from being saved to the database, it could happen that a backup of the email was saved to the file system in an infinite loop because it was not set to SEEN on the email server. This could lead to the file system filling up with copies of the email. This problem has been solved and such loops do not occur anymore.</p>
655786	<p>Template editor closed after saving</p> <p>If the details panel of a system property was opened before going to the <i>Templates</i> page of the Web Admin Suite and saving changes to a template, the template editor was closed after saving. This problem has been solved and the template editor now remains opened after saving also in this situation.</p>
657363	<p>Access to the Web Client not possible due to missing localization</p> <p>If a queue and view did not have localizations in the user's browser language, the user could not access the Web Client because a blank screen with a <i>Forbidden</i> message was shown. This problem has been solved and missing localizations do not block the Web Client anymore.</p>
657721	<p>Wrong alignment in relations section</p> <p>The header information of the related cases in the <i>Related cases</i> section of a case in the Web Client was not aligned properly with the case icon. This problem has been solved and the information for related cases is now aligned correctly.</p>
657915	<p>Wrong alignment of checkboxes in tables</p> <p>If a table field in the Web Client contained a boolean field displayed as a checkbox, the checkbox was not vertically aligned with the other data fields in the same table row when editing the case, contact or resource. This problem has been solved and checkboxes in tables are properly aligned with other table fields now.</p>

Number	Description
658155	<p>Incorrect property documentation</p> <p>The documentation of the property <code>themeOverlay</code> of the module <code>cmweb-server-adapter</code>, which can be viewed by clicking the <i>Documentation</i> icon in the property details on the <i>System properties</i> page of the Web Admin Suite, stated that a restart was not required for the changes to take effect. This problem has been solved and the property documentation now contains the information that a restart is required.</p>
658221	<p>Case field visible in spite of missing edit permissions</p> <p>A case field which is initially hidden and set to visible later in the process by using the method <code>workflowApi.setGroupProperty("GROUPNAME", GroupPropertyType.VISIBLE, "true")</code> was shown in the Web Client even if the user who edits the case did not have <i>Edit data</i> permissions for the respective case. This problem has been solved and such fields are not displayed anymore if the user lacks edit permissions.</p>
658269	<p>Workflow changed by icon download</p> <p>After downloading an overlay or scope icon from the <i>Workflows</i> page of the Web Admin Suite, it was selected for the activity or scope and the <i>Update workflow</i> button became active because of this workflow change. This problem has been solved and downloading icons does not change the workflow anymore. In addition, the window to select an icon is not closed after download anymore, so that the user can perform further actions.</p>
658336	<p>Duplicate contact search field</p> <p>If the page customization setting <code>suggestionsDisabled</code> is set to "true", two search fields were shown in the edit mode of the <i>Contacts</i> section of a case in the Web Client. This problem has been solved and there is only one search field now. In addition, the person icon is displayed above the search field instead of the company icon.</p>
658338	<p>Changes in activity form not saved</p> <p>When setting a value in an autocomplete or string field inside an activity form in the Web Client, the value was not saved if the case was edited simultaneously by another user. This problem has been solved and values entered in activity forms are now saved even if there are concurrent edits of the case.</p>
658354	<p>Empty activity form scripts not removed from database</p> <p>When emptying the prefill or visibility script of an activity form on the <i>Workflows</i> page of the Web Admin Suite, the script was emptied but not removed from the database. This problem has been solved and empty activity form scripts are now removed.</p>
658360	<p>Login not possible with mixed authentication</p> <p>When using the mixed authentication mode (LDAP and database), it was not possible to log in to the Web Client or the Web Admin Suite with the database password of the administrator user after changing this password on the <i>Users</i> page of the Web Admin Suite. This problem has been solved and login now works correctly in mixed authentication mode.</p>

Number	Description
658396	<p>Missing padding for SVG icons on create pages</p> <p>When using the new icons in SVG format, there was no padding around the icon on the pages to create a case or resource in the <i>Web Client</i>. In addition, the resource icon was cut off due to a misalignment. These problems have been solved and the icons are now properly aligned with the correct padding.</p>
658398	<p>Possible to update corrupt workflow</p> <p>It was possible to deploy a corrupt workflow with a duplicate element on the <i>Workflows</i> page of the <i>Web Admin Suite</i>, so that this workflow could not be loaded or imported anymore. This problem has been solved by showing a validation which blocks the user from updating such a workflow.</p>
658401	<p>Incorrect scope activity type when exporting an old workflow</p> <p>When exporting a workflow which was created in a <i>ConSol CM</i> version prior to 6.14.0.2 in the <i>Web Admin Suite</i> or which was created in the <i>Process Designer</i>, the manual scope activities were exported as automatic scope activities. This problem has been solved and the scope activities are now handled correctly when exporting old workflows.</p>
658409	<p>Email connection validation failed</p> <p>When validating the connection to an outgoing email server which did not need authentication on the <i>Email configuration</i> page of the <i>Web Admin Suite</i>, a message that the validation failed was shown if the system properties and <code>mail.smtp.email.user</code> and <code>mail.smtp.email.password</code> of the module <code>cmas-core-server</code> existed but were empty. This problem has been solved and the connection validation is now successful in this case.</p>
658434	<p>Unneeded info logs</p> <p>The <code>infinispan.log</code> files contained unneeded log entries referring to the <code>infinispan</code> cache service on the info level. This problem has been solved and these entries are not logged on info level anymore.</p>
658450	<p>Custom attachment validation did not work in Attachments section</p> <p>Using a custom implementation of <code>AttachmentDataValidatorService</code> to perform additional checks before uploading an attachment in the <i>Web Client</i> did not work if the attachment was added in the <i>Attachments</i> section instead of the <i>Communication and history</i> section. This problem has been solved and custom attachment validations now work correctly in both sections.</p>
658496	<p>Missing space between case header icons and text</p> <p>The icons for queue and scope were directly attached to the queue and scope name in the case header of the <i>Web Client</i>. This problem has been solved and the queue and scope icons are now separated from the text by some white space.</p>
658498	<p>Unneeded warnings about sessions in log files</p> <p>The log files contained unneeded warnings about session checks starting with the text "Error broadcasting message with configuration info to WAS engineers sessions." These warnings were not needed and have been removed.</p>

Number	Description
658533	<p>Unneeded warnings in log files</p> <p>The log files contained unneeded warnings with the text “Placeholder tag set on a component that renders its body only.” These warnings were not needed and have been removed.</p>
658538	<p>Unneeded warnings during workflow deployment in log files</p> <p>When deploying a workflow in the clustered ConSol CM environment, the log files on the slave nodes contained unneeded infinispn warnings. This problem has been solved and these warnings have been removed.</p>
658542	<p>Event or email trigger could be attached to activity</p> <p>When editing a workflow on the <i>Workflows</i> page of the Web Admin Suite, it was possible to attach an event or email trigger to an activity by moving the activity very close to the upper edge of a scope where such a trigger was placed. This caused the trigger to attach to the activity instead of the scope. This problem has been solved, and event or email triggers cannot be attached to activities with this procedure anymore.</p>
658554	<p>Wrong tab opened after discarding script changes</p> <p>Depending on the chain of previous actions, it could happen that the user was redirected to the list of workflows after discarding changes to a workflow script on the <i>Workflows</i> page of the Web Admin Suite. This problem has been solved and the user now remains in the current workflow editor after discarding script changes.</p>
658560	<p>Automatic scope activity available for sorting</p> <p>It was possible to set a sort index for automatic scope activities on the <i>Workflows</i> page of the Web Admin Suite, although these activities are not visible to the end users. This problem has been solved and automatic scope activities are not shown in the <i>Sorting of manual elements</i> window anymore. In addition, the option <i>Sort index</i> is not shown anymore in their details panel.</p>
658596	<p>Access to the Web Client not possible due to missing localization</p> <p>If a customer group did not have localizations in the user’s browser language, the user could not access the Web Client because a blank screen with a <i>Forbidden</i> message was shown. This problem has been solved and missing localizations do not block the Web Client anymore.</p>
658598	<p>Error when trying to view case without contact</p> <p>After creating a case without a contact in the Web Client, it was not possible to view it when the ConSol CM system did not contain any contact. This problem has been solved and viewing cases without contact is now possible event if there are no contacts at all.</p>
658642	<p>Resource icon not shown</p> <p>The resource icon disappeared from the header of the resource page of the Web Client after clicking the <i>Edit</i> button. Also, it was not shown again when canceling the edition or saving the resource without having made any changes. This problem has been solved and the resource icon is now always shown in the resource header.</p>

Number	Description
658676	<p>Company icon too big</p> <p>On the page of a person in the Web Client, the company icon was bigger than the person icon. This problem has been solved and both icons have the same size now.</p>
658739	<p>Project assignment to queue not imported</p> <p>The assignment of a project to a queue was not imported when exporting a scene from a ConSol CM system where a new project was assigned to an existing queue, and importing the scene on another system. This problem has been solved and project to queue assignments are correctly imported now.</p>
658804	<p>Missing button to show attachment in history</p> <p>The <i>Show in history</i> button was not shown in the <i>Date</i> column of the <i>Attachments</i> section of a case in the Web Client. Therefore, the user could not jump to the history entry where the attachment was added from the <i>Attachments</i> section. This problem has been solved and the <i>Show in history</i> button is now displayed correctly.</p>

The following defects have been corrected in **ConSol CM** version 6.16.2.1.

Number	Description
658925	<p>Content not shown after copy and paste</p> <p>When copying the content of a comment from a case in the Web Client and pasting it to a new comment, the comment was empty after saving. This problem has been solved and the copied content is now shown correctly.</p>

6. Version 6.16.3 (21.11.2023)

Version 6.16.3 includes all **ConSol CM** changes and additions of

Release	Date	Scope	Merged versions
6.16.3.0	21.11.2023	New major version, includes changes and bug fixes	6.15.8.0
6.16.3.1	22.11.2023	Hotfix version, includes one bug fix	6.15.9.0

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



Please check the [Breaking changes and mandatory actions](#).

6.1 Update and installation instructions

Please read all information on update and installation of **ConSol CM** specific for version 6.16.3 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.

6.1.1 System upgrade from 6.16.2 and earlier versions

This section informs about specific steps when upgrading **ConSol CM** from 6.16.2 or earlier versions to version 6.16.3.

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

6.1.2 Support for PostgreSQL changed (#658805)

The support for PostgreSQL as a relational database for **ConSol CM** has been changed. Now, the minimal supported version is 6.16.0 instead of 6.15.1.

No further instructions available.

6.2 Changes

This section illustrates all relevant software product changes for version 6.16.3 of **ConSol CM**.

6.2.1 Usability improvements

State of label and description sections remembered (#650641)

The *Label* and *Description* sections in a workflow on the *Workflows* page of the **Web Admin Suite** now keep their state, i.e. when the user expands a section either in the details panel of a workflow element or in the modal window displayed when double-clicking a workflow element, the section is expanded when the user switches to another workflow element. Therefore, the user can edit labels and descriptions of several elements without having to expand the respective sections each time.

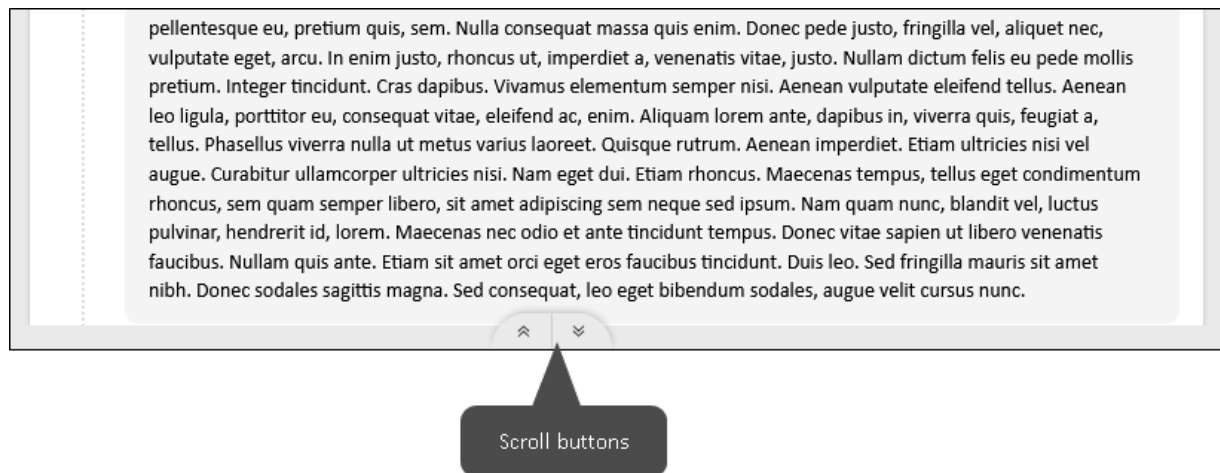
Icon to repair views with removed entities (#658540)

If a view includes filters which refer to entities which have been removed in the meantime, e.g. scopes which were deleted from the workflow, the view name is now displayed in orange on the *Views* page of the **Web Admin Suite**. A *Repair* icon is available which allows to remove the broken references. There is an info box at the top of the details panel which explains what needs to be done.

In addition, the wording of the broken references has been changed to “XY which no longer exists”, to indicate that the view is not broken but references removed entities.

New display of scroll buttons (#658572)

The buttons to scroll cases in the **Web Client** are now shown at the bottom of the screen, so they are easier to find and click. These buttons can be activated in the page customization attribute `topBottomPageButtonVisible` of the scopes `ticketPanel` and `ticketCreatePanel`.



Attachment preview during email sending extended (#658705)

When drafting an email in the Web Client, it is now possible to preview the content of the attachments which are added to the email. This helps the users to verify that the attachments which they add to the email are the intended ones.

The preview is shown when hovering the attachment name in the *Attachments* field. It is available for the following file types: TXT, CSV, HTML, XML, PNG, JPG, GIF, SVG, BMP, and PDF.

Grey icons for the news widget (#658831)

The icons of the news widget, which can be added to the welcome page of the **Web Client**, are now grey to combine better with the colored news title.

White background for text classes cleared automatically (#658838)

If the white background is selected for a text class, and the user changes the text class icon to one of the default SVG icons on the *Text classes* page of the **Web Admin Suite**, the white background is now automatically cleared. Otherwise, the transparent text class icon would not be visible in the **Web Client**.

Width of attachment selector increased (#658858)

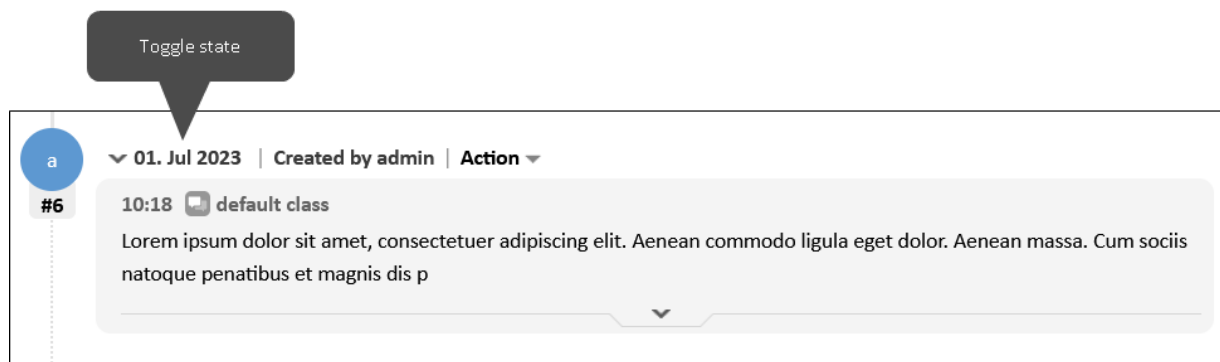
The width of the selector which is shown when clicking the *Attachments* field during the composition of an email in the **Web Client** has been increased. It is now as large as the *Attachments* field, so that large attachment names can be shown in one line.

Email backups menu renamed (#658886)

The menu item *Email backups* in the **Web Admin Suite** has been renamed to better convey its purpose. It is now called *Failed incoming emails* because the page shows the incoming emails which could not be processed by **ConSol CM**.

Toggling of comments and emails improved (#658906)

Comments and emails whose text class has the visibility setting “short” for the given detail level are shown collapsed by default in a case in the **Web Client**. They can now be expanded and collapsed by clicking the area comprised by the new arrow icon and the creation date of the entry. This allows expanding and collapsing an entry without moving the mouse cursor.

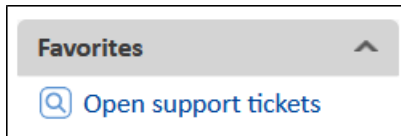


Property description improved (#658909)

The documentation of the system property `mailbox.polling.threads.mail.log.enabled` from the module `cm-as-nimh`, which can be viewed by clicking the *Documentation* icon in the property details on the *System properties* page of the **Web Admin Suite**, has been improved to clarify that setting the property to “false” disables the email duplication detection.

Search icon changed (#658939)

The icon shown next to the name of a saved detail search in the *Workspace* and *Favorites* panels of the **Web Client** has been replaced. The new icon fits better into the overall styling of the **Web Client**.



Hint about visibility settings for attachment entries added (#658973)

The details of a text class on the *Text classes* page of the **Web Admin Suite** have been extended by an info icon which is shown when *Available for attachments* is selected for the text class. When hovering the info icon, a tooltip which explains that the visibility setting from the text class is not relevant for attachments is displayed.

Number of cases added to warning messages (#659009)

When trying to delete or deactivate a user on the *Users* page of the **Web Admin Suite**, the confirmation dialog which is shown if the user has cases assigned now states the number of affected open and closed cases.

Wording of template options improved (#659048)

The user-friendliness of the template options on the *Staging export* and *Custom export* pages of the **Web Admin Suite** has been improved by adding *(WAS)* and *(WEB)* after the template option to clarify whether the option refers to technical templates managed in the **Web Admin Suite** or text templates managed in the **Web Client** or both kinds of templates.

Rounded corners for input fields (#659079)

The input fields in the **Web Client** now have rounded corners in line with the overall layout.

Better wording for appointment dialogs (#659100)

The wording of the buttons when creating or editing a calendar appointment in the **Web Client** has been improved. They now state their purpose in a clearer way.

Rounded corners in the detail search (#659151)

The input fields in the detail search of the **Web Client** now have rounded corners in line with the overall layout.

6.2.2 Security and third-party library updates

The following third-party libraries have been updated in this **ConSol CM** version:

- **Axios (#659023)**: Updated from version 0.26.0 to 1.6.0 in the **Web Admin Suite**
- **Debug (#659023)**: Updated from version 4.1.1 to 4.3.4 in the **Web Admin Suite**
- **Doxia APT (#658880)**: Updated from version 2.0.0-M1 to 2.0.0-M7
- **Netty (#658619)**: Updated from version 4.1.100.Final to 4.1.101.Final in **CM/Doc**
- **Spring Boot (#659050)**: Updated from version 2.7.13 to 2.7.17 in **CM/Archive**
- **Tomcat embed (#659032)**: Updated from version 9.0.80 to 9.0.82 in **CM/Track**

6.2.3 Saving custom exports (#658448)

The *Custom exports* page of the **Web Admin Suite** has been extended by a feature to save a collection of entities to export it later. A collection is a set of references which identify the entities to be exported.

The users can click the *Save* button, which becomes active after adding some entities to the table, to save the collection. They need to provide a name for the saved collection. Optionally, a description can be entered.

To export the entities which are referenced in a saved collection, the users need to click the new *Load collection* button. This shows a modal window with a table containing the available collections. The users can click the *Load* icon of the desired collection to fill the table on the main page with the respective entities in order to export it. A collection can be modified by loading it and adding or removing entities. When the users click the *Save* button afterwards, they can choose to overwrite the existing collection or change the collection name to create a new one. Collections can be deleted in the modal window which is opened after clicking the *Load collection* button.

The *Staging exports* page of the **Web Admin Suite** has been extended by the option *Collections for custom exports* which allows to export the collection. This exports the list of entities, not the entities themselves.

6.2.4 Scene for **CM/Ticketing** updated (#658843)

The scene for the **CM/Ticketing** product, which can be selected when setting up a new **ConSol CM** system, has been updated to use several new features introduced in this version.

6.2.5 Column types on Oracle modified (#658926)

Two columns of the **ConSol CM** database had the wrong data types when using Oracle. The following columns are changed to the type NUMBER(1) during the update to **ConSol CM** version 6.16.3:

- `automaticupdatedisabled` in table `cmas_wfl_elem`
- `is_allowed_html` in table `cmas_template_parameters`

6.2.6 Behavior for custom queue import changed (#659018)

The import behavior for scenes created on the *Custom export* page of the **Web Admin Suite** has been modified for a specific use case:

- Export contains a queue whose *Customer assignment* setting is “Mandatory”.
- The customer group and contact models were removed from the export.

Such a scene can now be imported without errors. The *Customer assignment* setting is set to “None” automatically when importing the queue.

This allows using the custom export feature to transfer queues between **ConSol CM** systems which use different customer groups.

6.2.7 Staging export modified (#658903, #659020)

The *Staging export* page of the **Web Admin Suite** has been improved by two changes:

- New option *Queues* to export all queues. This restores the functionality to export all queues which was removed with the transfer of the *Queue-based data* option to the *Custom export* page.

- Workflows are now exported also when selecting the *Customer data models* option to be consistent with the behavior when exporting resource data models.

6.2.8 SVG images removed from incoming content (#659235)

Images in the SVG format are now automatically removed from incoming emails and REST requests for security reasons. In the case history of the **Web Client**, the placeholder *Image unavailable or removed* is displayed instead of removed images.

6.3 Bugs fixed

The following defects have been corrected in **ConSol CM** version 6.16.3.0.

Number	Description
634854	<p>Order of dragged attachments lost</p> <p>When dragging several attachments at once to a case in the Web Client, they were shown in the correct order in the <i>Add attachments</i> section before saving, but after saving the attachments, the order changed. This problem has been solved and the order from the intermediate screen is now maintained.</p>
658271	<p>Assignee handled incorrectly in default values script</p> <p>If two queues had different default values for the assignee, when switching between the queue tabs during case creation in the Web Client, the assignee set for the first queue remained selected after switching to the other queue, whose default values script either does not set an assignee or sets the assignee to "null". This problem has been solved and the assignee is now handled correctly when switching between queues with different default values.</p>
658662	<p>Wrong resource type and category shown</p> <p>When working with resource relations on the resource page of the Web Client, sometimes the wrong resource type and category labels were shown after adding or removing a resource relation. This problem has been solved and resource categories are displayed correctly now.</p>
658662	<p>Personal email addresses not suggested</p> <p>When using ConSol CM on a case-sensitive database such as PostgreSQL and Oracle and writing an email in the Web Client, email addresses which contained capital letters were not suggested although they were visible in the <i>Personal email addresses</i> section of the user profile. This problem has been solved and email addresses with capital letters are now suggested correctly on all databases.</p>
658767	<p>Wrong mime type for mp3</p> <p>Files with the extension .mp3 were shown with the wrong mime type in the Web Client. This problem has been solved and mp3 files now have the mime type audio/mpeg and their own icon.</p>
658820	<p>Printed output incomplete</p> <p>When printing a case using the <i>Print</i> action in the case header of the Web Client, long case entries, which had a scrollbar, were truncated in the printed output. This problem has been solved and the content which is hidden by a scrollbar is now printed as well, so that the output contains the whole entries.</p>
658876	<p>Description from header displayed in Description field</p> <p>If an incoming email contained an attachment with a value in the header field Content-Description, this value was shown in the <i>Description</i> column of the <i>Attachments</i> section of the Web Client. This problem has been solved and the content description from the original email is not used as an attachment description anymore.</p>

Number	Description
658888	<p>Activity form size not imported</p> <p>When changing the size of an activity form in the <i>Web Admin Suite</i> and exporting a scene to import it on a <i>ConSol CM</i> system which already contains the same activity form with another <i>Form display size</i> setting, the new size was not imported. This problem has been solved and the activity form size is now handled correctly when updating existing activity forms during a scene import.</p>
658907	<p>Wrong product name in startup logs</p> <p>The log entries which are written during the start of <i>ConSol CM</i> included an old version of the product name with an asterisk. This problem has been solved and the correct product name is now used.</p>
658974	<p>Attachment size not shown in preview</p> <p>When previewing an attachment during the composition of an email in the <i>Web Client</i>, a size of 0 Bytes was shown if the detail level “Low” was selected for the case history or lazy loading was active. This problem has been solved and the attachment size is not shown correctly in the preview in these situations.</p>
658954	<p>Misaligned hover effect</p> <p>The hover effect in the context menu of an attachment in the case history of the <i>Web Client</i> did not cover the whole menu item. There was a small blank space between the hover effect and the line which separates the current menu item from the other one. This problem has been solved and the hover effect now covers the whole menu item.</p>
659043	<p>Incorrect magnet point in workflow arrow</p> <p>Moving elements in the workflow editor on the <i>Workflows</i> page of the <i>Web Admin Suite</i> could lead to broken arrows due to misplaced magnet points outside of the main scope. This problem has been solved and such magnet points are now corrected when saving or importing the workflow.</p>
659108	<p>Queue export did not include calendars</p> <p>When selecting a queue on the <i>Custom exports</i> page of the <i>Web Admin Suite</i> and selecting the checkbox <i>With all dependent data</i>, the business calendar was not included in the export, and the subsequent import failed if the business calendar did not exist in the target system already. This problem has been solved and business calendars are now exported for queues with all dependent data.</p>
659133	<p>Broken layout in Relations section</p> <p>When the cases in the <i>Relations</i> section of a case in the <i>Web Client</i> were grouped by relation type instead of by queue (page customization attribute <code>displayVariant</code> set to “byRelationType”), the icons were misaligned and the name of the queue was not shown. This problem has been solved and the <i>Relations</i> section is now displayed correctly when grouped by relation type.</p>

Number	Description
659220	<p>Scissor icon for quoting not shown</p> <p>The scissor icon, which is shown in the quoting mode of the case history to select the entries to be added as quoted text to an email, was not shown on the case page of the Web Client when using the quoting feature during email composition. This problem has been solved and the scissor icon is now shown when the case history is in quoting mode.</p>
659255	<p>Cases not found by date</p> <p>When searching for cases on the <i>Case management</i> page of the Web Admin Suite and using the <i>Creation date, Modification date or Close date</i> as a search criterion, not all cases to which the criterion applied were found, because the range was not calculated correctly. This problem has been solved and the range is now calculated in the way that the whole days at the start and end of the range are included.</p>
659267	<p>Unneeded information when selecting table rows</p> <p>When table rows in the <i>Attachments</i> section of a case in the Web Client, some superfluous information about selected columns and cells was shown if German was used as a browser language. This problem has been solved and only the number of selected rows is displayed now, both in English and in German.</p>
659317	<p>Deployment of a workflow with note failed</p> <p>The deployment of a workflow which contained note elements failed if the DWH was running in live mode. In addition, transferring data to the DWH during a transfer or update operation in admin mode failed if the system had a workflow with notes. This problem has been solved and note elements are now excluded properly from the data transfer to the DWH.</p>

The following defects have been corrected in **ConSol CM** version 6.16.3.1.

Number	Description
659354	<p>Exception due to wrongly detected loop</p> <p>If an action, which was performed for several cases in one transaction, caused trigger executions, it could happen that ConSol CM treated the trigger executions as a loop. As a consequence, the action failed although the trigger was executed only once for each case. This problem has been solved and loops are now detected only if a trigger fires several times for the same case.</p>

7. Version 6.16.4 (29.01.2024)

Version 6.16.4 includes all **ConSol CM** changes and additions of

Release	Date	Scope	Merged versions
6.16.4	29.01.2024	New major version, includes changes and bug fixes	

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



Please check the [Breaking changes and mandatory actions](#).

7.1 Update and installation instructions

Please read all information on update and installation of **ConSol CM** specific for version 6.16.4 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.

7.1.1 System upgrade from 6.16.3 and earlier versions

This section informs about specific steps when upgrading **ConSol CM** from 6.16.3 or earlier versions to version 6.16.4.

This **ConSol CM** release does not need specific planning for an update from earlier releases.

No further instructions available.

7.2 Changes

This section illustrates all relevant software product changes for version 6.16.4 of **ConSol CM**.

7.2.1 Usability improvements

Error message when trying to set parent for used field (#657097)

It is not possible anymore to set a parent field for a case, contact or resource field which already has data in runtime objects. An error message is now shown in the **Web Admin Suite** and the change cannot be saved. Previously, such a change could be done even though it caused exceptions when trying to open the cases, contacts or resources which had this field filled before in the **Web Client**.

Dynamic view filter sorted (#658095)

The list values which are shown in the *View filter* tab of the user details of the *Users* page of the **Web Admin Suite** are now sorted in ascending order by default. The sort order can be reverted by clicking the *Sort enum values descending* link above the values. This makes it easier to locate the desired values.

Label next to search field removed (#658864)

The *Search* label which was displayed next to data tables in the **Web Client**, e.g. for attachments and field visualizations has been removed because the search field's watermark already provided this information.

Case list improved (#658989, #659022)

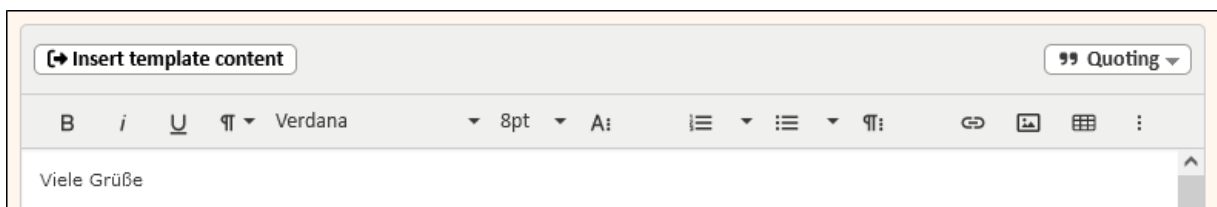
The display of the case list in the **Web Client** has been improved. On large screens with a screen resolution of more than 2000px, the case list is wider so that the user can see more information. In addition, the case subject is not truncated automatically at 50 characters anymore. Instead, as many characters as fit in two lines are shown to provide as much information as possible.

Font size selector for scripts, templates and log files (#659010)

It is now possible to increase or decrease the font size for scripts, templates and log files in the **Web Admin Suite**. The script and template editor allow font sizes between 8pt and 12pt. For log files, font sizes between 9pt and 14pt are possible.

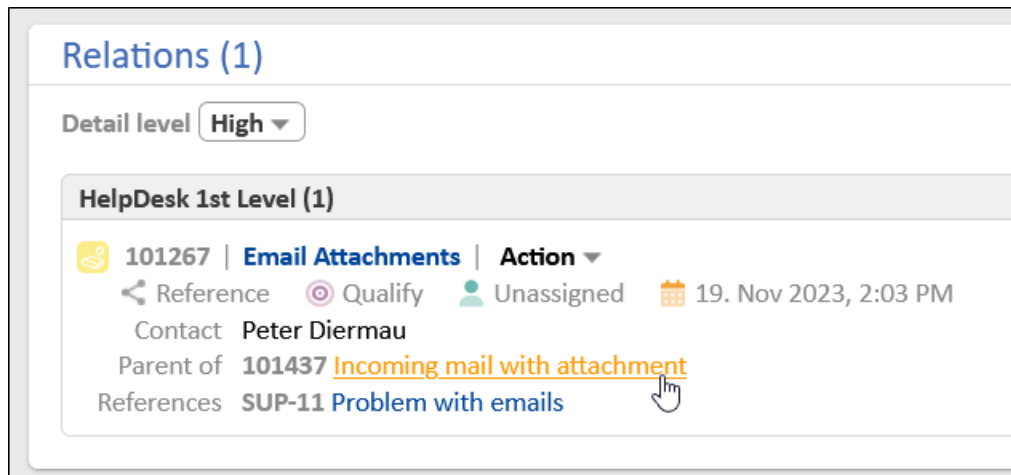
Icons for editor features (#659052)

The buttons to insert a template and quote case history entries which are shown above the email and comment editor of the **Web Client** now have nice icons to clarify their meaning.



Related cases clickable (#659163)

When switching the *Relations* section of a case in the **Web Client** to the detail level *High*, the cases which are related to the related cases are shown. The subjects of these second-level relations are now links, so that the user can open them easily.



File name prefilled on script import (#659280)

When creating a new script on the *Scripts* page of the **Web Admin Suite** and selecting a file to import script content from a file, the *Name* field is now prefilled automatically with the file name. Therefore, the user does not need to enter a name manually anymore if he wants to reuse the file name. If needed, the script name can be modified.

Column names for failed incoming emails changed (#659348)

Two columns on the *Failed incoming emails* page of the **Web Admin Suite** have been renamed for consistency with the name page name.

- The *Backup cause* column is now called *Error cause*.
- The *Backup date* column is now called *Date*.

Rounded corners for folding buttons (#659363)

The buttons to fold / unfold the panels on the left (case list) and on the right (workflow activities, workspace and favorites) of the **Web Client** now have rounded corners in line with the overall layout.

Rounded corners for scrollbars (#659364)

The scrollbars in the **Web Client** now have rounded corners in line with the overall layout.

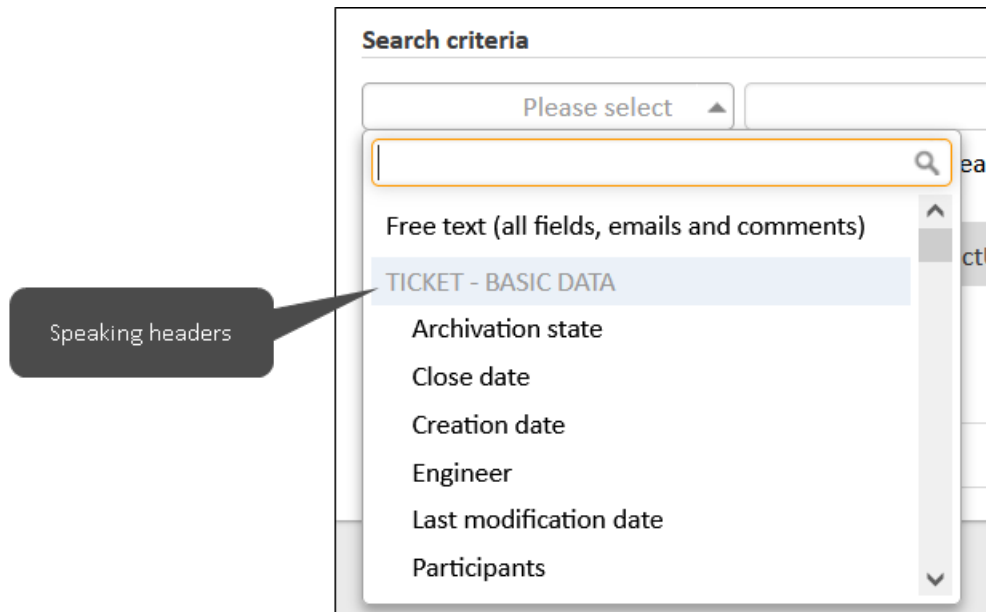
Queues page improved (#659380)

The usability of the *Queues* page in the **Web Admin Suite** has been improved to provide a better overview of the queue directly in the table:

- FAQ queues are now indicated by a green F badge in the *Name* column.
- The new filter *All queue types* allows to display only normal or only FAQ queues.
- The queue prefix is shown in the new column *Prefix*.

Wordings of the detail search criteria improved (#659440)

The wordings of the detail search criteria in the **Web Client** have been improved. The sections have speaking headers now which state the area which the criteria belong to, e.g. basic case data or case data of a specific field group. Some of the criteria in the *Case - Basic data* section have been renamed to match the current terminology and clarify their meaning.



In addition, the *Search* button has been renamed to *Start search*.

Busy indicator in detail search (#659603)

When switching tab in the results table of the detail search in the **Web Client**, a busy indicator is now shown.

User-friendly error message for attachment upload (#659630)

The wording of the error messages when trying to upload an attachment in the **Web Client** have been improved. They now state clearly why an attachment cannot be uploaded, e.g. because it exceeds the maximum allowed size, its file type is not allowed or the file is empty.

Information about case transfer improved (#659646)

After finishing a scene import, which starts a case transfer, the *Import results* panel of the *Import* page of the **Web Admin Suite** now includes a message to inform the user about the started case transfer and point him to the *Workflows* page to check its status. In addition, the *Workflows* page has been improved by adding an orange indication of the number of not yet transferred cases to the *Case transfer progress* column of the workflow table.

More space for autocomplete suggestions (#659862)

The width panel which shows autocomplete suggestions in the script and template editor of the **Web Admin Suite** has been increased to show as much information as possible to the user before selecting a suggestion.

7.2.2 Security and third-party library updates

The following third-party libraries have been updated in this **ConSol CM** version:

- **Grails (#659680)**: Updated from version 4.1.1 to 4.1.3 in **CM/Track**
- **Logback (#659405)**: Updated from version 1.2.11 to 1.2.13 in **CM/Track**
- **Spring boot (#659446, #659509)**: Updated from version 2.7.13 to 2.7.18 in **CMRF** and from version 2.7.17 to 2.7.18 in **CM/Archive**.
- **Tomcat embed (#659405)**: Updated from version 9.0.82 to 9.0.83 in **CM/Track**.

7.2.3 Extended information in audit log (#657499)

The information which is written to the `audit.log` file when unassigning users from a role has been extended. It now contains the IDs of the unassigned users in the new parameter `previousEngIds`. This allows to track which users were removed from the role.

7.2.4 Last execution date for tasks (#658513)

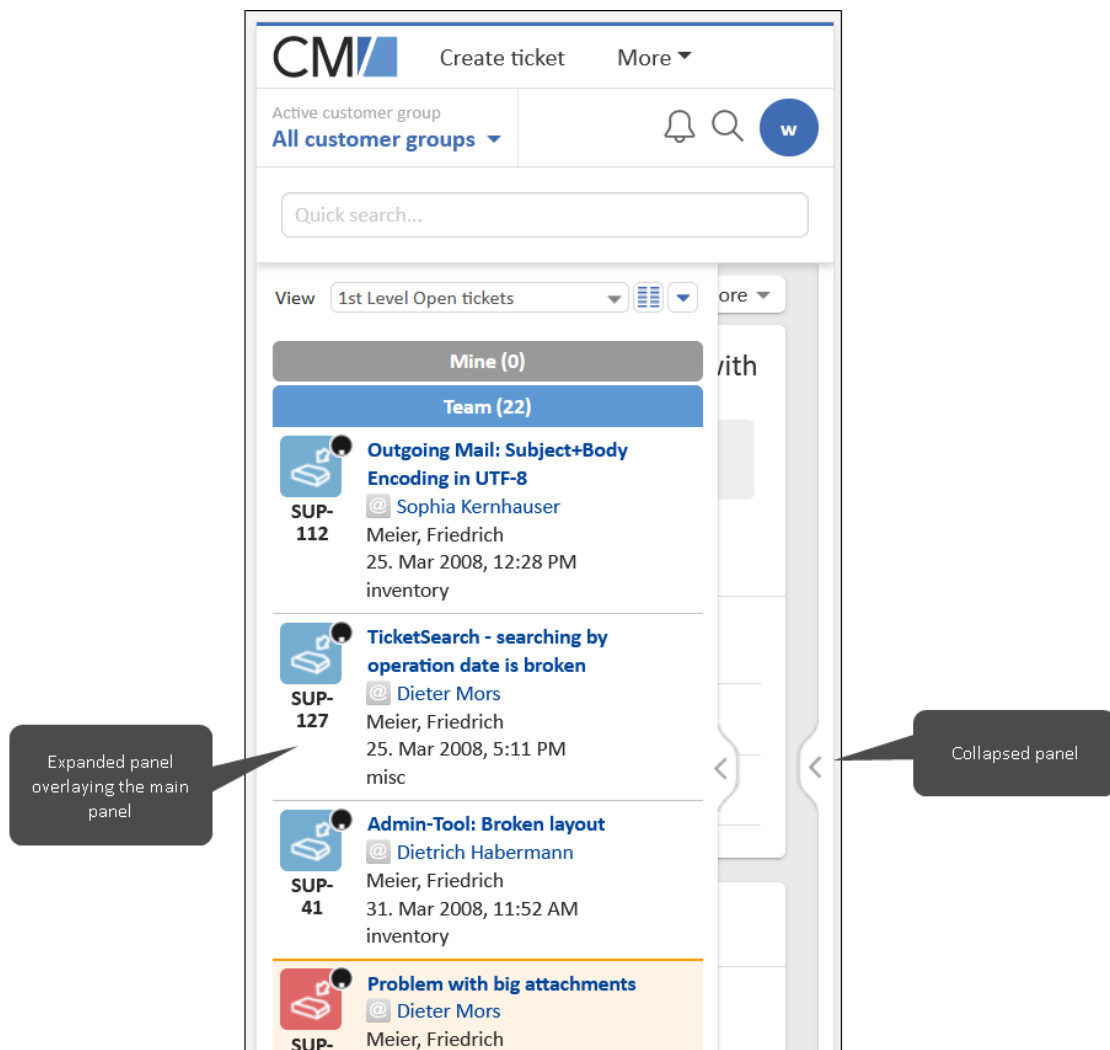
The *Tasks* page of the **Web Admin Suite** has been extended by the column *Last execution at* which shows the date and time of the last execution for periodic tasks.

In addition, the German translations for the *Next execution at* column has been changed to *Nächste Ausführung* to make it shorter.

7.2.5 Responsiveness of the **Web Client** improved (#658979)

The responsiveness of the **Web Client** has been improved to improve usability when using it on mobile devices. The following improvements have been made:

- The user interface is not scaled automatically anymore, so that mobile users do not have to zoom in to be able to read the text.
- The left (case list) and right (workflow activities, favorites and workspace) panels are collapsed automatically on mobile resolutions. When they are expanded, they overlay the main panel.



Two new attributes have been added to the type `cmApplicationCustomization` of the page customization.

- **autoSideBarFoldEnabled:** Determines if the feature is enabled (“true”, default value) or not (“false”).
- **autoSideBarFoldOrder:** Determines which side bar is folded first, “right” (default value) or “left”.
- The results window of the quick search fits into mobile screens and the filters and links are displayed above the search results.
- The scope indication in the case header is wrapped and shown in a new line if there is not enough space to display it next to the queue.
- The detail search receives a horizontal scrollbar to avoid that the *Start search* button is cut off or not visible at all on small screens.

Two new attributes


7.2.6 Staging export without users and templates (#659000)

The behavior of the *All* option in the *Configuration data* section of the *Staging export* page of the **Web Admin Suite** has been changed. It is now possible to deselect the options *Users*, *Text templates (WEB)* and *Document templates* if an export without these objects is needed. This is useful for staging the configuration to production systems of customers who manage these items on their own, or for avoiding to transfer test users to the production system.

7.2.7 Wordings in the **Web Client** improved (#659016)

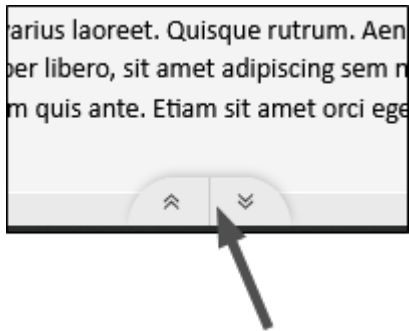
The GUI texts in the **Web Client** have been improved by unifying the criteria for using capital letters in English. Now, only the first word of a phrase (heading, button text, etc.) is capitalized. Two new labels were added to the **Web Admin Suite** for this purpose:

- **cmweb.rp.resource.base.initlow:** defaults are “resource” in English and “Ressource” in German
- **cmweb.rp.resource.new.initlow:** defaults are “new resource” in English and “neue Ressource” in German

 The new labels are created automatically during the setup or update. Please review them if your system uses another term for resources.

7.2.8 Scroll buttons enabled by default (#659116)

The scroll buttons which are shown at the bottom of case pages in the **Web Client** to allow scrolling to the top or bottom of the page with one click are now active by default.



The default value of the page customization attribute `topBottomPageButtonVisible` in the types `ticketPanel` and `ticketCreatePanel` has been changed to “true” for this purpose.

7.2.9 New threshold for performance logging (#659228)

The default values of the system properties which determine when slow requests are written to the log files have been decreased. Therefore, more log entries are written to detect possible performance problems more quickly and facilitate their analysis.

The new default values are:

- 1000 milliseconds for `operationtimes.log`, system property: `cmweb-server-adpater, request.log.threshold.milliseconds`
- 1000 milliseconds for `operationtimes-rest.log`, system property: `cmas-restapi-core, request.log.threshold.milliseconds`
- 500 milliseconds for `operationtimes-db.log`, system property `cmas-core-server, dao.log.threshold.milliseconds`

i This change applies to new **ConSol CM** systems only. The values for existing systems are not updated.

7.2.10 Warning when a service could not be stopped for an import (#659369)

When the user starts a scene import on the *Import* page of the **Web Admin Suite**, an attempt to stop all services is made automatically. If this attempt fails, a warning is added to the *Import results* panel and the user needs to stop the affected service manually on the *Services* page before retrying the import.

7.2.11 Handling of notifications for large emails modified (#659384)

When **ConSol CM** receives an email which cannot be processed because it exceeds the maximum allowed size, the failed email is only attached to the notification which is sent to the administrator if it has less than 9MB. If it exceeds this size, the text of the notification email explains why the failed email cannot be attached, instead. This avoids problems which occurred when trying to send an email with a too large attachment.

7.2.12 Custom export of integration scripts enhanced (#659582)

When adding a script of the type *Integration* to a custom export on the *Custom exports* page of the **Web Admin Suite**, the corresponding webhook is now added automatically as dependency because it is needed in order to use the script in the target system.

The user can remove the webhook from the export by clicking the *Remove dependency* icon in the table.

7.2.13 Script usage extended (#659611)

The *Scripts* page has been extended by a filter *All usages*, which allows to display only used scripts (option *In use*) or only scripts without known usages (option *No known usages*).

In addition, the *Usage* panel of the script editor has been extended by the following usages:

- **Script in page customizations:** script is used in page customization attributes
- **Used in tasks:** script is used in running or scheduled tasks
- **NIMH script:** script is used for processing incoming emails



The usage indication covers explicit references from **ConSol CM** objects to scripts. There might be situations when a script is required for the correct operation of the system even though the *Usage* panel is empty.

7.2.14 Handling of dependent enum scripts in custom exports improved (#659639)

When adding a field group which has dependent enum scripts assigned to an export collection on the *Custom exports* page of the **Web Admin Suite**, the dependent enum scripts are now added as dependency automatically. You can remove them by clicking the *Remove dependency* icon in the table if they should not be exported.

7.2.15 New wording for editing a contact (#659652)

The action to edit a person or company inside a case in the **Web Client** is now called *Edit contact data* / *Edit company data* to clarify that the user edits the data of the contact, instead of selecting another contact for the case.

Two new labels have been introduced to allow modifying the text:

- **cmweb.main.unit.contact.edit:** The default values are *Edit contact data* in English, and *Kontaktdaten bearbeiten* in German.
- **cmweb.main.unit.company.edit:** The default values are *Edit company data* in English, and *Firmendaten bearbeiten* in German.

The labels are added automatically during setup and update.




If you use other terms for contacts and companies in your system, you need to adjust the label texts accordingly.

7.2.16 Recovery from live mode failure of DWH improved (#659664)

When the live mode of the data warehouse fails, an update task to transfer missed data is required to restore it.

Previously, the start date for the DWH update was the date of the last performed update (system property `live.start` of the module `cmas-dwh-server`), which could be a long time ago leading to a long duration of the update.

Now, the date of the last successful live message is used as a start date instead. Therefore, the update covers a shorter time period and takes less time to complete. This date is displayed on the *Monitor* page of the **Web Admin Suite** in the *Status* section (*Last Live message date*) and also available as epoch timestamp in the system property `last.success.live.timestamp` of the module `cmas-dwh-server`.

 If a longer update period is required, you can manually set another start date in the *Advanced configuration* section of the *Update* dialog when creating the update task.

7.2.17 Scene for **CM/Ticketing** updated (#659888)

The scene for the **CM/Ticketing** product, which can be selected when setting up a new **ConSol CM** system, has been updated.

7.3 Bugs fixed

The following defects have been corrected in **ConSol CM** version 6.16.4.0.

Number	Description
656211	<p>Missing code highlighting in groovy strings</p> <p>The code highlighting for groovy strings in the script editor of the Web Admin Suite did not work correctly and variables inside a string were not highlighted as expected. This problem has been solved and code highlighting in groovy strings works correctly now.</p>
658291	<p>Wrong focus in activity forms</p> <p>When opening an activity form in the Web Client, the focus was sometimes not set on the first editable field. This problem has been solved and the focus in activity forms is now always set on the first editable field.</p>
659003	<p>Misplaced buttons to add content to a case</p> <p>When a case was created without an initial comment or email in the Web Client, there was a blank space on the left of the buttons to add content. This problem has been solved and the buttons are now properly aligned even if no content is shown in the case history.</p>
659184	<p>Broken layout for long attachment names</p> <p>If the name of an attachment of a case in the Web Client did not fit into the <i>Attachments</i> section, it overflowed the section borders. This problem has been solved and attachment names are now truncated to in this situation to avoid breaking the layout.</p>
659209	<p>Case creation not possible</p> <p>If the first queue tab for creating a case in the Web Client belongs to a queue without customer, and the user switches to another tab to create a case in a queue with customers, an exception occurred. This problem has been solved and a queue without customers in the first tab does not cause problems with case creation anymore.</p>
659224	<p>Execution of hidden activity not possible</p> <p>When trying to execute a hidden activity (visibility script returns "false") from another activity using <code>client.openActivityForm</code> in the activity script, a message that the case was changed in the meantime was displayed in the Web Client. This problem has been solved and it is now possible to chain activity forms by adding them to hidden activities which are executed automatically from activity scripts.</p>
659249	<p>Assignment of resource template lost after import</p> <p>When exporting a scene on the <i>Custom exports</i> page of the Web Admin Suite and adding a resource type without resource template to the export, the assignment of the resource template to the resource type was lost when importing the scene on another system which already contained a resource template with the same name as the removed one. This problem has been solved and the assignment of resource templates is not silently removed from custom exports anymore if the export does not contain the template.</p>

Number	Description
659254	<p>Wrong tooltip for scope sort index</p> <p>When hovering the <i>Sort index</i> field in the details of a scope on the <i>Workflows</i> page of the Web Admin Suite, a tooltip which referred to the activity sort index was shown. This problem has been solved and the tooltip now explains the purpose of the sort index for scopes.</p>
659258	<p>Table search filter not reset</p> <p>When clicking the <i>Reset search</i> button after having performed a search on the <i>Case administration</i> page of the Web Admin Suite, the search filter above the results table was not cleared. This problem has been solved and the table filter is now reset together with the search criteria.</p>
659337	<p>Toolbar of template editor missing</p> <p>If a custom configuration for the rich text editor was specified in the page customization, the toolbar was missing in the rich text editor of the <i>Text templates</i> page of the Web Client. This problem has been solved and the froala configuration does not interfere with the rich text editor for templates anymore.</p>
659381	<p>Wrong indentation in closures</p> <p>When pressing the Enter key inside a closure with named parameters in the script editor of the Web Admin Suite, the cursor was placed in the wrong position because too many spaces were inserted. This problem has been solved and the indentation in closures works correctly now.</p>
659382	<p>Missing unfold handle for history entry</p> <p>If a collapsed case history entry in the Web Client contained many images it could happen that the handle to expand the entry was not shown, so it was not possible to unfold it. This problem has been solved and the handle to expand history entries is now shown always.</p>
659412	<p>Exception in logs when editing a workflow note</p> <p>When editing a note element of a workflow on the <i>Workflows</i> page of the Web Admin Suite an exception was written to the log files if the development mode was active for workflows. This problem has been solved and editing notes does not cause problems in the development mode anymore.</p>
659416	<p>Text class setting not imported</p> <p>When changing the setting <i>Only emails (incl. email attachments) with the customer as sender or recipient are visible to the customer</i> for an existing text class on the <i>Text classes</i> page of the Web Admin Suite and exporting a scene containing text classes, the setting was not modified after importing the scene to a system which already contained the respective text class with a different setting. This problem has been solved and the <i>Only emails (incl. email attachments) with the customer as sender or recipient are visible to the customer</i> setting is now handled correctly during the import.</p>

Number	Description
659506	<p>Case history content with additional div not shown</p> <p>If the content of a comment or email was wrapped into additional div tags, the respective case history entry was shown empty in the Web Client. This problem has been solved and additional div tags do not hide history entries anymore.</p>
659538	<p>Template helper displayed after saving template</p> <p>When creating a new language version for an existing contact or resource display template, the <i>Generate display template</i> dialog was shown after saving the template. This problem has been solved and the dialog is now shown only for new templates.</p>
659605	<p>Stacktraces in thread dump truncated</p> <p>The stacktraces which were included in the thread dumps which can be created and downloaded on the <i>Troubleshooting</i> page of the Web Admin Suite were truncated, so that important information was missing. This problem has been solved and the stacktraces now contain all available information, including CPU time.</p>
659612	<p>Error during scene import</p> <p>Importing a new version of a scene to an existing ConSol CM system could fail during the workflow import step due to incorrect handling of activity forms. This problem has been solved and workflows are now imported correctly.</p>
659650	<p>Queue permissions lost after export</p> <p>When exporting a queue on the <i>Custom exports</i> page of the Web Admin Suite and selecting the <i>With all dependent entities</i> checkbox, the exported roles only contained the permissions for the exported queue. Permissions to other queues were not included in the export. When importing the scene to a system which already contained the role with permissions to several queues, the permissions to the other queues were removed. This problem has been solved and queue permissions are not lost anymore after import.</p>
659665	<p>Unneeded scrollbar in editor</p> <p>The comment and email editor of the Web Client had an unneeded vertical scrollbar even if there was enough space to show all the content. This problem has been solved and the scrollbar is now shown only if the content cannot be displayed in the available space.</p>
659712	<p>Scheduling interval missing in task table</p> <p>The scheduling interval <i>Minutely</i> was not shown in the tasks table of the <i>Tasks</i> page of the Web Admin Suite. The <i>Scheduling interval</i> column was empty for minutely tasks. This problem has been solved and all scheduling intervals are displayed now.</p>
659832	<p>Label wrongly aligned</p> <p>Data fields which have the value "Label" in the <i>Text display</i> setting were right-aligned, which was inconsistent with the overall layout of cases, contacts and resources in the Web Client. This problem has been solved and data fields used as labels are now left-aligned as the labels for other data fields.</p>

Number	Description
659833	<p>Duplicate event trigger names</p> <p>When adding event triggers to a workflow on the <i>Workflows</i> page of the Web Admin Suite, it could happen that two triggers received the same automatic name after adding and removing several triggers. Therefore, a validation error was shown when trying to deploy the workflow, and the workflow could not be deployed. This problem has been solved and event triggers are now always added with unique names.</p>