MANUAL | Customer
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SAP Enable Now Manager, Cloud Option

THE BEST RUN SAP

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1 Basic information

Welcome to the SAP Enable Now Manager!

The Manager is your centrally available platform for collaborative content creation and content rollout to learning groups.

It assists you to share the content you created in Producer or Instant Producer easily with other authors, align the content production along predefined workflows and based on unified settings available for every author. Thus, especially large content scenarios can be produced much more precisely with no need of sending archive file and no worries about whether you really have the most recent version of the content.

Nevertheless, you will need you to know some basic concepts of the Manager for working in a collaboration scenario. Please read the chapter *basic knowledge* before starting with content production to understand what *permissions* are and how *versioning* will help you in your content creation.

1.1 Technical Support

Please use the SAP Incident Wizard on the SAP Service Marketplace to submit your incidents on the following components:

- KM-SEN // Enable Now
- KM-SEN-PRO // Enable Now – Producer
- KM-SEN-IPR // Enable Now – Instant Producer
- KM-SEN-MGR // Enable Now – Manager
- KM-SEN-NAV // Enable Now – SAP Companion for desktop
- KM-SEN-APR // Enable Now – Application Profiles
- KM-SEN-SMI // Enable Now – Solution Manager Integration
- KM-SEN-WAC // Enable Now - Author content related SAP Companion issues
- KM-SEN-STH // Enable Now – SAP Translation Hub Integration

If you are not familiar with the SAP Service Marketplace, read the following information:

- To access the SAP Support Portal, you need an S-user ID and password. You can request access data from your SAP Super Administrator or register online on the SAP Service Marketplace page under ‘Registration‘.
- With this user, you have read-access to all the contents of the SAP Support Portal, you can use the SAP Community Network and SAP Help Portal, and you can also book courses under SAP Education.
- If you want to work with the support applications (Incident Wizard, license key request, system data maintenance, manage remote connections, software download and so on), you need the corresponding authorizations, which your SAP Super Administrator can give you.
- You can find information for new users and about support applications on the Support Portal Homepage under "Learn More". There you can also register for a personal overview demonstration of the SAP Support Portal.
- In case of problems with SAP Service Marketplace contact your local Customer Interaction Center.
  An online web form is available here. This web form should be used for all written communication with your local Customer Interaction Center. More Details about Incident Processing, Support Addresses and Hotline Numbers can be found here.

> **Note**
> The Producer diagnosis function can also be used to check the technical data of the installation on your computer (version, operating system, browser, etc.). Open Producer and select *Diagnosis...* over the *Help* menu. The Producer transmits the required information automatically and lists this in a corresponding dialog box. This information can also be saved as a text file and sent as an email attachment to SAP Support.

1.2 Additional Documentation

You will find further information about SAP Enable Now on:

SAP Help Portal

Find the most recent versions of product documentation, manuals and guides in the SAP Help Portal.

InfoCenter

Find interactive training material, best practices, conceptual knowledge and more in our Info Center.

SAP Enable Now Community

Connect with peers and collaborate on in-depth topics,

find expert content and join our webinars in SAP Enable Now Community.

> **Note**
> Some documentation may require you to enter your SAP customer login.

1.3 Browser Requirements

The following browser requirements are to be considered to ensure an error-free use of the Manager interface.

Browser	Version	Operating system
Microsoft Edge	116	Windows 10, 11
Mozilla Firefox Caution With the 2411 release, Mozilla Firefox will no longer be supported. Make sure to prepare for this change by migrating to the other supported browsers.	116	Windows 10, 11 or macOS 13.x
Google Chrome	116	Windows 10, 11

1.4 Learner Settings

A few changes are required to the settings of your browser to work perfectly with SAP Enable Now functionalities.

Independently of your preferred browser the playback functionalities require the following settings:

Requirement	Why?
Enabled JavaScript	All functionalities are based on the use of JavaScript. You must enable it.
Deactivated pop-up blocker	No matter which pop-up blocker you use, you must disable the blocking of pop-ups for the location you load your contents from. Read browser-specific chapters to find instructions on how to disable built-in pop-up blocker functionalities.
Activated cookies	The attributes and settings for displaying and executing library, trainer, and book reader are stored in cookies. You should therefore activate cookies in your browser to ensure that these functionalities run accurately.

1.4.1 Browser Requirements

Consider the following requirements to ensure that the trainer, library, and book reader functionalities work without errors, thereby ensuring that contents are played back successfully.

Browser	Version	Operating system
Microsoft Edge	116	Windows 10, 11
Mozilla Firefox Caution With the 2411 release, Mozilla Firefox will no longer be supported. Make sure to prepare for this change by migrating to the other supported browsers.	116	Windows 10, 11 or macOS 13.x
Google Chrome	116	Windows 10, 11

Supported mobile platforms

Starting from SAP Enable Now 2305, the playback of learning content is accessible on smartphones for a more diverse experience. The trainer style has been improved for better display and use on such devices. When using a smartphone, the trainer style automatically adjusts to the new smartphone mode, which includes:

- Library: the library resembles an app, with navigation elements located in the footer bar and additional functions in the header bar. Objects are displayed in a flat structure instead of a tree.
- Content view: icons indicate if a content has a description or linked content. You can open the content view using the relevant icon, which shows descriptions and attachments. Buttons in the footer bar allow you to start a simulation or a book.
- Navigation bar: controls in the navigation bar for simulations and book pages have been optimized for clarity. Key controls include Back, Title, Navigation, and a menu with more functions.

> **Note**
> We recommend using smartphones in the vertical orientation for playing back simulations and book pages.
>
> When resources are migrated to version 2305, the trainer style updates, and you can continue using your default trainer. However, a migrated trainer style is not compatible with older trainer resources.

Content playback has been tested for the system built-in browsers of the following mobile device platforms. Keep in mind that playback on mobile devices usually requires an online connection to published contents (Manager or shared network storage).

Platform	OS Version	Browser
Apple iOS	17	Safari Mobile

Platform	OS Version	Browser
Google Android	8	Stock Browser (AOSP) (with deactivated *Desktop View*)

1.4.2 Settings for Mozilla Firefox

> **Caution**
> With the 2411 release, Mozilla Firefox will no longer be supported. Make sure to prepare for this change by migrating to the other supported browsers.

The following settings are required for a flawless playback experience in Mozilla Firefox.

Changes in the settings dialog

Select the *Settings* item in the *Tools* menu in the open browser. Now go to the *Content* item in the settings dialog to see the required options.

Setting	Set to
Block pop-up windows	Deactivate
Activate JavaScript	Activate
Advanced JavaScript settings	Select the *Advanced* button to open *Advanced JavaScript settings*. Activate the following options: 1. *Position window before or after other windows* 2. *Hide status bar* 3. *Change status bar text*

Settings using about:config

Additional browser configuration settings are available to you in Firefox. You can access these settings by entering *about:config* in the address bar and confirming with *Enter*.
Enter setting name into *Search* field. A setting can be activated by double-clicking on it. It is then displayed in bold text and the value *true* is set.
The following settings are to be set to the value *true*:

Setting	What does it do?
dom.allow_scripts_to_close_windows	This setting allows browser windows to be closed.
signed.applets.codebase_principal_support	This setting displays browser windows in fullscreen mode.

Setting	What does it do?
dom.disable_window_open_feature.resizable	This setting prevents the size of an open browser window from being changed.
security.fileuri.strict_origin_policy	This setting allows links to be executed if an HTML page is launched from a local drive.

Printing the stop page

To print the stop page of the trainer correctly you have to allow the print of background elements. Go to *File -> Page setup* and activate the setting *Print background (Colors and Images).*

> **Note**
> - Caused by the settings that have been activated, you will face a security message when starting the library or a content in the trainer. Confirm this message with *Allow*.
> Activate the option *Remember this decision* so that the security message will not be displayed each time the library starts.
> - The default bubble audio effects in simulations and in the book reader actions are in WAV format. A Windows Media Player plugin is required in order to be able to play back the files in Firefox.
> You will find further information on the subject at: https://addons.mozilla.org/en-US/firefox/browse/type:7

1.4.3 Settings for Google Chrome

The following settings are required for a flawless playback experience in Google Chrome.

> **Note**
> The security model of Google Chrome prevents the playback of content from a file system. Content can only be played back from a Web server.

Changing the settings

Choose the *Customize and control Google Chrome* button in the open browser. Choose the *Settings* menu entry. Scroll to the bottom of the screen, choose *Show advanced settings...* and in the *Privacy* category, choose the *Content settings...* button.

Setting	Set to
Cookies	*Allow local data to be set*
JavaScript	*Allow all sites to run JavaScript*
Pop-ups	*Allow all sites to show pop-ups*

1.4.4 Settings for Safari

The following settings are required for a flawless playback experience in Safari.

Playback settings

Open the browser's settings dialog using the *Edit -> Preferences* menu. In this menu, select the *Security* area and apply the following settings:

Section/Setting	Set to
Security	
Activate JavaScript	Activate
Block pop-up windows	Deactivate
Privacy	
Block cookies	*From third parties and advertisers*

Printing the stop page (OS X only)

To print the stop page of the trainer correctly you have to allow the print of background elements. Activate the option *Print background* in print dialog.

1.4.5 Settings on iPad

Specific browser settings are required for trouble-free display on an iPad. Tap *Settings > Safari* to change settings:

Section/Setting	Set to
Privacy	
Accept Cookies	*Always* or *From visited*
Security	
Block Pop-ups	*Disable*

> **Note**
> - To use the trainer, library, and book reader functions on an iPad, you need an active Internet connection with access to a central server hosting the published content.
> - Playback performance relies on connection speed. If the connection is too slow, images might not be loaded in time.

1.4.6 Settings on Android Devices

Specific settings are required for trouble-free display on an Android device.

Section/Setting	Set to
Keyboard Settings	
Predictive text **(Name depends on device)** **Avoids an automatic input of text in a text field.**	Disable

1.4.7Settings for e-Mails

When using the *Send Content* function of the library it is required that the e-Mail program uses UTF-8 character encoding. This prevents incorrect display of the e-Mail text in a specific language.

Microsoft Outlook

For Microsoft Outlook UTF-8 can be activated in the *Outlook Options*:

Section / Setting	Set to
Advanced -> International options	
Allow UTF-8 support for the mailto: protocol	Activate

1.5 Browser settings for Single sign-on

> **Caution**
> With the 2411 release, Mozilla Firefox will no longer be supported. Make sure to prepare for this change by migrating to the other supported browsers.

To gain browser-sided support of single sign-on functionality you have to adapt your browser settings. Please read the instructions for your favorite browser.

Settings for Mozilla Firefox

1. Open the advanced browser configuration by entering *about:config* in the address bar.
2. Confirm the warning message.
3. Search for the setting *network.negotiate-auth.trusted-uris* and add the location of your Manager instance as one of the following URL schemes:
    1. Full path to the Manager instance, affecting this instance only: `https://yourservername_or_ip_address/Manager`
    2. For the server, affecting any instance provide by this: `https://yourservername_or_ip_address`
    3. For the domain the server is part of, including all other servers and instances in it - using wildcards: `https://*.yourdomain.com`

2 Basic knowledge

Working in a collaborative production scenario based on the Manager might be new to you, thus it slightly differs from working just by your own on your local machine. Read the following chapters to get an insight into the most important things you should know and to be ready for becoming part of a collaborative production scenario.

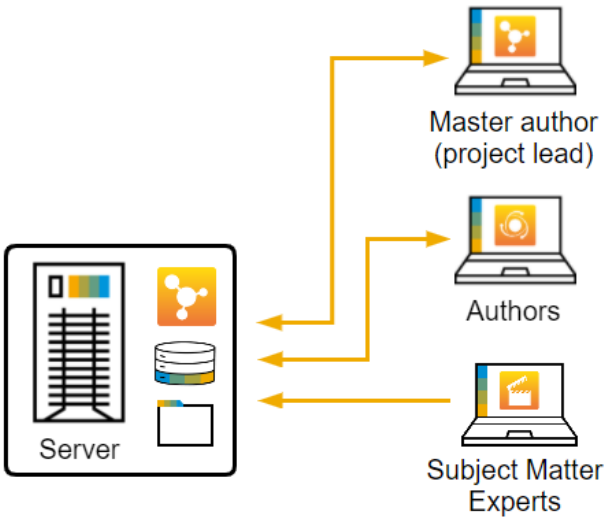
Also check out the training materials and tutorials in the SAP Enable Now Info Center to get an understanding of basic terminology and best practices for using the Manager in your scenario.

2.1 Training Available

This content is available as interactive training in the SAP Enable Now Info Center.

Enable Now

2.2 Collaborative content creation



Editing in a Manager-based environment allows multiple users to edit and create content within a centrally stored workarea, the *Manager workarea*, to which their local running Producer or Instant Producer is connected to. Furthermore, this workarea can be maintained and edited from the Manager interface as well.

The consistency of the content in the Manager workarea is *managed* by editing states, which are given to each user individually. Once a user started to edit an object, it is locked for all other users.

Editing states

The editing state of objects managed by the server is displayed as an additional icon attached to the object icons. Hence, by the display of these additional icons you can identify if an object in your workarea is connected to the server.

Three different icons display the current editing state of an object:

1. **Locked (default):** The object is connected to the server and part of the Manager workarea.
2. **Editing:** You started editing mode of the object and are able to modify it.
3. **Kept for Offline-Editing:** You kept the object for offline editing (suppresses automatic finishing of editing).
4. **Modified:** The object has been edited and needs to be saved to the server.

Notes on the editing state

Working with server managed objects you should also keep these facts in mind:

- **Location binding:** The editing state of an object is not only specific to a user but also the location the user started editing from. Hence, you cannot modify an object on your local machine, continue to modify it on another one without *finish editing* it on first machine.
- **Discard of editing states:** In case a user starts editing without finishing it for an exceptional time (in case of hard drive crash, long sick leave or else) administrative users can discard the editing state for the user currently editing the object. As a result of this, the object in the Manager workarea will stay in its last saved state and other users will be able to edit it again. In this case, the local modifications made by the user holding the discarded editing state cannot be saved to server anymore.

2.2.1Training Available

This content is available as interactive training in the SAP Enable Now Info Center.

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2.3 Private authoring

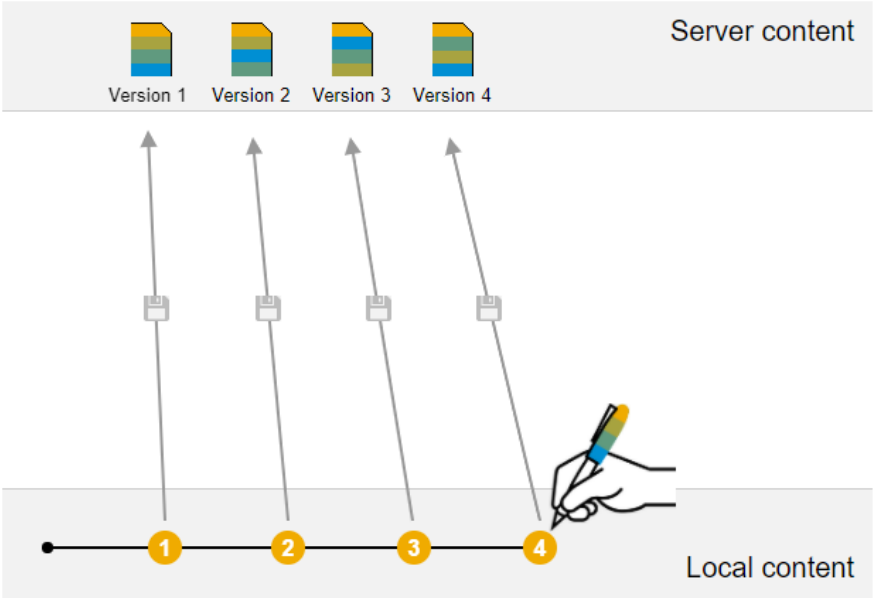
The Manager keeps your work private.

As long as you are editing content objects in the Manager or in a client desktop application all changes you save back to the server are invisible for other authors. Once you are done with editing and you *finish editing* the object, your changes will become visible for other authors.

This provides you privacy in working on content and using the advantage of steadily saving back your changes to the safe server storage without being worried that other authors might misinterpret your current editing state.

> Recommendation
> In case you want to make your changes visible to other authors while still editing the content, you can save your content to the server with activated option *Force new version*. This will make your changes visible.

2.4 Version control



Editing content in a Manager-based scenario you take advantage of the server-sided *version control*. This means that every time you send modified content to the server a new version of this content will be created, like a breakpoint on a time scale. Thus, you can revert to any editing state of the content at any time - worth a lot in case your content becomes malfunctioning somehow or you are unsatisfied with the changes you did since last saving.

But versioning of content provides even more comfort. In case you publish your content directly from the Manager itself, you can decide which version is to be published. You can publish one version of your content and proceed with editing and saving to server with no worries that the unfinished content may be visible to end users. Once you have finished enriching or revising the content, you can publish the most recent version of your content replacing the previously published version.

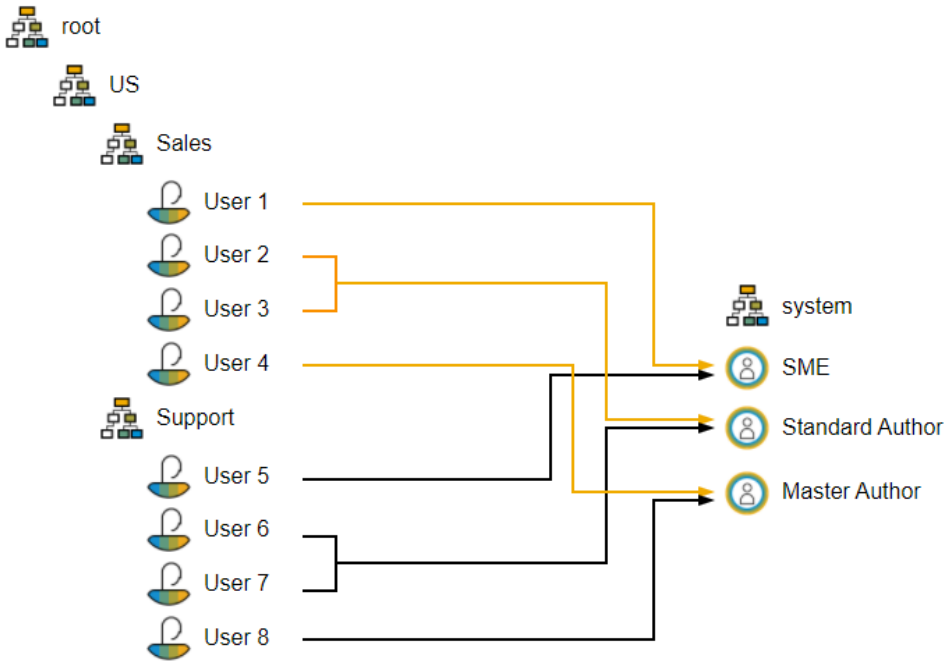
Notes

Keep in mind the following facts on content versioning:

- **Server-sided publishing of content can be done only once per object**
  You can decide which version to publish, but you cannot have two versions of a single object published at the same time.
- **Version control setup parameters**
  New content versions are created based on the setup parameters. A new version may not be created every time you save content to the server depending on the configuration. By default, a new version is created if:
  - the time between last content check in and current check in is more than 30 minutes
  - significant changes have been made to the content itself
  - you manually force version creation on check in.

Manual force of version creation
When saving content to server, independently if from Manager interface or from Producer you can force the creation of a new version to ensure your current editing state becomes revertible.

2.5 Identity management



The Manager uses a hierarchical concept to manage so called *identities*, a term collecting users as well as groups users can be part of. Three kinds of these identities exist:

1. **Organizational units**
   An organizational unit (acronym: OU) depicts a part of an organization, mostly a department or a task team. With organizational units the whole structure of a company can be depicted, displaying the unique position of each user or role within the company. Organizational units can be inherited to each other; thus, each unit can contain other subordinated organizational units, roles, or individual users.

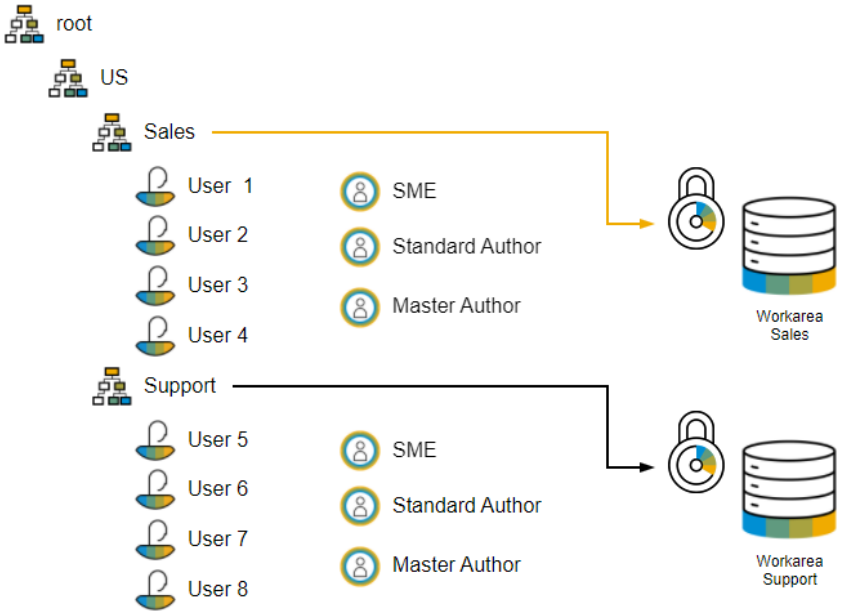
2. **Roles**
   A role is a group collecting multiple users and other, subordinated roles with the target to unify the permissions assigned to the members of the group. Roles can contain users and other roles but no organizational units.
3. **Users**
   Users are the smallest identity unit, standing for one individual person each. They can be part of multiple roles and single organizational units but they can not contain any subordinated identity items.

2.5.1Training Available

This content is available as interactive training in the SAP Enable Now Info Center.

Enable Now

2.6 Access control



The Manager is a permission-based server application. All application sections and the corresponding functionalities to view, modify or delete data are protected by individual (user) permissions. Hence each user needs an individual collection of permissions to do what their individual task description requires them to do.

To simplify the permission management in a multi user environment users with same task requirements are collected within *roles* (user groups) which hold a specific set of permissions. By adding a user to a role, the user

inherits the permissions assigned to this role, granting the user the same access rights all other members of the role have.

Permissions can be combined

Each user is an individual end of permission inheritance. Thus, permissions and roles can be individually combined to extend the access range of a user. This results in following possibilities on creation of user access levels:

- *each user can be member of multiple roles*, granting the user a combination of all permissions provided by all roles the user is member of
- *user permission sets can be extended by individually assigned user permissions* to allow the user special tasks additionally to their permissions set provided by their role membership
- *roles can be inherited* to create different user groups owning the same permission level, e.g., you can create roles *authoring team A* and *authoring team B* as members of the parent role *Authors* providing you with the possibility to create individual teams with different tasks

User permissions versus workarea permissions

To differentiate the user access to multiple workareas held by the Manager there is an additional permission gate controlling the access to the existing workareas each - the *workarea permissions*. These permissions control which users and roles can access, view, or modify data within each workarea individually. This enables you to run various production and learning scenarios within one single Manager instance allowing users to access specific content only, e.g., referring to the previously mentioned role inheritance, *authoring team A* only to first workarea and *authoring team B* to second workarea only.

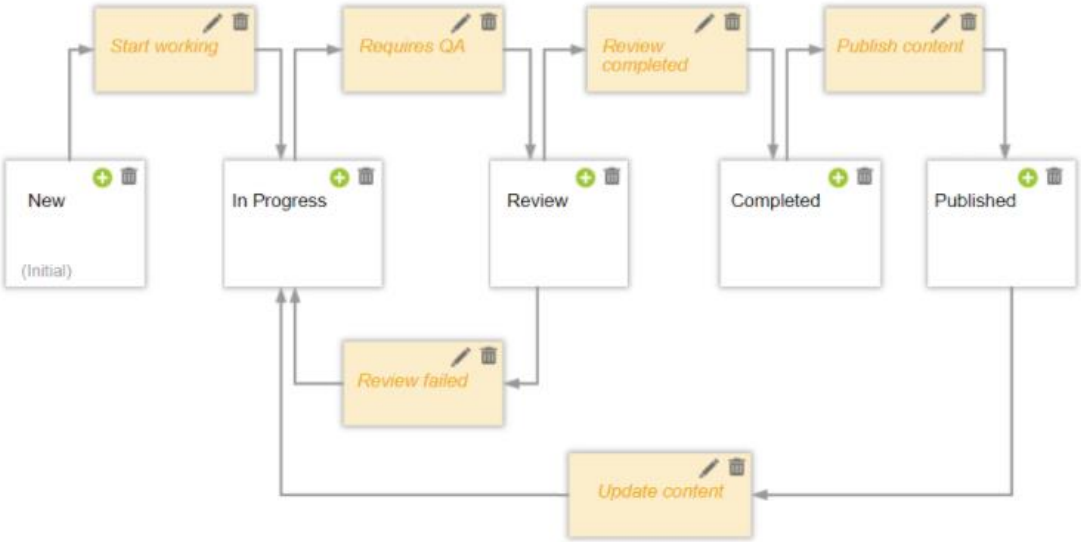
> **Note**
> Setting up a production scenario you must specify the workarea permissions for both users and roles.

2.6.1 Training Available

This content is available as interactive training in the SAP Enable Now Info Center.

Enable Now

2.7 Workflows



Workflows align statuses along a defined object lifecycle and provide the possibility of multiple transitions from one status to another, independently of the status order and the direction of the object lifecycle. These transitions restrict the possibilities of status changes to a more efficient and logic way. Additionally, transitions provide the option to send automatic email notifications to users responsible for its destination status, e.g., a reviewer.

Using defined workflows will make your production processes more efficient and error-free. Especially in large production scenarios with many participating users and a wide range of user task descriptions they will help you to avoid timing losses due to missing user information on the next production step and its responsible contacts as well as they will enable you to have a detailed overview about the overall production state by forcing according status changes.

Requirements

The more detailed you plan your needs of *Statuses* and the more detailed you define the task descriptions for users and user groups, the more detailed you can setup workflows. This increases the information flow in your production scenario and hence the production overall performance.

What does a workflow improve?

Usage of workflows provides more comfort in content production due to the following facts:

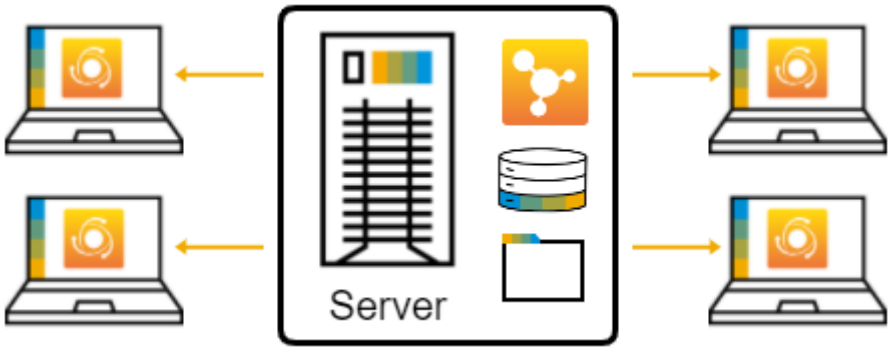
- Forcing of status changes enables a detailed production overview in the status report where you can identify problems and "hanging" tasks.
- The provision of a small set of transitions simplifies the status switch for all users participating in production process.
- The automatic notification to specified users enables each user to quickly react on the need of their participation.

2.7.1 Training Available

This content is available as interactive training in the SAP Enable Now Info Center.

Enable Now

2.8 Central content provisioning



The Manager assists you to ensure all authors produce aligned content by using common templates, images, and text items.

How it works

Create a content structure providing assets for common usage like logos, legally approved images, book page templates or else. Mark the groups available for all authors as *Must Have* (*Protocol* > *Must Have*) and save the content to the Manager.

From now on, this structure will be automatically downloaded to the local workarea of each author which connects to the Manager.

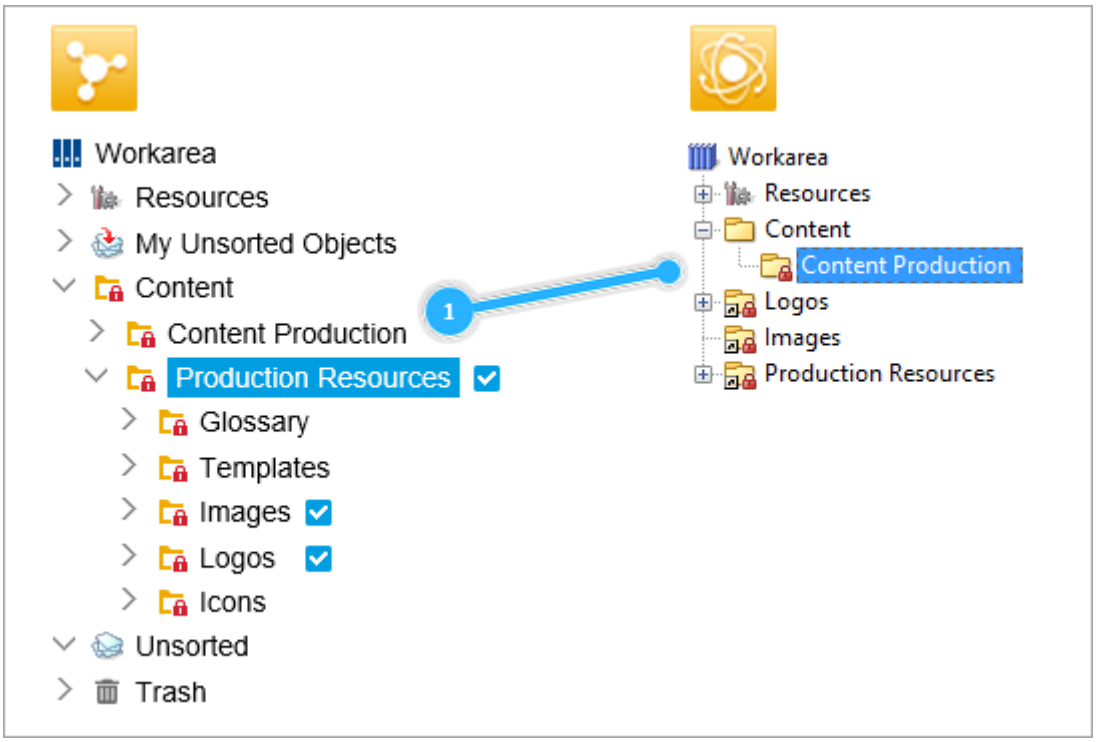
What is the benefit?

Providing common content ensures highly consistent content with minimal file redundancy. Hence less traffic has to be transferred as well as e.g., images can be replaced or removed easily in case their legal usage time has ended.

Furthermore, global content changes to book page templates or company logos can be enrolled with minimum efforts.

Increase the awareness

To increase the awareness of structures provided this way you can additionally display them as shortcuts on root level. Thus, they are visually separated from the content structure (1) and clearly identifiable.
Just check the option *Create Shortcut* (*Protocol* > *Create Shortcut*) to do so.



Manager structures provided as root level shortcuts

2.8.1 Training Available

This content is available as interactive training in the SAP Enable Now Info Center.

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2.9 Content distribution

Once you have finished content production, the Manager offers several ways to distribute your published learning contents to the learners. Depending on your scenario and your plans about when to involve the learners, the following options are available:

User creation

The initial method to distribute contents to your learners is a notification e-mail on user creation. Once you create a user, an e-mail with the corresponding credentials will be sent out to the user. This notifies the user about the availability of a learning scenario on the Manager instance. If assignments have already been set, the learner will see them immediately after logging in.
However, you should note that this notification is only sent when a user has been created manually in the Manager interface. Importing user structures by Excel or LDAP import does not send out notification e-mails.

Messages

Once you have created contents and assignments, you can use the messages function to notify your users about the new learning contents. Just go to *Administration > Messages*, write a message containing the address of your Manager instance and select users, roles, or organizational units as recipients. You can also use this function to notify your users about content updates or anything else.

QR Code

This function generates QR codes that can be easily read with a suitable reader on a mobile device. This enables your users and authors to share content links easily and, moreover, to access learning contents at the exact location where the knowledge is required, for example, when they have to use a newly purchased industrial machine. Just display the QR code for an object by clicking the QR Code button (top of the object editor displayed on the right) or in the relevant course in the learner view. Print it out and stick it on the new machine and every user will be able to access the relevant learning contents for the machine on their mobile device. However, you should first verify that contents propagated by QR codes have been already published.
Finally QR codes will assist you as an author to check your contents which you prepared for mobile playback. It is

not necessary to type in a long address on the virtual keyboard - simply scan the code and your contents will be displayed or played back.

2.9.1 Training Available

This content is available as interactive training in the SAP Enable Now Info Center.

Enable Now

3 Working with the Manager

The following chapters describe processes and workflows for configuring the Manager and working in a collaborative scenario.

3.1 First server settings

Once you have installed the Manager you should initially specify at least some server settings according to the needs of your scenario.

1. Go to *Administration* > *Server Settings*.
2. Specify at least the following settings:
    1. **Notifications and Email**
       To reduce the mail income of automatically generated emails, clarify which type of automated notification might be useful for your scenario and set all other notification types to *never*.
       An example for reduced, but efficient notification would be as follows:
        1. Notification at assignment > *User-defined*
        2. Notification at comment > *User-defined*
        3. All other > *never*
    2. **Security and Passwords**
       Apply existent company security policies to the server by modifying the settings for minimum password length and mandatory password elements.

       Set the Email address for password recovery: enter an email address users can contact in case of logon issues.
    3. **General**
       Specify or modify at least the following values:
        1. Caching lifetime: starting with the content production you can reduce the caching time to allow the authors to approve their content on the server without any delays.
           Note: rolling out the final content to learners we highly recommend increasing the caching time again to reduce the server load.
        2. Compress server response: in case you are using protocol HTTP 1.0, please ensure to deactivate the gzip option, since it is not supported by this protocol version.
        3. Valid time of a session (s): In case you expect a large number of users we recommend reducing the time before session time out to avoid unused sessions unnecessarily filling the server memory.
3. For detailed information on server settings, see the *Server Settings* chapter of this guide.

> ⚠ Caution
> We highly recommend not to deactivate the setting *Block content access for administrative users* in section *Security* since will put your collaboration scenario to the risk that malicious code or files can be run using administrative permissions. Nevertheless, we highly recommend to actively scan the base directory continuously by a virus scanner to detect and eliminate malicious content.

3.2 Before you begin to produce

Before you start with the collaborative content production, we highly recommend planning the details for your scenario as exactly as possible. This will help you to simplify setup and configuration of the environment as well as it will increase the organization and speed of the content production itself.

The following questions will help you to plan your scenario and hence to simplify the setup of your environment.

1. **Which requirements do you have for the user management?**
   Clarify the question on how many users will participate in your scenario and where you will get the user information from.
2. **Which task descriptions do you have in your scenario?**
   Identify user relations by their individual task description (e.g., shall they *learn*, *create,* or *manage*?) or their membership of different departments. Create user groups based on this information.
3. **Do these groupings interfere with your plans on content creation?**
   Maybe you want to create content for more than one scenario, thus the task description of your user groups fit in more than one scenario but some users should access one scenario only.
   Split your groups by these scenario differentiations (e.g., *Learners A*, *Learners B*,..) and note down the details by which these groups should vary.
4. **What are the group task descriptions in detail?**
   Identify what each user group shall be able to do in detail and identify single users which might have additional tasks. Use the user permissions of the Manager to determine the variations between those groups. See chapter *Permissions*.
5. **How the scenario shall be accessed?**
   Specify the details on the location of users they are accessing the scenario from to identify possibly necessary additional *security settings* (e.g., IP range restriction), *configuration needs* (e.g., Single Sign-on or SSL encryption / https) and *exceptions* (e.g., external employees eventually facing certificate issues or self-registering users).
6. **Which requirements do you have for the content creation?**
   Which types of meta information you will need to accurately watch the production process at any time and to straighten the content lifecycle from creation until rollout. The Manager provides several meta information types like *status*, *milestones*, *task types* and *task priorities* to assist you in your content production.
   Furthermore, you can define specific *workflows* depicting the individual lifecycle of content objects and automatically notifying the according users responsible for specific lifecycle sections (e.g., review or translation).
7. **Are there content requirements strongly varying?**
   A workarea centrally provided by the Manager unifies the playback and recording settings for all connected users. In case you identify multiple content requirements varying strongly in questions like recording sizes,

templates or even availability for authoring teams (e.g., for confidential content) you should think about creating separate workareas on your instance.

8. **How the finalized content shall be rolled out?**
   Identify the needs you have for rolling out the content to learners. Think about the best size of courses to gain best training success. Also determine if the learning progress of users shall be tracked for reporting possibilities. Keep in mind, that tracking even will help you to determine not well formed trainings and resulting loss of learning performance, hence it provides an inactive learner feedback.

3.2.1 Build up user structure

The user structure can be built up in slightly different ways. See the following questions to determine the way best fitting to your needs.

1. **How users shall be created and updated?**
   Manual creation of users should be an exception for single user creation needs.
   Rather users should be imported using a source to be used for future user creation and profile updates.
   The Manager provides the possibility to import user profiles from an existing *Active Directory* server, managing your companies user structure, or via *Microsoft Excel file* in case your identity management is based on another user service or such an option doesn't exist.
   Please refer to the *Operations Guide* for detailed information on the user import functionality and the necessary configurations.
2. **How many user groups did you identify and how detailed do they vary?**
   In case you already own an organizational structure, depicting organizational units and user roles, you can use this structure even within the Manager.
   The Manager comes up with pre-defined roles you should use to create your roles from or to apply their permission set on organizational units and imported roles. This simplifies the permission management a lot, thus you just have to add individual permissions to roles inheriting their base set of permissions from one of the default roles.

3.2.1.1 Create roles

Since the role concept of the Manager is based on inheritance we highly recommend using the default roles the Manager comes with as a base for your role concept. This simplifies the permission management extremely, thus you just have to add single permissions individually to extend the task range of a role.

Creating a role manually

To create a new role, follow these steps:

1. Open the role management interface under *Administration* > *Roles*.
2. In the *Selection* area expand the tree by clicking the arrow symbol prepended to each organizational unit.
3. Select the organizational unit the new role shall be created in.
4. Within *Quick add* enter the desired name for the new role into the mandatory field *Name*.

5. Optionally enter a 4-10 digit registration code the role will be available by for the self-registration feature. Find out more in the chapter *Self-registration*
6. Click on the *Add* button.
7. The new role appears in the roles list.

Inheriting permissions from role

To use an already defined set of permissions for a manually created or imported role proceed as follows:

1. In the *Selection* area select the organizational unit the parental role is located in. In case the parental role shall be one of the Manager default roles, select the organizational unit *root* > *system*.
2. Select the parental role in the roles list.
3. Click Add....
4. In the dialog, select the organizational unit the role you want to append is located in. If you are sure the name of the role is unique you can also select *root*.
5. Type in the name of the role into the text field of the *Filter*.
6. Click *Search*. Alternatively, you can click *show all* to display all identities in the selected organizational unit.
7. Select the role to be append.
8. Click *Save*.
9. The role appears in the membership list of the parental role and by now owns the same permission set.

3.2.1.2 Create Organizational Units

You can depict your organizational structure by creating organizational units your users are located in. These organizational units can be nested into each other in any depth of levels.

Nevertheless, we highly recommend using the *user import* functionality to import existing organizational structures. Manual creation of organizational should be exceptional, e.g., to create a container for self-registration the users are located in.

Creating an organizational unit

To create a new organizational unit, follow these steps:

1. Open the management interface under *Administration* > *Organizational Units*.
2. In the *Selection* area expand the tree by clicking the arrow symbol prepended to each organizational unit.
3. Select the organizational unit the new role shall be created in.
4. Within *Quick add* enter the desired name for the new organizational unit into the mandatory field *Name*.
5. Optionally enter a 4-10 digit registration code the organizational unit will be available by for the self-registration feature. Find out more in the chapter *Self-registration*.
6. Click on the *Add* button.
7. The new role appears in the roles list.

3.2.1.3 Create users manually

Manual user creation allows you to quickly add individual user profiles to the Manager. Nevertheless, manual creation should be exceptional in addition to the user import functionality, e.g., for testing purpose or in case some users need a secondary account when splitting between content access and administration permissions has been activated.

Note, that manually created user accounts are not capable to use *Single sign-on*.

Creating a user account

To create a new role, follow these steps:

1. Open the user management interface under *Administration* > *User*.
2. In the *Selection* area expand the tree by clicking the arrow symbol prepended to each organizational unit.
3. Select the organizational unit the new user shall be created in.
4. Within *Quick add* enter at least the mandatory *User Name*, the email address of the user (necessary for automated mail sending) and a password matching your password security settings.
5. Select the roles the user shall be member of in the dropdown *Roles*.
6. Click on the *Add* button.
7. The new user appears in the user list. If a valid email address has been provided the user will receive an automated activation mail containing the path to the Manager and individual credentials.

> **Note**
> The automatic sending of an activation mail requires you to have a valid email address set for your own user profile.

3.2.1.4 Self-registration of users

The Manager has the functionality to let users register themselves with a code you have provided them with. With this code the user will be assigned automatically to a certain role and a certain organizational unit.

Notes

- Do not use roles or organizational units imported by LDAP for self-registration.
- Self-registered users are not capable of using *Single sign-on*.
- Self-registration codes provide registration for a single role only.
  Additional memberships have to be applied manually later on.

Preparing self-registration

Follow these steps to build up a self-registration scenario:

1. Open the organizational units management interface under *Administration* > *Organizational Units*.
2. In *Quick add* enter the *Name* for the organizational unit the users shall be auto-assigned to.
3. Enter an individual code with 4-10 characters (digits or capital letters only) into the field *Registration-Code*.

4. Click *Add*.
5. Repeat steps for multiple self-registration based organizational units.
6. Now open the roles management interface under *Administration* > *Roles*.
7. In *Quick add* enter the *Name* for the role the users shall be auto-assigned to.
8. Enter an individual code with 4-10 characters (digits or capital letters only) into the field *Registration-Code.*
9. Click *Add.*
10. Repeat steps for multiple self-registration based roles.

To use existing organizational units or roles just modify its property *Registration-Code.*

Providing registration codes

Follow these steps to enable user to self-register themselves:

1. Go to *Administration* > *Registration-Codes.*
2. In the table search the intersection of according role (columns) and according organizational unit (rows). The code at this intersection represents the self-registration scenario you need.
3. Copy the full code (displayed as *ORGUNIT - ROLE*) and provide it, together with a link to the logon page of the Manager, to users, who shall register themselves for according role and organizational unit.

3.2.1.5 Assign users to a role

Once you have created all necessary identities you will have to assign users or (imported) roles to the Manager roles.

Adding users to roles

Proceed as follows to add identities to a role:

1. Open the role management interface under *Administration* > *Roles*.
2. Select the role you want to add identities to from the roles list.
3. Click *Add...* right below the members list.
4. In the dialog, select the organizational unit the identities are located in. Alternatively, you can also select *root*.
5. Click *show all* next to the *Filter* or type in a search phrase matching one or more identities and click *Search*.
6. Select one or multiple identities (hold CTRL for multiple selection).
7. Click *Save*.
8. The identities appear in the members list of the role.

3.2.1.6 Allow content access for administrative users

By default, the server setting *Block content access for administrative users* prevents users with any administrative permission from viewing or editing content. This is necessary to avoid these users running malicious code or uploading files to the server.

How can administrative users edit content?

In case users with administrative permissions need to view or edit content, it is required to create an individual secondary user account without any administrative permission.

For editing these users have to logout and use the secondary credentials to logon.

See chapter *Create users manually* for steps to create a secondary user account manually.

> ⚠ Caution
> We highly recommend not to deactivate the setting *Block content access for administrative users* to grant affected users access to content. It will put your collaboration scenario to the risk that malicious code or files can be run using administrative permissions. Nevertheless, we highly recommend to actively scan the base directory continuously by a virus scanner to detect and eliminate malicious content.

3.2.2 Create workflows

Workflows assist you in the content production process, hence they pretend a sequence of statuses defining different states of the content lifecycle. Additionally, they pretend which users are allowed to change the content lifecycle and can automatically notify users responsible for the next period.

Creating a workflow

Proceed as follows to create one or multiple workflows:

1. Open the workflow management interface under *Administration* > *Workflows*.
2. Within *Quick Add* enter a conclusive *Name* and optionally a brief *Description*.
3. Click *Add*.
4. Repeat steps in case you want to create multiple workflows.

Adding steps to a workflow

Newly created workflows are empty. You need to add steps defining different lifecycle periods and the transitions between these steps. To simplify the creation of nested workflows with multiple transitions we highly recommend the usage of the graphical workflow editor as it will be described in the following steps.

Proceed as follows to add steps:

1. Move your mouse cursor above the workflow you want to modify.
2. Click the action link *edit graphically* in the last column.
3. Within *Quick add* select the *first* status of your planned content lifecycle from the dropdown *Status*.
4. Click *Add*.
5. A visual box appears displaying the name of the status.
6. Repeat steps 3 - 5 in the *same sequence* the statuses shall accompany the content lifecycle.
7. Now you will have multiple status boxes depicting the content lifecycle from left to right.

Now you can add transitions between the status boxes. These can be specified as skipping many statuses in between as well as moving along the lifecycle or opposite to.

Proceed as follows to specify the transitions:

1. Click the status box the transition shall start from.
2. Click the destination status box the transition shall jump to.
3. A new transition appears displayed as yellow box with arrows displaying the direction of the transition.
4. Click the transition box.
5. Enter a conclusive transition name into the appearing prompt.
6. Click *OK*.
7. Repeat these steps for each transition you need.
8. After you have defined all transitions for your workflow, click *save changes*.
9. Click *back* to go back to the workflow management interface.

To create duplicate transitions to be used for another team select the same start status and the same destination status as before. You can define as many parallel transitions as you require. Consider naming the transitions according to their purpose.

Refining the transitions

Once you have graphically created the workflow as best for your purposes, you still need to set the properties for each transition.

Proceed as follows to refine the transitions:

1. Click the workflow list item you want to modify.
2. The workflow appears as flat list displaying the defined statuses and transitions.
3. Click the first transition entry in column *Transitions*.
4. In the dialog box you now can edit the transition properties.
5. For better identification enter a brief description.
6. Click *Edit...* at the *Permissions* field.
7. Expand the identity tree in the *Selection* area or enter a search phrase into the *Filter* field and click *Search*.
8. Select one or multiple identities (hold CTRL for multiple selection) who shall have permission to see and trigger the transition.
9. Click *Add*.
10. Having added all identities to the *Identities* area, click *OK* to confirm your selection.
11. Optionally you can specify identities to be notified automatically when a transition has been triggered.
12. Click *Edit* at the *Watchers* field.
13. Add the identities the same way as you did for *Permissions* (steps 7 - 10).
14. If the transition defines a final step in your content production, activating the option *Publish Content* will publish the content automatically in this workflow transition.
15. Click *OK* to confirm your transition modifications.
16. Repeat these steps for each transition you have created.

> **Note**
> A workflow owning transitions with no or less then minimum required properties is handled as invalid. Hence it won't be displayed in any workflow selection or task (if already assigned).

3.2.3 Prepare workareas

Each workarea on the Manager owns an individual set of *workarea permissions* controlling the user access, independently from the user permissions a user owns. Thus, you mandatory have to specify at least these access permissions for each workarea to make them available at least for the according authors as well as for individual learner groups. The setup of *Tags*, *Watchers* and *Workflows* is optional.

Creating workareas

Proceed as follows to create one or multiple workareas:

1. Open the workarea management interface under *Administration* > *Workareas / Tags*.
2. Enter a conclusive workarea name into *Quick Add* > *Name*.
3. Enter an according id into *Quick Add* > *ID*. We recommend using a conclusive acronym of the name excluding spaces.
4. Click *Add*.
5. The workarea will be created and added to the workarea list.
6. Repeat these steps in case you want to create multiple workareas.

Setting workarea permissions

Initially only you as the creator of the workarea will have full access to the workarea, whereas every user has read access to published contents from the workarea by default.
Proceed as follows to specify authors and learners the workarea will be available for:

1. Click the link *Permissions* in the column *Actions: Workarea* of the workarea you want to modify.
2. Optional: In case that not every user shall be able to see published content from the workarea, select the identity *root* in the *Selection* area. Then click *Remove*.
3. Click *Add*.
4. In the *Identity Selection* dialog expand the identity tree until you see the identities you want to add. Alternatively, you can enter a matching phrase into the *Filter* and click *Search*.
5. Select one or multiple identities to be added (hold CTRL for multiple selection).
6. Click *Select*.
7. Now select a newly added identity in the *Selection* area.
8. Select allow for the according permission level in the *Permissions* area. Note that workarea permissions are interdependent in displayed order. Thus, you just need to select *Create, Edit and Delete Content* to apply *View All Content* and *View Published Content* as well.
9. Repeat steps 7 - 8 for other newly added identities.
10. Click *OK*.

Specifying workarea tags

Tags will help you to mark unique object versions as a state fulfilling special content requirements. Thus, they simplify to allocate this version within multiple versions of an object. Furthermore, you can display the whole workarea depicting the content at this state.
Proceed as follows to create workarea tags:

1. Click the link *Add Tag...* in column *Tags* of the workarea you want the tag to add to.
2. Enter a unique *ID* for the tag. This will be used internally.
3. Enter a conclusive *Name* for the tag. It should be unique in the workarea as well.
4. Enter a short *Description* for better identification of the purpose of the tag.
5. Click *Save*.
6. Repeat steps to create multiple tags.

Setting default workflow for a workarea

In case you created one or multiple workflows assisting you production scenario you can specify a default workflow for the workarea. This will be automatically set for each new content object to be created in this workarea.

Proceed as follows to set the default workflow:

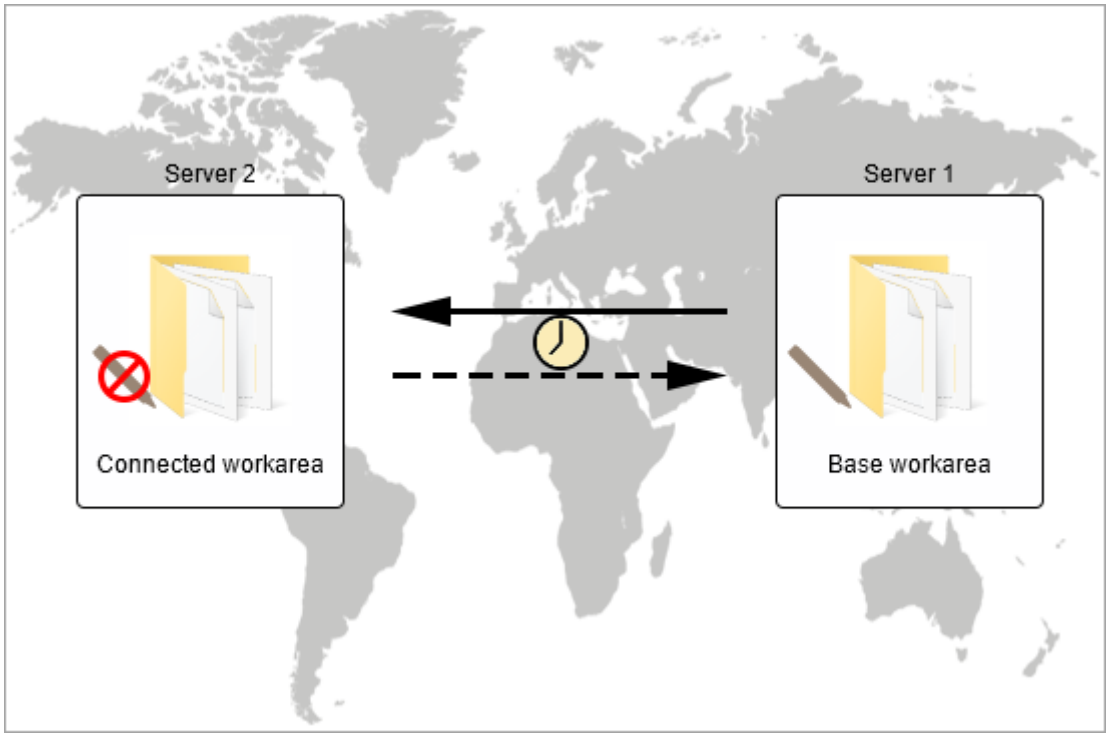
1. Click the link *Workflow...* in the column *Actions: Workarea* of the workarea you want to modify.
2. Select a workflow from the dropdown list.
3. Click *OK*.

Note that only valid workflows are listed in the dropdown. If you miss the workflow you want to set, go to *Administration* > *Workflow* and check the workflow for issues.

3.2.3.1 Connect workareas

To optimize the global distribution of content rolled out from within one workarea, workareas from different servers can be connected to provide the content to users from a faster local instance.

One workarea serves here as the usual place of content creation (base), whereas on one or multiple other servers a connected workarea can be created which regularly synchronize the structure with this base workarea.



Setting up connected workareas

Firstly, you have to ensure to have activated the according *server setting*. If you do not have sufficient permissions to do so, get in contact with the administrator of your installation.

Having this setting activated you will see the new button *Connect* in the upper right corner of the workarea administration under *Administration* > *Workareas / Tags*.

Proceed now as follows:

1. Click the button to open the connection dialog.
2. In the connection dialog enter the parameters as following:

*Name**	Enter a meaningful name by which the connected workarea will be displayed in your instance.
*ID**	Enter an ID to be used in your instance. **Note:** Ensure that this ID does not already exist in your instance.
*URL **	Enter the direct path to the workarea of the instance you want to connect to, like **http(s)://<host>/<instance>/wa/<wa ID>/~tag/published/** **Note:** Ensure to use the published content only.
Proxy URL	If you need to bypass the connection via a proxy, enter the correct proxy address.
Proxy Port	Enter the port number of the proxy server.
Username	Enter the username to be used for connection. **Note:**- the user must be a local created user on the instance to connect to - the user must have at least workarea permission View workarea for the workarea to connect to - the user must have given consent to the privacy policy if the data protection feature is activated on the instance to connect to
Password	Enter the according password for the user.**Note:** consider password expiration settings on the instance to connect to (Administration > Server Settings > Security)

3. Having connected successfully a new workarea list entry appears with the specified name and ID.

It can be identified as connected workarea by the CONNECTED banner next to it.

In the *Workareas* menu dropdown it will have a same colored indicator.

Force fetching of meta data

In case you want to force a fetch of the meta data from the workarea your connected workarea uses as source, independently from the synchronization time specified in the *Server Settings*, you can click the action link *Fetch Metadata* located in the workarea actions column of your connected workarea list entry.

What to keep in mind

- Connected workareas are to be understood as local caching workareas of another remote workarea.
- The contents within a connected workarea cannot be edited. All editing functionalities are disabled.
- On synchronization with the remote workarea the connected workarea only fetches the meta data, no files. Files are loaded from the remote workarea on first request in between two synchronization points and then cached until next synchronization happens. If the content in the remote workarea is not updated in short intervals it is highly recommended to increase the synchronization time range in the *server settings* to an appropriate value, for example to `10080` for a weekly synchronization.
- If there are synchronization issues, you will see a warning sign next to the workarea name. The tooltip of the warning sign will give you more details of the error.

3.2.3.2 Reuse content from other workareas

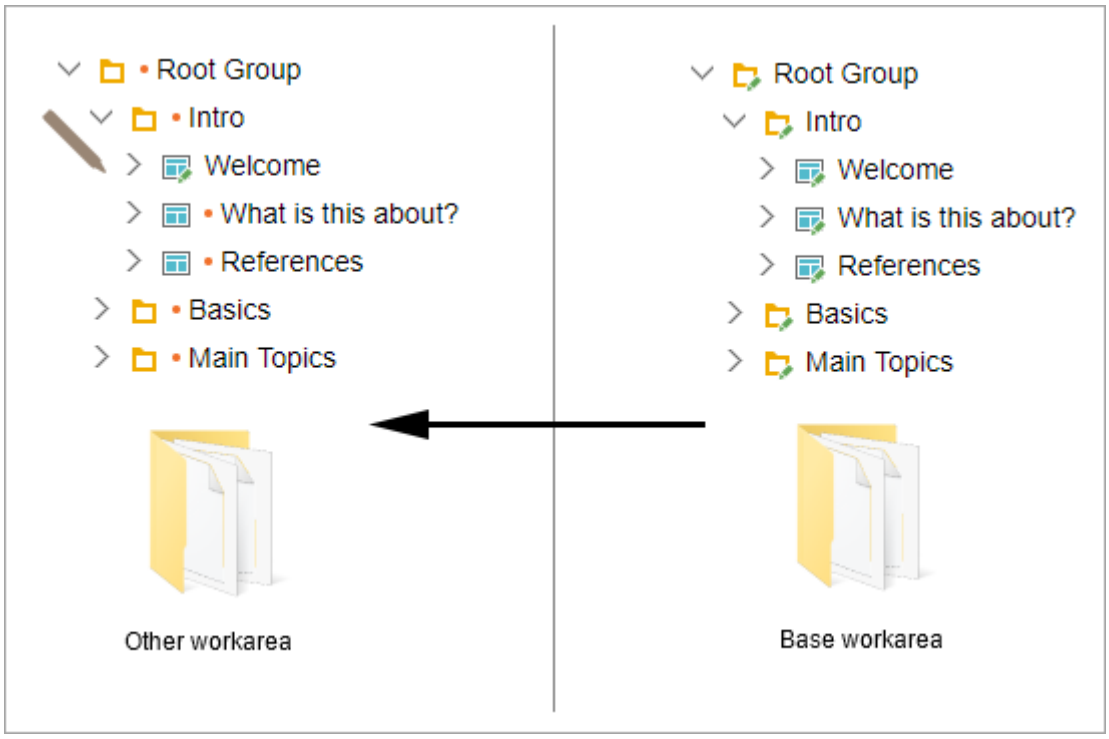
To support content alignment between workareas, the workarea extensibility functionality enables you to reuse the content from another workarea of your instance in your workarea. As soon as you have selected a base workarea to get contents from, the whole content including resources will be available in your workarea as well. You can reuse the content from one workarea in as many workareas as you want.

This enables you to align several workareas in use by reusing templates, resources, toolbox content in all of them based on one single workarea where you make you changes. These changes will be directly available in the other workareas as well.

How to customize

In case you need customizations in a workarea using extensibility, you can simply use the button *Fetch data* located at the position of the *Start Editing* button. Afterwards you can edit the object as usually.

Note: Once you fetch an object from an extended workarea, it becomes a local part of the workarea you are in. It won't be synchronized anymore thus changes in the base workarea won't take effect in your workarea.



Setting up workarea extensibility

Activated the respective *server setting*. If you do not have sufficient permissions to do so, get in contact with the administrator of your installation.

1. Having this setting activated go to the workarea administration under *Administration* > *Workareas / Tags*.
2. Click *Edit* for the workarea you want to have the extensibility for.
3. Expand the now displayed dropdown for the property *Base Workarea* and select the workarea you want to reuse the data from.
4. Click *Ok*.

You workarea list entry will now have the EXTENDED banner next to it.

In the *Workareas* menu dropdown it will have a same colored indicator.

What to keep in mind

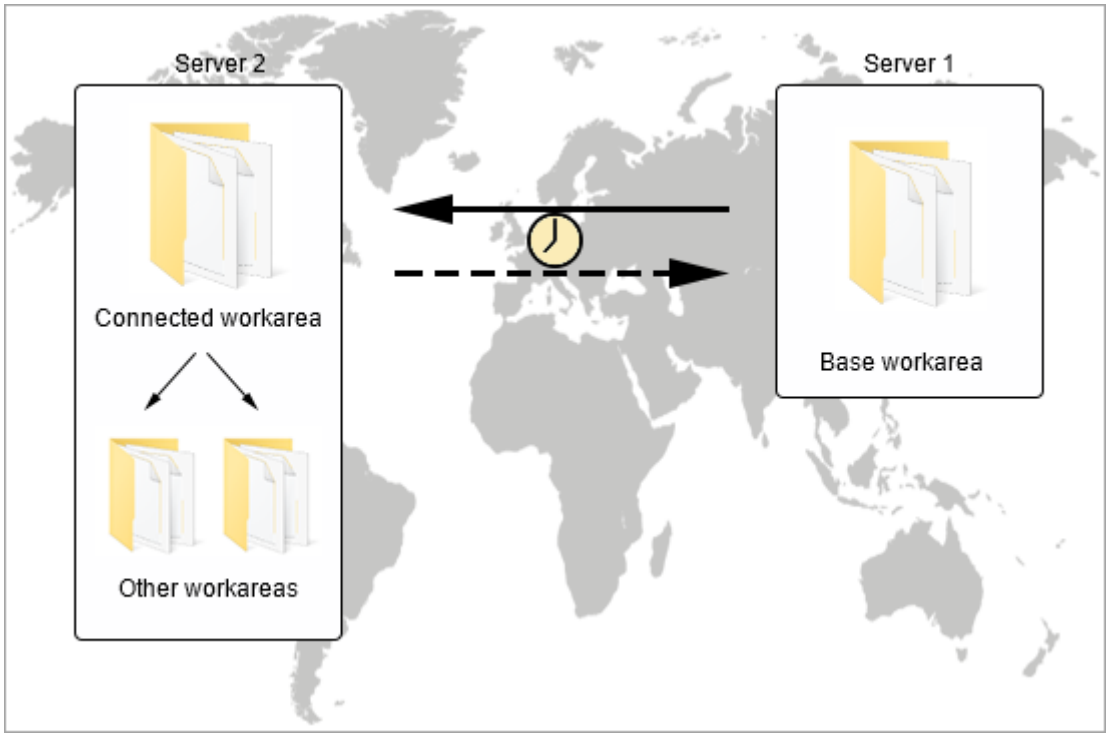
- The content of the base workarea is added to the workarea you selected it for. No existing content of the workarea will be deleted or affected by.
- Thus, you will find the content root of the base workarea initially in the workarea node *Unsorted*.
- To revert an edited and thus locally recreated object which formerly has been part of the extended workarea, you just need to delete it. Right after deletion the original object from the extended workarea will be available again.
- To use the resources from the base workarea you have to delete your existing resources in your current workarea.
  To do so, select the root node *Resources* and click *Delete Tree*.
- If there are synchronization issues, you will see a warning sign next to the workarea name. The tooltip of the warning sign will give you more details of the error.

3.2.3.3 Connect and reuse workareas

By combining the workarea connection and the workarea extensibility scenario you can simply distribute and align the content of multiple workareas on multiple instances in a global context. Just create use one master workarea, create on each instance a connected workarea and use this connected workarea as extended for all your other workareas in this instance.

This brings up multiple benefits:

- you can ensure that each scenario will use your styles, your templates, your design and else needed from one master workarea to be configured.
- updates on this master content are rolled out to all workareas automatically without the need to send archive files around
- newly added content is distributed automatically as well



3.2.4 Prepare structure

The Manager enables you to create objects directly in the browser interface without using the Producer. Thus, you can prepare your content scenario by building up the structure in more or less detailed level and assign branches to different authors or authoring teams to be filled and enriched.

See chapters Create objects and *Assign objects* for information on object creation and assignment.

Why should you do this?

Assigning newly created structures enables your authors to download only the content structures they need to process (by using the Producer menu item *Check Out Assigned Objects* or automatically on startup in the Instant Producer).

3.3 Begin to produce content

3.3.1 Create and edit objects in the Manager interface

3.3.1.1 Create objects

The Manager enables you to create objects directly in the browser interface without using the Producer. Thus, you can prepare your content scenario by building up the structure in more or less detailed level.

Creating objects

To create new objects, you first have to select an object new object shall be added to. In a new workarea this would be the root group of your workarea.

1. Click *Start editing* to switch the object to editing mode.
2. Now click *New...* and select the object you want to create from the dropdown (see notes below for object type dependencies).
3. A dialog appears in which you can specify the *Name* of the new object and optional, type-specific properties. The following two properties are common for each type (but not file assets):
   1. *Workflow*
      Set an individual object workflow. If you don't do and a default workflow has been set for the workarea, the default workflow will be assigned automatically.
   2. *Recommended synchronization*
      Specify the synchronization mode to be used automatically when the object is downloaded into a local Producer workarea. Use *Read only* for template structures or else to be modified only by you or few users.
4. In case you want to create a file asset, click *Browse...* to select and upload a file. See supported file types in Notes below.
5. Click *OK* / *Upload* to create the new object. It will be attached as last child item of the child objects.

Notes

Each object you create is automatically set to the language you selected for the Manager interface.

The following objects can be created:

- Group
- Project (empty, without indicating the project type)
- Book
- Book Page
- Text Unit
- New file assets (using uploads)

The available object types vary by their ability to have subordinated objects. The following matrix displays which object type (by row) can have which object types as children (by columns).

>>	Group	Book	Book Page	Project	Text unit	File asset
Group	✓	✓	✓	✓	✓	✓
Book	✓	✓	✓	✓	✓	✓
Book Page	✗	✗	✗	✗	✗	✓
Project	✗	✗	✗	✗	✗	✓
Text unit	✓	✓	✓	✓	✓	✓

The following file extensions are supported for file upload:
Documents: doc, docx, dot, dotx, pdf, rtf, html, ppt, pptx, pot, potx, xls, xlsx
Project content: js, dnt
Images: bmp, gif, png, jpg, jpeg, tif, tiff
Audio: wav, mp3, wma
Video: avi, mov, wmv, swf, rm, mpg, mpeg

3.3.1.2 Edit objects

The Manager enables you to edit and save book pages directly in the browser interface without using the Producer or Instant Producer.

Editing objects

You first have to select the according book page.

1. Click Start editing to switch the object to editing mode.
2. Now click Edit....
3. The Book-Page-Editor will open enabling you to edit the book page.

Notes

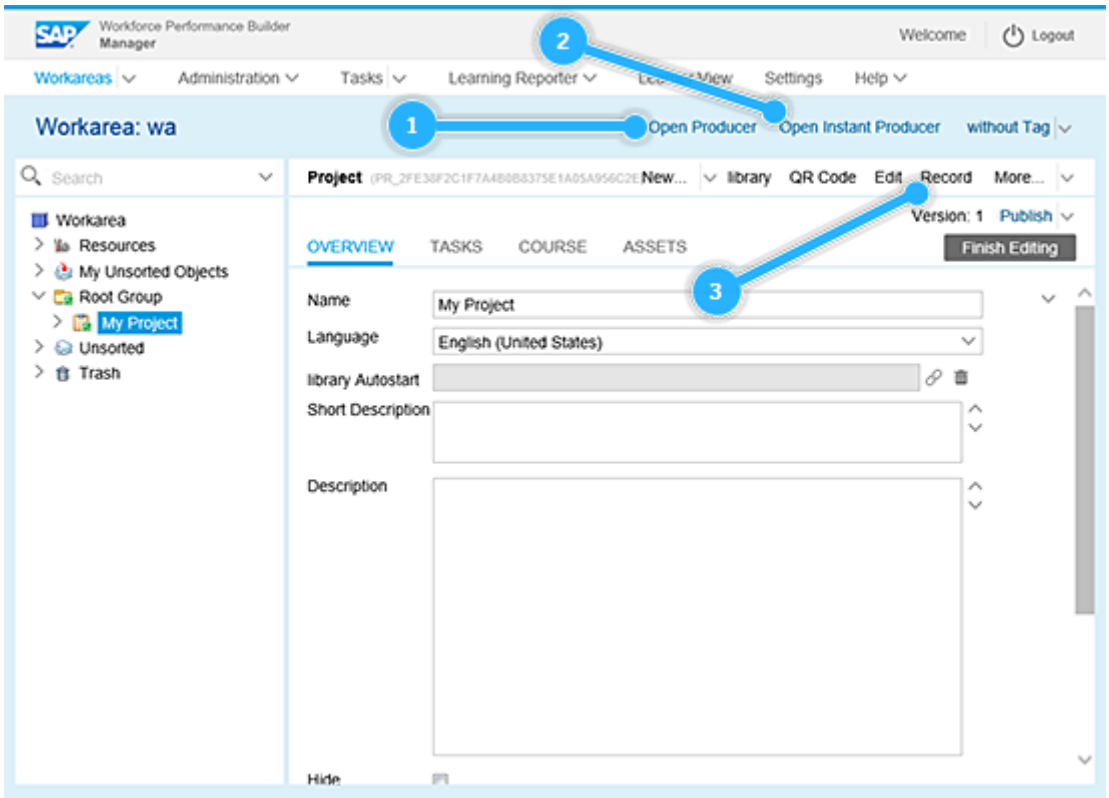
Web-Editors are available for the following object types:

- Book Page

3.3.2 Create and edit objects using cloud applications

To start cloud applications from within the Manager interface, proceed as follows:

1. Logon to the Manager
2. Select the workarea you want to work with from menu item *Workareas*.
    1. To start the **Producer**, click the according link below the menu bar.
    2. To start the **Instant Producer**, click the according link below the menu bar.
    3. To record content for an empty project, start editing the project and click *Record*.



> **i Note**
> Starting SAP Enable Now 2211, recording of web pages is done using the new Web Recording functionality. For it to work correctly, the latest version of SAP Enable Now, browser application recorder extension is needed, and it should be visible in the browser toolbar to control the recording. See the Web Recorder Manual for details.

3.4 While you produce content

Working in a collaboration environment you should keep a few things in mind to avoid unnecessary delays for other users involved in content production.

1. **Finish editing after work**
   Keep in mind to *finish editing* objects after your work, thus they can be edit by other authors, who are in need to.
2. **Start editing only objects you really edit**
   Do not start editing whole content branches for editing a few objects only. This blocks editing access for all other authors. In case you need to start editing objects for move or delete operations consider finishing editing these objects directly after you did what you needed to do.
3. **Comment your work**
   When you save, finish, or assign objects we recommend that you write a short comment into the comment field, depicting your changes or the need of additional editing steps to be done. This simplifies the identification of object states for all users.
4. **Use statuses or workflows**
   When you assign a correct status to an object, whether manually or automatically by a workflow, the overall overview of the content production scenario will be much more detailed. So the responsible production leads know at any time how the production develops and can react in case the production stumbles somewhere.
5. **Assign objects**
   Assigning objects to other authors frees you from creating and sending additional mail instructions, thus the user you assigned to will automatically receive a notification mail with the object name, your optional comment, and a direct link to access the object.

3.4.1 Assign objects

Object assignment is an essential feature in a collaboration environment. It enables you to delegate object tasks as well as to handover object editing for further processing.

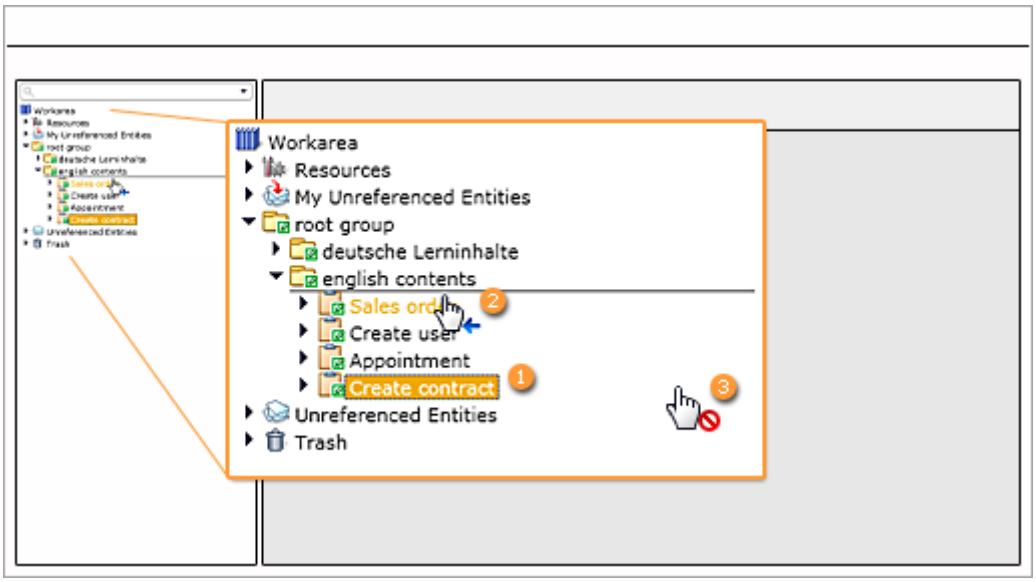
Assigning objects

Proceed as follows:

1. Select an object in the object tree.
2. Click tab *Tasks*.
3. Expand the dropdown *Assigned to*.
4. Select the user the object shall be assigned to.
5. Click *Save* in the right top corner of the tab area.
6. Optionally change *Status* in the *Save* dialog.
7. Ideally write a short *Comment* about the reason for the assignment.
8. If you currently edit the object, activate the *Finish editing* checkbox.
9. Click *Save*.

The user you assigned the object to will now receive an automated mail notifying about the object has been assigned to him.

3.4.2 Move objects



Use drag & drop to move objects and rearrange your object tree.

Notes

Due to the availability of editing modes consider the following facts for moving object:

- Before moving *start editing* the *target object* you want to move an object to.
- *Start editing* the *parental object* of the object you want to move.
- Editing mode for the object to be moved is not necessary.

Moving an object

1. Click the object you want to move once. Release the mouse button after clicking.
2. Click the object again and hold the mouse button pressed (1).
3. Move the object to the target position.
   A small arrow symbol appears beside the cursor displaying where you can drop the object (2) or not (3).

3.4.3 Restore editing mode

In some cases, it might happen that you need to restore the editing mode of an object, for example in case it has been started editing by a user, but the local device of this user faces a hard disk crash. In such a case the object is locked for any further processing since it is still marked on server as being edit by the user.

Notes

Consider the restore of an objects' editing mode as a *critical step*. If you do, all property and content changes which have been made to the object and which have not been committed to the server will get lost and the object will be reset to the last saved state. Objects which have been attached before commit will be moved into *Unsorted objects* (if they have been committed to the server already).

Restoring editing mode

Proceed as follows to make an object available again for editing:

1. Select the according object in the object tree.
2. Click *Restore WT* as displayed instead of *Start editing* / *Finish editing*.
3. Confirm the warning message.

The object is available again for editing. In case the user who edit the object at this time synchronizes his workarea or tries to commit changes to the server, he will face an error message and the content will be reset to the current state on server.

3.4.4 Revert to a previous object version

You can revert an object to an earlier saved version undoing all changes made afterwards.

Reverting to an earlier object version

Proceed as follows:

1. Select the object to be reverted.
2. Click the dropdown arrow next to *publish* (right above the *Start editing* / *Finish editing* button).
3. Select *Versions / Tags*.
4. In the dialog click *revert version* for the version you want to revert to.
   If you are unsure, if this is the correct version, click show version instead. The object will be displayed as it has been saved in this version. Proceed with step 2.

A new most recent version will be created with the properties of the version you selected for revert. You can now proceed to modify the object from this state on.

3.4.5 Filter for specific objects

You can filter the object tree for objects matching a specific criteria or criteria selection. This enables you to easily find objects you are searching for using simple *Search* or extended *Filter* criteria.

Simple search

To search for specific term, fully or partially matching, enter the search term into the field *Search* and hit return. Consider that no wildcards are supported.

Filtering

To search for objects matching multiple criteria proceed as follows:

1. Click the drop down arrow right next to the *Search* field.
2. Enter a *Filter name*. This is a mandatory step.
3. Specify filter criteria as needed. See table below for criteria descriptions.
4. Click *Filter*.

Reusing filters

Each time you create a filter criterion set it is saved as a private filter set with the name you entered in *Filter name*. It is available for reuse within the drop down selection of the *Search* field.

Filter criteria

Criteria	Description
Filter name	Specify a name for the filter to be created. We recommend that you use an unambiguous name so that you can identify the correct filter later on. This field is mandatory.
Status	Select one or more statuses from the dropdown list by activating the relevant checkboxes.
Author	Select one or more users from the dropdown list by activating the relevant checkboxes.
Assigned to	Select one or more users from the dropdown list by activating the relevant checkboxes.
Task priority	Select one or more task priorities from the dropdown list by activating the relevant checkboxes.
Task type	Select one or more types from the dropdown list by activating the relevant checkboxes.
Milestone	Select one or more milestones from the dropdown list by activating the relevant checkboxes.
Entity Type	Select one or more entity types from the dropdown list by activating the relevant checkboxes.
Workflow	Select one or more workflows from the dropdown list by activating the relevant checkboxes.
Target date	Specify a date or date range. Clicking the input area displays the calendar picker to select a date. You can also enter the date manually in the format yyyy-mm-dd.
Fulltext Search	Enter a search phrase to search for. The fulltext search will search for this phrase within all text contents readable by the search index.

3.4.6 Display filtered object tree

In case you defined tags to tag specific object states, you can display the object tree as it looks like in this state. Independently from individually defined tags you can use this to display the object tree as it looks like in published state.

Notes

- Using a filtered tree, all objects are displayed in the version flagged by the tag you selected to display. Thus, the tree structure may vary strongly since child / parent dependencies may have been completely different in this state.
- Objects which are not part of this filtered view will appear in the tree node *Unsorted objects*.
- Editing of objects is not possible in a filtered tree view.

Displaying published object tree

A common example for a filtered tree view is the use of the tag *published* which controls whether objects are visible to learners or not. Proceed as follows to see how your published structure looks like:

1. Expand the dropdown *- without tags -* right below the menu bar.
2. Select *published*.

Displaying filtered tree in library

You can not only use the filtered view to see the object tree in a specifically tagged state but to display this state as library as well. Just filter the view by a tag and click *library* for the object you want to start the library view from.

> **i Note**
> To preview a structure as filtered by a tag, the according playback resources must be tagged as well.

3.4.7 Replace object file assets

You can as well exchange file assets like documents or screenshots in the Manager interface without the need of a Producer installation.

Replacing file assets

Proceed as follows:

1. Select the object you want replace files in.
2. Click *Start editing.*
3. Click tab *Assets*.
4. Click the button *Show streams*.
5. Now the list of all files stored for the object is displayed.
6. Click *replace file* for the file you want to exchange.
7. Click *Browse...* in the file dialog.

8. Browse to the file you want to place instead and select it.
9. Click *Open*.
10. Click *Upload*.

The uploaded file will replace the selected destination file without changing the object internal file name, thus all object references to the file will stay unharmed.

> **Note**
> You can replace object files with files of the same file type only.

3.4.8 Finish editing an object

In most cases more than one user is involved in the lifecycle of an object. Thus, once you finished your task on an object you may want to initiate the next processing step for the content you edited. Handing over the content to another user and changing the object status is important for a fluent content production.

We highly recommend using statuses to depict the state of your work and to enable an overview about the object lifecycle for all other users involved in content production.

Depending on your production scenario there might be two different ways to use statuses for handover:

- *Independent usage of single statuses*
  Statuses provide the comfort to have a detailed overview of the content production process from the start of the production until rolling it out to the end users.
- *Usage of statuses defined within a workflow*
  Workflows align statuses in a defined order and automatically notify users or user groups when an object has reached a status needing their attention.

Handover using free statuses

Proceed as follows:

1. Having finished your modifications to an object, click *Finish editing*.
2. In the dialog *Return WT*, select the user to process the object next (for further editing, reviewing or translation). Select the according user in the dropdown *Assigned to*.
3. Select a new status from the dropdown *Status*.
4. If applicable write a short comment to let the next user know what to do.
5. Ensure that the option *Send mail to watchers* is checked. This will trigger an automatic notification mail send out to all users being involved or interested in the lifecycle of the object.
6. Activate the option *Finish editing* to provide editing access to the object for the next user.

Handover using an assigned workflow

The usage of an automatic status change by a workflow transition only slightly differs:

1. Having finished your modifications to an object, click *Finish editing*.

2. In the dialog *Return WT*, *optionally* select a user to process the object next (for further editing, reviewing or translation). Select the according user in the dropdown *Assigned to*. *Due to automatic notification, there might be no need to exactly know the next processor. It is defined by the workflow*.
3. *Different:* The option *Status* now provides one or more possible individually named workflow changes. Click the one most applicable to your needs.
4. If applicable write a short comment to let the next user know what to do.
5. Ensure that the option *Send mail to watchers* is checked. This will trigger an automatic notification mail send out to all users being involved or interested in the lifecycle of the object.
6. Activate the option *Finish editing* to provide editing access to the object for the next user.

3.5 Publish finalized content

Finalized content can be provided to end users in different ways. Thus, you should think about some questions regarding your rollout.

1. **Do you want to track learners success?**
   In case you want to have reports available which provide information about the learner's success stories, you must ensure to have *tracking options enabled* and *playback setting resources published* at the moment of the rollout.
2. **Are all resources correctly set and published?**
   Check your resources for being published correctly. Not published or wrong published resources may make you content not accessible or provide irritating behaviors.
3. **How do you want contribute content access?**
   Specify how you want users to access content. Decide whether you want to use the Learner view as central access point, contribute direct access link to content branches or use QR codes to provide direct access for QR ready devices. This decision may affect the information detail level of learning reports, thus assignment based variants cannot provide information due to missing courses.

3.5.1 Quick publishing

The object editor enables you to publish an object directly. This is most applicable in case you do modifications to an already published object.

Quick publish an object

Proceed as follows:

1. Select the object to be published.
2. Click *publish* right above the *Start editing* / *Finish editing* button.

The current version of the object now has been published replacing an earlier published version of the object.

Quick unpublish an object

Proceed as follows to resign the publishing of an object:

1. Select the object the publishing shall be resigned.
2. Click *unpublish* right above the *Start editing* / *Finish editing* button.

The publishing now has been resigned. The object is not accessible for learners anymore.

3.5.2 Publish multiple objects

Often you need to publish more than one object. This applies especially in case you want to create a course or you want to publish the whole workarea at once.

Publishing objects with all children

Proceed as follows to publish an object with subordinated object structures:

1. Select the object you want to publish.
2. Expand the dropdown *More...* at right top side of the object editor.
3. Select *Publish (all objects)*.
4. The current object and all subordinated objects now have been published in their most recent version.

Publishing resources at once

Proceed as follows:

1. Select the root node *Resources*.
2. Expand the dropdown *More...* at right top side of the object editor.
3. Select *Publish (all objects)*.
4. All resources now have been published in their most recent version.

Publishing whole workarea

Proceed as follows:

1. Select the root node *Workarea*.
2. Expand the dropdown *More...* at right top side of the object editor.
3. Select *Publish (all objects)*.
4. All objects and resources now have been published in their most recent version.

3.5.3 Publish another version

Publishing of objects is version specific. Hence you can decide which version of an object shall be visible to learners. This for example lets you switch back the published object to an earlier version while you modify the most current object version for an update of the learning content.

Publishing a specific version

1. Select the object to be published.
2. Click the dropdown arrow next to *publish* (right above the *Start editing* / *Finish editing* button).
3. Select *Versions / Tags*.
4. In the dialog click *edit tags* for the version you want to publish.
5. Activate the checkbox *published*.
6. Optionally activate the checkbox *Send mail to watchers* to let other authors of the object know about the change.
7. Click *Save*.
8. Click *Close*.

You can now proceed editing the most recent version of the object. Once you are finished use the ***Quick publishing*** to replace the older published version with the most recent one.

3.5.4 Create course assignments

You can create multiple courses starting from your current object, each available for different learner groups with different display variants.

Creating courses from current object

Proceed as follows:

1. Select the object you want to specify as start object of one or multiple courses.
2. Click tab *Course*.
3. Click *Add*.
4. Specify the course properties. See chapter ***Assignments*** for detailed descriptions of the course properties and the assignment dialog.
5. Click *Save*.
6. Repeat steps to create multiple courses beginning with the current object.

3.5.5 Distribute links to published content

In some cases, you may want users to access published content directly without providing courses in the *Learner view*. This you can achieve using a filtered tree view.

Distributing direct access to published content

Proceed as follows:

1. Expand the dropdown *- without tag -* in top right corner below the menu bar.
2. Select *published*.
3. Select the tree object which shall be the entry point to the provided content.

4. Click the button *QR Code*.
5. Copy the link displayed above the QR code to use this in your preferred distribution channel or print the QR code to make the content available for mobile devices.

Alternatively, you can use the sharing options of the library using the button *library*. We highly recommend starting the library at least once in filtered view to ensure all necessary playback resources are available and content playback is free of any failures.

3.6 Process learning content

Processing learning content you may note the following:

1. **Learner view and courses**
   The availability of Learner view features as well as the display of the courses is dependent on scenario settings and may vary.
2. **Learner success stories**
   The display of your own learning progress as well as the provision of course certifications is based on user tracking, which has to be activated for your learning scenario.
3. **Playback requirements**
   Please see the chapter *Learner Settings* to ensure you have set the correct settings for your default browser.

3.6.1 Playback of Contents

Depending on the settings of a course you may have different options to start your learning content. See examples below.

Starting the course directly

To start the whole course, click *Start* (bottom right of the course description). The library function opens in a new window displaying all course contents.

Starting subordinated content of the course

If the course provides a tree view you can expand the tree levels an click a tree objects to be started directly. Depending on the type of tree object, either the library starts in a new window (to display the object and all subordinated content) or content playback starts directly (for *books* or *lesson modes*).

Restarting subordinated contents

You can restart your learning progress individually for each learning object discarding your current learning progress.

Proceed as follows:

1. Switch to progress view by clicking *Show status*.
2. Search for the object to be restarted.
3. Click *restart*.

Starting playback from your mobile device

To start a course on your mobile device, proceed as follows:

1. Click the *QR Code* button next to the *Start* button. A dialog box appears displaying a QR Code which contains the server address to access the course directly.
2. Use a QR code scanner app on your mobile device to access the course without the need to type in the server address.

If your colleagues do have to do the same course, you can even print out the QR code and display it at a relevant location (for example, a newly acquired machine you are learning about right now).

> **Note**
> Your mobile device must be connected to the same network the Manager is located in.

3.6.2 Search for content

The search function enables you to filter the available learning content for a specific string match. According to the settings of your learning scenario the search will be processed on all readable text content (even documents) or on object names only.

> **Note**
> Some of the following mentioned search options might be deactivated and not available in your learning scenario.

Searching within the current course

By default, the search matches only in the currently selected courses. Proceed search as follows:

1. Select a course within your course list.
2. Enter a search phrase in the *Search* field.
3. Press return or click *Search*.
4. The content area (right to the course list) will now display all matches within your selected course.

Searching within all your courses

Proceed search as follows:

1. Enter a search phrase in the *Search* field.
2. Activate the checkbox *all courses*.
3. Press return or click *Search*.
4. The content area (right to the course list) will now display all matches within all your courses in the course list.

Searching within all published content

This search option will provide even matches which are not part of courses in your course list. Proceed search as follows:

1. Enter a search phrase in the *Search* field.
2. Activate the checkbox *global*.
3. Press return or click *Search*.
4. The content area (right to the course list) will now display all matches within all contents available to all learners.

Searching in library

The library provides a search functionality that allows you to search in the course content. Proceed search as follows:

1. Select *Start* to open a course in the library.
2. Enter a search phrase in the *Search* field.
3. Press return.

The course structure displays all matches within your selected course.

> Recommendation
> You can use logical operators to specify your search phrase for the search. Logical operators are AND, OR, NOT.
> You also can use quotation marks to specify a search phrase.
> For example: search phrase 1 OR "search phrase 2"
> In the *Settings* you can specify, if you want to search in the title, description, or other attributes. Use the settings, to get more precise search results.

3.6.3 The Feedback function

The trainer enables you to feedback a comment on recent learning content. Thus, you can report errors in learning content, point out any comprehension problems or request more details.

Giving feedback

Proceed as follows:

1. Click the *Feedback* button displayed in the control bar or press the key combination CTRL + F1 while playback.
2. Select the type of your comment.
3. Write your comment into the *Description* field. Note that comments support plain text only.
4. Click *Send feedback*.

Notes

- This function has to be activated for your course. You will see the feedback function being available by having the *Feedback* button displayed in the control bar. The availability of the function can vary between courses.
- CTRL + F1 is the default key combination which can be replaced by another. Note the instructions as given to you for your learning scenario.

3.6.4 View your learning progress

Depending on your learning scenario settings you may view your individual learning progress for each learning object in a course. This enables you to identify your overall progress as well as items you may have missed for a successful course completion.

Showing learning status

Proceed as follows:

1. Click *Show status* right above the course content area.
2. All lesson modes and book pages contained in the course are now displayed in a list, each with its individual learning progress.
3. Click an object to start it directly.

Going back to default view

Click *Show standard* to switch back to course content view,

3.6.5 Certify your learning success

The Manager offers you the opportunity to become certified for completed courses. If you successfully completed a course the additional link *Certificate* will appear next to the according course in your course list.

Printing your certificate

Proceed as follows:

1. Click on the link to open the certificate in print view.
2. Select in the heading area of the displayed page if the course details should be printed below the certificate.
3. Click *Print* to open your browser's printer dialog box.

> **Note**
> To print out the certificate without additional printing information (such as date and source), deactivate the option for printing out the header and footer notes in your printer settings. Check the necessary settings for your browser in chapter *Learner Settings*.

3.7 View learner's progress

Activated tracking enables you to get a detailed insight into the success stories of your learners. Consider the following facts:

1. **Tracking is a workarea option**
   The tracking option has to be activated for each workarea which shall be tracked. Thus, in case of multiple workareas it may happen that you have reporting data for content from a workarea but not the other.
2. **Assignment-based reporting**
   Assignment-based reporting needs courses to be specified. If no courses are specified, assignment-based reports are no option for you.

3.7.1 View details of report items

All report variants but the lesson step report provide the detailed view of a single list object, displaying the individual learning progress of users processing a single content object or, in opposite, for content objects a single user has processed.

Showing detailed report for a list object

Proceed as follows:

1. Open a user or lesson based report by your criteria selection.
2. Click on the name of a list entry you want more details for.
3. The report will display the details for the selected list entry.

Switching back to previous report view

To leave the detailed view proceed as follows:

1. Right above the filter a breadcrumb trail displays the object path you are currently in.
2. Click the first item marking your entry point for the previously selected report variant.

3.7.2 Redefine filter criteria

You can switch the currently displayed report data by changing the filter criteria it is based on.

Changing filter criteria

Proceed as follows:

1. Click the filter field left above the report data.
   This maximizes the filter criteria field, displaying the criteria currently specified.
2. Change the criteria as necessary.
3. Click *Filter* to regenerate the report based on the new criteria.

3.7.3 Save reports for quick reuse

You can save your favorite reports privately thus you can reuse them quickly in future.

Saving reports

Proceed as follows:

1. Call a report variant.
2. Specify the criteria the report will based on.
3. Click *Select*.
4. Now click *Save* in the upper right corner of the report area.
5. Enter a comprehensible name into the *Save Report* dialog.
6. Click *OK*.

Reports are saved storing the current report variant you use. Thus, you can reuse a name for different report variants.

Selecting a saved report directly within report view

The saved reports dropdown is available right above the report area in each report variant providing quick access to all saved reports of all display variants. You can identify and distinguish saved reports by their naming:

Report variant - Name of saved report

Click a report entry to switch directly to the according report variant displaying report data based on your saved criteria.

In the criteria selection dialog

The initial criteria selection dialog for each report variant provides the dropdown *Report*, listing saved reports for the currently selected report variant only. Select an entry and click the button *Select* to display the report data that matches your saved criteria.

3.7.4 Receive scheduled reports via email

Saved reports can be scheduled to regularly send you emails with the most recent report data matching your criteria selection as Microsoft Excel attachment.

Scheduling a saved report

Proceed as follows:

1. Select a saved report from the dropdown list of saved reports.
2. Click *Subscribe....*
3. In the Scheduler dialog specify a *Time* the report data shall be collected and sent. Optionally specify a *Recurrence Pattern* to repeat the task at a defined interval.

4. Click *OK* to save your subscription.

Deleting scheduling of a saved report

Proceed as follows:

1. Select a scheduled report from the dropdown list of saved reports.
2. Click *Unsubscribe*.

The button *Unsubscribe* only appears for scheduled reports; thus, you can easily identify existing subscriptions for each saved report.

Notes

- To receive reports by email, you must have a valid email address specified in your user profile.
- Some mail servers classify Microsoft Excel attachments as generally unsecure and block them. If you do not receive any reports and you ensured your email address is valid, check your network and email policies.

3.7.5 Export report data

You can export report data in file formats *.xls (Microsoft Excel) or *.csv (semicolon-separated text file) to be reused in external tools or for analysis at a learner's workplace.

Exporting report data

Proceed as follows:

1. Depending on the file format you prefer, click *XLS Export* or *CSV Export* right below the report data area.
2. The file download will start immediately. Depending on your browser you can now either open or save the generated file.

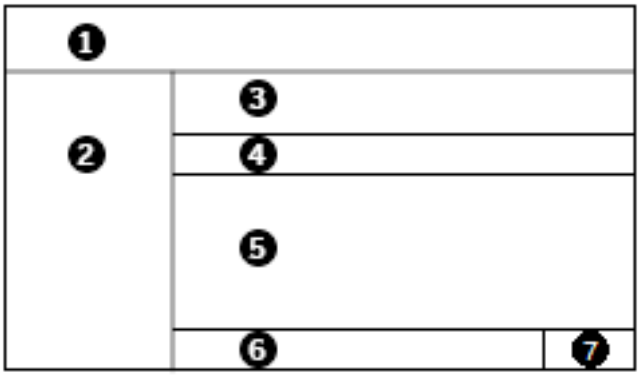
4 Interface

This chapter and its sub chapters describe the interface sections, their controls and, briefly, available user actions based on their order in the *main menu* of the Manager.

The UI elements of each screen are described in the following order:

- top to bottom
- left to right.

The following picture shall give you a better understanding of the order the interface sections are described:



Note, that the availability of menu items and corresponding interface sections might be reduced due to your user permissions.

For detailed descriptions of processes as well as best practices see the How to's chapter.

4.1 Home

The *My Home* dashboard gives you an overview of the actions you can take within the Manager.

The tiles are grouped into logical sections, for example, *User Management* section where you can find all the actions related to users, or *Reporting* section that has the tiles for managing different reports.

The dashboard also provides you with a quick access to support, such as SAP Help Portal or SAP ONE Support Launchpad.

The Home menu opens on the first login to the Manager. If you close the Manager on another page, for example, *Settings*, then on your next login this page will be opened instead of *Home*. To return to the *Home* dashboard, click the logo on the most left part of the sections ribbon.

> **Note**
> The scope of the available menu items as well as the possibility to edit within these sections depends on your personal user permissions.

4.2 Workareas

You can access a workarea under the menu item *Workareas*. To see all workareas you have access to click the arrow to right of *Workareas*. The Project Explorer will open and you will see the workarea structure on the left and the properties of each object selected in the object tree on the right. Both interface sections, the tree view as well as the property sheet provide several functions to organize and edit the objects within the currently selected workarea. The following chapters provide detailed information.

4.2.1 Workarea functions

At the top right of the Project Explorer you will find the workarea specific functions. The following functions are available:

Creating and editing workarea content

Using the start links *Open Producer* or *Open Instant Producer* you can directly download and start the corresponding local running client applications.

Producer: provides all functionalities to record, create and edit content as well as to edit the workarea structure itself.

Instant Producer: provides a simplified, small application to record and initially enhance content.

All downloaded client applications are directly connected to the current workarea you started them from, enabling you to download and upload content without any additional connection setup.

Note: to use these functionalities your local computer needs to have the Oracle® JAVA Runtime Environment (JRE) installed - in version 7 at least.

Importing content

In case you already have exported content, resources, or content structures in archive format *.dkp, you can import this archive package by using the *Import Archive* function. *Choose file* you want to import and *Upload* it. Once the package has been uploaded and extracted you can find its content in the content structure under *Unsorted*.

Importing content from another workarea

In case you want to reuse content or resources already existing in another Manager workarea you can import this by extending the *Import Archive* menu and select *Import from other Workarea*. The import dialog appears in which you can select the workarea you want to import from and the corresponding workarea structure.

Note: Objects already existing in your workarea will be overwritten (ensure to have started editing them in the Manager interface before), new objects will be placed automatically within the tree node *Unsorted.*

Exporting content

To export the currently selected content in shareable archive format *.dkp, you can use the *Export Archive* function. This will directly trigger the creation of the archive, containing all objects below your currently selected content

object. As soon as the archive is created, your browser will provide you with the browser specific download options. Note that depending on the number of objects the creation might take a while.

Reverting your resources

In case your workarea contents do not play flawlessly because of corrupted resources or settings, you can revert the workarea resources to their initial state.
This does not affect your content, only the objects below the *Resources* node. To do so, expand the *Import Archive* and select *Revert Resources*.
You can choose which resources to revert in a selection dialog that opens.

Displaying workarea filtered by tags

If you want to see what your published workarea structure looks like, just expand the *All Tag* and select *published*. Doing so, the Project Explorer will only display published objects in the version they are published. This preview provides additional functionalities:

- If you now select the menu item *library* for any selected group, the library will display the structure as it would be visible for learners or other user groups processing published content. Read more about the preview of content in chapter Object Editor.
- For each object the property *Start Link* will now provide the link to the published content. You can directly copy it and share with the learners.

This filter function also applies to any other tag you individually define for the workarea. See more information on tags in chapter *Workareas/Tags*.

4.2.2 Objects

The tree structure of the Project explorer displays all objects of a workarea. See the following explanations of available workarea objects.

Main Level	Level 1	Level 2	Level 3
Workarea This object is the topmost entry of the tree structure and contains all workarea objects.			
Resources List of all of the resources available in a workarea for organization and editing.			
	Resource group		
		Resource	
My Unsorted Objects			

Main Level	Level 1	Level 2	Level 3
The tree node *My Unsorted Objects* contains workarea objects that are not assigned to any parent object and have last been edited by you.			
Content The *group is the base group with all of the workarea's available learning content.* It can be renamed freely but not replaced by another group.			
	Group *Subtype: SAP Companion for desktop*		
		Project: Standard *Simulation* *Quiz*	
			Modes *Documents*
		Project: SAP Companion for desktop	

Main Level	Level 1	Level 2	Level 3
		Context Help *Guided Tour*	
			Mode
		Project: SAP Companion *Context Help* *Guided Tour*	
	Book		
		Book Page *Subtype: Book Page Template* *Subtype: Quiz Template*	

Main Level	Level 1	Level 2	Level 3
	Text Unit		
	Master Document, Compound Document		
Unsorted *Unsorted* contains all workarea objects that are not assigned to any parent group.			
Trash Contains all objects which have been deleted from the tree.			

> **Note**
> The scope of the displayed objects depends on your user permissions and may therefore vary.

> **Caution**
> For playback of navigation projects, it is required to have a local installation of SAP Companion for desktop. If you are starting navigation projects from project explorer view, it will be necessary to start them using view filtered by tag *published*. Read more about ***Filtering Objects by Tags***.

4.2.3 Search and filter objects

There are 3 different interface elements for searching and filtering content within a workarea:

1. The text search
2. The advanced filter
3. The tag filter

Searching for specific text

1. Type the required phrase into the search field and press `enter`.
2. The search result is shown as a flat list with objects that have your searched text within all their text contents (*name*, *description*, *short description*, *keywords*).

Using the advanced filter

You can use the advanced filter to create a set of multiple matching criteria.

1. Click the arrow symbol to the right of the search field to display the advanced filter dialog.
2. If no filter has been specified, the advanced filter dialog appears directly. Otherwise select *New filter...* in the dropdown to display the dialog.
3. Specify an unambiguous name to save your filter under and determine the matching criteria (see table below for criteria descriptions).
4. Select *Filter* to display the list of matching objects.

The advanced filter dialog provides the following match criteria for filter creation:

Parameter	Description
*Filter name**	Specify a name for the filter to be created. We recommend that you use an unambiguous name so that you can identify the correct filter later on. This field is mandatory.
Status	Select one or more status from the dropdown list by activating the relevant checkboxes.
Author	Select one or more users from the dropdown list by activating the relevant checkboxes.
Assigned to	Select one or more users from the dropdown list by activating the relevant checkboxes.
Task Priority	Select one or more task priorities from the dropdown list by activating the relevant checkboxes.
Task Type	Select one or more types from the dropdown list by activating the relevant checkboxes.

Parameter	Description
Milestone	Select one or more milestones from the dropdown list by activating the relevant checkboxes.
Entity Type	Select one or more entity types from the dropdown list by activating the relevant checkboxes.
Workflow	Select one or more workflows from the dropdown list by activating the relevant checkboxes.
Target date	Specify a date or date range objects have set the property *Target date* for. Click the input area to display the calendar picker and select a date. • Use the first field to specify a date from which on you want to search • Use the second field to specify a date until you want to search • Use both fields to specify a time range to be matched
Fulltext Search	Enter a search phrase to search for. The fulltext search will search for this phrase within all text contents readable by the search index.

Filtering by tags

Additionally, you can see what the tree looks like being filtered by a tag, e.g., the *published* tag. This not only enables you to check the correct hierarchical tagging, but since tags are assigned to a unique object version, also to display an older status of your tree structure.

1. On the top right of the screen click the arrow next to the field *All Tag*.
2. Select the desired tag from selection dropdown.
3. Now the tree is displayed showing only matching objects in the version they have the specific tag assigned to.

More information:

Quick selection of defined filter sets

Once you have defined a filter, it will be available as an entry in the dropdown when you click the arrow next to the search field. You can quickly select any defined filter as well as edit or delete it.

Availability of filter sets

Filters are private sets. Every defined filter set is stored user- and workarea-specific. Thus, they are only available for you in the workarea you created them in.

Missing objects in tag filtered view

When you filter a tree view by a specific tag it can happen that objects or subtrees are not displayed. This happens because the view is hierarchically displayed, thus one object in a level above the objects you are missing is not assigned to the tag you are filtering for. Check the tags of objects in tree levels parent to the objects not being

4.2.4 Object Editor

The Object Editor displays the properties and actions available for the current object. To edit most of the object properties you need to *start editing* the object.

Properties section

The object properties are organized by using tabs. Read more in the corresponding subchapters:

- *Tab Overview*
- *Tasks tab*
- *Course tab*
- *Assets Tab*

Actions section

Object related actions are displayed above the properties section. Depending on the object type and your user permissions the number of available actions may vary.

Control	Sub control	Description
New		Provides a dropdown list of child objects to be created. The selection range is dependent on the current object you are editing. Editing mode is required.
Record		Starts content recording with the Web Recorder.
Duplicate		Duplicates selected objects. If you have not started editing the objects you want to duplicate, these objects will be copied to *Unsorted*. Otherwise, the duplicated objects are placed under the parent object you are duplicating. Available in the Cloud edition.
Library / Play / Open		Starts the playback environment to preview the content. 1. *Library* starts the content within the .

Control	Sub control	Description
		2. *Play* launches a book or a book page directly within the . 3. *Open* launches an application for the file type associated with it.
QR Code		Displays a dialog showing you a QR code to easily access the current content with your QR reading device or to be printed out. Additionally it provides the direct access link you can copy and reuse. **Note**: the URL provided will be only available for other authors. If you want to share the link with learners, use the *Share* functionality within trainer playback of the published content.
SAP Companion for desktop		Downloads the corresponding **.dnt* file to be started by your local installation of the SAP Companion for desktop. This button appears only for groups with the *Subtype: SAP Companion for desktop.*
Delete		Moves the current object into the trash. To have this option available it is required that you press *Finish editing* before.
	Delete (tree)	Moves the current object and all child objects into the trash.
More		Provides a selection of additional actions to be executed on current object and all child objects as well.
	Start editing all objects	Starts the editing mode for current and all child objects.
	Finish editing all objects	Finishes the editing mode for current and all child objects.

Control	Sub control	Description
	Restore all write tokens	Restores the editing mode for current and all child objects to be available.
	Publish (all objects)	Publishes current and all child objects in their currently displayed respectively latest version.
	Unpublish (all objects)	Unpublishes current and all child objects in their currently displayed respectively latest version.
	Select Workflow...	Sets a specific workflow for current and all child objects. Optionally it can set the workflow only for objects not having one assigned yet.
Version		Shows the currently displayed object version. If this version is *published*, it will be displayed next to the version number.
Publish / Unpublish		Enables you to *publish* the current object version directly with a single click. If the object is already published, it allows you to *unpublish* the object with a single click.
	Versions/Tags	Launches the dialog for managing object versions and the assignment of workarea tags. • You can display any existing object version with its individual object properties by clicking the corresponding list entry. • You can assign a workarea tag (e.g. *published*) to another version of the object, e.g. to publish a more recent version in the *Learner View*. by clicking *edit tags* in the corresponding list entry of the version.
Start editing / *Finish editing /*		Enables you to start or finish editing the current object and is displayed

Control	Sub control	Description
Restore WT		according to the current edit state of the object. If the object is currently edited by another user the current location the object is being edited at is displayed left of the button, like *WT at: (location/machine)\path*. In case you own the respective user permission the button now allows you to restore the editing mode to be available. Before using this option please read the chapter *Restoring write token* carefully.

4.2.4.1 Tab Overview

The *Overview* tab provides the object properties. Using the **arrow** in upper right section corner you can switch between two layouts:

- Standard layout
  Displays only a basic set of properties.
- Advanced layout
  Displays all available object properties.

Common object properties

Depending on the object types the amount of property controls varies, but some properties are common for all object types.

Property	Description
Name	Displayed in the object tree and optionally used as heading in all playback or output formats.
Language	The language of the object. This property is used for automated recording texts, automated translation as well as for spellcheck within the HTML Editor.
library autostart	Allows a particular mode, book page or document to be started or opened automatically when selecting the object in the library.
Hide	Hides the object in the *Learner view*, regardless of its published status. Hidden objects are displayed greyed out within the workarea tree.

Property	Description
Short Description	HTML input field to e.g., write a short introductory text to the description to introduce the readers to the current topic and its requirements.
Description	HTML input field to provide enriched text information about the object itself or the structure underneath.
Keywords	Input field to provide keywords for better search matches within the library search. Multiple keywords have to be separated by using semicolon (keyword1; keyword2).

Editing properties

All properties displayed within the *Overview* tab can only be modified in editing mode, available by clicking the *Start editing* button.

4.2.4.2 Tasks tab

The *Tasks* tab provides the properties of the task attached to the current object as well as the history of previous object / task changes committed to the server. Using these properties, you can, for example, assign the object to another author to finish the content or change the target date the object content has to be finished by.

Object / task changes view shows you a list of all of the server procedures performed on the object currently selected. This provides you with a quick overview of which procedure was performed on the object and by whom. If, for example, the editor in question has commented on changes that have been made, these comments will also be displayed in the list.
Entries with comments are identified with an arrow icon in the first column. Clicking on the corresponding entry or arrow icon opens the entry and displays the comment.

Task properties

See the following list for a brief description of the task properties. Note that some properties are optional and depend on their usage in your scenario (marked with an -o). Therefore, see the individual instructions on your project scenario.

Property	Description
Created	Displays the date the current object has been initially created on the server as well as the user who created the object.
Title	The title of the task attached to the object. This can be different to the *Name* of the object since it describes the task's nature and is intended to be read by other authors, thus it can be e.g., "Revise recording step 2".

Property	Description
Task type (-o)	Provides the list of predefined task types to be used for task specification.
Task priority (-o)	Provides the list of predefined task priorities to set the task's production priority.
Assigned to	Provides the list of users being able to edit the current object. Select an entry from the list to assign the object for review or further processing to the selected user. If the task is already assigned to a user, the current assignee is displayed in the field.
Milestone (-o)	Provides the list of predefined milestones to set the task's milestone dependency.
Target date	Allows you to specify a specific target date the task has to be fulfilled by. This is useful in case you assign the task to another user.
Workflow (-o)	Allows you to select or change an assigned workflow. Click *change* to select a workflow and a workflow step the task shall be currently at.
Status (-o)	Provides a list of predefined status to be set for the current task. If a workflow has been assigned, only feasible status transitions are displayed as links.
Watcher	Displays the list of users, who are automatically notified on object / task changes. To modify this list, click *Edit...* and add or remove users in the *Edit watchers* dialog.
Description	Provides a brief description of the current task's state or the changes you did. This simplifies finding the current task state within the tasks history.

Adding a comment

The N*ew comment...* button enables you to add a comment to the task history at any time, without the need of having set the object to editing state. Just type a clear, concise title and a brief comment text to be added to the history. Additionally, you can select if the assigned user list of watchers shall be automatically notified of your comment by selecting or deselecting the option *Send mail to watchers*.

Viewing the history

Below the task properties the task history displays all log entries created within the objects' current lifetime ordered by the most recent entry descending. Entries with a text description are prefixed with an arrow symbol. Click the arrow symbol to expand the text to be read.

Exporting the history

Right below the task history the two buttons provide the optional export of the whole history list to be further processed in another application.

- *XLS Export*: the history will be downloaded in format *Microsoft Excel*
- *CSV Export*: the history will be downloaded in text file format *Comma Separated Values (*.csv)*

4.2.4.3 Courses tab

The *Course* tab provides a flat list of all *learner view* courses the object is participating in. You can create a new course initialized by the current object or modify existing courses initialized by the current project.

Adding a course

The *Add* button displays the dialog for course creation. Read more in chapter *Course assignment and display options*.

Course assignments

Each entry in the list displays:

- course name
- user group it is available for
- display style in the learner view
- scoring method
- actions

Actions:

- *Edit*
  To change an existing course, click *Edit*. The dialog for course creation will be displayed with the current set of properties for the course. Read more in chapter *Course assignment and display options*.
- *Delete*
  To delete an existing course, choose *Delete*. The confirmation dialog will appear.
- *Start...*
  Use this action to play the course and approve its contents.
- *Link*
  Use this action to distribute a course via direct URL or QR code. The share dialog with the related information will appear.

Courses with missing editing capability

If a course is missing the edit / delete actions, this course is not rooted by the current object but from an object of an upper level. Check the parent objects for their course list to edit the respective course or use the administration overview for *Assignments*.

Red highlighted courses

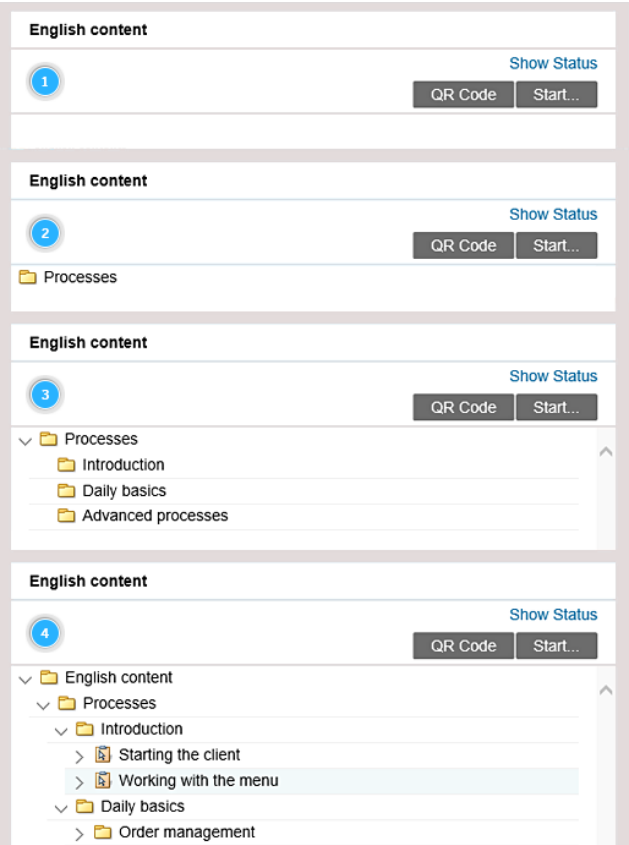
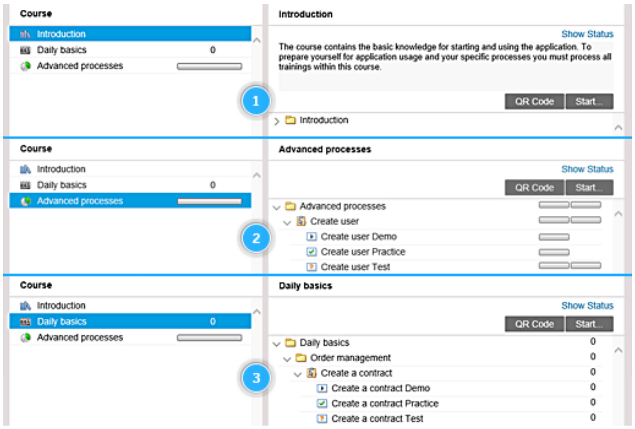
Courses, which have been created for objects that are not yet published, are highlighted red. The missing publishing prevents them from being displayed in the course list of the *learner view*.

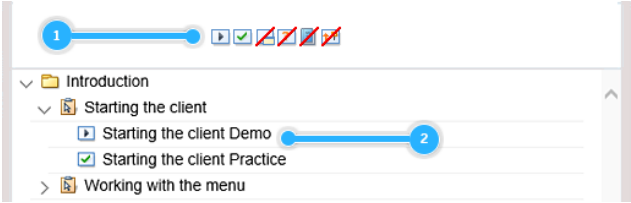
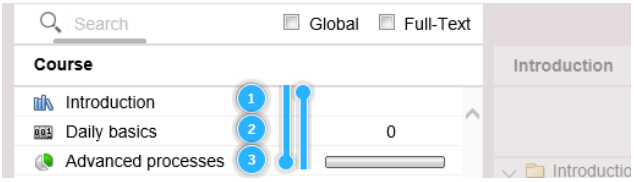
4.2.4.3.1 Edit Assigned Content Dialog

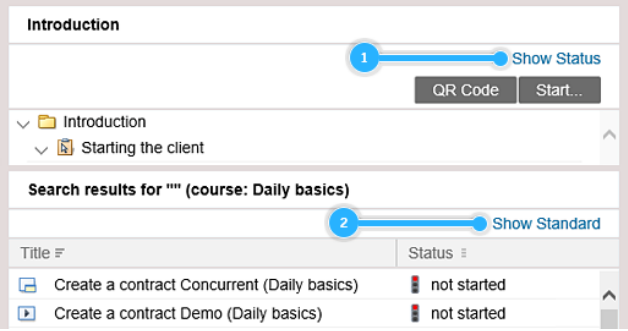
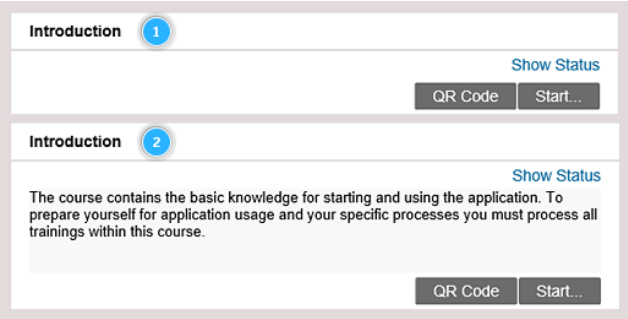
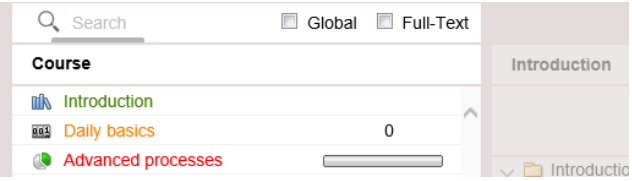
The *Edit Assigned Content* dialog enables you to set various properties on how to *present* content as a course in the *Learner view*. These settings have no impact on the tracking behavior of the content.

> **Note**
> In case of creating a new assignment as well as selecting an unpublished root object for your assignment, a warning message appears. As long as your selected root object for the assignment is not published, the assignment won't be visible in the course list of the *Learner view*.

Property	Description
Caption	Mandatory property. Specify the name the assignment is displayed with in the course list of the *Learner view*.
Selected Object	Mandatory property. Select the root object of the content structure to be distributed by the assignment.
Selected Identity	Mandatory property. Select the identity (user, role, or organizational unit) the assignment will be displayed to in the course list.
Display as	Specify, if only the root object of the content or even ancillary objects will be displayed. Following options are available: 1. *Object only* - only current object will be displayed 2. *Object and direct sub objects* - current object will be displayed with ancillary objects of first sublevel 3. *Object and sub objects (2 levels)* - current object will be displayed with ancillary objects of two sublevels 4. *Object and sub objects* - current object will be displayed with all ancillary objects

Property	Description
	
Scoring Method	Specify if and how the progress will be displayed in the *Learner view*. Following options are available: 1. *No Scoring* - no progress will be displayed 2. *Percent Completed* - progress will be displayed by a graphical progress bar 3. *Usage Counter* - like in a ranking system, all requests of all users will be displayed 
Learning Path Mode	Specify if the learners shall be forced to process the content one after another to follow a didactical line you considered for the

Property	Description
	content. This option allows the learner to start the next content only if the current content has been finished at defined success level. The Learning Path Mode is available only with the following assignment options setup: • *Scoring Method : Percent Completed* • *Display as: Object and direct sub objects, Object, and sub objects (2 levels), Object and sub objects* The configuration options are available: • *off* - Learning Path Mode is deactivated • *show only available* - only completed and the currently processed content is displayed. Each time the learner completes a content object the next object becomes visible. • *show all* - all the content is displayed, but only completed and the currently processed content can be started.
Minimum Completion (%)	Define the minimum success rate (in %) content has to be finished for the next content object becoming available for processing.
Lesson Types	Optionally exclude lesson types from being displayed. Click on the corresponding lesson symbol to hide (symbol will be shown as strike through) or unhide (no strike through) this type in the Learner view. 
Weight	Use the Weight option to influence the order of courses in the course list. Enter a numerical value from 1 (for top) to 500 (for last). If more than one course is weighted with the same value, e.g., 1, all of those will be grouped above next numerical value (in this case 2). 
Passed Tests Required (%)	Define the minimum success rate (in %) for test modes the content is marked as been processed successfully.

Property	Description
Allow Status View	Specify if the user is allowed to switch from standard view (1) to status view, displaying the progress within all content of the course (2). 
Allow Search	Specify if the contents of this course are displayed in search results. If checkbox is disabled, contents are not shown in search results.
Show Description	Specify if the description of the course is displayed or not. 
Date Range	Specify a time range the assignment will be available in. Reaching the end of the time range the assignment will be automatically hidden.
Color	Specify a font color as hexadecimal value (e.g., "#ffee33") the course name will be displayed with. 

4.2.4.4 Audience tab

The *Audience* tab allows you to create and maintain audience assignment based on business roles.

This view is part of the audience assignment functionality and is only visible with specific permissions. See *Audience Assignment Based on Business Roles* for prerequisites and details.

4.2.4.5 Assets Tab

The *Assets* tab provides an overview of the direct child objects the current object has, as well as an optional list of files / streams the object folder contains.

Viewing file streams

Initially only child objects are displayed. Click *Show streams* to view the list of files the object folder contains. To hide the list click *Hide streams*, which is now placed at the same button position instead.

Replacing file

Files which have been added to the object, can be replaced using the Manager interface. Click *replace file* to display the dialog to browse for a new file and / or to rename the file title.

> **Note**
> The *replace file* item action is only available in editing mode.

4.2.5 Edit HTML contents

You can edit all HTML based content properties using the browser-based HTML editor. This enables you to create visually enriched content without the need of a local Producer or Instant Producer installation.

Starting the HTML editor

Start editing an object. For any HTML control you click, the HTML editor pops out.

Common HTML controls are:

- In *object properties*:
  - Description
  - Short description
- In *book pages:*
  - Text fields for *bubbles*, *active areas*, *text pop-ups* and other.

Dropdown controls

Control	Description
A	Set font family.
AA	Set font size (in pixel).
¶a	Apply a paragraph style on selected paragraph. The selected style will be applied on the whole paragraph the cursor is recently placed in (<p>-tag in source view).
a	Apply an inline style on selected range. The selected style will be applied only on the currently selected range or the word which begins directly behind the cursor. If the cursor is followed by space nothing will be applied.
▭	Apply a block style the selection will be enclosed in. The selected style will enclose your selected range by a -tag. • If you select a range, all paragraphs between previous block element and next block element will be enclosed (use to separate your content into different box elements). • If you just place the cursor in the text without any selection, the parental paragraph will be enclosed by the box element. In case you have no other box elements specified yet the newly created box element will be moved to the lower end of the text area.
⊞	Apply a table style to insert a table based on your style selection. Selecting a table style will create a 2x2 cells table before the paragraph with the current cursor position or current selected range.

Toolbar Icons

Element	Description
B	Toggle selected text range between bold and regular.
I	Toggle selected text range between *italic* and regular.
U	Toggle selected text range between underlined and regular.

Element	Description
	Remove formatting from selection.
	Set text alignment for currently selected paragraph. • Align Left • Center • Align Right
	Begin list at recent cursor position or switch currently selected paragraph to list item. • Bullets • Numbering
	Set text indent. • Indent (move right) • Outdent (move left)
	Insert one of the following objects into text. • Insert Link: Provides a dialog to insert link to workarea object or to specify a free external link • Insert Placeholder: Provides a dialog to select common placeholders like for the name of the parental Book. Placeholders are dynamically updated on change of the source text. • Insert Image: Provides a dialog to select an image asset from within the workarea • Insert Image File: Provides the File upload assistant to load an image from local or external source. The uploaded image will be stored as asset of the current selected object
	Set font color for selected text range from the color picker.
	Switch text direction for selected paragraph. • Left to Right • Right to Left
	Extend or reduce current selected table by one column or row. • Add Column Left • Add Column Right • Add Row at Top • Add Row at Bottom

Element	Description
	• Delete Column • Delete Row • Delete Table

Switching between design view and source code view

In case you want to approve or modify the HTML code itself you can display the HTML code using the buttons below the viewport.

> **Note**
> The availability of HTML formatting is limited to those as given by the HTML editor controls. Embedding of other objects or script snippets is prohibited. Unsupported code will be automatically removed on switching back to the design view or closing the HTML editor.

4.3 Administration

The *Administration* menu offers access to the interface sections relevant for administrating the Manager application, managing the user access, server data or meta information to be reused within the workareas. Each section will be explained in detail in the following chapters.

> **Note**
> The scope of the available menu items as well as the possibility to edit within these sections depends on your personal user permissions.

4.3.1 Users

The user management interface gives you control over user maintenance and user access.

Adding a new user

1. In the *Quick Add* section enter the user data into the fields and select role memberships from the *Roles* dropdown.
2. Create the user with *Add*.

> **Note**
> Consider that at least the field *User Name* is mandatory. We highly recommend creating an initial password to be changed by the user themselves (consider the server security settings for password creation).
>
> To send new users an automated e-mail with their user data, you must enter a valid e-mail address.

Searching and filtering

The search and filter section enables you to search for single or multiple users within the currently displayed user list.

- Use *Search* field to find specific users
- Use *Filter* dropdown to display active or inactive users or users depending on their email status.

Selection

The *Selection* section provides the tree view of the *organizational units* users are assigned to. Expand the tree items by clicking the arrow in front of each entry and click an entry to view the members of the unit within the user list on the right of the screen. Select an organizational unit to create a new user within it.
If you select the organizational unit *root*, all users are displayed.

User list

The user list displays all members within a selected organizational unit. You can:

- view a single user profile by clicking the corresponding list entry
- manage a single user by selecting the relevant actions links in the last column of the currently selected list entry
- manage one or multiple users by selecting the checkbox for each user to be processed. Then select the corresponding user action from the buttons on the bottom right of the user list.

> **Note**
> To display action links available for the current entry you have to hover over the corresponding list entry.

Action	Description
Purge All Personal Data... **(all users action)**	Allows you to delete tracking data, session data and assignment scores of **all users** older than a certain number of months that you specify. **Note:** this action is for **all users**, it is not user-specific.
Invalidate Global Consent... **(all users action)**	Allows to remove the consent of all users. Users will need to consent to your updated policy with their next logon again.
Export...	Allows you to export users of the currently selected organizational unit and child units in a re-importable output format (e.g., for mass manipulation of user data or for transferring user data to another Manager instance). Opens a dialog which allows you to restrict the output to users of a specific source (SAML, LDAP, Excel) and to select the file format to be created.
Messages...	Opens the *Messages* editor with your user selection as the recipients list.
Activate	Activates selected users.

Action	Description
Deactivate	Deactivates selected users. Deactivated users cannot logon anymore from any source (Manager interface, Producer, Instant Producer, other).
Add Role	Opens a dialog to specify roles to add to the selected users. To add multiple roles, press CTRL or SHIFT while selecting.
Remove Role	Opens a dialog listing all the roles available for the current user selection. Select the relevant checkboxes for the roles to be removed from user selection.

Quick overview of user information

Hover over a list entry to display the corresponding user information in the *Details* area.

4.3.1.1 The user profile

The user profile contains the information available for a selected user.

There are the following user properties:

Value	Description
*User Name**	A unique name used by the user to identify within the logon process. Maximum length: 100 Characters
Last name	The user's last name. Maximum length: 100 Characters
First name	The user's first name. Maximum length: 100 Characters
Middle names	The user's middle names. Maximum length: 100 Characters
Email	The user's e-mail address. Without this information the user will be unable to receive or send automated e-mail notifications.
Phone	The user's telephone number.
Interface language	Manager interface language for the user.

Value	Description
Active	Specifies whether the user login is activated or blocked. Possible statuses: • Active (selected) • Inactive (not selected)
Roles	One or multiple roles the user belongs to. Select or deselect corresponding checkboxes in the dropdown list to add or remove role memberships.

> **Caution**
> If no e-mail address has been provided, users will not receive automated e-mails as well as these cannot be sent on their user actions.

4.3.2 Organizational units

The *Organizational Units* section enables you to depict your organizational structure and thus to clearly assign your users to their organizational departments and task areas.
You can import already existing organizational structures using LDAP or Microsoft Excel as well as you can build up an individual structure. Imported structures as well as individually created structures can coexist next to each other as sub trees of the root node.

Adding a new unit

1. In the *Quick Add* section enter a name and optionally a registration code.
2. Create the organizational unit with *Add*.

Selection

The *Selection* section provides the tree view of the *organizational units*. Expand the tree items by clicking the arrow in front of each entry and click an entry to view the members of the unit within the members list on the right side of the screen.
If you select the organizational unit *root*, all members are displayed.

Properties

The properties fields enable you change the name of the organizational unit currently selected in the *selection* tree. Optionally you can add a new or change the existing registration code.

Searching and filtering

The search and filter section enables you to search for single or multiple members within the currently displayed member list.

- Use *Search* field to find specific units or users.
- Use the *Active:* dropdown list to display active or inactive members only.

Searching and filtering

The search and filter section enables you to search for single or multiple members within the currently displayed member list.

- Use *Search* field to find specific units or users.
- Use the *Active:* dropdown list to display active or inactive members only.

Member list

The member list displays all members within the current organizational unit (subordinated organizational units, roles, and users). You can

- activate or deactivate members by clicking the checkbox in column *Active* or
- manage one or multiple members by selecting the checkbox for each required member. Then select the corresponding action from the buttons on the bottom right of the user list

Action	Description
move to OU...	Opens a dialog with the organizational units tree to select an organizational unit the selected members shall be moved to.
Messages...	Opens the *Messages* editor with your member selection as the recipients list.

More information:

- *User import*

4.3.3 Roles

The *Roles* section enables you to create and manage user roles you require for your scenario.

Adding a new role

1. In the *Quick Add* section enter a name and optionally a registration code.
2. Create the role with *Add*.

Selection

The *Selection* section provides the tree view of the *organizational units*. Expand the tree items by clicking the arrow in front of each entry and click an entry to view the inherited roles of the unit within the *roles list*.
If you select the organizational unit *root*, all roles are displayed.

Searching the roles list

Use *Search* field to find single or multiple roles within the currently displayed roles list.

Roles list

The *roles list* contains all roles in the selected organizational unit and its subordinated organizational units. You can

- view the members of the selected role in the bottom part of the screen
- activate or deactivate roles by clicking the checkbox in column *Active*
- view the *Registration Code* of a role in the corresponding column
- modify the properties of the selected role clicking the button *Change...*
- manage one or multiple roles by selecting the checkbox for each required role. Then select the action from the buttons on the bottom right of the roles list.

Action	Description
Change...	Opens the *Edit Role* dialog, where you can change the name, assign a registration code, and activate or deactivate the role.
Messages...	Opens the *Messages* editor with your role selection as the recipients list.
Permissions...	Opens the *Role Permissions* dialog in which you can specify identities who can do changes to the specific role. Available role permissions: 1. *Administrate role* Allows to change role specific permissions. 2. *Edit role* Allows to change or delete the role as well as to add / remove role members.
Activate	Activates the selected roles.
Deactivate	Deactivates the selected roles. All members of a deactivated role lose the permissions assigned to this role.
Delete	Deletes the selected roles. All previous members of a deleted role lose their role membership and the permissions assigned to this role.

Searching and filtering the members list

The search and filter section enables you to search for single or multiple members within the currently displayed members list.

- Use *Search* field to find specific units or users.

- Use the *Active:* dropdown to display active or inactive members only.

Members list

The *members list* contains all members of the currently selected role. You can:

- identify members type by the symbol in column *Type* (single user symbol / role symbol)
- activate or deactivate roles by clicking the checkbox in column *Active*
- manage one or multiple members by selecting the checkbox for each required member. Then select the action from the buttons on the bottom right of the list:

Action	Description
Add...	Displays the identity dialog to add users or roles as members of the current role.
Remove	Removes the selected members from the role. These will lose all permissions inherited from the role.

Predefined roles

The Manager provides a predefined set of roles within the organizational unit *system*. We highly recommend reusing these roles for building up your own role scenario.

Role	Description
Administrators	This role owns all permissions apart from SAP Companion Configuration.
Guests	This role is permitted to inspect the *Learner view*, but not to edit the personal settings area.
Learners	This role is permitted to inspect the *Learner view* and the personal settings area.
Master Authors	This role provides an advanced author role, which is also permitted to create and maintain workareas.
Project Managers	This role provides all necessary permissions to prepare and maintain the meta data types, tasks and workareas needed for the collaboration scenario. Nevertheless, this role has no content access.
Report Viewers	This role is restricted to inspect the *Reporting* only.
Reviewers	This role can inspect all content sections but is not allowed to edit them. It can only create/edit object related tasks and comment on content.

Role	Description
SME	This role owns the necessary permissions to create and edit content but no permissions for administrative workarea maintenance.
Snippet Authors	This role allows you to create, edit and upload SAP Companion script snippets.
Standard Authors	This role owns the necessary permissions to create and edit content but no permissions for administrative workarea maintenance.
System Workarea	This role owns the necessary permissions to create and change content in the application specific workarea *System*, which provides resources and data for the Manager itself.
SAP Companion Administrators	This role allows you to view and manage SAP Companion configuration and script snippets.

More information:

For details see the following chapters of this document:

- *Create roles*
- *Assign users to a role*
- *Self-registration of users*

4.3.4 Permissions

Permission management is the central tool of the Manager's role-based environment. All permissions are effective in Manager and, if the relevant functions are available, in connected SAP Enable Now components as well.

> **i Note**
> Due to a high complexity of permission dependencies, we highly recommend assigning single permissions only to extend individual permission set inherited from an existing role.

Interface areas

The permission management interface is split into three areas:

- **Selection**
  Expand the identity tree to view subordinated organizational units, roles, and users. Click an item to view its permissions.
- **Permissions**
  Use the checkboxes to activate and deactivate permissions. Alternatively, you can use the checkbox in the header line to select or deselect all permissions.
- **Assigned Permissions**
  View the complete set of permissions, individually assigned as well as subordinated from memberships, being assigned to the currently selected identity.

Saving permission assignments

Once you've modified permission assignment for the currently selected identity, confirm your assignment by clicking the *Save* button.

Permission details

The following table lists all permissions with a brief description on their influence.

Permission	Description	Predefined roles that contain this permission
Audience Assignment	Allows to create and edit business roles and assign content based on them.	Administrators, Master Authors, Project Managers
Content: Cancel Editing	Permits to force the server-sided recreation of a write permission currently held by another user.	Administrators, Master Authors, SME, Standard Authors, System Workarea
Content: Change Workflow	Permits to change the individual workflow of content objects.	Administrators, Master Authors, System Workarea
Content: Comment	Permits to add comments to content.	Administrators, Learners, Master Authors, Reviewers, SME, Standard Authors, System Workarea
Content: Create	Permits to create content.	Administrators, Master Authors, SME, Standard Authors, System Workarea
Content: Delete	Permits to delete content into trash.	Administrators, Master Authors, SME, Standard Authors, System Workarea
Content: Delete from Trash	Permits to delete content permanently from the trash. In combination with *Resources: Delete*	Administrators, Master Authors, SME, Standard Authors, System Workarea

Permission	Description	Predefined roles that contain this permission
	from trash it allows to empty the trash.	
Content: Edit	Permits to modify content and save it to the server.	Administrators, Master Authors, SME, Standard Authors, System Workarea
Content: Publish	Permits to publish contents (only, no resources).	Administrators, Master Authors, SME, Standard Authors, System Workarea
Content: Upload Active Content	Permits to upload files with active content (e.g., *.(x)htm(l), *.js) to the server. Usually these files are blocked.	Administrators, Master Authors, System Workarea
Content: View	Permits to view the content tree - mandatory for access to the Project Explorer as well as for content playback.	Administrators, Guests, Learners, Master Authors, Report Viewers, Reviewers, SME, Standard Authors, System Workarea
Course Assignments: Edit	Permits to create, modify, or remove course assignments.	Administrators, Master Authors, System Workarea
Course Assignments: View	Permits to view the course assignments tab as well as the course assignments overview.	Administrators, Master Authors, Reviewers, System Workarea
Editing Report: View	Permits to view the *Editing Report* displaying objects being currently edited.	Administrators, Master Authors, Project Managers
Messages: Create & Send	Permits to send a message using the messages interface or the messages option in the user or roles management interfaces.	Administrators, Master Authors, Project Managers, System Workarea
Milestones: Delete	Permits to delete milestones.	Administrators, Master Authors, Project Managers, System Workarea
Milestones: Edit	Permits to modify milestone properties.	Administrators, Master Authors, Project Managers, System Workarea
Milestones: View	Permits to view milestones in tasks as well as the milestone management interface.	Administrators, Master Authors, Project Managers, Reviewers, SME,

Permission	Description	Predefined roles that contain this permission
		Standard Authors, System Workarea
Organizational Units: Create	Permits to create organizational units.	Administrators
Organizational Units: Delete	Permits to delete (manually created) organizational units.	Administrators
Organizational Units: Edit	Permits to modify organizational units and their tree position.	Administrators
Organizational Units: View	Permits to view the organizational unit management interface.	Administrators, Master Authors, Project Managers, Report Viewers, Reviewers, SME, Standard Authors, System Workarea
Permissions: Edit	Permits to modify permission assignments.	Administrators
Permissions: View	Permits to view the permission management interface.	Administrators, Master Authors, Project Managers, System Workarea
Task priorities: Delete	Permits to delete task priorities.	Administrators
Task priorities: Edit	Permits to modify task priority properties.	Administrators, Master Authors, Project Managers, System Workarea
Task priorities: View	Permits to view task priorities in tasks as well as the task priority management interface.	Administrators, Master Authors, Project Managers, Reviewers, SME, Standard Authors, System Workarea
Resources: Comment	Permits to add comments to resources.	Administrators, Master Authors, SME, Standard Authors, System Workarea
Resources: Delete	Permits to delete resources into the trash.	Administrators, Master Authors, System Workarea
Resources: Delete from Trash	Permits to delete resources permanently from the trash. In combination with *Content: Delete from trash* it allows to empty the trash.	Administrators, Master Authors, System Workarea

Permission	Description	Predefined roles that contain this permission
Resources: Edit	Permits to create or modify resources and save them to the server.	Administrators, Master Authors, System Workarea
Resources: Publish	Permits to publish resources.	Administrators, Master Authors, System Workarea
Resources: View	Permits to view the resources in the Project Explorer - mandatory for access to the Project Explorer as well as for content playback.	Administrators, Guests, Learners, Master Authors, Report Viewers, Reviewers, SME, Standard Authors, System Workarea
Roles: (De)Activate	Permits to activate or deactivate roles.	Administrators, Project Managers
Roles: Administrate All	Permits to edit roles independently from their individual role editing permissions. **Caution:** this is a high-level permission allowing to change any role!	Administrators
Roles: Delete	Permits to delete roles.	Administrators, Project Managers
Roles: Edit	Permits to create roles as well as to assign or remove role memberships.	Administrators, Project Managers
Roles: View	Permits to view the role management interface.	Administrators, Master Authors, Project Managers, Report Viewers, System Workarea
Scheduler: Edit Jobs	Permits to modify scheduled jobs.	Administrators, Project Managers, Report Viewers
Scheduler: View Jobs	Permits to view jobs in the scheduler overview.	Administrators, Project Managers, Report Viewers
Server Statistics: View	Permits to view the server statistics interface.	Administrators
Server: Edit Server Settings	Permits to view and edit the server settings interface. This permission should only be assigned to administrators.	Administrators

Permission	Description	Predefined roles that contain this permission
Server: Housekeeping Edit	Permits to view housekeeping interface and run the housekeeping functionality.	Administrators
Server: Housekeeping View	Permits to view housekeeping interface.	Administrators
Server: User Import	Permits access to User import functionalities for importing user structures.	Administrators
Status Report: View	Permits to view the status report for tasks.	Administrators, Master Authors, System Workarea
Status: Delete	Permits to remove statuses from the status management interface.	Administrators, Master Authors, Project Managers, System Workarea
Status: Edit	Permits to modify statuses.	Administrators
Status: View	Permits to view statuses in tasks as well as the status management interface.	Administrators, Master Authors, Project Managers, Reviewers, SME, Standard Authors, System Workarea
Tags: Create	Permits to create tags.	Administrators, Master Authors, SME, Standard Authors, System Workarea
Tags: Delete	Permits to delete tags.	Administrators, Master Authors, SME, Standard Authors, System Workarea
Tags: Edit	Permits to modify tags.	Administrators, Master Authors, SME, Standard Authors, System Workarea
Tags: Set	Permits to set individually created tags. This excludes the special tag *published*.	Administrators, Master Authors, SME, Standard Authors, System Workarea
Tasks: Delete	Permits to delete tasks from the task list.	Administrators, Master Authors, System Workarea
Tasks: Edit	Permits to modify tasks.	Administrators, Master Authors, Reviewers, SME, Standard Authors, System Workarea

Permission	Description	Predefined roles that contain this permission
Tasks: View	Permits to view tasks as well as the task list.	Administrators, Master Authors, Reviewers, SME, Standard Authors, System Workarea
Test Data Creation: Generate Session ID	Operational permission for running automated server test. **Note:** Do not assign this permission unless you are told so by SAP Enable Now support team.	Administrators
Task types: Delete	Permits to delete task types.	Administrators, Master Authors, Project Managers, System Workarea
Task types: Edit	Permits to modify task types.	Administrators, Master Authors, Project Managers, System Workarea
Task types: View	Permits to view types in tasks as well as the types management interface.	Administrators, Master Authors, Project Managers, Reviewers, SME, Standard Authors, System Workarea
User List: View	Permits to view the user list - mandatory permission for any user context.	Administrators, Guests, Learners, Master Authors, Project Managers, Reviewers, SME, Standard Authors, System Workarea
User Profile: Edit	Permits to modify the individual user profile and user specific settings.	Administrators, Learners, Master Authors, Project Managers, Report Viewers, Reviewers, SME, Snippet Authors, Standard Authors, System Workarea, SAP Companion Administrators
User Profile: View	Permits to view user profiles.	Administrators, Guests, Learners, Master Authors, Project Managers, Report Viewers, Reviewers, SME, Snippet Authors, Standard Authors, System Workarea, SAP Companion Administrators
User: Allow Machine Translation	Allows to use machine translation feature for the learning content that is stored on the Manager.	Administrators, In-App help Administrators, Learners, Master Authors, Project Managers, Report Viewers, Reviewers, SME, Snippet

Permission	Description	Predefined roles that contain this permission
		Authors, Standard Authors, System Workarea
User: Delete Details	Permits to purge personal user data. Only with this permission the corresponding Data Protection controls are visible in the user interface. Consider giving this permission only to administrators being responsible for data protection.	Administrators
User: View Details	Permits to view personal user data. Only with this permission the corresponding Data Protection controls are visible in the user interface. Consider giving this permission only to administrators being responsible for data protection.	Administrators
Users: (De)Activate	Permits to activate or deactivate users.	Administrators
Users: Create	Permits to create users.	Administrators
Users: Edit	Permits to edit user information in the user management interface.	Administrators
Users: View	Permits to view users in identity selection areas as well as the user management interface.	Administrators, Master Authors, Project Managers, Report Viewers, Reviewers, SME, Standard Authors, System Workarea
Views: Authoring View	**Mandatory permission for any authoring or administration task**. Initially activates the access to all interfaces required for authoring and administration, which are then individually controlled by their specific permissions.	Administrators, Master Authors, Project Managers, Report Viewers, Reviewers, SME, Standard Authors, System Workarea
Views: Learner View	Enables the menu item for the Learner view as well as all accordant options.	Administrators, Guests, Learners, Master Authors, Reviewers, SME, Standard Authors, System Workarea

Permission	Description	Predefined roles that contain this permission
Views: Reporting	Enables the menu item for the Reporting as well as all accordant options.	Administrators, Master Authors, Report Viewers, System Workarea
SAP Companion Configuration: Edit	Allows to create and edit SAP Companion configurations through a dedicated menu.	SAP Companion Administrators
SAP Companion Configuration: View	Allows to view SAP Companion configurations in a dedicated menu.	SAP Companion Administrators
SAP Companion Script Snippets: Edit	Allows to create, edit, and upload SAP Companion script snippets through a dedicated menu.	Snippet Authors, SAP Companion Administrators
SAP Companion Script Snippets: View	Allows to view SAP Companion script snippets in a dedicated menu	Snippet Authors, SAP Companion Administrators
Workarea Manager	Enables the menu item *workareas* necessary to access the Manager workareas.	Administrators, Master Authors, Reviewers, SME, Standard Authors, System Workarea
Workareas: (De)Activate	Permits to activate or deactivate workareas.	Administrators, Master Authors, System Workarea
Workareas: Create	Permits to create workareas.	Administrators, Master Authors, System Workarea
Workareas: Delete	Permits to delete workareas.	Administrators, Master Authors, System Workarea
Workareas: Edit	Permits to modify data within workareas.	Administrators, Master Authors, SME, Standard Authors, System Workarea
Workareas: Edit Workarea Permissions	Permits to change workarea permissions for individual workareas the user owns the workarea permission *Administrate Workarea* for.	Administrators, Master Authors, System Workarea
Workflow: Create	Permits to create workflows.	Administrators
Workflow: Delete	Permits to delete workflows.	Administrators

Permission	Description	Predefined roles that contain this permission
Workflow: Edit	Permits to modify workflows.	Administrators
Workflow: View	Permits to view workflows in tasks as well as the workflow management interface.	Administrators, Master Authors, Project Managers, Reviewers, SME, Standard Authors, System Workarea

4.3.5 Audience Assignment Based on Business Roles

With audience assignment, you can provide specific content for users based on their business roles. This works as a filter for **learning content** and **in-app help content**.

Considerations

Each of the following main considerations for this functionality is described in detail in specific chapters:

- Audience assignment is based on business roles. Business roles are based on user roles. **One business role can only correspond to one user role**. You need to prepare the user role structure beforehand to reflect the audiences you want to have. For details, see *Creating User Structure for Audience Assignment*.
- If content is not assigned to any audience, everyone can see it. This way, if you have used a different content filtering approach, you do not need to adapt it using business roles. For details, see *Assigned Content Visibility*.
- When you assign content to specific audiences, it becomes hidden from users with different business roles.
- Content objects can either inherit audiences or have specific audiences assigned to them. For details, see *Assignment Inheritance*.

Prerequisites

- Your user needs to have the *Audience Assignment* permission. By default, it is included for *Master Authors, Project Managers* and *Administrators*. With this permission, the *Administration > Business Roles* menu and the *Audience* tab in the object editor become available.
- You need to enable *Business Role-Based Delivery of Content* in server settings.

Quick start

You need to go through the following steps to assign content to audiences, each step is described in detail in specific chapters:

1. Create user roles that would correspond to business roles.
2. Create business roles based on user roles from the previous step. **There must be a 1:1 relationship between them.**
3. Assign business roles to content. Content must be **published** for audience assignment to work for users.

4.3.5.1 Creating User Structure for Audience Assignment

Because audience assignment is based on business roles, and business roles are based on user roles, you need to prepare the role structure before you can assign audiences to your content.

1. In *Administration > User Roles* create the roles that will be used as a base for business roles. For example, if you want different help to be shown to accountants in Germany and the US, you can create Accountants Germany user role and Accountants USA user role.
   One business role can correspond to only one user role.
2. Now, go to *Administration > Business Roles > Administration tab > Add*. Select the user roles you need and apply.
3. In this dialog, you can select user roles that do not have business roles based on them. Already linked user roles are greyed out and have a business role displayed next to them. In this example, you would choose the Accountants Germany and Accountants USA user roles, and this would result in creating 2 business roles with the corresponding names.

Business roles are created and activated. You can deactivate them, edit the name and short description, and choose different user roles to link in the edit dialog.

> ⚠ Caution
> When you change the user role in the edit dialog, the name of business role is not changed. You need to maintain the names manually to avoid confusion.

You have created the structure for audience assignment. Now, you can create audience assignments for your content.

4.3.5.2 Assigning Audiences to Content

With the role structure created, you can assign content to specific business roles.

Content objects can either inherit audiences or have specific audiences assigned to them. Check the chapter *Assignment Inheritance* for details.

> ⚠ Caution
> We recommend paying close attention to the chapters about *Assignment Inheritance, Assigned Content Visibility, and Deactivating and Deleting Roles* to make sure that the right content is shown to the right audiences.

1. Assigning audiences to the main object in the object structure

1. Go to the workarea you need and select a main content object.
2. Choose the *Audience* tab and *Create Assignment*.
3. In the *Select Business Roles* dialog, choose the business roles for this object and confirm.
   1. In this dialog and in the assigned business roles list, you can see which business roles are deactivated or unlinked. **This impacts who can see the content!** Check the chapter *Deactivating and Deleting Roles* for details.

    2. You also see a warning if there is no published version of the object - for audience assignment to take effect for your users, the content must be **published**.
4. If the content is published, changes take affect. If the content is not published, you need to publish it.

You have assigned audiences to your content. All subobjects inherit the same business roles.

Users now have access to the relevant content in the library and in-app help - they will see the content specifically assigned to their business role and content with no assignments. Check the chapter *Assigned Content Visibility* for details.

2. Assigning audiences to subobjects in the object structure

1. Go to the workarea and select a subobject. The main object already has audiences assigned.
2. In the *Audience* tab, you see inherited business roles - they are the same as for the main object in the tree. If you want this object to be accessible by a different audience, choose to *Create Assignment*.
3. Decide if you want to take over the inherited business roles or create a different assignment and not include the roles from the main object.
    1. If you choose to include the inherited business roles, they are preselected in the next dialog. Add more business roles or remove the preselected ones and confirm.
    2. If you choose to create a new assignment not based on the inherited roles, choose the business roles for this object and confirm.

You have assigned audiences to your content. Your objects have business roles assigned that differ from the superordinate object.

Users now have access to the relevant content in the library and in-app help - they will see the content specifically assigned to their business role and content with no assignments. Check the chapter *Assigned Content Visibility* for details.

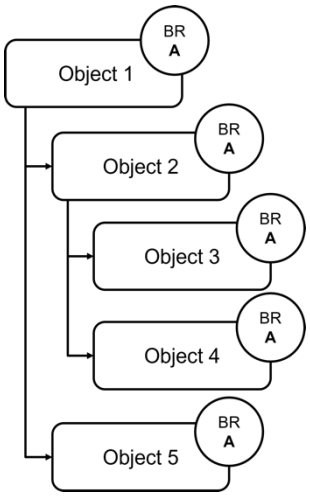
4.3.5.3 Assignment Inheritance

1. How Inheritance Works

> **i** Note
> When you start with audience assignment for a structure, each object will either have inherited or assigned business roles.

Objects with an audience assigned to them distribute this assignment to all subobjects that they have.

We will be using the following example in this chapter: the main object is a book (object 1) that has the first chapter (object 2) with two pages (objects 3 and 4), and there is a second chapter (object 5) with no pages in it.



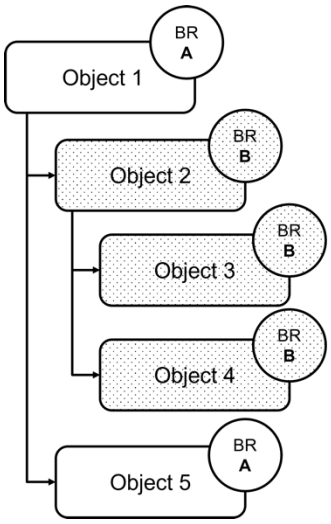
Assignment inheritance works the following way: you assign business role A to the main object (in this example, object 1), and all subobjects automatically get the same assignment. In the interface, you see *Assigned Business Roles* for the main object, and *Inherited Business Roles* for subobjects.

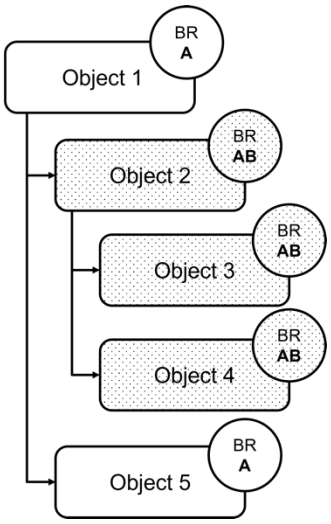
2. Inheriting vs Assigning Audience

If you want to show the first chapter to a different audience, than the whole book, you can assign this object to a business role B. When you assign content that has inherited some roles, you are asked if you want to include these inherited roles into your assignment.

Your content will be accessible as follows:

- If you decide to have a completely different audience, and do not include inherited roles: the book (object 1) has business role A, the second chapter (object 5) continues to have role A inherited, the first chapter (object 2) gets a new assignment of role B, and its pages (objects 3 and 4) now inherit role B from the chapter.
- if you decide to refine the audience and want to take over the inherited roles: the book (object 1) has business role A, the second chapter (object 5) continues to have role A inherited, the first chapter (object 2) in addition to inherited A gets an additional assignment of role B, and its pages (objects 3 and 4) now inherit roles A and B from the chapter.



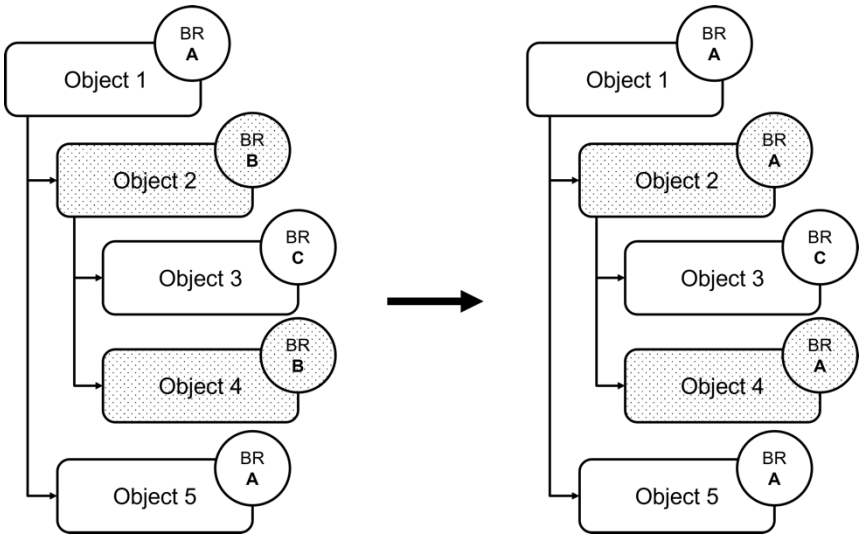


3. Deleting Assignments

If you delete all assigned audiences, the object inherits business roles from the superordinate object in the structure.

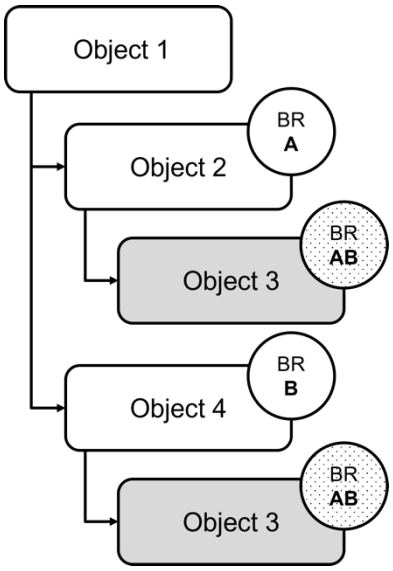
In the example it looks like this: your book (object 1) and its second chapter (object 5) have audience A, you assigned a different audience B to the first chapter (object 2). The pages of this chapter inherited audience B, but you changed the second page (object 3) to audience C.

Now you delete the assigned audience from the first chapter (object 2), and it begins to inherit audience from the its main object. Objects 2 and 4 change their audience to A. Because you changed the audience for object 3 and did not delete it, this assignment stays as it was.



4. Working with References

Referenced objects inherit audiences from all their superordinate objects. In the following example, object 3 is referenced and so it inherits both audience A and audience B.



All instances of a referenced object will have the same set of audiences.

All the other considerations for regular objects also apply for references. For example, when you want to create a specific assignment for referenced objects, you can choose to take over inherited business roles or create a new assignment, the same as of regular objects.

Notes

- **Unpublishing objects**
  When you unpublish an object that has **inherited audience**, business roles are removed from the *Audience* tab. When you publish it again, the inherited assignments are restored.
- When you unpublish an object that has **assigned audience**, nothing changes, and you still see the assignment in the *Audience* tab.
- **Hiding objects**
  When you hide objects in the structure, nothing changes, and you can still see the assignment. The content is hidden from the users as usual.

4.3.5.4 Assigned Content Visibility

This table shows you the content visibility for users with different business roles or with no business roles:

Business Role	Content assigned to business role A	Content assigned to business role B	Content not assigned to business roles
Users with **business role A**	Visible	Not visible	Visible
Users with **business role B**	Not visible	Visible	Visible
Users with **business roles A and B**	Visible	Visible	Visible
Users with **no business roles**	Not visible	Not visible	Visible

4.3.5.5 Deactivating and Deleting Roles

Business roles are very closely linked to user roles, however there are differences in content visibility when you change the role structure:

Role State	Audience Assignment	Content Visibility
Deactivated Business Role	Assigned to a deactivated business role. Objects do not inherit this audience anymore.	Everyone can access content as deactivated business roles do not filter content.
Deleted Business Role	Assignment is deleted. The object inherits audiences from the parent object, if there are any.	People with inherited business roles can see content. If there are none, everyone can access content.
Deactivated User Role	Objects do not inherit this audience anymore.	**No one can access content** as the business role is still assigned but there is no user role to base it on.
Deleted User Role	Business role gets the *Unlinked* label. Objects do not inherit this audience anymore.	**No one can access content** as the business role is still assigned but there is no user role to base it on.

4.3.6 Messages

Using the messages functionality you can send an email to a selection of users, roles, and organizational units to contribute information like upcoming maintenance operations, structural changes, or user instructions.
The messages functionality is available from menu item *Administration > Messages* as well as from within the identity management interfaces *User*, *Roles,* and *Organizational Units*.

Sending a message

1. Click *Edit* to add recipients. In the *Identity Selection* dialog select your recipients, press CTRL to select multiple items. You can search for specific identities using the search field.
   In case you called the messages functionality from one of the identity management interfaces, the field is prefilled with your selection taken there. You can use *Edit* to extend the prefilled list.
2. Enter a *Subject* of your mail.
3. In case you want to reuse the text of a previously sent message, you can use the dropdown to choose the email body from one of the 10 last send messages. Previously sent mails can be seen as templates in this case.
4. Enter your email *Body* text or modify the text from *Saved messages* history.
   Note: this mail supports only text, no html code.
5. You can send the message to yourself with *Send me this mail.*
6. *Send* your mail.

Email validation

Email addresses organized by the same domain the Manager is member of will be validated before sending and announced as invalid if validation returns error.

4.3.7 Status

The *Status* section enables you to create and maintain statuses. With the help of these status, you can depict the lifecycle of your content from creation through processing to publishing and translation.

Adding a new status

1. Click *Add...* and enter a status name.
2. You can decide on the *Order* of this status within the lifecycle now or edit it later.
   Enter a numeric value or use the arrows to set the order in the status list.
3. Create an *Active* status to make it available right away. You can also create some inactive status, edit their order, and activate them afterwards.
4. Create the status using *Add*.

Editing an existing status

1. Click the status name or the *edit icon* to start editing.
2. Edit the *Name*, *Order* and *Active* state of the status in the Edit dialog.
   Note: if you deactivate an existing status, it can no longer be assigned. It will also be hidden in tasks for which it was used. Workflows using this status won't be displayed anymore as well, since they become invalid.
3. *Save* your changes.

You can also activate and deactivate status with a toggle in the column *Active*.

Editing multiple status at a time

1. Tick the checkboxes of all the status that you want to edit.
2. Expand *Bulk Actions*. Here you can choose between *Activate*, *Deactivate* or *Delete...* all of the selected status.

Deleting status

1. Click the *deletion icon* for a single status or choose *Delete...* in *Bulk Actions* for multiple status.
2. Confirm your decision in the Delete dialog that appears.

4.3.8 Workflows

The *Workflows* section enables you to create and maintain workflows.

Workflows assist you in the content production process. They represent a sequence of status defining different states of the content lifecycle. You can control which users are allowed to change the content lifecycle and you can notify users responsible for the next step in the workflow automatically .

Adding a new workflow

There are 2 ways to add a new workflow:

1. In the *Quick Add* section enter a *Name* and an optional *Description* for your workflow and click *Add*.
   You can activate this workflow using Active checkbox later.

2. On the bottom right of the screen click *New...* and enter a *Name*, optional *Description* and decide if you want to *activate* this workflow right away.

> **Note**
> Newly created workflows are empty. You need to add steps to define the lifecycle and transitions between these steps.
>
> We recommend using the ***graphical workflow editing***, but you can do this using the *Steps* action.
>
> For a detailed step-by-step explanation of how to create workflows, see the chapter ***Create workflows*** of this document.

Workflows actions

The list of workflows shows all created workflows with their name, description, and active state. It also displays the number of steps the workflow contains as well as some actions that you can do. Actions list extends on hovering over a workflow.

Action	Description
Steps	Start the workflow editor to add / remove steps or add / modify / remove transitions between steps.
Edit	Edit the main properties of the workflow (*Name*, *Description*, *Active*).
Clone	Duplicate the workflow with a new *Name* and optional different *Description*.
Delete	Delete the workflow.
Edit Graphically	Start the graphical workflow editor. See sub chapter ***Graphical workflow editing***.

More information:

For details see the following chapter of this document:

- ***Create workflows***

4.3.8.1 Graphical Workflow Editing

The graphical workflow editor enables you to visualize the workflows you are creating, simplifying the creation process. This will help you especially if you want to create multiple workflow transitions matching the needs of different authoring and reviewing teams using the same workflow.

Adding status boxes

1. Select a status from dropdown list *Status* and click *Add* to add it to the stage.

2. Repeat this action for all statuses you want to add to your workflow.

Adding transitions

1. Click one status box to activate it.
2. Click another status box the transition shall lead to.
3. The transition will appear directly as visual connector.
4. Click the transition box to enter a meaningful name.
5. Click *OK* to close the prompt.
6. Repeat procedure for any transition you want to create.

You can add multiple transitions of the same connection to be available for different teams and users.

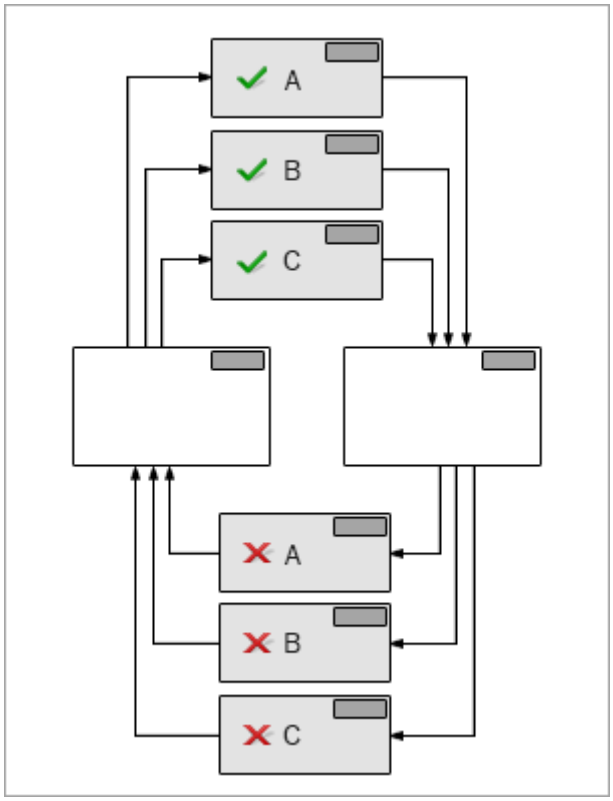


Image: Multiple team transitions between two statuses

Saving the workflow

Save Changes to save your work or *Discard Changes* to step back to the last saved state of the workflow.

Post-processing

Since the visual editor just adds status and transitions to a workflow you have to post-edit the created transitions in the workflow editor.

4.3.9 Task Types

Task types let you specify additional meta information you can use to label tasks and filter for in the *Tasks overview* or in the *Workarea view*. For example, you can add information about the task nature (as the predefined examples suggest).

You are free to delete these examples and use this meta information as needed for your scenario.

Adding a task type

1. Click *Add...* and enter a *Name* and optional *Description* of a task type.
2. Confirm with *Add* at the bottom of the dialog.

Editing a task type

1. Click *Edit* icon or somewhere on the line of the required task type to launch the *Edit* dialog.
2. Change *Name* or *Description* as desired.
3. *Save*.

Deleting a single task type

1. Click *Delete* icon for the required task type.
2. Confirm deletion.

Deleting multiple task types

1. Use the checkboxes to select task types you want to delete.
2. In *Bulk Actions* choose *Delete...*
3. Confirm deletion.

4.3.10 Task Priorities

The *Task priorities* section enables you to define different task priority weightings, this way classifying tasks according to their priority.

Adding a task priority

1. Click *Add...* and enter the *Name*, *Weighting,* and optional *Description* for the new task priority.
2. Confirm with *Add* at the bottom right of the dialog.

Editing a task priority

1. Click *Edit* icon or somewhere on the line of the required task priority to launch the *Edit* dialog.
2. Change *Name, Weighting* or *Description* as desired.
3. *Save*.

Deleting a single task priority

1. Click *Delete* icon for the required task priority.
2. Confirm deletion.

Deleting multiple task priorities

1. Use the checkboxes to select task priorities you want to delete.
2. In *Bulk Actions* choose *Delete...*
3. Confirm deletion.

4.3.11 Milestones

The *Milestones* section enables you to define sub or intermediate objectives for managing your projects, so-called milestones.

Adding a milestone

1. Click *Add...* and enter the *Name*, optional *Description*, *Target Date* and *Active* state for the new milestone.
2. Confirm with *Add* at the bottom right of the dialog.

Editing a milestone

1. Click *Edit* icon or somewhere on the line of the required milestone to launch the *Edit* dialog.
2. Change *Name*, *Description*, *Target Date* and *Active* state as desired.
3. *Save*.

> **Note**
> Inactive milestones can no longer be assigned and will be hidden from any place they are used.

Deleting a single milestone

1. Click *Delete* icon for the required milestone.
2. Confirm deletion.

> **Note**
> If the milestone is still used in tasks, a dialog box displays the number of linked tasks. Navigate to the *Tasks* section and delete the milestone from the linked tasks. Then you can delete the milestone itself.

Deleting multiple milestones

1. Use the checkboxes to select milestones you want to delete.
2. In *Bulk Actions* choose *Delete...*
3. Confirm deletion.

4.3.12 Workareas and Tags

In the Workareas section you can create and manage workareas to be available for different content creation scenarios and different user groups.

Adding a workarea

1. In the *Quick Add* section enter a *Name* and a workarea *ID*.
2. Confirm with *Add*.

The workarea will be created with a predefined set of workarea permissions for these identities:

- root - *View published Workarea*
  Every user will be able to see published content from this workarea
- you - *Administrate Workarea*
  As you created the workarea you gain full permissions to maintain the workarea.
- Initial user - *Administrate Workarea*
  The initial super user automatically gets full permissions for each workarea.

Workarea list

The workarea list displays all workareas you are permitted to manage (Workarea Permission: *Administrate Workarea*). Only the initial user (as created while setup) has the permission to view all existing workareas within this list.

> **Note**
> The workarea list contains an already existing workarea, named *System (_system)*. This workarea is mandatory, enabling us to provide a customized user interface for your needs.
> Do not delete or deactivate this workarea.

Actions for a workarea

The column *Actions: Workarea* offers actions you can take on workareas:

Action	Description
Edit...	This action allows you: • to rename the workarea • to add a description (to let authors better identify that they are using the correct workarea) • to define workarea specific email addresses for learner feedback (separated by semi-colon) • to specify a *base workarea* (requires workarea extensibility activated - see *more information* section below) • to edit the connection settings for a *connected workarea*

Action	Description
Permissions...	Opens the permission management dialog box. Here you can configure the permissions to view, edit, maintain, or delete the workarea for individual users, roles, or organizational units. This enables you to manage individual author access to different scenarios and workareas within a large team. **Note: w**orkarea permissions are superordinate to user permissions. This means that even a master author who has editing permissions cannot edit or view a workarea unless they have the permission for the relevant workarea.
Watchers	Opens the *Identity Selection* dialog box where you can specify whether users are notified about workarea actions. Workarea watchers will get an email notification about any change to objects or tasks in the workarea.
Workflow...	Defines a default workflow for the workarea to be set automatically for any new object. Workflows for single objects or object trees can be changed afterwards individually.
Deactivate	Deactivates the workarea to make it inaccessible for users but preserves data to be activated and used later on. The workarea is not shown in the workarea selection anymore and its contents and assignments are not available in the learner view or other scenarios connected to the Manager.
Get Metadata	For *connected workareas* only. Enforces the Manager to load the metadata like object information, structure information, publishing states and other from the source workarea independent from the specified synchronization interval in the *Server Settings*.
Delete	Hover over the action area of the relevant workarea to display the security relevant action *Delete*. Click it to delete the workarea and confirm your choice. After confirmation, the workarea and its file structure in the base directory are deleted permanently.

Adding a tag

Tags are very useful because they can only be set once for each object and once for each object version. This enables you to "freeze" structure states individually. For example, you can display a special release version of your contents at any time by filtering the tree view for relevant tags. Read more in chapter *Display filtered object tree*.

1. In the column *Tags* click *Add Tag...*
2. In the *Add/Edit Tag* dialog box enter the *ID*, *Name,* and optional *Description* for the tag.
3. Confirm.

> **Note**
> It is not possible to define a tag with the "published" ID, since this is reserved for the application's own publish tag.

Actions for tags

In the column *Actions (Tags)* you can perform the following actions:

Action	Description
Edit Tag...	This action allows you to rename the tag and edit its description.
Delete Tag	Hover over the action area of the relevant tag to display the action *Delete Tag*. **Note:** there is **NO** confirmation of deletion. Clicking *Delete Tag* will delete it immediately.

More information:

For details see the following chapters of this document:

- *Connected Workarea*
- *Prepare workareas*
- *Access control*

4.3.13 Course Assignments

The *Assignments* section lists all existing content assignments from all workareas. Thus, it enables you to find and modify existing assignments easily.

Creating an assignment

1. Select *New...*
2. Specify *Caption*, *Selected Object* and *Selected Identity i*n the *Edit Assigned Content* dialog that opens.
3. Configure the rest of the properties as required.
4. Save.

A new assignment is created.

For detailed information about the assignment properties see the following chapter *Assignment Properties*.

Item list

The item list shows all existing assignments with their main properties and actions.

Property	Description
Caption	The name the assignment is displayed with in the course list of the *Learner view*.
Selected workarea	The workarea the content comes from.
Selected object	The root object of the content provided by the assignment.
Selected identity	The identity the assignment is displayed for in the *Learner view*.
Active	If the assignment is active (visible) or not.
Weight	The weighting value determining the position of the assignment within the course list of the *Learner view*.
Display as	The amount of sub levels being displayed as well as the *scoring method* of the assignment.
Lesson Types	The included/excluded lesson types.
Item actions	Actions for the assignment: • *Edit...* - edit the properties of the assignment • *Delete* - delete the assignment • *Start...* - start the assignment directly • *Link* - display the sharing dialog with direct access URL and QR code

Editing an assignment

1. Click *Edit...* action or somewhere on the line of the required assignment to launch the *Edit Assigned Content* dialog.
2. Make your changes.
3. Save

Exporting assignments list

1. Select *XLS Export* on top of the page.
2. Depending on your browser, a *Save As* or similar dialog opens. Choose where you want to save the assignments list and confirm.

The assignments list is saved as Microsoft Excel file with detailed information on each assignment.

Highlighted list entries

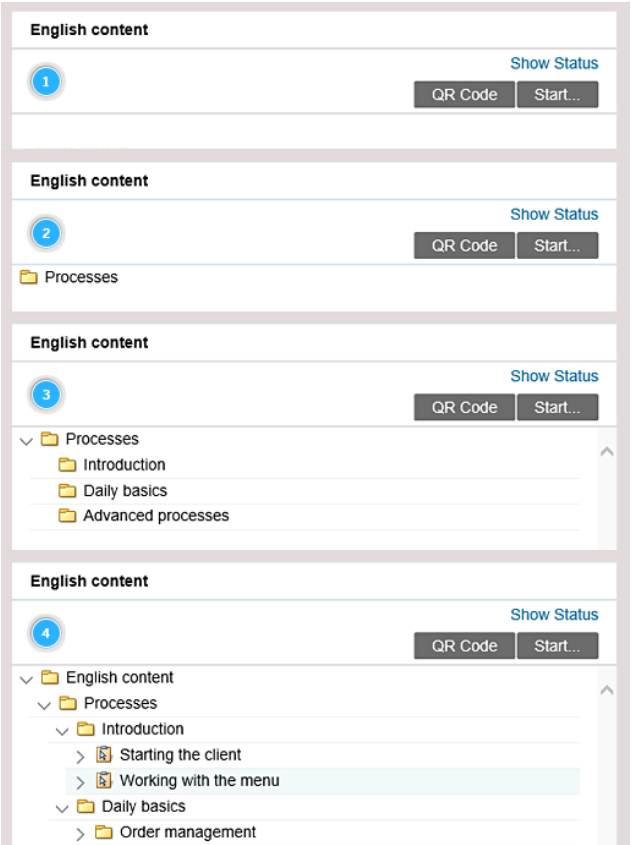
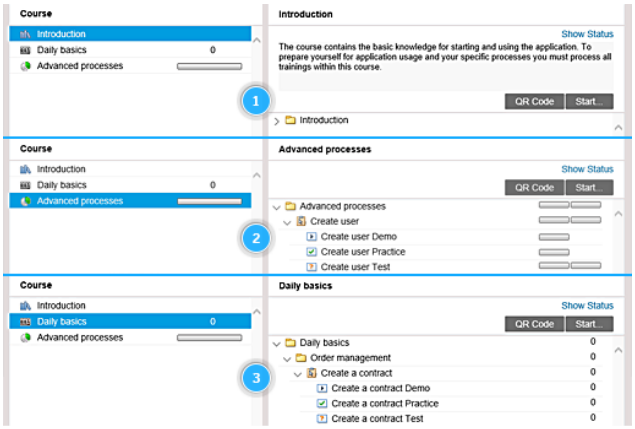
Assignments which are highlighted red are not displayed in the course list of the *Learner view*, since their root content object is not published.

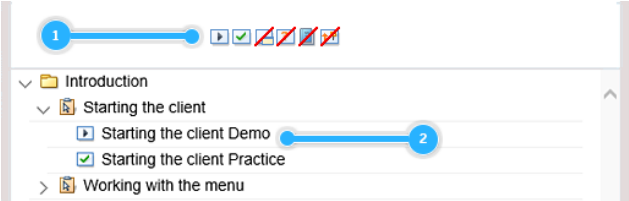
4.3.13.1 Course Assignment Properties

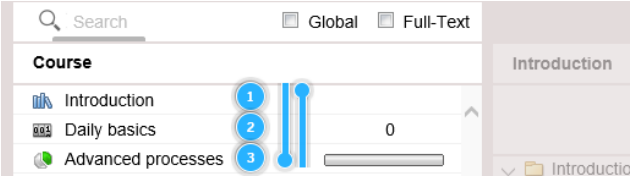
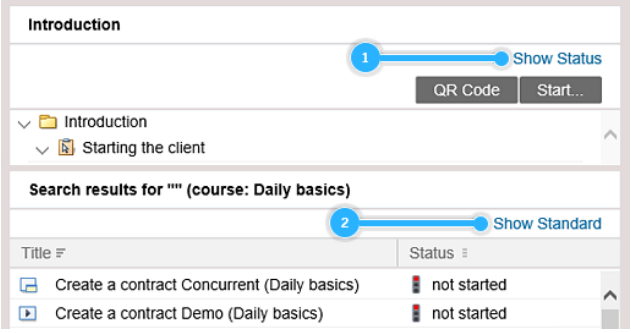
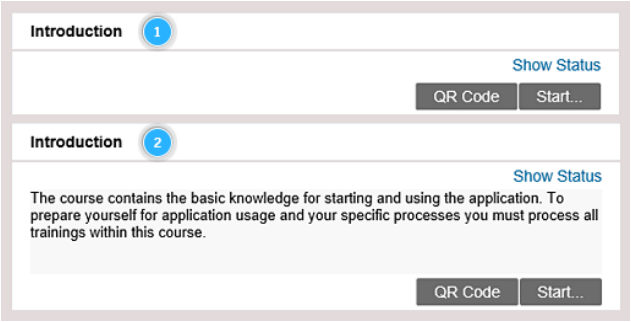
The *Edit Assigned Content* dialog enables you to set various properties on how to *present* content as a course in the *Learner view*. These settings have no impact on the tracking behavior of the content.

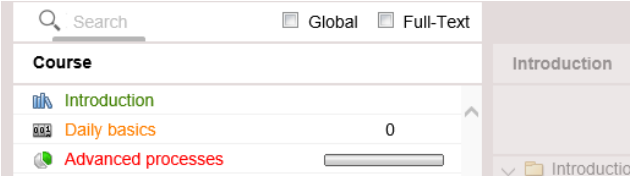
> **Note**
> In case of creating a new assignment as well as selecting an unpublished root object for your assignment, a warning message appears. As long as your selected root object for the assignment is not published, the assignment won't be visible in the course list of the *Learner view*.

Property	Description
Caption	Mandatory property. Specify the name the assignment is displayed with in the course list of the *Learner view*.
Selected Object	Mandatory property. Select the root object of the content structure to be distributed by the assignment.
Selected Identity	Mandatory property. Select the identity (user, role, or organizational unit) the assignment will be displayed to in the course list.
Display as	Specify, if only the root object of the content or even ancillary objects will be displayed. Following options are available: 1. *Object only* - only current object will be displayed 2. *Object and direct sub objects* - current object will be displayed with ancillary objects of first sublevel 3. *Object and sub objects (2 levels)* - current object will be displayed with ancillary objects of two sublevels 4. *Object and sub objects* - current object will be displayed with all ancillary objects

Property	Description
	
Scoring Method	Specify if and how the progress will be displayed in the *Learner view*. Following options are available: 1. *No Scoring* - no progress will be displayed 2. *Percent Completed* - progress will be displayed by a graphical progress bar 3. *Usage Counter* - like in a ranking system, all requests of all users will be displayed 
Learning Path Mode	Specify if the learners shall be forced to process the content one after another to follow a didactical line you

Property	Description
	considered for the content. This option allows the learner to start the next content only if the current content has been finished at defined success level. The Learning Path Mode is available only with the following assignment options setup: • *Scoring Method : Percent Completed* • *Display as: Object and direct sub objects, Object, and sub objects (2 levels), Object and sub objects* The configuration options are available: • *off* - Learning Path Mode is deactivated • *show only available* - only completed and the currently processed content is displayed. Each time the learner completes a content object the next object becomes visible. • *show all* - all the content is displayed, but only completed and the currently processed content can be started.
Minimum Completion (%)	Define the minimum success rate (in %) content has to be finished for the next content object becoming available for processing.
Lesson Types	Optionally exclude lesson types from being displayed. Click on the corresponding lesson symbol to hide (symbol will be shown as strike through) or unhide (no strike through) this type in the Learner view. 
Weight	Use the Weight option to influence the order of courses in the course list. Enter a numerical value from 1 (for top) to 500 (for last). If more than one course is weighted with the same value, e.g., 1, all of those will be grouped above next numerical value (in this case 2).

Property	Description
	
Passed Tests Required (%)	Define the minimum success rate (in %) for test modes the content is marked as been processed successfully.
Allow Status View	Specify if the user is allowed to switch from standard view (1) to status view, displaying the progress within all content of the course (2). 
Allow Search	Specify if the contents of this course are displayed in search results. If checkbox is disabled, contents are not shown in search results.
Show Description	Specify if the description of the course is displayed or not. 
Date Range	Specify a time range the assignment will be available in. Reaching the end of the time range the assignment will be automatically hidden.
Color	Specify a font color as hexadecimal value (e.g., "#ffee33") the course will be displayed with.

Property	Description
	

4.3.14 Server Settings

The server settings control the global behavior of the Manager application as well as its data sources and system security. Thus, only few users with experience in web applications should be able to access them.

Sections

The server settings are split into several thematically grouped sections. These sections will be explained in the following subsections.

Saving modified settings

1. Make the required changes to the server settings.
2. Confirm them with *Save* button on the top ribbon of the page.

You might need to refresh the browser page for changes to become visible.

Reverting settings to default

A green dot is shown next to the changed settings. This way you can always see whether a setting uses the default or your custom configuration. There are two ways to revert settings to default:

1. Hover over a changed setting and use the *Restore Default Configuration Value* button which is shown next to the setting.
2. You can also use the *Revert All* button on the top ribbon to completely reset your existing configurations to default.

4.3.14.1 General settings

The general settings section contains configuration parameters for the behavior of your Manager installation.

Setting	Description
Configuration	
Fallback interface language	Specify which language is used if an interface string (such as menu identifier) is not available in the currently selected interface language. If the string is also not available in selected fallback language, it is displayed in English (master fallback).
Date format	Individualize the date format to be used by the Manager and automated email notifications.
List entries per page	Specify the maximum number of displayed list items for all sections displaying multipage lists, for example, User, Tasks, Reporting and other. The number of displayed list objects has direct impact on server and interface performance. Hence you can increase performance by decreasing this value. Recommendation: In case you need to do bulk operations, for example, on thousands of users, you can increase this value temporarily to the value you need to show all users on one list page. Please expect the corresponding interface load time and do not forget to decrease the value afterwards again.
Compress server response	Select if data will be sent compressed (as gzip) to reduce data traffic.
Base path	Read-only parameter displaying the directory path the workarea related file content is stored in. To modify this setting, please use the server installation wizard.
Download path for cloud installation	Define the local path for end user machines in which the application files of the portable applications shall be downloaded and stored.
Caches & Timeouts	
Caching lifetime (s)	Determine the time the browser will keep objects in browser cache (in seconds). Optionally you can enter -1 to force a permanent revalidation of objects. Since this will increase server traffic dramatically you should avoid that in a productive scenario.

Setting	Description
Caching lifetime for static resources (s)	Determine the time the browser will keep static objects in browser cache (in seconds). Optionally you can enter -1 to force a permanent revalidation of objects. Since this will increase server traffic dramatically you should avoid that in a productive scenario.
Caching lifetime for entity files for authors (s)	Determine the time the browser will keep files accessed by authors in browser cache (in seconds). Optionally you can enter -1 to force a permanent revalidation of objects. Since this will increase server traffic dramatically you should avoid that in a productive scenario.
Timeout of SQL server request (ms)	Enter the time in milliseconds (ms) after which database server queries are timed out.
Timeout of recovery email (min)	Specify the time in minutes after which the individual code sent with an automatic recovery email will be invalidated.
Timeout of server request (s)	Specify the maximum time for a server request. Default value is 600 s (10 minutes).If you face timeout error messages on intensive requests you may fix them by increasing this value.
Valid time of a session (s)	Set how long a session will be valid. Default value is 3600 s (1 hour).
Valid time of user scores before recalculation (min)	Set the time period the server automatically revaluates the scores of all users. Default is 1440 min (24 hours).
Search	
Allow global search in learner view	Activate the ability to search within content that is not part of learner's assignments.
Show learner view search	Set whether the search functionality is displayed in the Learner view. (De)activation of the search function is a global option.
Addons	
Install Google Chrome extension	Decide whether the Google Chrome Extension shall be installed automatically on download of the On-Demand applications.

4.3.14.2 User Management Settings

The user management settings section contains configuration parameters for user creation, export, and deactivation.

Setting	Description
Automatic User Creation	
Organizational unit for automatic user creation (dn)	Specify the organizational unit that users will be created in on first access via SAML provider.
Role for automatic user creation (dn)	Specify the role users will be created in on first access via SAML provider.
Automatic User Deactivation	
Enable automatic user deactivation	Activate the checkbox to enable automatic user deactivation.
Deactivate after (interval type)	Select the time interval type the interval shall be based on, e.g., week.
Deactivate after (interval unit)	Enter a number specifying how many units of the interval type the interval shall include, e.g., 5 for 5 weeks according to previous example. Thus, users would be automatically deactivated after a period of 5 weeks inactivity.
Email address for reports	To automatically receive an email with a report spreadsheet (*.xls) on automatic user deactivation enter a valid email address.
Automatic Excel Import	
Enable automatic Excel import	Activate the checkbox to enable the automatic Excel import.
Automatic Excel import file path	Enter the path to the Excel file. Note that the file storage must be available to the server.
Automatic Excel import scheduler	Specify the start time and the recurrence pattern the Excel import shall run.
Append roles	Select this option if you want the roles you specify in your Excel file to be appended to already existing ones. If you do not select this option, the roles will be overwritten with the newly defined roles.

Setting	Description
Enable password policy	Apply the password settings from the Security settings section to the passwords within the Excel file as well. File entries violating the policy will not be imported.
Email address for report	Enter a valid email address to receive emails with a report spreadsheet (*.xls) about automatic Excel import automatically.
Role for automatic user creation via Microsoft Excel import	Specify the role users shall be created in when they do not own a role specification in the Excel source to be imported.
Data Protection & Privacy	
In this section you can configure the settings to comply with the European General Data Protection Regulation (GDPR). The data protection feature is enabled by default. We highly recommend keeping it activated at all times. Before deactivating this option, get in contact with the Data Controller or similar role responsible for the processing of personal data. Acting nonconform to legal regulations can result in remarkably high penalties!	
Enable data protection feature	Select whether to have the functionalities supporting the requirements of the General Data Protection Regulation (GDPR) activated or not.
Request consent from users	In case your users have already given their consent to your privacy policy in another system in your environment, deactivate this option to not display the consent request to users on logon. All other functionalities for reporting, purging, or deleting personal data will stay available. In case the data protection feature has been disabled, this setting has no effect.
Schedule deletion for personal data change log	You can schedule the deletion of users' personal data change logs. If you turn this function on, the next two settings become available for editing.
Delete after (interval type)	Select the time interval type to base the deletion on, for example, week.
Delete logs older than (interval unit)	Enter a number specifying how many units of the interval type the interval shall include, e.g., 5 for 5 weeks according to previous example. The logs older than 5 weeks will be deleted automatically.

4.3.14.3 Notifications and Email Settings

The notifications and email settings section contains configuration parameters for the events of which the administrators are notified.

Setting	Description
Email Settings	
Application name	Set a name for the Manager installation which will be shown in automatic emails. This parameter is useful to distinguish between multiple Manager instances.
Email address for learner feedback	Enter the email address to which user comments on content (trainer, library, book reader) will be sent. You can enter multiple email addresses separated by commas.
Email language of learner feedback	Select the language for automatically generated emails.

Setting	Setting
Notify me at	
Consider which notifications are really necessary for running your scenario. Setting too many notification triggers to always might result in spamming your authors.	
Activation	*Milestone change*
Assignment	*Task priority change*
Check in	*Finish of editing*
Comment	*Version revert*
Commit	*Tag set*
Commit with new version	*Status change*
Commit as new version	*Target date change*
Object deletion	*Type change*
Tag deletion	*Workflow change*
Start of editing	

4.3.14.4 Features Settings

The features settings section contains parameters for advanced Manager configuration.

Setting	Description
Versioning	
Timeout for new version at commit (min)	Specifies the time during which an object (after having already been generated in a new version) can be edited without forcing a new version to be created. Input a number of minutes. The maximum permitted number of digits is 50.
Force new version increment	A new version will be created automatically on commit of object changes.
Force new version on finish editing	Forces a new version of an object on Finish Editing.
Connected workarea	
Enable workarea extensibility feature	Activate the workarea extensibility feature to be able to reuse data from the caching workarea or another workarea of this server.
Enable connected workarea feature	Activate the connected workarea feature (no extensibility) to be able to determine a read-only caching workarea.
Connected workarea synchronize time (min)	Determine the time range the connected workarea feature requests and update of meta data from the base workarea. Note: this is the time interval when cached file assets will be outdated and newly requested assets from base workarea will be updated in case they are touched. Hence, a decrease of the time range to a low value might have negative effects.
SAP Companion for Manager	
Enable SAP Companion	Activates SAP Companion in the Manager interface. The context help will provide you with contextual help for interface elements as well as with guided tours, explaining best practices and workflows to boost your experience working with the Manager. For each interface section having contextual help available you will see the help icon appearing next to the logout button.

Setting	Description
Path to SAP Companion framework	Defines the source SAP Companion framework is loaded from. Do not change. In case you experience performance issues with SAP Companion, please contact the customer support for further instructions.
Location of SAP Companion content	Defines the source SAP Companion loads the help content from. Do not change. In case you experience performance issues with SAP Companion, please contact the customer support for further instructions.
Path to initialization script	Defines the source SAP Companion loads its initialization script from. Do not change. In case you experience performance issues with SAP Companion, please contact the customer support for further instructions.
Machine translation	
Client secret	**Note** The use of SAP Translation Hub Document Translation Service is now included in the SAP Enable Now, cloud edition license since 2305 release. That means, that you don't have to sign up for the SAP Business Technology Platform service of SAP Translation Hub Document Translation Service on top of your **SAP Enable Now, cloud edition** license. This is a pilot to test the consumption and SAP reserves the right for a floor price update of SAP Enable Now to accommodate in case of higher-than-expected usage of the SAP Translation Hub Document Translation Service. By default, the fields are empty and the functionality is active. You do not need to enter credentials and can use the permission *User: Allow Machine Translation* to define
Service URL	
Token URL	
Client ID	

Setting	Description
	the user groups for which the function should be activated. If you want to use your company's SAP Translation Hub license, you can enter its the details here and the default will be overruled.
Business Role-Based Delivery of Content	
Enable Filtering of Content by Business Roles	Activate tis setting to set up audience assignment of content based on business roles.

4.3.14.5 Security and Passwords Settings

The security and passwords settings section contains parameters to configure security based on your specific requirements.

Setting	Priority	Secure Operations Map	Default Setting or Behavior	Recommendation	Last Updated
Login Behavior					
Allow self-registration	Advanced	Authentication & Single Sign-On	Off Enables user registration on the login page. If you want to allow it, make sure the page is accessible and other authentication methods, such as SAML, don't appear beforehand.	Off	2017-09-25
Authentication method	Recommended	Authentication & Single Sign-On	FORM You can choose the authentication method for accessing the Manager and	Do not change. Only if instructed by the support team or SAP HANA Operations.	2015-03-24

Setting	Priority	Secure Operations Map	Default Setting or Behavior	Recommendation	Last Updated
			published content.		
Enable brute force protection for authentication	Critical	Security Hardening	On Allows to set the **Maximum number of login attempts before blocking** and **Maximum lockout time in seconds**.	Do not turn off.	2019-05-30
Maximum number of login attempts before blocking	Critical	Security Hardening	5 Enable the feature to limit failed login attempts and block users after reaching the limit. Requires **brute force protection** to be active.	According to your policy.	2021-08-09
Maximum lockout time (s)	Critical	Security Hardening	1800 If the allowed login attempts are exceeded, each try will be delayed by a growing time counter, starting at 1 minute and up to your set time. Then, the user account will be locked. Requires **brute force protection** to be active.	According to your policy.	2021-08-09
Security					

Setting	Priority	Secure Operations Map	Default Setting or Behavior	Recommendation	Last Updated
Allow anonymous access to snippet repository	Advanced	Roles & Authorizations	Off Allows snippets updates from the central repository to target server as an anonymous user.	Use depending on your SAP Companion integration scenario. See the SAP Companion Integration Guide for details.	2021-12-21
Block content access for administrative users	Recommended	Roles & Authorizations	On Users with admin permissions are denied access to objects and content to prevent the execution of malicious code. To access content, admins need a non-admin profile. If you disable the setting, log out and back in to access related sections.	We recommend to keep the admin and non-admin activities separate.	2020-06-16
Enable trusted script upload	Critical	Client Security	On When active, the Trusted Scripts section appears in the **Administration** menu. Refer to the Manager Security Guide for more information.	According to your policy. It is necessary to turn this setting on for some SAP Companion integration scenarios. See the SAP Companion Integration Guide for details.	2019-09-20
Content-Security-Policy (CSP) Header					

Setting	Priority	Secure Operations Map	Default Setting or Behavior	Recommendation	Last Updated
Enable CSP header	Critical	Client Security	On If SAP Companion is active, automatically allows the **Path to SAP Companion Framework** and **Path to Initialization Script**, even if they aren't in the CSP allowed list.	According to your policy. See the SAP Companion Integration Guide for details.	2023-03-09
Allow external sources	Critical	Client Security	Empty	According to your policy. Use comma separated value to refine the list of allowed sources.	2023-03-09
Single Sign-On					
Enable Single Sign-On	Recommended	Authentication & Single Sign-On	On By default, Single Sign-On is enabled in the cloud. Turn this off if you prefer manual login with username and password.	On	2012-09-27
Create user on SAML login	Advanced	User & Identity Management	On By default, users are automatically created when they first log in with Single Sign-On (SAML). Turn this off if you prefer managing	On	2017-10-18

Setting	Priority	Secure Operations Map	Default Setting or Behavior	Recommendation	Last Updated
			users through cloud connector or Excel import.		
Single Sign-On with Kerberos	Recommended	Authentication & Single Sign-On	Off This is the default method for on-premise installations.	Can't be changed.	2020-10-23
Single Sign-On with SAML	Recommended	Authentication & Single Sign-On	On This is the default method for cloud installations.	Can't be changed	2022-05-12
Activate SAML user on login automatically	Advanced	User & Identity Management	Off Enable if you want to automatically activate users logged in via SAML.	According to your policy.	2022-04-19
CORS					
Enable CORS	Advanced	Network Security	Off	On. Cross-Origin Resource Sharing is required for using SAP Companion. See the SAP Companion Integration Guide for details.	2017-09-25
CORS allowed sites	Advanced	Network Security	Empty	Enter the URLs for CORS enabled sites to interact with SAP Companion. We recommend not using wildcards and revisiting this	2015-05-29

Setting	Priority	Secure Operations Map	Default Setting or Behavior	Recommendation	Last Updated
				list according to your policy.	
Password Settings					
Password expiration for unchanged initial password(days)	Recommended	Security Hardening	2 Sets the number of days after which the initial password is invalidated, if it has not been changed.	According to your policy.	2021-08-10
Force password change at first login	Critical	Security Hardening	Off Requires users, added either manually or via Excel import, to change their password upon initial login.	According to your policy.	2019-01-03
Force password change at login for reset passwords	Critical	Security Hardening	On Asks the users to create a new password if their previous one was reset by admin.	According to your policy.	2022-03-16
Password expiration (time type)	Advanced	Security Hardening	Month	According to your policy.	2013-02-22
Password expiration (time unit)	Advanced	Security Hardening	6 If you enter 0, no password will expire. The new password has to be different than the last 5 passwords.	According to your policy.	2013-02-22

Setting	Priority	Secure Operations Map	Default Setting or Behavior	Recommendation	Last Updated
Enable password invalidation and expiration notification	Advanced	Authentication & Single Sign-On	Off Enables an alert to inform users their password is expiring, advising them to update it. Users with expired passwords must contact admins to reset and reactivate accounts.	According to your policy.	2021-09-30
Inform about expiring password (days)	Advanced	Authentication & Single Sign-On	15 If you enabled the expiration notifications, set the number of days for it here.	According to your policy.	2021-09-30
Minimum password length	Advanced	Authentication & Single Sign-On	8	According to your policy. The range is 6-127 symbols.	2011-03-03
Maximum password length	Advanced	Authentication & Single Sign-On	255	According to your policy. The range is 13-255 symbols.	2021-08-10
Password must contain numbers	Advanced	Authentication & Single Sign-On	Off	According to your policy.	2011-03-03
Password must contain special characters	Advanced	Authentication & Single Sign-On	Off	According to your policy.	2011-03-03
Password must contain lower- and uppercase letters	Advanced	Authentication & Single Sign-On	Off	According to your policy.	2011-03-03
Restricted words for passwords	Advanced	Authentication & Single Sign-On	Empty	According to your policy. Use commas or semicolons to	2021-08-10

Setting	Priority	Secure Operations Map	Default Setting or Behavior	Recommendation	Last Updated
				separate the values.	

4.3.15 Trusted Scripts

The *Trusted Scripts* enable you to define script fingerprints for scripts to be treated by server as safe scripts.

You will find a set of default scripts in the *Trusted Scripts* management. These scripts are used within the standard document output. We do not recommend deleting them as it will prevent your authors from uploading generated html documents to the Manager anymore.

More information:

Please read the *Manager Security Guide* for detailed information.

4.3.16 Server Housekeeping

The *Server Housekeeping* functionality enables you to automatically clean up your Manager instance by removing old and obsolete data.

More information:

Please read the *Manager Operations Guide* for detailed information.

4.3.17 User import

The *User Import* start page allows you to specify sources for user import. You require administrator permissions to import user data.

Options for user import

There are the following options:

1. *Excel* - start the import wizard to import users from a Microsoft Excel file
2. *Close Wizard* - close the wizard page and return back to the Manager interface

More information:

Please read the *Manager Operations Guide* for detailed information on each *User Import* wizard and configuration details.

4.4 Tasks

The *Tasks* section provides you with a quick, object-related summary of allocated tasks and how they are being dealt with. Additional filter options enable users to search specifically for all tasks and responsibilities within all workareas.

By default, the task list shows you all of the tasks *assigned to you* in a list view, i.e., by clicking on the *Tasks* menu button it is always filtered according to tasks that have your user name in *Assigned to*. Clicking a list entry will open the corresponding task in the ***detailed view***.

Filtering the list

You can apply filter criteria to restrict the number of tasks displayed. To do so, proceed as follows:

1. Select *Filter* button on the top left of the screen.
2. In the displayed menu, select the filter criteria you want using the drop-down lists.
3. Confirm.

Saving filters

You can save filter criteria collections as a personal filter, for example for frequently used queries.

1. Filter the list by some filter criteria.
2. The result list is now updated. Select *Save* on the top right of the screen.
3. Specify a *Name* for the filter set.
4. Confirm.

You can now select the saved filter set at any time from the dropdown on the top right. Additionally, the saved filter set is added as menu item to the *Tasks* menu dropdown, thus you can select it directly from the menu.

> **Note**
> Unfiltered task list will display the tasks of all the workareas available on the Manager.
>
> Use the filter option *workarea* to view the tasks from a specific workarea.

Deleting filter sets

Proceed as follows to delete a saved filter set:

1. Select your filter set from the filter dropdown or from the *Tasks* sub menu.
2. Select *Delete* next to the filter dropdown.
3. Confirm the deletion.

Creating a new task

To create a new object-independent task, proceed as follows:

1. Select *New...* at the bottom of the screen.
2. Select the parameters required for this task in the detailed task view that opens.
3. *Save* the task.

Exporting task list

1. Filter the list as required.
2. Select *XLS Export* or *CSV Export* on the bottom of the page.
3. Depending on your browser, a *Save As* or similar dialog opens. Choose where you want to save the task list and confirm.

The task list is saved in your selected format with detailed information on each task.

Reloading the task list

Select *Reload* at the bottom of the page to update the list and see the newly created tasks.

4.4.1 Detailed view

Clicking a task launches the detailed task view. Here you can inspect or modify all properties associated with the task.

The task history on the bottom half of the page lists all associated events, users and, if available, comments.

Editing a task

You can add comments, change target date, and title of a task and adjust the properties using dropdowns. The values in the dropdowns are the settings that were made for each property previously.

For example, to adjust the lifecycle status of the task, some status have to be created in the menu *Administration -> Status*. You will see this status in the dropdown. See the corresponding sections of this manual for details.

1. Edit the task as required.
2. *Save* your changes.

4.5 Reports

Reporting enables you to check the learning progress made by single learners, roles, or whole organizational units. Thus, you can measure the progress made by the learners, identify problems in understanding the learning material and compare the learning progress of different learning groups.

Note: deactivated users are not included in the reports.

Prerequisites

Activate tracking options in the *Playback Settings* of each workarea you want to track to enable the collection of data for the learning reports.

You will need a local **Producer** installation connected to your Manager instance and the permission to edit resources.

Activating tracking

- In the Project Explorer tree view of the **Producer**, go to *Resources* > *Adaptable Resources* > *Playback Settings* and select the resource item.
- *Start Editing* if you are not already editing the resource.
- Double-click the resource item to open the settings in the *Settings dialog*.
- Click the sub node *trainer - Global.* If you only want to activate tracking for a specific content type, select the required sub node: *book reader*, *Demo Mode*, *Practice Mode*, *Test Mode* or *Concurrent Mode*.
- In the overview of available parameters (on the right of the screen), expand the parameter group *Tracking (General)* for the selected sub node.
- Activate the following parameters by clicking the relevant green lamp symbol and configure them as required.
  - *Tracking back end*
    Click the dropdown list to expand it. Select Manager or, if you want your workarea to be compatible to with other tracking scenarios, select *Automatic*.
  - *Manager detail tracking*
    Specify how detailed you want the tracking information to be. Three options are available:
    - *steps*
      Only steps are tracked. No data will be available for the report type *Lesson step reports*.
    - *steps, elements*
      In addition to steps, elements are tracked as well. This option retrieves data for the *Lesson step reports* as well.
    - *steps, elements, actions*
      Highest level. Very detailed tracking that includes user actions to be reported in the *Lesson step reports*.

Only track published content

Activate this option if you only want to see reports of published content. Playback of unpublished content, generated for testing, for example, will not be shown in the *Engaged Unique Users*, *Delivery Channels* and *Content Visits* reports.

- Save your settings with *Ok*.
- *Finish editing* to upload your changes to the Manager. Alternatively you can synchronize your workarea to send changed resources to the server.

> **Note**
> It is mandatory to publish the *Playback settings* resource after activation of tracking.

> **Training available**
> This content is available as interactive training in the SAP Enable Now Info Center.
>
> Enable Now

4.5.1 Reports Overview

Reporting helps you understand various aspects of user activity with your learning contents.

There are the following reports:

Report	Description	Interface type
Engaged Unique Users	Shows the users who have engaged with content.	Graphic
Delivery Channels	Displays from which channel the learning content was started.	Graphic
Content Visits	Gives an overview of which content was mostly consumed.	Graphic
SAP Companion Usage	Shows the usage and sharing of SAP Companion content.	Graphic
SAP Companion for desktop Usage	Shows the usage and sharing of SAP Companion for desktop content.	Graphic
Guided Tour Playbacks	Shows the interactions with guided tours in SAP Companion and SAP Companion for desktop.	Graphic
Guided Tour Dropouts	Displays how often guided tours have been left before the last step.	Graphic
Context Help Visits	Displays the usage of help tiles and hotspots in SAP Companion.	Graphic
User Report	Shows the learning progress made by users.	Classic
User by Assignment	Shows the learning progress made by users within a specific assignment.	Classic

Report	Description	Interface type
User by Progress	Helps track the average overall learning progress within all assigned content for users, roles, or organizational units.	Classic
Lesson Report	Displays the learning progress made by users in specific lessons.	Classic
Lessons by Assignment	Displays the learning progress made by users in lessons of a specific assignment.	Classic
Lesson Step Report	Helps you identify lesson steps and macros with a low user success rate to be optimized.	Classic
Objects in Editing	Shows how often a certain object was edited, and by how many users.	Graphic
Status Report	Gives an overview of the statuses that tasks are currently in (object-related and free tasks).	Classic
Unsorted Objects	Gives an overview of all existing unsorted objects per workarea.	Graphic
Learner Feedback	Enables you to export the feedback users have given using the feedback functionality of the trainer or the SAP Companion.	Classic
Server Statistics	Shows an overview of user registrations in your instance.	Classic

You can select which columns to display in the table view of all graphic reports. Click on the gear icon *Select Columns* and choose the required columns.

4.5.2 Classic Report Interface

Navigating to a report with the classic interface, the initial *selection* dialog will appear where you can specify criteria the report shall be based on. The range of criteria slightly varies by report type.

Control	Description
Report	If you have already saved one or more filters for the selected report type, you can select it from the dropdown list. The relevant criteria will be loaded automatically.
Lesson Types	Exclude content types from report by clicking the appropriate symbol. Excluded content types will be displayed crossed out.
Time Period	Define a time period for the report data that you want to display. Select the preferred time period definition using radio buttons. 3 options are available: • *Time period by date* Specify a time period using *from* date *to* date. Click the date fields to display the calendar picker and select a date. • *Time period of last time units* Specify a time period as a number of time units until now (for example, the last five days). Select the time unit from the dropdown list and enter a digit into the input field to define the number of time units. • *All time* Select to display all data without specifying a time period.
Assignment	Select an assignment for the report from the dropdown list.
Workarea	Select a workarea for the report from the dropdown list.
Selected Object	Click *Change...* to select an object including its child objects for the report.
Selected Identity	Click *Change...* to select a user, role, or organizational unit for the report.

Filtering report results

1. Select *Filter:...* button on the top left.
2. Adjust the criteria.
3. Confirm.

Saving reports

Saved reports allow you to save the current filter set and quickly switch between already saved reports. You can switch between different report types without navigating to them through the *Reporting* menu and setting filters again. This works only with classic reports.

1. Navigate to a report and adjust the filters as required.
2. Select *Save* on the top right of the screen.
3. Specify a *Name* for the report.
4. Confirm.

Exporting reports

1. Navigate to the required report.
2. Select *XLS Export* or *CSV Export* on the bottom right of the screen.
3. Depending on your browser, a *Save As* or similar dialog opens. Choose where you want to save the report and confirm.

4.5.3 Graphic Report Interface

Graphic reports have 3 ways for displaying report data:

- *Chart view*
  Displays a bar chart of the results and a legend beside it.
- *Table view*
  Displays a table with the report results in a more classic way. You can sort the contents ascending or descending by selecting a column header.
- *Chart and Table view*
  Displays a combined view including chart and table.

On top of the graphic reports there are special values showing totals and averages.

Filtering report results

The range of filter criteria varies by report type. Filters can be shown directly as dropdowns or behind the *Filter...* button.

For any graphic report you can choose *Workarea.*

> Note
> - If you want to see a combined report for all workareas, select *All Workareas*.
> - The *_system* workarea is not included in the drop-down list.
> - Deactivated workareas are also not shown in the drop-down list.
> - You can only see the workareas you have permissions for.

See specific report chapters for more details.

Exporting reports

1. Navigate to the required report.

2. Select *Export* and choose one of the options:
   - *Data as Excel Sheet*
   - *Data as CSV File*
   - *Chart as Image*
3. Depending on your browser, a *Save As* or similar dialog opens. Choose where you want to save the report and confirm.

4.5.4 Engaged Unique Users

The *Engaged Unique Users Report* displays the users who have engaged with content. Hover over the graphic or open the table view to see the details.

You can set the following filters for the report:

- *Date Range*
- *Interval*
- *Workarea*
- *Channel*
- *User*, for example, individual users, roles, or organizational units

On top of the report there are aggregated numbers for:

- *Total Users*
- *Low* - the lowest number of users within the selected timeframe
- *Peak* - the highest number of users within the time frame
- *Delta Users* - the difference in number of engaged users from the start of your selected timeframe to the end of it
- *Trend* - the change of engaged users within the timeframe in percentage

You can also adjust the filters on the ribbon above the graph area once you specify them.

To see further details, select *Show details* in the table view.

> **Note**
> This report only supports GMT time zone. This restriction also affects the XLS export.

4.5.5 Delivery Channels

The *Delivery Channel Report* shows from which channel the learning content was started.

A line chart shows the number of users and content interactions depending on the dimension that you chose to display. Hover over the graphic or open the table view to see the details.

You can set the following filters for the report:

- *Workarea*
- *Date Range*

- *Interval* to set the granularity of the results
- Delivery *Channel*, for example, *SAP Companion for desktop*
- *Language* of the learning content
- *User*, for example, individual users, roles or organizational units

You can also adjust the filters on the ribbon above the graph area once you specify them.

To see further details, select *Open report* for a specific channel in the table view. This takes you to the *Content Visits* report.

> **Note**
> Some trainer interactions are not displayed in the report when you select specific languages in the filter. To display all interactions, deselect all languages in the filter. You will then see all the available data. For details, see this SAP Note.

4.5.6 Content Visits

The Content Visits Report shows which content was mostly consumed from **SAP Companion, SAP Companion for desktop** and **trainer**. Hover over the graphic or open the table view to see the details. You can change the number of results on the graphic by readjusting the filters.

You can set the following filters for the report:

- *Workarea*
- *Date Range*
- *Interaction Type* (learning content events), for example, *Simulation (Demo Mode): Started* or *Book Page Opened*
- *Language* of the learning content
- *User*, for example, individual users, roles or organizational units
- *Limit* the number of results on the graphic

You can also adjust the filters on the ribbon above the graph area once you specify them.

To see further details, you can click the required column in the chart view or select *Show details* in the table view.

> **Note**
> Some trainer interactions are not displayed in the report when you select specific languages in the filter. To display all interactions, deselect all languages in the filter. You will then see all the available data. For details, see this SAP Note.

4.5.7 SAP Companion Usage

The *SAP Companion Usage Report* displays the usage and sharing of SAP Companion content.

To evaluate the adoption of the target application it is important to know how often SAP Companion and its content have been started and shared with other users.

> **Note**
> The SAP Companion tracking has to be activated before gathering consumption data. Please read the document SAP Companion *Integration Guide* on SAP Help Portal.

There are the following controls:

- *Workarea drop-down:*
  In the first drop-down box you can choose for which Workarea you want to see the report. Select the workarea and click *Apply Ranges* for the changes to take effect.
- In the second drop-down you can decide to display the object usage count in ascending (*Show Top*) or descending (*Show Last*) order.
  In the third drop-down box you can determine the number of entries to be displayed in the chart view and the table view.
- *Apply Ranges:*
  Select the button to refresh the data of the report after changing the entries in the drop-down boxes.

4.5.8 SAP Companion for desktop Usage

The *SAP Companion for desktop Usage Report* displays the usage and sharing of SAP Companion for desktop content.

To evaluate the adoption of the target application it is important to know how often SAP Companion for desktop and its content have been started and shared with other users.

> **Note**
> The SAP Companion for desktop Usage Report has to be activated for SAP Companion for desktop in the Producer settings. Activate the *SAP Companion for desktop Tracking* setting under *SAP Companion for desktop Playback Settings -> General -> Advanced*.

There are the following controls:

- *Workarea drop-down:*
  In the first drop-down box you can choose for which Workarea you want to see the report. Select the workarea and click *Apply Ranges* for the changes to take effect.
- In the second drop-down you can decide to display the object usage count in ascending (*Show Top*) or descending (*Show Last*) order.
  In the third drop-down box you can determine the number of entries to be displayed in the chart view and the table view.
- *Apply Ranges:*
  Select the button to refresh the data of the report after changing the entries in the drop-down boxes.
- *Show Shares:*
  Select the button to display how often the corresponding object was shared on the graph.

4.5.9 Guided Tour Playbacks

The *Guided Tour Playbacks* shows the interactions with guided tours in **SAP Companion**. Hover over the graphic or open the table view to see the details.

You can set the following filters for the report:

- *Workarea*
- *Date Range*
- Delivery *Channel*, for example, *SAP Companion for desktop*
- *Language* of the learning content
- *User*, for example, individual users, roles, or organizational units
- *Limit* the number of results on the graphic

You can also adjust the filters on the ribbon above the graph area once you specify them.

The *Average* KPI on the top ribbon shows the number of average playbacks per user.

To see further details, you can click the required column in the chart view or select *Show details* in the table view.

4.5.10 Guided Tour Drop Outs

The *Guided Tour Dropouts* displays how often guided tours of **SAP Companion** have been left before the last step. Hover over the graphic or open the table view to see the details.

You can set the following filters for the report:

- *Workarea*
- *Date Range*
- Delivery *Channel*, for example,
- *User*, for example, individual users, roles, or organizational units
- *Product* - the application for which you want to see the results

You can also adjust the filters on the ribbon above the graph area once you specify them.

The *Average Rate* KPI on the top ribbon shows the average dropout rate based on all the individual attempts. These individual attempts come from the backend and are not displayed in the UI.

To see further details, you can click the required column in the chart view or select *Show details* in the table view.

4.5.11 Context Help Visits

The *Context Help Visits* shows the usage of help tiles and hotspots in **SAP Companion**. Hover over the graphic or open the table view to see the details.

You can set the following filters for the report:

- *Workarea*
- *Date Range* for the desired timeframe
- *Language* of the learning content

- *User*, for example, individual users, roles, or organizational units
- *Product* - application for which the help is shown
- *Limit* the number of results on the graphic

You can also adjust the filters on the ribbon above the graph area once you specify them.

4.5.12 User Report

The *User report* displays the learning progress made by a single user or the members of a role or of an organizational unit during a specific timeframe.

Click the name of a user to display the assigned lessons and the individual progress in detail.

If you selected a single user, the report would display the detailed view directly.

Notes

- This report shows only users with existing activity. Users who have not started or processed any of their assigned lessons within the specified time period are not shown. Use the report *User by assignment* to get the data of inactive users as well.
- The overall number of attempts summarizes the number of attempts taken for particular contents. The following example will help you better understand the displayed number of attempts:

  A user has *10* lessons assigned to them. One of these lessons has been completed.
  If they completed this lesson in one attempt, the number of overall attempts is shown as *0.10*.
  However if they took *10* attempts, the overall number of attempts is displayed as *1.00*.

4.5.13 User by Assignment

The report *User by assignment* displays the learning progress made by a single user or the members of a role or an organizational unit within a specific assignment.

Click the name of a user to display the assigned lessons and the individual progress in detail.

If you selected a single user, the report would display the detailed view directly.

4.5.14 User by Progress

The report *User by progress* displays the average overall learning progress within all assigned content for individual users or all members of a role or of an organizational unit.

Notes

- This report variant only calculates results from user assignments with *Percent Completed* as *Scoring Method* since these assignments are intended to be used as individual learning scenarios.

- The results display the total of all trackable contents in all relevant assignments for each user. The column *Assigned Lessons (Tests)* displays the total number of contents in all relevant assignments for the user. In addition, the total number of *Tests* is shown in brackets.
- Referenced contents occurring more than one time within user assignments are calculated only once.
- Only lesson modes that are activated in assignments are used for calculation.
- The values in column *Completed Lessons (Tests)* are based on the following rules:
  - *Books*
    Books are completed when all the pages in the book have been viewed.
  - *Lessons*
    Lessons are completed when all lesson steps have been processed or when the last lesson step has been reached.
- The values in column *Passed* are based on the following rules:
  - *Lessons*
    To pass lesson modes *Practice* and *Test* user needs to achieve the amount of points the author has specified. The displayed value indicates the percentage of available lessons that have been successfully completed.

4.5.15 Lesson Report

The *Lesson report* displays the learning progress made by specific users or the members of a role or of an organizational unit in selected learning contents.

Click the name of a lesson to display users and their individual progress in detail.

If you selected a single lesson, the report would display the detailed view directly.

Notes

- This report shows only lessons with existing activity. Lessons which have not been started or processed within the specified time period are not shown. Use the report *Lessons by assignment* to get the data of lessons with no activity as well.

4.5.16 Lessons by Assignment

The report *Lessons by assignment* displays the learning progress made by specific users or the members of a role or of an organizational unit in the lessons of an assignment.

Click the name of a lesson to display users and their individual progress in detail.

If you selected a single lesson, the report would display the detailed view directly.

4.5.17 Lesson Step Report

The *Lesson step report* displays the average progress of all users in steps and macros of one or more lessons. This will help you to identify lesson steps and macros with a low user success rate to be optimized.

Notes

- This report variant displays the overall success rate of all users in the lesson steps and macros. The columns *Result* and *Time Needed* display the average value of all users who have processed the step. Thus, the displayed values can vary strongly depending on the number of users in your identity selection. The higher the number of users, the more valuable the results might be in identifying difficulties in learning contents or the learning behavior of users.
  The following table shows a very simplified example for the dependency of the user amount:

Total number of users	Users passed	Users not passed	Success rate
2	1	1	50%
100	99	1	99%

- To gain information about the number of active users for specific lessons, check the results of the report variant *Lesson reports*.

4.5.18 Objects in Editing

The *Objects in Editing Report* provides an overview of objects being currently edited by users. This enables you to easily identify how many objects each user has in editing mode. You can also contact users directly from this report to remind them to finish editing objects in time. Hover over the graphic or open the table view to see the details.

You can set the following filters for the report:

- *Workarea*
- *Users*, for example, individual users, roles, or organizational units

You can also adjust the filters on the ribbon above the graph area once you specify them.

To see further details, you can click the required column in the chart view or select *Show details* in the table view.

When you are in the detailed view, you can *Show object in workarea* and send a message to the editors.

Prerequisites

The Objects in Editing Report requires the permission *Editing Report: View*, per default available for:

- Master Authors
- Project Manager
- Report Viewers
- Administrators

4.5.19 Status Report

The *Status report* provides an overview of the statuses that tasks are currently in (object-related and free tasks). You can check whether the planned timeframe for content creation and/or project phases can be adhered to or in which status specific tasks are currently "stuck".

However, this requires a productive use of statuses in your Manager instance (independent or with the usage of workflows).

There are 3 levels of status report you can drill down to:

1. Status report by workareas
2. Workareas by object types
3. Details of object types.

Status report by workareas

The initial list shows the aggregated number of tasks having specific status per workarea. *Free tasks* are shown on a separate line. To get more details on a specific workarea, select the required row.

Workarea by object type

Once you have selected a workarea, the list displays the amount of object types having specific status within this workarea. To get more details on an object type, select the required row.

Details of object type

Once you have selected an object type from previous sub list, all tasks connected with this object type are listed.

You can see the task *Title*, *Object Title,* and the *Status* of this task. This is the last level and there is no further drill-down.

Exporting report data

On each report level you have the options to export currently displayed result set as Microsoft Excel or CSV file.

1. Navigate to the report level as required.
2. Select XLS Export or CSV Export.
3. Depending on your browser, a *Save As* or similar dialog opens. Choose where you want to save the report and confirm.

4.5.20 Unsorted Objects

The *Unsorted Objects* Report shows all existing unsorted objects per workarea. Such overview allows an easier way to organize and clean up your workareas. Hover over the graphic or open the table view to see the details. You can change the number of results on the graphic by readjusting the filters.

You can filter the report data by workareas.

To see further details, you can click the required column in the chart view or select *Show details* in the table view.

When you are in the detailed view, you can *Show object in workarea* and send a message to the editors.

4.5.21 Learner Feedback

The *Learner Feedback* report enables you to export feedback that users have given using the feedback functionality of the trainer or SAP Companion.

> **Note**
> Note that scheduled subscription for automatic data creation might fail due to the size of the file attachment created. Per default most mail services only accept attachments of a size from 10 to 30MB.

This result set is not displayed in the browser interface.

It is meant to be exported only. After confirming the initial filter dialog, please select in which format you want to export the data.

The generated data file contains the following data columns:

- **Title**
  Either caption of the object the feedback is on (when feedback comes from trainer) or string "Learner Feedback" when feedback comes from Learning / SAP Companion.
- **Comment**
  The feedback comment of the user.
- **Rating**
  The user rating (Learning / SAP Companion only).
- **Type**
  The type of the commented object.
- **UID**
  The unique id of the commented object.
- **Caption**
  The caption of the commented object.
- **Product**
  The "Product" property of the object (if defined).
- **Version**
  The "Version" property of the object (if defined).
- **System**
  The "System" property of the object (if defined).
- **Language**
  The object language.
- **User**
  The authentication and the full name of the user who has given the feedback.
- **Time**
  The time the feedback has been sent to server.
- **Source**
  The playback engine in which the feedback has been given (trainer or Learning / SAP Companion).

These columns contain all feedback comments which have been made and may be restricted only by the filter criteria you selected in the initial filter dialog.

4.5.22 Server Statistics

The *Server Statistics* report shows an overview of user registrations in your Manager instance.

These statistics are based on database information, so they are independent from Manager version updates.

The availability of categories depends on your system's statistics.

> **i Note**
> To have statistics on Learners' activity, you need to activate tracking in Producer. See *Reporting* chapter for details.

Category	Description
Registered users	The number of users registered in the users area.
Active users	The number of users flagged as *Active*.
Number of users having write permissions	The number of users with the *Content: Edit* permission.
Authors within last month	The number of users who edited contents within the last month (last 30 days).
Authors within last quarter	The number of users who edited contents within the last quarter (last 90 days).
Authors within last year	The number of users who edited contents within the last year (last 365 days).
Number of users having read permissions	The number of users with the *Content: View* permission. This also includes users with the *Content: Edit* permission.
Learners within last month	The number of users who accessed contents within the last month (last 30 days). *Only shown if *Tracking* is activated.
Learners within last quarter	The number of users who accessed contents within the last quarter (last 90 days). *Only shown if *Tracking* is activated.
Learners within last year	The number of users who accessed contents within the last year (last 365 days). *Only shown if *Tracking* is activated.

Category	Description
Producer usage within last week	The number of times Producer was opened through the Manager interface within the last week.
Producer usage within last month	The number of times Producer was opened through the Manager interface within the last month.
Producer usage within last year	The number of times Producer was opened through the Manager interface within the last year.
Instant Producer usage within last week	The number of times Instant Producer was opened through the Manager interface within the last week.
Instant Producer usage within last month	The number of times Instant Producer was opened through the Manager interface within the last month.
Instant Producer usage within last year	The number of times Instant Producer was used within the last year.
Instant Recorder usage within last week	The number of times Instant Recorder was used within the last week.
Instant Recorder usage within last month	The number of times Instant Recorder was used within the last week.
Instant Recorder usage within last year	The number of times Instant Recorder was used within the last week.
SAP Companion for desktop usage within last week	The number of times SAP Companion for desktop was played back through the Manager interface within the last week.
SAP Companion for desktop usage within last month	The number of times SAP Companion for desktop was played back through the Manager interface within the last month.
SAP Companion for desktop usage within last year	The number of times SAP Companion for desktop was played back through the Manager interface within the last year.

4.5.23 Report Scheduler

The *Report Scheduler* provides an overview of all automated reporting jobs you create. You can edit, unsubscribe or go to the reports in the list.

Rescheduling

1. Select a report or click the editing button.
2. Adjust the *Start time* and *Recurrence* in the *Scheduler* dialog box that opens.
3. Save the changes.

4.6 Learner view

The *Learner view* is the central starting point to view and process published learning content available to you. You can access it from the home dashboard. Here all learning content is provided within *Courses*, each depicting a collection of learning materials which are common in their topic context or their learning target.

> **i Note**
> - The *Learner view* interface is highly dependent on individual learning scenario settings. Some of the controls described below may not be available to you.
> - Please read the section ***Learner Settings*** of this guide to configure your browser for flawless content playback.

Searching for content

Use *Search* field to find specific content within all courses assigned to you.

Depending on your scenario settings, the checkbox *global* might be available. If you activate this option, all published content will be searched, not assigned to you as well.

The course list

The course list may contain different symbols which are displayed for each course:

Symbol	Description
	Course without user information. Only the learning contents are listed without additional progress information.
	Course displaying your learning progress. Your overall progress within the course is displayed as a progress bar in the course list and individually for each content entry within the contents area. Within the content area additionally a second bar displays the progress for objects of the type *Test Mode*. In case a list entry is a collection object like a group or a book the progress bar displays the progress summary of subordinated objects.
	Course displaying the number of overall visits. A number is displayed next the course entry and as well next to the list entries of the content area representing the overall amount the item has been accessed by users. It is more or less a traffic counter indicating highly frequented courses and contents. High access frequencies may stand for popularity as well as for difficulty.

The content area

Depending on the course setup the content area may display different scenarios:

- **Introductory description only**
  In this scenario you will see only the course description with the buttons to *start* the course or to display the according *QR code*.
- **Introductory description with a list of contained lessons**
  In this scenario you will see the course description and the buttons *Start* and *QR Code* within the upper part of the content area followed by the list of course contents. The structure of the list may vary as follows:
  - **Flat list**
    A flat list of contents is displayed. Click an entry to start it directly or click *Start* to start the whole course.
  - **Expandable list**
    Each list entry is prepended by an arrow symbol. Click it to expand or collapse it and access subordinated content levels. Click any entry to start it directly or click *Start* to start the whole course.

Viewing your progress

Optionally to the learning progress displayed in the course list you may have displayed the item *show report* on the top right of the content area. This enables you to switch the content view into a flat list displaying all content of the course, each with your individual learning progress.

This enables you to check your personal state in the learning scenario as well as to search for content you may have missed to process.

Furthermore, this view enables you to reset your learning progress for individual items to start them again from the beginning. To do so, click *restart* for the content to be reset.

To switch back to normal content view click *show standard*.

Focused learning by a Learning path

It may happen, that objects which are not at the beginning of a course do not play or are not visible. In this case the course may be set as focused along a *Learning path*. This means you will have to process the course objects one after another beginning with the first object. Each time you have processed an object successfully you will be able to view / start the next object.

4.7 List of Jobs

The *Jobs* list shows all long-running operations and their statuses.

To see this list, you need the *Content: Create* permission.

You do not have to wait for the server processes to complete before you can continue with your work. The system handles long processes, such as duplication of large structures or asynchronous translations, in the background, and collects them in the jobs list.

A red dot indicator is show when there are updates to the jobs.

The list shows jobs that are *In Progress, Done, or Failed*. Choose a job to see the details. To see the object, for which the job was created, use the *Jump to Entity* button in the list. To remove jobs from the list, use the *X* button.

4.8 Bookpage Editor

The integrated *book page editor* enables you to edit book pages directly in the browser interface of the Manager.

Opening the book page editor

1. Select a book page in the object tree.
2. Click *Start editing*.
3. Click *Edit* to open the book page in the book page editor.

4.8.1 General

A book page is an HTML page on which different content can be filed in different forms and accessed.
It can accommodate various buttons for launching simulations and opening documents that can then be linked within a workarea. Media files for audio and video formats can also be integrated and can be presented using appropriate playback applications. But information in traditional form, as an image or text, can also be created on a book page.

A number of book pages can be combined in a book. A book can thus be understood as a type of group. Once a book has been created, it can be displayed in the book reader, which the learner can use to flick through the pages and launch and work through content.

Diverse, easy to create applications

Book pages make it possible to create courses on a particular step quickly by inserting objects into the book page and linking them to content.
In this way you can amalgamate the content of a number of simulations by combining different modes and documents. However, because of the diverse ways of presenting information on book pages, it is not absolutely necessary to integrate simulations into a book page. You can also design a book page using simple texts or video files and thus provide these to the learner in addition to the individual simulations; also, you can integrate them entirely independently as an extension of the step.

Didactic benefit

Books and book pages promote independent learning and a stronger engagement with the facts as learners are able to use and discover the content individually. They allow students to work with the content that is relevant to them and ensure variety due to different information formats.

4.8.2 Creating a Book

Create a book to structure your book pages. For more information, see the chapter *Creating a Content Object*.

Proceed as follows:

1. In the *Explorer* select *New Object* .
   An overview of all objects opens.
2. Select *New Object* in the toolbar.
   An overview of all objects opens.
3. Select *Book* .
   The *New Book* dialog box opens.
4. Adapt the following settings:
   1. *Name:*
      Enter an object name.
      The default name is the object type with an ID.
   2. *Language:*
      Select a language from the dropdown box.
   3. *Template:*
      Select a template.
      Choose *Change...* to open a selection dialog box and select a template from the workarea. Select *No template* to create an object without a template.
      If a template has already been used, that template is selected by default.
      See the chapter *Templates for Content Objects*.
5. Choose *OK* to create the object.

The book is inserted into the structure. You can now insert book pages into your book.

To structure your book, you can insert further books or groups into your book to create subchapters. For correct tracking of books, we recommend that you use groups for subchapters.

4.8.2.1 Defining a Book Page as Content Page

You can create a page containing introductory information or a table of contents for a book. Users can access the page at any time in the book reader, the page can be defined as a content page for the book. The book page can then be launched directly in the book reader using a button in the control bar.

To specify a *Content Page*, select your book in the *Explorer*. Then go to *Content Page* in the object editor's subcategory *book reader* and select the *Edit Link...* option. You can now specify your book page in the open dialog. Confirm this by clicking *OK*.

4.8.2.2 Subcategory book reader

The subcategory *book reader* provides settings to specify the functionality of the book reader's control bar. This allows you to customize them to your book's individual requirements and hide any functions you do not want. Select a book in the explorer and open the subcategory in the object editor.

> Recommendation
> You can create objects on your book page to control the book. For example, to go to the next and the previous page. This allows you to hide the buttons in the control bar.

The following settings are available:

- *Hide Book Panel:*
  Activate this option to hide the book panel.
- *Open Book Directly:*
  If this option is activated the book will open in the book reader as soon as it is selected in the tree structure in the library. If the option is deactivated, the book reader is started by selecting the *Open Book* button in the content view of the library.
- *Hide Audio Controls:*
  Activate this option to hide the buttons for controlling the audio and volume.
- *Hide Navigation Controls:*
  Activate this option to hide the buttons for navigating through the book pages.
- *Hide Play/Pause Control:*
  Activate this option to hide the buttons for pausing and starting the playback.
- *Hide Index Page Control:*
  Activate this option to hide the button for opening a content page.
- *Hide Search Button:*
  Activate this option to hide the button for opening the search dialog box.
- *Hide Table of Contents Control:*
  Activate this option to hide the table of contents dropdown menu.
- *Hide Progress Control:*
  Activate this option to hide the progress bar for displaying how the user is progressing in the book.

4.8.2.3 Alternative Navigations on Book Pages

Actions can be used to allow navigation on book pages independently of the control bar of the book reader. These are universal properties and allow the user to jump between book pages and units.
If you would like to use such navigations, it is recommended that the objects are inserted into a book page template. By doing so, they can be used for the entire book and ensure consistency.

Actions as link targets

To enter a link target, proceed as follows:

1. Insert a book page object.
   For example: *Image*, *Active Area*.
2. Select the parameter *Link -> Link to...*
3. Select *Edit Link...* . The editing dialog box appears.
4. Select *Actions* button.
5. Select the desired action from the *Actions* drop-down list.
   For example: *Next book page*, *Play audio*

More information about link actions can be found under *Link Actions for trainer and book reader*.

Object actions of the page object

To specify an object action for a *page* object, proceed as follows:

1. Insert a book page object, for example *Image* or *Active Area*.
2. Under subcategory *Actions*, choose an action.
   For example: *On Click*, *On Show*
3. Select the *page* object from the first drop-down list.
4. Select a behavior from the second drop-down list.
   For example: *Next*, *Share*.

More information about actions can be found under *Object Actions*.

Disabling the book navigation

For a book page you can specify, that the book reader control bar is deactivated. This allows you, to specify required content. After completing the content, navigation can be enabled.

When selecting the *page* object for an object action, the following behaviors are available:

- *Disable Book Navigation:*
  Disables the navigation of the control bar and other navigation controls on the book page.
- *Enable Book Navigation:*
  Enables the navigation of the control bar and navigation controls.

4.8.3 Creating a Book Page

Create a book page for your book or as single book page. For more information, see the chapter *Creating a Content Object*.

Proceed as follows:

1. Select a *Book* or a *Group* in the workarea structure to insert the book page.
2. Select *New Object* in the toolbar.
   An overview of all objects opens.

3. Select *Book Page* .
   The *New Book Page* dialog box opens.
4. Adapt the following settings:
   1. *Name:*
      Enter an object name.
      The default name is the object type with an ID.
   2. *Language:*
      Select a language from the dropdown box.
   3. *Template:*
      Select a template.
      Choose *Change...* to open a selection dialog box and select a template from the workarea. Select *No template* to create an object without a template.
      If a template has already been used, that template is selected by default.
      See the chapter *Templates for Content Objects*.
5. Choose *OK* to create the object.

The book page opens in the book editor. Now, you can insert your content. Read the following chapters on this subject.

4.8.3.1 Specifying the Design

After creating the book page, it is opened in the book page editor having the default style. You can use the *Style* parameter to select the design you want in the object editor and customize it accordingly.

A style defines the background design, the design of the buttons for the linked learning content as well as the appearance of the text box. Selecting a different skin change all of these objects. Before you select a skin, it is advisable to insert some objects to be able to assess the overall design.

Customizing the background

You can customize the chosen background design as you like. You can use an available skin as a template which can then be edited once it has been selected.

Various settings are available in the book page editor for displaying the book page:

- *Image:*
  This parameter can be used to define an individual background image which replaces the image of the skin that has been set.
- *Width* and *Height*:
  Specifies the book page's width and height. The values are stated in pixels.
- *Page Color (Design):*
  Specifies the book page's background color. It is recommended that you enter a value in this field if you choose not to use an image for the book page's background or if you use an image that does not cover the entire book page itself.
  When using the *Page Color*, activate the *Image* setting without selecting an image. This is necessary to hide the page image or color of the book page style.

- *Background Color (Design):*
  Specifies the color of the outer surface surrounding the book page. Select the color preview to open the *Color Selection* dialog box. Select *Transparent* , if you do not want to use any color.
- *Border Width (Design):*
  Specifies the width of the border for the book page. The value is defined in pixels. If no border is to be displayed, the value is to be set to *0*.
- *Border Color (Design):*
  Specifies the color of the book page's border. Select the color preview to open the *Color Selection* dialog box. Ensure that you have previously specified a width for the border so that it is actually displayed.
- *Border Style (Design):*
  Specifies the style of the book page's border that you can select from the dropdown box.

You can call up the design parameters at any time while a book page is being created and amend them by selecting the background.

4.8.3.2 Table of Contents for Book Pages

A book page can have a table of contents faded in, which is displayed in the book page background independently of the book reader.

The table of contents consists of a bar displaying groups or book pages belonging to the first sub level. The other groups and book pages can be launched from an option menu that is faded in using the button on the right-hand side of the book page. Clicking a group name opens a menu displaying the group content.

The table of contents on the book pages can be used as an alternative to the table of contents in the book reader. This is accomplished by deactivating the book reader table of contents.

> Recommendation
> The width of the table of contents is restricted to the width of the book page. That is why when setting up the groups it is recommended that short names or chapter numbers be issued, so that as many groups as possible can be displayed on the bar.

Settings

A book page table of contents can be defined using the *Table of Contents* subcategory. This offers you the following functionality:

- *Show:*
  This function can be used to activate the table of contents for the book page.

> Note
> The table of contents must be defined for each individual book page. If all of the book pages of a book are to receive a table of contents, then it is advisable to define the table of contents for one book page and then use this book page as a copy template when creating new book pages.

- *Position:*
  The table of contents bar can be faded in directly above the book page or in the window header. Use this parameter to select the appropriate position.
- *Menu Structure:*
  These options can be used to define the way in which the content is displayed in the menu.
  - *Flat structure:*
    The groups and book pages are displayed in a flat structure so that all groups and book pages are displayed on one level.
  - *Indented contents:*
    The contents of a group are shown indented relative to the group itself. This increases clarity within a complex content structure.

4.8.3.3 Hiding a Book Page in Table of Contents

You can hide a book page in the table of contents of the control bar. This allows you to show only the main pages in the table of contents and to hide additional information.

The book page is not numbered in the table of contents and is not counted in the book page progress bar. The user can navigate to the book page. Afterwards, the book page is shown in the table of contents.

Proceed as follows:

1. Select a book page in *Explorer*.
2. Activate the option *Hide in Table of Contents* in object editor.

4.8.3.4 Further Properties of a Book Page

Show Navigation Arrows

Instead of using the command bar to scroll through the book pages, you can do so using the buttons either side of the book page. This makes it possible to work more intuitively with the book.
To display the buttons, activate the *Show Navigation Arrows* option for the book page in the book page editor.

Display Duration

This option allows you to determine the duration that a book page should be displayed in the book reader. Once the time has elapsed, the book reader will automatically jump to the next book page. This feature allows you to play books as a slide show or an automatic presentation. The value can be set in seconds.

4.8.3.5 Merging Book Pages

Merging book pages allows content from a different book page to be added to the content of the currently selected book page. This is sensible, for example, when applying recurring elements or to have a structure available created using construction lines.

When merging book pages, the desired objects are inserted on the book page, but with the added book page continuing to have its own separate existence.

This is how you add the content of a one book page to another book page:

1. In the book page editor, open the book page to which the content is to be added.
2. Select the *Merge Book Pages* option in the toolbar.
3. A dialog will now be displayed with the overview of the Workarea structure in which you can determine the book page of your choice. The book page currently open will be shown grayed out in this structure.
   Click on the book page and then on *OK* to confirm.
4. In the next step, you will be presented with a dialog displaying the objects belonging to the chosen book page. By selecting in the selection boxes, you can determine which objects you would like to apply to the open book page. Confirm your selection by clicking on *OK*.

The objects are now inserted into the book page located on the same position as in the selected book page. The objects also receive the book page style of the book page to which they were added.

4.8.3.6 Page Sound

The *Page Sound* parameter enables background music or an audio commentary to be inserted in a book page. The learner can start the audio file in the book reader in the control bar.

For information on how to add and edit an audio file, refer to the section on ***Editing Audio***.

4.8.3.6.1 Adding Audio to Book Pages

You can insert audio as *Page Sound* to your book pages by using the *Add Audio* dialog box. See also ***Add Audio Dialog Box***.

To record audio for your book pages, proceed as follows:

1. Select *Add Audio* in the toolbar to open the *Add Audio* dialog box.
2. Select a book page from the page list.
3. Select *Start Recording*.
4. Speak your audio text.
5. Select *End Recording* .
6. Select the next book page and record your next audio text.
7. Once you have recorded all your audio texts, select *OK* to close the dialog box.

Alternatively, you can insert text to speech in the *Add Audio* dialog box. Open the *Text-to-Speech* dialog box by selecting *Edit Text-to-Speech...* .

4.8.3.6.2 Importing Audio

Importing audio files allows you to easily integrate audio files into a simulation.

> **Note**
> By importing an audio file, the existing audio of a step will be overwritten.

Proceed as follows to import an audio file:

> **Note**
> During import the audio files are converted into the editing format *WAV* with the default audio format.

1. Select the book page for which you want to import an audio file.
2. In *Page Sound* parameter, select *Import Audio File...* .
   There are two options:
   - *Insert Audio File...*
   - *Insert Audio from Workarea...*
3. A dialog box opens. Select the file.
4. Select *OK* to insert the file.

4.8.3.6.3 Recording Audio

Audio recording allows you to narrate your own texts with the microphone.

Requirement

For audio recording, a microphone is necessary. Connect this first before starting to record.

Recording audio

Proceed as follows to execute the recording:

1. Select *Record Audio...* . The audio editor and the recording dialog box opens.
2. Select *Start Recording* .
3. Read out your text.
   During the recording, a sound level meter shows the volume. You also see the spoken text as an audio track.
4. Select *End Recording* .
5. Select *Ok* to close recording dialog box.

For more information, refer to the ***Recording Dialog Box*** chapter.

> **Note**
> During the recording of an audio file, the existing audio of a book page will be overwritten.

Read out the full text for your recording because it is not possible to record the text in sections. Any unwanted parts can be cut out afterwards. If you are not satisfied with the outcome, record the text again.

> Recommendation
> If the recording contains background noise, then it is recommended that you edit the audio file with the dynamic editor to improve the sound.

4.8.3.6.4 Generating Text-to-Speech

We recommend that you convert text to speech after a project has been edited. Steps should be converted individually. If a step contains several macros (for example, several steps are connected), then the texts will be read out one after the other in the order in which the macros are arranged.
If the bubble texts of a simulation are already converted into text to speech, they are available when you open the editor.

Proceed as follows to convert text to speech:

1. Open the text to speech editor using the *Edit Text-to-Speech...* button.
   Refer to the chapter *Text-to-Speech Dialog Box*.
2. Insert a text in the text field or edit the available text.
3. Specify the duration of the silence to be inserted at the beginning of the audio file.
4. Choose the voice, its pitch and speed and preview the audio.
5. Confirm the input. The dialog box is closed and the audio file is generated.

> Note
> If a step contains several macros, the individual actions and associated spoken texts will run asynchronously in relation to one another. This is because the texts are converted into an audio file and are not linked to the actions. It is therefore advisable to only use one macro per step.

> Note
> Text-to-Speech generation is not available in the web-based Book Page Editor.

4.8.3.6.5 Subtitles for Text-to-Speech

For the Text-to-Speech audio of your book pages, you are able to display subtitles. The subtitle is displayed in the footer of the book reader and shows your Text-to-Speech text.

Subtitle settings

The following settings are available in *Settings* under *Playback Settings -> book reader -> Visual properties*:

- *Show subtitles:*
  Activate the option to show subtitles for Text-to-Speech.
- **Design of the subtitles**
  For the subtitle textbox you can specify the design with the following settings:
  - *Font family*

- *Font size*
- *Text color*
- *Alignment*
- *Background color*

4.8.3.7 Templates for Book Pages

Book page templates are special types of book pages, which define a layout and general objects for creating book page content. Templates are useful for saving time and for ensuring uniformity for newly created objects in a complex book and to support the content creation of many authors.

4.8.3.7.1 Creating a Book Page Template

You should create a template before creating a book. This ensures consistency and avoids the need to make changes afterwards. For further information, see the chapter *Creating a Content Object*.

To create a book page template, proceed as follows:

1. Select your template group in the workarea structure to insert the book page template.
2. Select *New Object* in the toolbar.
   An overview of all objects opens.
3. Select *Book Page*.
   The *New Book Page* dialog box opens.
4. Adapt the following settings:
   1. *Name:*
      Enter an object name.
      The default name is the object type with an ID.
   2. *Language:*
      Select a language from the dropdown box.
5. Select *OK* to create the object.
   The book page is opened in the book editor.
6. Select a *Book Style* in the *Style* parameter.
7. Create your standard elements of the template.
8. Select *Save* and close the book page.
9. Open the *Explorer*.
10. Select *Book Page Template* as *Subtype* for the created book page.
    The icon of the object changes and displays the template type.

> **Note**
> An existing template cannot be used to create a new template. Always create a template without using other templates.

Tips for creating templates

- Create a group for your templates. Set the group to hidden, in order to hide it during content playback.
- Lock the position of your objects if you want to prevent objects from being changed accidentally.
- Use guides to create a layout grid.
- Define *Text Styles* for the content, to ensure consistency and straightforward adaptation.
- Insert the layout and design relevant objects.

4.8.3.7.2 Defining a Book Page Template

You can use a book page template to create your book page content. There are different ways to activate a template for a book page:

- Define a default template for creating new book pages
- Select a template when creating a new book page
- Set a template in an existing book page

Select a default template

You can select a default template, which is always used for creating new book pages. This can be done as follows:

1. Open the area *Producer -> Templates* in the *Settings* dialog box.
2. In the *Book Page* parameter, select *Edit Link...*
   The object selection dialog box opens.
3. Select the *Book Page Template* and select *OK*.
4. Confirm your changes in the *Settings* dialog box with *Apply*.
5. Select *OK* to close the dialog box.

When creating a new book page, the template is set by default. Further information is available in the chapter *Templates for Content Objects*.

Select a template for a new book page

When creating a book page, you can set a template in the *New Book Page* dialog box. If a template has been defined as standard, you can select an alternative template for an individual page. For further information, see the chapter *Creating a Book Page*.

Set a template in a book page

The *Page* object of a book page contains the setting *Template*, which displays the activated template. If you want to use another template, select the book page from the dropdown box. The property only displays book pages with the subtype *Book Page Template*.

4.8.3.7.3 Using a Book Page Template

The objects of an active book page template have the following characteristics:

- they are inherited from the template
- they use the properties as default (green button deactivated)
- they are highlighted in blue in the objects list
- they are positioned on the layers behind the objects of the created book page
- they cannot be deleted - the objects are hidden automatically

Changing and resetting objects

The template objects use the defined properties by default, if the template is used for a general book page. You can change the template objects for your content as required.
To change an object, you have to select the specific property by activating the green control in front of the property name.

If you have changed objects, you can reset your changes by choosing the *Reset Template Objects* in the *Edit* menu. Once reset, the parameters are unspecified (green control deactivated) and the default template is used.

> **Note**
> Changed objects keep their status even when objects are changed in the template. Click on *Reset Template Objects* to change the objects in the book page to the current status of the template.

Tips for using templates

- If you do not need an object on a book page, hide the object by using the *Hide* property in the object editor.
- We recommend that you keep the template objects when the template is used as a book page because the objects define a layout.

4.8.4 Modeling Business Processes

You can create models for business processes using the *BPM Object*. The versatility of creation supports complex models at several process levels.

A *BPM Object* represents a process step here while the combination of several *BPM Objects* represents the entire process. You can use the *Connection* object to combine process steps in the form of arrows and visualize their sequence.

4.8.4.1 Creating Processes

If you want to create a process manually, proceed as follows:

Structure of a process step

A process is comprised of *BPM Objects* that are connected with arrows. You can use text boxes to insert the actions and information necessary for a process step via the arrows.

- *Process step:*
  Indicates the name of the process step and is displayed in the main field of the object.
- *Role:*
  Indicates the role or function for the process step and is displayed in the lower field of the object.
- *Annotation:*
  Additional *Annotations* for a process step can be entered in the respective field. The annotation is displayed by clicking the icon in the object.
  Icon: *Bubble*
- *Link to:*
  A link to another book page to access more in-depth information. For example, a process can be created as an overview with more in-depth process steps on other book pages.
  Icon: *Arrow*
- *Attachment:*
  Documents, projects, book pages or files can be linked by the attachment. Up to 10 attachments can be defined. When opened via the icon, a menu is displayed with all attachments and the selected attachment then opened in a new window.
  Icon: *Paper clip*
  The option *Open link in new window* allows you to define whether the attachment should open in the same or in a new window. The window's appearance can be defined under *New Window Properties*.

The content that is displayed via an icon can be accessed by clicking the icon.

> Recommendation
> The icons used for the *BPM Object* are found in the respective book page style. If you want to use icons other than the standard icons, they are to be replaced in the respective folder. Make sure to keep the names and size of the icons.

Design of a process step

- *Text Style Role:*
  The design of the text and background for the role can be set in the *Text Style Role* area.
- *Design:*
  The background color of the field for the process name and the border of the entire object can be changed in the area *Design*.

4.8.4.2 Connecting Objects

The inserted *BPM Objects* can be connected using a *Connection* object and the process direction shown using arrows. A path can be created with an arrow here. This can be either a simple line or a complex structure with several path items.

Defining an arrow

An arrow object can be customized as follows:

- *Color:*
  Specifies the arrow's color. Select the color preview to open the *Color Selection* dialog box.
- *Thickness:*
  Specifies the arrow's thickness. The value is given in pixels.
- *Arrow Head 1 & 2:*
  Specifies the arrow's head for each side of the arrow.

Positioning a path point

There are path points at the beginning and end of an arrow that allow you to adjust its length and direction. Select one of the points and drag and drop it to the desired position on the book page.

Creating complex paths

Process structures do not usually just go in a straight line but are much more complex. You can use the *Connection* object to create paths with several path points and corners. Keep in mind that the paths can only be aligned horizontally or vertically here. The number of path points is also limited to 10.

Inserting a path point:

1. Press and hold the `Shift` key.
2. Select the mouse on the point where you want to add the new point.
3. Drag this point to the position you want.

Removing a path point:

1. Press and hold the `Alt` key.
2. Select the mouse on the point where you want to remove the point.
   Keep in mind that only points at the end or beginning may be removed.

4.8.5 Editing Objects

Various functions are available for the inserted objects, which you can use to edit the design and position of individual objects and multiple objects.

4.8.5.1 Inserting an Image

The option *Replace Image* of an *Image* parameter allows you to insert images in an *Image* or *Page* object. The following options are available:

- *Replace with screenshot of window:*
  By moving the mouse over the screen display, specific areas will be recognized and outlined in red. Click on the mouse button to select the desired outlined area.
- *Replace with screenshot of object:*
  By moving the mouse over the screen display, specific objects will be recognized and outlined in red. Click on the mouse button to select the outlined object.
- *Replace with screenshot of area:*
  With the mouse, pull the red frame over the desired area and release the mouse button.

After selecting the area, an editing window will appear where you can adjust as needed. To complete the process, click on *Confirm Selection* . The dialog box will close and the screenshot will be inserted into the HTML editor.

- *Replace with image file...*
  A dialog box will open from which you can select an image from a data medium of your choice. Select the desired image and click on *Open* (in the Editor) to insert the image.
- *Replace with image from workarea...*
  A dialog box will open, displaying the contents of the workarea. Select the desired image and click on *OK* (in the Editor).

4.8.5.2 Grouping Objects

The grouping of objects allows you to group multiple objects. A *Group* object is created, which can be used for animations or to move multiple objects as one object. The group object is also displayed in the object list.

The following buttons are in the toolbar:


Group Objects


Ungroup Objects

To group objects, proceed as follows:

1. Select all required objects for the group.
   You can use the `Ctrl` key to select multiple objects.
2. Select *Group Objects*.

To ungroup objects, proceed as follows:

1. Select the group object.
2. Select *Ungroup Objects*.

4.8.5.3 Duplicating an Object

You can use the *Duplicate* function to duplicate an inserted object. Settings and shortcuts activated in this object are retained and can be reused.

Select the object and select *Duplicate* in the toolbar. The duplicate is placed directly above the object and can then be positioned and edited on the book page.

4.8.5.4 Using Guides

Guides can be used to allow elements to be positioned and aligned with precision. You can use them, for example, to create design grids by drawing the guides on an empty book page then using this as a template for creating the remaining book pages of your book.

Guides can be drawn both horizontally and vertically. The following buttons are available in the tool bar for inserting the guides

Insert Vertical Guide

Insert Horizontal Guide

Once a guide has been inserted, the sizing handle can be used to move it on the book page using drag&drop. Clicking on the sizing handle displays the guide. If another object is selected, the guide is deselected.

An object is aligned with the guide by moving it on the book page. When it is on a level with the guide, the line appears gray and the object is automatically positioned level with it.

> **Note**
> In order to ensure that objects are properly aligned when dragging & dropping, you can activate the Snap-in-place options for objects from the central configuration dialog. The settings can be found under *Application -> Book Page Editor*.

4.8.5.5 Aligning Objects

If you have positioned a number of objects on your book page, you can arrange these on one line. The following functions are available to you here as a result of which the objects can be arranged on the edge in question:

Left Align

Top Align

Right Align

 *Bottom Align*

These functions require a reference object to be selected on which the other objects will align themselves. Select the reference object and then click on the objects to be aligned while holding the `Ctrl` key depressed. You can then select the desired action in the toolbar.

4.8.5.6 Resizing Objects

To obtain uniform objects, you can align their dimensions with those of a reference object:

 *Same Width*

 *Same Height*

 *Same Size*

To this end, select a reference object with which the other objects will align themselves. Select the reference object and then click on the objects to be aligned while holding the `Ctrl` key depressed. You can then select the desired action in the toolbar.

4.8.5.7 Arranging Objects

The same spacing can be assigned to objects to arrange them in a consistent horizontal or vertical plane. To do so you must first align the objects horizontally or vertically on one line.

Select at least three objects to be arranged. This is required as two reference objects define a spacing with which other objects align themselves.
Select the objects by clicking on them or draw a selection mask by clicking and holding the mouse button. Then click on the button of the function you want.

Arrange objects horizontally

Equal Horizontal Distribution:
The spacing between the first object and the second is used as a template for subsequent objects and customized.

Distribute Horizontally:
The first and last object retain their position. The objects in between share the space so as to maintain equal horizontal spacing.

Arrange objects vertically

Equal Vertical Distribution:
The spacing between the first object and the second is used as a template for subsequent objects and customized.

Distribute Vertically:
The first and last object retain their position. The objects in between share the space so as to maintain equal vertical spacing.

4.8.5.8 Changing the Level of Objects

If an object is concealed by another object in the view, you can modify the level of the object in question. Select the desired object and then click on one of the options.

If you would like to change an object's level by one position, select the following functions:

 *Forward One Level*

 *Backward One Level*

If you would like to place the object on the first or last level of all of the objects, then select the following function:

 *In the Foreground*

 *In the Background*

Alternatively, you can move an object in the object list to the desired level. This depicts how the objects are arranged on the layers.

4.8.6 Actions and Effects on Book Pages

Incorporating multimedia and interactive elements by adding actions and effects will turn your book pages into a didactically enhanced learning environment. You can choose from a wide variety of special effects to highlight specific steps and objects that are sure to capture and retain the learner's attention. By doing so, you will help your users better focus on the important items that should be learned, and you will simultaneously promote sustainable learning by creating and fostering an enjoyable, interactive learning environment in which the user can explore, discover, and retain new information.

Object actions can be used to add interactive effects to individual objects. These actions can be triggered manually by the user or can be configured to run automatically. In addition, with special object actions, you can use actions to define and control certain effects.

4.8.6.1 Object Actions

You can define actions for book page objects in order to trigger the behavior of an entire book's or a book page's display, such as having objects automatically appear on the book page or jumping to the next page. Object actions give authors greater flexibility in creating interactive content.

The actions can be defined in the object editor, in which you will find an area that is also called Actions. Specific actions are displayed for each object that can be used in conjunction with them in book pages.

The components of an object action

An object action consists of an executable action, an object that should be affected via this action, and the behavior to be triggered. The available actions and behaviors depend on the type of object and can be used in a variety of ways. You will find more information on this step below (see *Overview of the Actions and Behaviors*).

The following is an example of how to insert an action into an *Image* object:
On Click > Text > Show
When the user clicks on the image, the *Text* object that was selected will appear.

Multiple behaviors assigned to one action

You can assign as many behaviors to one individual action as you would like. To trigger multiple behaviors, simply click on the plus icon next to the dropdown box. This allows you, for example, to fade objects in and out. You can remove a behavior by clicking on the minus icon next to the dropdown box.

The following section will give you an overview of the variety of object actions that are available for enhancing your book pages and will describe specific use cases.

4.8.6.1.1 Fading Objects In and Out

A fade over effect can be used to fade objects naturally and smoothly in and out. The following actions can be assigned to certain types of objects, in order to obtain the desired effect:

- *Animate In*
- *Animate Out*
- *Animate Toggle*

or

- *Fade In*
- *Fade Out*
- *Fade Toggle*

Depending on the object the subcategory *Animation* or *Fade In / Fade Out* might also be available.

> **Note**
> For *Animate In* or *Fade In* actions the assigned object has to be set to *Hide*.

Subcategory Animation

The subcategory *Animation* contains the following parameters:

- *Show Effect:*
  Defines the effect type for showing the object.
  - *Fade In*
  - *Fly In - From Left*
  - *Fly In - From Right*
  - *Fly In - From Top*
  - *Fly In - From Bottom*
  - *Zoom In*
  - *Bounce In*
- *Hide Effect:*
  Defines the effect type for hiding the object.
  - *Fade Out*
  - *Fly Out - To Left*
  - *Fly Out - To Right*
  - *Fly Out - To Top*
  - *Fly Out - To Bottom*
  - *Zoom Out*
  - *Bounce Out*
- *Duration: Show Effect:*
  Determines the length of the show effect. The value is defined in seconds.
- *Duration: Hide Effect:*
  Determines the length of the hide effect. The value is defined in seconds.

Subcategory Fade In / Fade Out

The subcategory *Fade In / Fade Out* contains the following parameters:

- *Fade In/Out:*
  Specifies that a fade-in effect is displayed for fade-in/out. The effect is not displayed when the setting is deactivated.
- *Fade In Duration:*
  Determines the length of the fade-in. The value is defined in seconds.
- *Fade Out Duration:*
  Determines the length of the fade-out. The value is defined in seconds.

4.8.6.1.2 Controlling Audio with Actions

Actions can be assigned to individual buttons in order to control an *Audio* object. You can customize the functions to suit your specific needs. For example, you can define objects, for example, an image or a text field, to be used as a button. When the user clicks on the image or text button, you can define the button in such a way so that the corresponding audio file will automatically play.

> Recommendation
> In the case where an *Audio* object should be controlled via a button, we recommend that you disable the *Audio* object's setting *Start automatically*. This will allow the user to interact with the learning content and start the audio at the appropriate/desired time (for example, by clicking on a play button). Moreover, you should give your objects unique names upon inserting them into your book pages in order to create transparency and facilitate selecting and assigning them when creating your learning content.

For more information, refer to the sections *Overview of the Actions and Behaviors*.

Control actions

To create an object to control an audio file, such as an image, proceed as follows:

1. Insert and position your *Image* object to be used for the button. (More detailed information on objects is provided in a further section in this document.)
2. From the subcategory *Actions*, you can define the specific actions that your *Image* object should execute.
    1. From the first dropdown list, select the *Audio* object that should be used for the action, for example, *On Click*. This will automatically create a link to the *Audio* object.
    2. From the second dropdown list, you can define the behavior, for example, *Play*. You will find a variety of audio behaviors listed here.
3. You can now repeat these steps for any additional buttons that you would like to add.

Actions in an Audio object

Under the subcategory *Actions*, *Audio* objects can be used in combination with various object actions to control the audio file.

For example, a button can be defined to switch back and forth between two different actions by clicking on it in order to control the audio file, just like with the standard *mute/unmute* or *play/pause* buttons. This changeover can be defined by inserting a second *Image* object and positioning this on top of the original image and then defining the image to fade in and out accordingly. The following is an example of how to create an Audio object for *play/pause*:

- *On play*
  > image "pause" > show
  > image "play" > fade out
- *On pause*
  > image "play" > show
  > image "Pause" > fade out

To display or minimize the full list of behaviors to choose from for an action, click on the *plus* and *minus* icons and the list will appear.

4.8.6.1.3 Overview of the Actions and Behaviors

The list gives you an overview about commonly used types of actions and behaviors. The available types and also further types depend on the used and linked elements.

Actions

Action	Description
On Click	Describes the action that should be carried out when the object is clicked on.
On Mouse Roll-Over	Describes the action that should be carried out when the object is moused over.
On Mouse Roll-Out	Describes the action that should be carried out when the mouse rolls out of the object.
On Show	Describes the action that should be carried out when the object appears.
On Hide	Describes the action that should be carried out when the object disappears.
On Visible	Describes the action that should be carried out when the object is visible after fade in.
On Hidden	Describes the action that should be carried out when the object is hidden after fading out.
On Play	Describes the action that should be carried out when the object is playing.
On Pause	Describes the action that should be carried out when the object is paused.
On Stop	Describes the action that should be carried out when the object is stopped.
On Finish	Describes the action that should be carried out after the object has played.
On Mute	Describes the action that should be carried out when the sound is deactivated.
On Unmute	Describes the action that should be carried out when the sound is activated.
On Volume Change	Describes the action that should be carried out when the volume is changed.

Behaviors

Behavior	Object
Show	Shows the specified object after an action is executed.
Hide	Hides the specified object after an action is executed.
Toggle	Shows/hides the specified object after an action is executed.
Fade In	Fades in the specified object after an action is executed.
Fade Out	Fades out the specified object after an action is executed.
Fade Toggle	Toggles the fade in/ fade out of the specified object after an action is executed.
View Link	Views the link target of the specified object after an action is executed.

4.8.6.2 Animation Objects

Action objects can be used to add special effects and animation to your learning content to create motivating and interactive presentations for the learners. The action objects are found in the book page editor. Besides the basic actions that are available, you can define more complex actions for an object. You can influence an action's behavior by configuring its settings to suit your individual needs. The objects in this case are "blank", only serving as a definition for the actions and do not contain any content, such as text or images.

> Recommendation
> Before creating an action object, you should become familiar with how actions work so that you can take advantage of their versatility.

Modifying objects and their behaviors

The following action objects are available in the book page editor:

- *Animation*
- *Time Control*
- *Object Visibility*
- *Counter*
- *Collector*

4.8.6.2.1 Use Cases

Action objects can be used in combination with additional book page objects, giving you a wide variety of use cases and plenty of room for your own creativity. The following examples will give you an idea of how action objects can be used:

Animation

Animations can be used to creatively highlight specific pieces of information. For example:

- To attract the learner's focus to a certain image, this image can be defined so that its size automatically increases when the book page is displayed.
- Several objects can be grouped together and displayed in a smaller format to save space. The user can then individually click on the images to zoom in on them. In this way, the user can concentrate more on each individual image and the respective learning material as needed.
- Mouse rollovers and rollouts can be used to add effects to text and important information to enhance the learning experience. The original state of the text will then be automatically restored.

Time Control

The *Time Control* allows you to define how long the action should take place:

- You can use the Time control with images to create an automatic slide show in which the images automatically fade in and out.
- You can sequentially start various animations to create complex processes and visualizations.
- The gradual fading in and out of text allows you to optimally visualize a sequence of information. Such animated text is perfect for accompanying audio text, for example.

Object Visibility

The *Object Visibility* is ideal for sequentially selecting multiple objects. For example:

- To create image galleries on book pages - the user can then click through the gallery at his own pace.
- For visualizing process workflows in which individual steps can be selected.

4.8.6.2.2 Considerations for the Creation

When working with action objects, we recommend that you take the following guidelines into consideration prior to starting the creation process in order to be able to fully take advantage of their versatile functionality:

- Before you begin, we suggest creating a storyboard to help you optimally plan which behaviors should be assigned to which actions and how the users should interact with them.
- Do not go overboard with the number of effects per page. Try to limit the number so that the important information is highlighted, while simultaneously ensuring a transparent and user-friendly look and feel to each page. Simple effects, such as clicking on objects and automatically having content fade in and out can prove to be quite useful enhancements to your learning content as long as the page is not cluttered with so many animations and interactive elements that it would overwhelm the user.

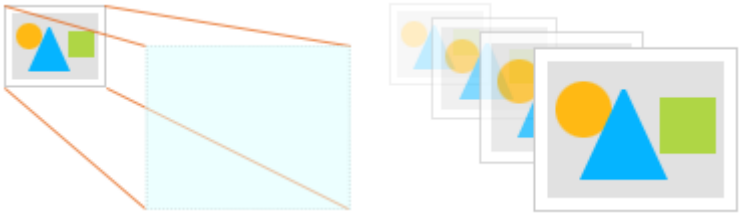
- Always make sure you assign unique names to your objects (under the setting *Name*). This will make it easier for you when selecting objects and actions so that you can quickly find the one you are looking for.
- When inserting animations, make sure you know which level the objects are on in order to avoid accidentally hiding them. On the other hand, when this technique is intentionally used, you can easily hide specific objects.
- Animations that are used repeatedly throughout your book can be predefined on a book page template to save you time when creating a new book page with the same animation.

4.8.6.2.3 Animation

Animation objects allow you to change the position and size of your animations. The *Animation* object defines the final size and position for the animation. To adjust the animation's size, the *Animation* object can be proportionally scaled in height.

Structure of an animation

The following explains how an animation works:



- **Initial State**
  The object to be animated (for example, an *Image*) is created with the same size and position as its initial state.
- **Final State**
  When the animation is activated, the object will change to the size and position of the *Animation* object (red rectangle).

Creating an animation

The following is an example of how to create an animation:

1. Create an *Image* object and position it as desired to serve as the initial position.
2. Insert an *Animation* object (from the toolbar) and define its properties:
   1. Move the *Animation* object to the desired final position and adjust the frame size. If the object should be the same size as the image, you can enter the exact dimensions under *Position*.
   2. *Name:*
      Enter a unique name for the object to facilitate allocating actions at a later time.
   3. *Target Object:*
      Select the *Image* object as the *Target Object*.

4. *Duration:*
   Here you can define how long the animation should run. The value is calculated in seconds.

3. The animation can be interactively triggered by the user or defined to run automatically by assigning actions to the animation.
   For each action, you have to select the *Animation* object from the first dropdown list, and the behavior *Start* from the second dropdown list.
   For example:
   - *Action on Click* – the user clicks on an Image or Text object to start the animation
   - *Action after Loading* – the animation automatically plays when a book page is opened
   - *Action after Timeout* – a *Time control* object can be used so that the animation will automatically play after a defined period of time

Once you have created your animation, you can test it out by clicking on the Preview button in the book page editor.

Stopping an animation

In addition to the behavior *Start*, you can also define the animation to automatically stop. Simply select the behavior *Stop* from the list. For example, you can add start and stop buttons to your animation by inserting and defining *Image* objects.

Additional options

- *Easing:*
  Easing effects the time duration of an object, allowing the animation a more effective and smoother transition. Easing can take place at the beginning, at the end or both. There are three types to distinguish between:
  - *Quadratic*
  - *Cubic*
  - *Sine*
- *Show Debug Information:*
  This setting allows an object's status information to be displayed while the book page is playing. This will display additional information on the object's action while it is being executed in test mode to give you more control over the action.
- *On Start (under Actions):*
  When an animation starts, another action can be triggered simultaneously. For example, an additional animation can start, an audio file can play or a *Text* object can be displayed. This allows you to create relationships between the objects and learning content can be sequentially structured if desired.
- *On Stop (under Actions):*
  An action can be defined to be executed when an animation stops. In contrast to the option Action after animation, this allows you to stop the animation at any time, thereby changing a button's behavior, for example, a button can be defined to continue the animation.
- *On Finish (under Actions):*
  Once an action has been completed, another action can be triggered, such as other animations or automatically jumping to the next page.
  To do so, select the desired object and the action to be allocated to it under *Settings*.

> **Note**
> When using images with transparency, clicking on the transparent area will trigger the animation. To prevent undesired actions from being performed by the user, we recommend using images without any transparency.

> **Recommendation**
> If you would like to re-use an animation that you have already created, you can copy and insert the respective objects collectively in groups. The objects are automatically recreated and allocated without requiring any additional post-editing work required.

4.8.6.2.4 Time Control

A *Time Control* object allows you to precisely time your actions. Images can automatically fade in and out or animations can be combined to create sequences.

To set up a *Time Control*:

1. First create the object that you would like to start off with. This could be an animation, an *Image* object, or a similar object.
2. From the toolbar, insert the *Time Control* object.
3. Next, define the time intervals and the corresponding actions.
   To obtain a clear overview of your animation projects, we recommend that you arrange your objects and actions according to their time control settings in chronological order.
   1. *Time:*
      In this field, you can enter the length of time during which the action should be carried out. The value is calculated in seconds.

> **Note**
> Time values are not automatically combined. If you would like to have multiple actions begin simultaneously, you have to manually summarize and enter the time values, for example, *20, 40, 60,...*

   2. *On Timeout:*
      In this field, you can select the action that should be triggered once the defined period of time has run out.
      For example: *Image -> Show, Animation -> Start*
4. In order to start a Time control, an action has to be triggered by the user. This can be a button, for example, that starts a series of images. For this example: *Actions -> Action on Click -> Time Control -> Action Start.*

4.8.6.2.5 Object Visibility

With the help of the *Object Visibility*, you can fade objects in and out, one following another, which can be triggered by user actions. This allows the user, for example, to click through a series of images in any preferred order.

To create an *Object Visibility*:

1. Create your *Image* objects and position them as desired.
2. Set all images to *hidden* except for the first one that should appear. This allows images to fade in one by one.
3. From the toolbar, insert the *Object Visibility* and define its properties:
   1. *Name:*
      Enter a unique name here so that you can easily identify your *Object Visibility* when selecting it from the list at a later time.
   2. *Object 1-10:*
      Select the objects in the order in which they should appear, from 1-10.
4. Next, successively select the *Image* objects in order to assign the *Object Visibility* to the images. Under *Actions*, you have to define an action for each individual image in order for it to be able to switch to the next image, for example, *Action on Click*. From the first dropdown list, choose the *Object Visibility* and from the second dropdown list, select *Activate 1-10* for each object.

Once you have created your *Object Visibility*, you can test it out by clicking on the *Preview* button from the book page editor.

Additional options

- *Fade In/Out:*
  This setting allows you to define a smooth transition effect for objects when they fade in and out.
- *Show Debug Information:*
  This setting allows an object's status information to be displayed while the book page is playing. This will display additional information on the object's action while it is being executed in test mode to give you more control over the action.

4.8.6.2.6 Counter

The *Counter* object allows you to specify a sequence of different actions. One or more objects can be used to trigger the actions of the *Counter*. With each action on a triggering object the *Counter* counts up or down and executes the specified actions. For the triggering object, you can specify, how many actions are required.

For example, you can use the object to display a different image every time you click on a button.

To create a *Counter*, proceed as follows:

> **Note**
> The following instructions are only an example of how to use of the *Counter* object.

1. Insert Image objects

1. Create your *Image* objects.
   See also *Image*.
2. Position the images as required.
3. Set all images to *hidden*. This allows the images to fade in.

2. Insert the Counter object

1. Insert the *Counter* object from the toolbar.
   The object is inserted in the status bar.
2. Specify the parameters for each count:
   1. *Count:*
      Enter the number of clicks required to show the object.
   2. *On Count:*
      Select an *Image* object from the first drop-down list.
      Select a behavior from the second drop-down list, for example, *Animate In*.

> **Recommendation**
> To hide the previously shown *Image* object, you can specify also an *Animate Out* behavior for the object in the *On Count* parameter.

3. Start the Counter

1. Insert an object from the toolbar, for example, a *Shape*.
2. Design and position the object as required.
3. Open the *Actions* subcategory.
4. Specify an action parameter, for example, *On Click*.
    1. Select the *Counter* object from the first drop-down list.
    2. Select *Count Up* from the second drop-down list.

> Recommendation
> You can assign the *Count Up* action to one or more objects.

Resetting the counter

You can allow the user to reset the current status of the *Counter* to the initial status. First, create a reset control and then specify which objects are hidden for the used *Images* objects.

To create a reset control and a behavior for all required objects, proceed as follows:

1. Insert an object as a reset control.
2. Select the object.
   Specify the *Reset* action:
    1. Open the *Actions* subcategory.
    2. Activate the *On Click* parameter.
    3. Select the *Counter* object from the first drop-down list.
    4. Select *Reset* from the second drop-down list.
3. Select the *Counter* object.
   Specify the *Reset* behavior:
    1. Activate the *On Reset* parameter.
    2. Select the *Image* object from the first drop-down list.
    3. Select *Animate Out* from the second drop-down list.
    4. Repeat this for all required objects.

4.8.6.2.7 Collector

The *Collector* object allows you to specify a sequence of different actions. You can use different objects to trigger the actions of the *Collector*. When executing an action on a triggering object the *Collector* executes the specified actions. One object can only be used once to trigger specified actions of the *Collector*. Afterwards, another object can be used to trigger the next actions.

For example, you can use the object to display an image when you click on an assigned control.

To create a *Collector*, proceed as follows:

> **Note**
> The following instructions are only an example of how to use of the *Collector* object.

1. Insert Image objects

1. Create your *Image* objects.
   See also *Image*.
2. Position the images as required.
3. Set all images to *hidden*. This allows the images to fade in.

2. Insert the Collector object

1. Insert the *Collector* object from the toolbar.
   The object is inserted in the status bar.
2. Specify the parameters for each count:
   1. *Count:*
      Enter the number of clicks required to show the object.
   2. *On Count:*
      Select an *Image* object from the first drop-down list.
      Select a behavior from the second drop-down list., for example, *Animate In*.

> **Recommendation**
> To hide the previously shown *Image* object, you can specify also an *Animate Out* behavior for object in the *On Count* parameter.

3. Insert a button

1. Insert an object from the toolbar, for example, a *Shape*.
2. Design and position the object as desired.
3. Open the *Actions* subcategory.
4. Specify an action parameter, for example, *On Click*.
   1. Select the *Collector* object from the first drop-down list.
   2. Select *Flag 1 - 10* from the second drop-down list.

Using Flags

The *Flag* specifies, that the *Collector* is started for a specific action. Specify for a different *Flag* from 1 to 10 each *On Click* action.
Please note, that the number of the *Flag* does not indicate a specific *On Count* action. The *On Click* action of the objects can be executed in any order.

If you click on an object, the *On Count* action with the specified number of clicks (for example, first click) is executed. Afterwards the object with the specific *Flag* is deactivated. Click on another object to execute the next *On Count* action (for example, second click).

You can use the same *Flag* (for example, *Flag 1*) for different objects. If an action has been used for a *Flag*, the other objects with the same *Flag* are deactivated.

The use of the *Flags* allows you to create complex combinations and conditions to show or hide objects.

Resetting the collector

You can create a reset control, to allow the user to reset the current status of the *Collector* to the initial status.

To create a reset control and a behavior for all required objects, proceed as follows:

1. Insert an object as a reset control.
2. Select the object.
   Specify the *Reset* behavior:
   1. Open the *Actions* subcategory.
   2. Activate the *On Click* parameter.
   3. Select the *Collector* object from the first drop-down list.
   4. Select *Reset* from the second drop-down list.
3. Select the *Collector* object.
   Specify the *Reset* behavior:
   1. Activate the *On Reset* parameter.
   2. Select the *Image* object from the first drop-down list.
   3. Select *Animate Out* from the second drop-down list.
   4. Repeat this for all required objects.

Additional options

- *Show Debug Information:*
  This setting allows an object's status information to be displayed while the book page is playing. This will display additional information on the object's action while it is being executed in test mode to give you more control over the action.

4.8.7 Books and Book Page View

For the book pages view it is necessary to distinguish whether these pages were inserted in a book or placed individually. An individual book page is opened in the library view whereas a book is presented in the book reader. After they are selected, modes linked on a book page are opened in the trainer.

> **Note**
> If you have inserted media files in a book page, then the corresponding playback application needs to be installed on the users' workstations so that these files can be displayed.

Books view

Books that have been created are displayed in the book reader. This enables selection of, and scrolling within, pages. Once a book page has been called, objects in it can then be launched or opened so that they can be worked through.

When a book is called in the library it is launched directly in the book reader.

Book pages view

Individual book pages are not viewed in the book reader as this is intended for scrolling through a number of pages. If you select an individual book page in the library it will be displayed directly in the learning content view.

4.8.7.1 Preview in the Book Page Editor

The *Preview* function exists in order to be able to view and use a book page during editing in the book page editor in the same way it is displayed to the student. If you select this in the toolbar, you will be able to test your book page's objects. These will then behave in the same way as they do when being presented in the library or book reader.

In order to be able then to resume editing the objects, deactivate the button.

4.8.8 Supported File Formats on Book Pages

Media plug-in	Supported file formats
Audio, Page Sound	*.mp3, *wav
Video	*.avi, *.m4v, *.mov, *.mp4, *.mpeg, *.mpg, *.qt, *.rm, *.wmv
Image	*.gif, *.jpg, *.png, *.bmp, *.jpeg, *.svg
Document	*.doc, *.docx, *.rtf, *.ppt, *.pptx, *.xls, *.xlsx, *.pdf, *.html, *.htm

4.8.8.1 Requirements for Video Formats

The table gives you an overview of the supported video formats of SAP Enable Now and the possible operating systems and browsers:

Formats		Windows 10		Apple	Android
Format	**Codec**	**Desktop**	**Mobile**	**Safari / Webkit**	**Webkit**
mp4	**h264**	■	■	■	■
	mpeg4	■	■	■	■
avi	**xvid**	■	■	■	■
	h264	■	■	■	■
mpg	**mpeg2**	■	■	■	■
wmv	**wmv3**	■	■	■	■
	vc1	■	■	■	■
mov		■	■	■	■
qt		■	■	■	■

■ Supported

■ Unsupported

4.9 Editing Projects in Project Editor

The project editor is used for editing the project's content. The project editor displays the screenshots and macros of the projects as well as settings and editing functions.
You can edit projects of the type simulation and navigation. Each project type has individual macros and editing functions. In simulation projects you are able to record additional steps.

Opening a project

To open a project in the project editor:

1. Choose a project in the project explorer's tree.
2. Select *Edit* in the object editor.

Further Information

- *Editing a Project*
- *Editing Macros*
- *Using the Project Editor*

4.9.1 Editing a Project

Once a project has been recorded you can edit the content as well as add further macros and content. For example, to enhance the didactic benefit of the projects and promote a more diverse presentation of the content.

> Recommendation
> Make sure to save the project at regular intervals by using the *Save* control in the toolbar.

4.9.1.1 Positioning Highlights and Bubbles

In the step view you can change the size and positioning of the bubbles and highlights as follows:

Changing the position

1. Select an object in the step view.
2. A red line will appear around the object. Select the object again, this time holding the mouse button down.
3. With the mouse button still pressed, drag the object to the desired position.
4. Release the mouse button and the object is now positioned.

Changing the size

1. Select an object in the step view.
2. Dots appear around the object so that you can change its size. Select one of the dots and hold the mouse button down.
3. With the mouse button still pressed, drag the dot inwards or outwards to the desired size.
4. Release the mouse button to set the new size.

Changing the bubble alignment

1. Select an object in the step view.
2. A square will appear at the spike of the bubble, which you can use to turn the object. With bubbles that do not have a spike, the square will appear in the middle of the bubble. Select the dot and hold the mouse button down.
3. With the mouse button still pressed, pull the dot away from the bubble until you have reached the desired position. Pull the dot towards the middle of the bubble if you wish to hide the tip.
4. Release the mouse button to set the new position.

4.9.1.2 Adding a Step

You are able to add new steps in your project. The steps can be used to add further macros.

The *Insert -> Add Step* function inserts a new empty step. The step is inserted behind the currently selected step in the thumbnail view.

4.9.1.3 Form Structure

The *Form Structure* function allows you to display forms realistically in practice mode or test mode. While a simulation is in progress, the user can fill in the interactions contained within the form structure in an individually chosen sequence and then confirm the inputs as a whole. This does not display a confirmation immediately after an action has been inputted but only once all actions have been performed.

A *Form Structure* is made up as follows:

- It is positioned under a *Screen* macro.
- It has a start and end macro.
- The associated interactions are to be found between the two *Form Structure* macros.
- A *Mouse Action* can be used as confirmation action.

At least two interactions should generally be available for a *Form Structure*.

Example Structure

- *Screen*
- *Form Begin*
  - *Input Text*
  - *Select Single*
  - *Radio / Checkbox*
  - ...
  - *Mouse Action* - used for confirmation
- *Form End*

4.9.1.3.1 Creating a Form Structure

After recording a project, you can create a *Form Structure* in it:

1. For the *Form Structure* the *Screen* macros are to be combined in a step with the associated actions contained in the form. This is required as the *Form Structure* cannot be created in a way that spans steps.
   1. Select the *Screen* macros belonging to the steps whose interactions are to be used for the *Form Structure*.
   2. Select *Tools -> Bulk Changes -> Merge Selected Screens*.
      The first macro *Screen* is retained and the others that are highlighted are deleted. The previous steps' macros are arranged in the merged step. Now create the *Form Structure*.

> **Note**
> A *Mouse Action* macro is required as the last macro of a form structure in order to be able to complete the form correctly. For example, this can be an *OK* or dialog box *Save* button enabling the form inputs to be confirmed.

2. Select the *Screen* macro of the merged step.
3. Select *Insert Structure Macro -> Create Form Structure*.

In the thumbnail view, you will now see that all of the step macros are incorporated within the *Form Structure* macros.
Documentation macros contained within a step are also integrated into the form structure. But these do not affect the sequence of the simulation and the function of the form structure as they are only used for creating documentation.

4.9.1.3.2 Bubbles in Form Structure

The bubble texts are presented in summary form in the *Form Structure* for the practice mode. This provides you with an overview that illustrates how to fill out a form and the linkages between the inputs.

In demo mode and concurrent mode, the bubbles are displayed side by side as the processes are played back as a simulation meaning that there are no inputs by the user.

The appearance of the bubbles can be edited in the *Form End* macro. The individual texts accompanying the actions can be changed within the respective macros, as before.

4.9.1.3.3 Removing a Form Structure

If a *Form Structure* is no longer required in a project, it can be removed. Only the start and end macros of the *Form Structure* are deleted in the process; the remaining macros in the step are retained.

> **Note**
> Do not remove the macros for the *Form Structure* using the *Delete* command to avoid errors in the project. Always remove the *Form Structure* using the corresponding functionality.

This is how to remove the form structure:

1. Select the *Form Begin* or *Form End* macro.
2. Select *Remove Form Structure* in the macro editor.

4.9.1.4 Branches

Using branches will allow the user to digress from the sequential path within a simulation. This gives the user much more flexibility and portrays a more realistic process workflow. Two or more branches can be added to a simulation so that the user has a choice of where to go to next.

A branch consists of several macros:

- A branch is positioned under the *Screen* macro.
- It needs a start and an end macro.
- Between the start and end macro, there are two macros that contain actions leading to different workflows.

Example Structure

- *Screen*
- *Branch Begin*
  - *Mouse Action*
  - *Mouse Action*
- *Branch End*

> **Note**
> Projects with branches cannot be rerecorded. During rerecording a project will run through in a linear manner but branches can operate in a number of different ways that cannot automatically be followed.
> It is recommended to duplicate a project as backup, before creating the branch. The duplicate can be used for rerecording.

4.9.1.4.1 Creating a Branch

Once a project has been recorded, you can create a branch for it. To do so, proceed as follows:

1. *Screen* macros are combined into one step in which their corresponding actions should serve as buttons for the branches. This is important so that the buttons can be displayed properly on the page.
   1. Select the *Screen* macros for the step for which the macros should be used for the branch. When doing so, make sure that these actions are located on the same application page.
   2. Select *Tools -> Bulk Changes -> Merge Selected Screens*.
      The first macro *Screen* will remain and all the other highlighted macros will be deleted. The macros for the existing step will then be merged into the step accordingly.
2. Select the macro *Screen* for the merged step.
3. Select *Insert Structure Macro -> Create Branch* .
   The *Edit Branch* dialog box is opened.
4. For each action macro of the step specify a jump target. The order of the selection list corresponds with the order of the macros in the project.
   Select *Ok*.

From the thumbnail view, you can see that all the macros for the step are integrated into the macros for the branch. All macros that have been assigned a branch target will have an arrow . When the mouse moves over the arrow, the corresponding step will be highlighted in blue in the thumbnail view and the name of the step will be displayed in a tool tip.

4.9.1.4.2 Editing a Branch

Editing a branch target

If you would like to change the target of your branch at a later time, you can open the editing dialog box by clicking on the button *Edit Branch* in the macro editor. Change the target for the respective actions and confirm the changes by selecting *OK*.

Bubbles in a branch

At the end of a mode, a summary of all the bubble text is displayed in one bubble within a branch. This serves as an overview of all the possible target steps. The individual text blocks are separated with an `or` to make it easier to differentiate between the different targets.

The bubble's appearance can be edited in the macro *Branch End*. To do so, from the macro editor, set the *Layout Selection* to *Advanced layout*. The individual text blocks for the actions can be changed in the respective macro.

4.9.1.4.3 Removing a Branch

If a branch is no longer needed in a project, it can be removed. Only the starting and ending macros of the branch are deleted. The other macros will remain in the step.

> **Note**
> Do not remove the macros for the branch by using the *Delete* command - this could cause errors in the project itself. Always remove a branch in accordance with its functionality.

To remove a branch, proceed as follows:

1. Select the macro *Branch Begin* or *Branch End*.
2. Select *Remove Branch* in the macro editor.

4.9.1.4.4 Branches in Documentation

Branches will also be displayed as such in the documentation. A subheading will be inserted to indicate that there is a branch. Underneath the subheadings, there are additional actions which have been allocated links for the respective steps.

Branches appear in Word, PDF, and HTML generated formats. Branches are displayed in the following types of documentation: *standard documentation* and *work documents*.

4.9.1.5 Playing a Mode

You can play a simulation mode to preview the content of your project. The simulation is played back in trainer.

- **Project editor**
  Select *Play Mode* in the toolbar to play the active editing mode.

> Recommendation
> If you start the playback of a simulation from the project editor to check it, you can follow the progress of the playback by looking at the thumbnail view. This simplifies the localization of errors since it provides direct, visual identification of the corresponding macro and thus facilitates the user's orientation within the project.

- **Explorer**
  Select a mode of your project and select *Play* in object editor.

4.9.2 Editing Macros

A project contains macros, which specify the content and behavior of the project. Each macro has individual parameters which can be edited.
Macros are created during recording of an application. You can insert further macros in your project to add content.

The following chapters give you an overview about the available the macros. You will find information about general used parameters of the macros as well as specific parameters of each macro.

Inserting a macro

To insert a macro, proceed as follows:

1. Select a macro in the thumbnail view.
2. Choose a macro from the toolbar.
3. For some macros a dialog box opens, which allows you to specify the content.

The new macro will be inserted after the selected macro in the macro order of the thumbnail view.

Removing a macro

To remove a macro, select the macro in the thumbnail view and remove it by using *Delete*.

4.9.2.1 Special Macros

The following section describes special macros, which can be inserted into simulations.

Icon	Name
	Simulation Start
	Simulation End
	Intro Page
	Intro Page Start Link
	Imported Page
	Form Structure
	Branches
	Jump to Step
	Mode Change Start
	Mode Change End
	Text-to-Speech Override

In the following chapters, you will find further information about the special macros.

4.9.2.1.1 Simulation Start

This macro is required for the initialization of the simulation in the trainer. It is located at the beginning of a project. When using the recording, this macro is inserted automatically.

Score

The parameters *Maximum Score* and *Required Score* specify the points for the test mode. The values are calculated from the number of single actions (always 3 points) and the percentages that have been entered in the *Explorer* for the project. Use *Update* to automatic calculate and actualize the score.

Task description

A task may be displayed in a separate browser popup window in practice mode and test mode. This can be created in the *Task Description* subcategory and activated for the mode in question.

The *Generate Values for Task Description* option is used to insert the values from the *Input Text* and *Select Single* macros into the task. This is of use, for example, so as to have the necessary data available when creating a user or logging in.

The position of the task description window on the screen is set by the parameter *Orientation*. In addition, a background color for the window can be selected via *Background*.

4.9.2.1.2 Simulation End

This macro is used by the trainer to end the simulation correctly. It is located at the end of a project. When using the recording, this macro is inserted automatically.

- *Pause (seconds):*
  The parameter defines the display duration of the last step during the playback of the simulation.

Settings of the End Page

Once a simulation is completed, an end page with a summary appears as well as the button to restart the simulation.
The end page uses the preset that is defined in the *Intro Page* macro.

The following parameters can be defined:

- *Show End Page:*
  The parameter defines that the end page will be shown during playback.
- *Title End:*
  The title will be shown for the relevant mode.
  Modes: demo mode, practice mode, test mode

- *Description End:*
  The description will be shown for the relevant mode.
  Modes: demo mode, practice mode, test mode passed, test mode failed

For further information, refer also to the chapter *Intro and End Pages*.

4.9.2.1.3 Intro Page

The macro specifies that an intro page is shown in the simulation. It has to be included in the first step after the *Simulation Start* and the *Intro Page Start Link* macro.

Parameters of the macro

The following parameters are available:

- *Title:*
  The parameter defines the title for the relevant mode.
  Modes: demo mode, practice mode, test mode
- *Description:*
  The parameter defines the description for the relevant mode.
  Modes: demo mode, practice mode, test mode
- *Preset:*
  The parameter defines the design of the start and end page. The available presets are part of the *Configuration/Style* resources.
- *Page Size (Advanced Layout):*
  The parameter defines the page width and height in pixels.

For further information, refer also to the chapter *Intro and End Pages*.

4.9.2.1.4 Intro Page Start Link

The macro defines a start link for the intro page. This makes it possible to jump to different steps in a complex simulation and to guide the learners. The link has to be included in the first step after the *Simulation Start* macro and before the *Intro Page Start Link* macro. To create several links, insert an *Intro Page Start Link* macro for each link.

Parameters of the macro

The following parameters are available:

- *Description:*
  The parameter defines a description for the start link.

- *Link Text:*
  The parameter defines a text for the start link.
- *Target Step:*
  The parameter defines a target for the start link. A step can be chosen from the drop-down-box.

For further information, refer also to the chapter *Intro and End Pages*.

4.9.2.1.5 Jump to Step

This macro allows you to jump to a specific step in the simulation. The macro can be used to create alternative paths in a simulation.

Parameters of the macro

The following parameters are available:

- *Jump Target:*
  Specifies the step for the jump. Select a step from the drop-down list.

4.9.2.1.6 Mode Change

The change of mode makes it possible, at a specific step, to switch to another mode while a mode is being played back. If the step was completed it switches back to the original mode. For example, while a demo mode is in progress, a step can be displayed as a test mode. This allows users to take an active part while viewing the simulation.

Macros of a mode change

There are two macros for the mode change available:

Mode Change Start
This macro forces a mode change when playing back the simulation in a certain mode.

Mode Change End
This macro terminates the mode change and changes back to the initial mode.

> **Note**
> A mode change can only be used within a step. Ensure that the *Mode Change Start* and *Mode Change End* macros are within the same step.

Creating a mode change

To create a mode change, proceed as follows:

1. Select the *Screen* macro for the step with the mode change.
2. Insert the *Mode Change Start* macro using the *Insert Special Macro* toolbar.
3. Select the *Mode Change Start* macro.
4. Specify the target mode in the macro editor.
5. Select the last macro of the step.
6. Insert the *Mode Change End* macro using the *Insert Special Macro* toolbar.

Removing a mode change

To remove a mode change for a step, delete the *Mode Change Start* macro and the *Mode Change End* macro.

4.9.2.1.7 Text-to-Speech Override

You can use the *Text-to-Speech Override* macro to replace the prescribed spoken text for a step with a text of your own.

Insert the *Text-to-Speech Override* macro in a step once you have converted the associated spoken text. The macro contains the bubble text as default spoken text. You can now change the text in accordance with your own ideas. Would you like to restore the original bubble text in the text box, then you can use the control *Insert Text from Bubble* to overwrite the current text with that.

4.9.2.2 Interactions

Interactions are used for the recording, display, and control of the simulation contents. They portray all the usual actions that a user can carry out in an application.

Icon	Name
	Screen
	Explanation

Icon	Name
	Mouse Action
	Key Stroke
	Input Text
	Select Single
	Radio / Checkbox

In the following chapters, you will find further information about the interactions.

> **Note**
> Keep in mind that, when inserting interactions manually, no object information is saved. If a new recording is to be made, the object is to be manually defined in its sequence or skipped. These can also not be used for SAP Companion for desktop projects. It is generally only recommended to create actions during a recording.

4.9.2.2.1 Screen

The *Screen* macro contains the recorded screenshot of the application. The macro always marks the beginning of each step, followed by the recorded actions. When using the recording, this macro is created together with every new step as soon as an action is executed.

Parameters of the macro

The following parameters are available:

- *Screen Title:*
  Contains the recorded screen title of the application.
- *Page:*
  Contains the recorded screenshot image of the application.

> **Recommendation**
> If you want to edit the screenshot for the *Screen* macro, it is possible to open it in an external image editor. To do this, select *Page -> Replace Image* -> *External Editor...*

4.9.2.2.2 Explanation

The *Explanation* macro allows you to add further information to your project content.

The macro can be inserted during recording or rerecording or from the toolbar in project editor.

Parameters of the macro

The following parameters are available:

- *Use Demo Bubble for Practice:*
  To reduce editing time, activate the option to use the same text and settings of the demo mode for the bubble in practice mode.
- *Show Control (Simulation):*
  Use the parameter to show navigation controls within a bubble. When activated, the simulation pauses and resumes when the *Next* button of the bubble is selected.
  The setting is recommended, if the bubble contains a long text to allow the user to read the text completely.

Type icon

A *Type (Icon)* can be assigned to the bubble, which can be selected from four different types. Each type is represented by an icon:

Type	Icon
Info	
Remark	
Tip	
Warning	

The icons are also added to the documentation generated for a project. The images of the icons are located in the resources *trainer Style* and *Documentation Style*. You can replace these with your own images.

4.9.2.2.3 Mouse Action

The *Mouse Action* macro simulates a mouse action on a button or a link.

Parameters of the macro

The following parameters are available:

- *Hotkey:*
  If the action can also be activated by a keyboard shortcut, then the corresponding key combination may be entered in *Hotkey*. The key names are separated by spaces, for example: `ctrl k`.
- *Action:*
  Specifies, what type of action is to be carried out with the mouse. The action is set during recording.
- *Ctrl, Alt, Shift:*
  Specifies a key used for performing the action. The parameter is set during recording.

4.9.2.2.4 Key Stroke

The *Key Stroke* macro simulates a keystroke or a keyboard combination. The macro can require the user to press a key or combination of keys to continue the simulation.

Parameters of the macro

The following parameters are available:

- *Hotkey:*
  Specifies the keyboard shortcut. The key names are separated by spaces, for example: `ctrl k`.

Defining a hotkey

To define a hotkey, proceed as follows:

1. Select the *Hotkey* parameter.
2. Click on the *Edit* button.
   A dialog opens.
3. Press the key or the keyboard combination, which should be inserted.
   The text field is filled automatically.
4. Confirm the dialog with *OK*.

The key or keyboard combination is entered in *Hotkey*.

4.9.2.2.5 Input Text

The *Input Text* macro simulates text being entered into a specific text field.

Parameters of the macro

The following parameters are available:

- *Input Text:*
  Contains the value entered during the recording.
- *End Value:*
  Supports the inputting of text in multiline text boxes. Whereas only single line texts can be entered using the *Input Text* parameter, the *End Value* parameter generates word breaks, thus displaying the complete text in the text input box.
- *Confirm with:*
  Specifies the manner in which the entry is to be confirmed. Three options are available: *Confirm with Tab*, *Confirm with Enter* and *Confirm with Button*. More than one option may be selected.
  If the option *Confirm with Button* has been selected, then it also needs to be assigned an object position.
  It is also possible to select an entry without confirming it. In this case, all three confirmation options must be disabled.

> **Note**
> If the *Confirmation* parameter for inputting a text is altered or an input is read out without being confirmed, then you need to align the instruction in the practice bubble for confirming the input manually.

- *Set Focus (Simulation):*
  Specifies whether the focus is automatically set on the appropriate input field within the simulation page during playback, or if the users should define it themselves, which is closer to the behavior of a live application.

Using a regular expression

A *Regular Expression* is an exactly defined search pattern for which a match is sought (pattern matching). When using a regular expression with an input field, the value entered during a simulation does not need to match exactly the value that was originally recorded. The value needs instead to correspond to a value described by the regular expression and is thus valid. The regular expression must be JavaScript compliant. Examples:

any input: `/.*/`
not case-sensitive input: `/input/i`
valid alternatives: `/^kg$|^kilogram$|^kilogramme$/`
five-digit number: `/^[0-9]{5} $/`
four-digit number with 2 decimal places: `/^[0-9]{4}[,\.]{1}[0-9]{2} $/`
date: `/^[0-9]{1,2}(-|/|\.)[0-9]{1,2}(-|/|\.)([0-9]{4} $|[0-9]{2} $)/`
currency: `/^-?[0-9]+$|^(-?[0-9]+)?[,\.]{1}[-0-9]{1,2} $/`
e-mail address: `/.+@\[?[a-zA-Z0-9-\.]+\.([a-zA-Z]{2,4}|[0-9]{1,3})\]?/`

4.9.2.2.6 Select Single

The *Select Single* macro simulates the selection of a list box or a selection list.

Parameters of the macro

The following parameters are available:

- *Selected Index:*
  Contains the index number of the selected value.
- *Selected Value:*
  Contains the value selected during the recording.

4.9.2.2.7 Radio / Checkbox

The *Radio / Checkbox* macro simulates the activation of a radio button or a checkbox.

Parameters of the macro

The following parameters are available:

- *Selected Value:*
  Contains the value selected during the recording.

4.9.2.3 Page Macros

Page macros can be inserted into simulations, which will allow you to create simulations with greater flexibility. These can be positioned directly on screenshots, images, PowerPoint slides and book pages and can be activated for being displayed in a specific mode. In this way, simulations can be easily enriched with additional information, reference material and visual aids.

The following section describes page macros, which can be inserted into simulations.

Icon	Name
	Arrow
	Shape

Icon	Name
	Highlight
	Text Pop-Up
	Image
	Icon Link
	Text Link
	Book Page

In the following chapters, you will find further information about the page macros.

> **Note**
> Note that page macros cannot be used for documentation and can only be used for playing simulations. The only macro that can be used in combination with documentation is *Book Page Link*, which appears as a graphic image.

4.9.2.3.1 Arrow

The *Arrow* object is customizable. It creates a path for which you can choose from a variety of arrow heads. The arrow's length, position and direction can be modified as desired.

Positioning a path point

There are path points at the beginning and end of an arrow that allow you to adjust its length and direction. Select one of the points and drag and drop it to the desired position on the book page.

Defining an arrow

An arrow object can be customized as follows:

- *Color:*
  Specifies the arrow's color. Select the color preview to open the *Color Selection* dialog box.

- *Thickness:*
  Specifies the arrow's thickness. The value is given in pixels.
- *Arrow Head 1 & 2:*
  Specifies the arrow's head for each side of the arrow.
  There are several types:

Design	Name
	*None*
	*Standard*
	*Triangle - Hollow*
	*Triangle - Filled*
	*Diamond – Hollow*
	*Diamond – Filled*
	*Circle - Hollow*
	*Circle - Filled*

- *Advanced (Advanced Layout):*
  Specifies the width and the length of the arrow heads in relation to the arrow's thickness. Enter a value between 2 and 20.
  The value defines how many times the length of the thickness should be expanded (for example, value 3 = 3x the arrow's thickness).

4.9.2.3.2 Shape

The *Shape* object displays a variety of shapes to choose from for the purpose of enhancing the visualization of learning content, process flows and sequences. Shape objects can be used in a variety of ways and can contain text.

To insert a shape, select *Insert Shape*. A palette is opened in which you can select a shape type and an orientation. For more information, refer to the section on *Shapes Overview*. You can change the type with the *Type and Orientation* parameter.

Design

- *Shape Color:*
  Specifies the shapes' color. Select the color preview to open the *Color Selection* dialog box. Select *Transparent* , if you do not want to use any color.
- *Shape Value:*
  Specifies the shape's character. Values between 0 and 100 can be entered here. The outcome will vary depending on the type of shape selected. For example, you can change the width of an arrow or smooth the corners of a square.
  Note that this setting is not available for all shapes. For more information, refer to the section on *Shapes Overview*.

You will find descriptions on additional settings under the section on *Editing Parameters*.

Effects

Under *Effects*, there is a variety of settings that allow you to define the behavior and design of a shape.

- *Gradient*
  - *Shape Color (Gradient)*
  - *Border Color (Gradient)*
- *Design Roll-Over*
  - *Shape color*
  - *Shape Color (Gradient)*
  - *Border color*
  - *Border Color (Gradient)*
- *Design Click*
  - *Shape color*
  - *Shape Color (Gradient)*
  - *Border color*
  - *Border Color (Gradient)*

4.9.2.3.3 Highlight

This macro makes it possible to place an additional highlight on a screenshot. The highlight is independent of a bubble and can be used to support an explanation. As only one highlight can ever be used for a macro, whereas it may be necessary for a number of highlight frames to describe a situation, this macro can be used in addition to the already existing highlight frame.

Inserting and positioning a highlight

1. In the thumbnail view, select the macro *Page* to which you would like to add your highlight.
2. Then choose *Insert -> Insert Page Macro -> Highlight*.
   The default position for the highlight macro is directly under the macro *Screen* to ensure that it is displayed throughout the entire duration of the step's recording. If the highlight should be displayed with a particular macro, you can simply drag the highlight in front of the desired macro.
3. From the step view, you can now position (drag & drop) the highlight on the screenshot. To adjust the size of the highlight, choose one of the frame's points and with the left mouse button pressed, drag the frame to the desired size. Release the mouse button to confirm the changes.

Macro options

- *Display in Mode:*
  You can use the various options to define the mode in which the highlight is to be displayed.
- *Hide Highlight:*
  Activate this parameter if you want to hide the highlight in the simulation.
  This setting has no impact on the highlight being displayed in the documentation if the parameter *Show in Documentation* is activated.
- *Object Name:*
  You can use this parameter to specify a name for the object. If you have two *Highlight* macros in a step, you will need to change the name of one of them. In the event of highlights sharing the same name, only the second one in the sequence will be displayed.
- *Show in Documentation:*
  If you activate this parameter, the highlight you have created will be displayed in the documentation.
- *Highlight Color:*
  Defines the color of the highlight border.
- *Highlight Position (Documentation):*
  Defines the position (left, top) and the size (width, height) of the highlight on the screenshot in pixel.

4.9.2.3.4 Text Pop-Up

This function inserts a text pop-up which can be opened by a button. You can insert any text you like in this box as well as an image.
The text pop-up can be formatted using the *Text Pop-Up Position* subcategory to adjust its size and position.

Defining type and title

- *Type:*
  Different types, differentiated by a corresponding icon, can be defined for displaying the textbox. Using different types enables you to highlight the text box content and present it more clearly to the user.
  The following types are available and can be selected using the parameter *Type*:
  - *Standard*
  - *More Info*
  - *Tip*
- *Title:*
  You can use the parameter *Title* to specify a title for the text box. If you do not want to display a title, you should leave the field blank. The default setting for the *Standard* type is no title whereas placeholders are displayed for the other types.

Further options

- *Show on Roll-Over:*
  This option allows you to define whether a text pop-up should appear when the mouse cursor rolls over the icon. When the mouse cursor rolls out of the icon, the text pop-up will hide again. The text pop-up behaves in the same way as a tooltip.
- *Fade In/Out:*
  This parameter defines whether the text pop-up is displayed or hidden with a fading in effect when being opened or closed. Deactivate the setting if you wish to avoid this effect.
- *Hide Text Pop-Up in Editor:*
  The default setting is for the text pop-up to be displayed in the book page editor. Activate the parameter to hide it for editing. If you would like to reinstate the text pop-up in the view, deactivate the setting.

4.9.2.3.5 Image

This object allows you to insert an image file to your book page.

Inserting an image

To insert an image, proceed as follows:

1. Select Insert Image in toolbar.
   The *Insert Image from Workarea* dialog box opens.
2. Select an image in your workarea structure.
   or
   Use *Insert File...* to import an image.
3. Select *Ok*.

You can use *Replace Image* to change the image file.

See the chapter ***Supported File Formats on Book Pages*** for supported file formats.

Parameters of the object

The following parameters are available:

- *Image Roll-Over:*
  You can use the *Image Roll-Over* option to insert an image that is shown when the mouse is moved over it.
- *Image Click:*
  You can use the *Image Click* option to insert an image that is shown when the image is clicked on.
- *Keep Aspect Ratio:*
  If this parameter is activated, the aspect ratio is retained when scaling an image. Deactivate this parameter if you want to be free to change the size of an image.
- *Zoom:*
  The *Zoom* option allows you to zoom in and out of images on the book page. An icon will be inserted onto the image. By clicking on the icon, the image will be shown in its original size. This allows you to insert an image into the book page and save space when scaling it.

4.9.2.3.6 Icon Link

The *Icon Link* allows you to link content found in the work area or to create a link to an external source, such as a website. An icon will then be inserted, to which a link can then be assigned. The icon is customizable. You can insert an image as well as a tooltip for the target link.

The design of the icon is based on the *Style* selected for the simulation that can be defined in the central configuration dialog in *Authoring Settings -> General-> Page style*.

Defining an icon

The look of the icon will depend on what book style has been chosen, which can be defined in the *Style* settings.
For your defined target link, from the option *Type*, you can choose what kind of icon you would like to use:

- *Demo Mode*
- *Practice Mode*
- *Test Mode*
- *Concurrent Mode*

- *Quiz*
- *Book page*
- *Book*
- *Document*

Alternatively, your own icon can be inserted using the option *Image*. It is recommended that you use your own icon when linking to an external source or when the icon should not have the same look as the book style itself.

4.9.2.3.7 Text Link

Text Link is a text field to which you can add texts and links. The entire surface area is actually a button that can easily be linked to an external Internet page or an object from the workarea. This allows you to display additional information if desired.

1. To create a link, go to *Insert link...* function.
2. A dialog will then open in which you can specify a link or select an object from the workarea.
   A link to a web page or similar is to be entered in the text field under *Available*. This should be in the format *http:// www...*
3. Confirm your entry by clicking on *OK*.

When launched, the linked page is automatically opened in a new browser window. If you would like to open the page in the same window, you need to deactivate the setting *Open in a new window*.
If the linked page or object from the Workarea is opened in a new window, you can define properties for displaying the browser window that has been opened.

4.9.2.3.8 Book Page

An existing book page can be inserted into a simulation with a link using the *Book Page* macro. Changes made to the book page also affect the link in the simulation.
Insert a book page as follows:

1. Use the toolbar to insert the *Book Page* macro into the project. You can select this macro from the drop-down list for the book page objects.
   When the macro is inserted, a new step is automatically created.
2. You can then link the book page you want using the *Book Page* parameter. Select *Edit Link...* to open the *Edit Link* dialog box where you can select the book page.
3. You can activate the book page for the mode you want under *Simulation*.

Keep in mind that the objects available on the book page cannot be edited. It is only possible to add additional objects within the project editor or to edit the book page directly in the book page editor.

4.9.2.4 Quiz Items

There is a wide range of quiz items, which can be used to create interesting, multi-layered and at the same time comprehensive quizzes.
The quiz items must be created and edited individually. When using quiz items, the main focus is on learner interaction – answering a quiz using text input boxes, dropdown boxes or moving objects using drag & drop.

Quiz items are an optional group of items to be input manually. The following quiz items are available:

Icon	Name
	Multiple Choice
	Fill in the Fields
	Fill in the Blanks
	Matching
	Connection
	Sorting
	Slide Control
	Grid
	Puzzle
	Hotspot
	Quiz Section
	Quiz Evaluation

In the following chapters, you will find further information about the quiz items.

4.9.2.4.1 Multiple Choice

Using the *Multiple Choice* quiz item, you have the option of creating a question with one answer or multiple answers. The quiz can be solved by selecting the correct answer.

Here, you have a number of design options available, for example, whether or not to create a question that is answerable with just one correct answer, with multiple answers or with apparent multiple answers.

To create a *Multiple Choice* quiz item, proceed as follows:

1. First enter the individual answering options into the *Answer x* parameter.
2. Then specify the correct answer using the *Answer Correct* parameter. You can activate this parameter for a number of answers as well.
   If you flag more than one answer as being correct, the possible selections are displayed as checkboxes or alternatively as radio buttons.

Settings

Further settings can be chosen for this quiz item in the *Options* subcategory.

- *Shuffle Solutions:*
  When the *Shuffle Solutions* setting has been activated the answers entered are mixed individually.
- *Force Multiple Choice:*
  Enable this parameter if you do not immediately want to show the user that there is only one correct answer for a question for which there is only one possible response. This converts the input fields manually from *radio button* type to the *checkbox* type.

Quiz item on book page

For a *Multiple Choice* quiz item on a book page, further settings are available:

- *Design Controls* and *Design* (Subcategories):
  The subcategories contain parameters to specify the appearance of the quiz item.

4.9.2.4.2 Fill in the Fields

With the *Fill in the Fields* quiz item, you can define a question with multiple answers. These answers should be entered as text inputs.

The answer has to exactly match the string entered by the author as being the correct answer - if so much as one character is wrong then the answer is deemed to have been incorrectly answered.

To create the quiz item, continue as follows:

1. You can use the *Answer x* parameter to set one or more answers for this quiz item.

2. The *Input Type* parameter allows the display type to be defined with which the answers are to be input. Overview of the types with descriptions and examples:

Type	Description
Text	The answer can be entered in any way desired.
Text (case sensitive)	The answer must be entered with the same capitalization as in the predefined answer.
Integer	The answer must be entered as a whole number. Here, mathematical characters may also be used. For example: `1,1-3,<4`
Floating point number	The answer must be entered as a floating point number where the dots can be defined as commas or dots. Mathematical signs may also be used here. For example: `1.1;1-3.4;<4,2`
Regular Expression	The answer must be entered as a mathematical string. For example: `(^term$)`
Comma separated list	The answer must be entered as a list separated with commas. For example: `Answer1,Answer2,Answer3` The answer can be entered in any way desired. Only one answer can be selected from the list. If identical answers are contained in the list, each answer may only be entered once.
Comma separated list (case sensitive)	The answer must be entered with the same capitalization as in the predefined answer.

> **Note**
> When creating the quiz item, the answers entered and the type selection should match functionally in order to allow an error-free entry.

Quiz item on book page

For a *Fill in the Fields* quiz item on a book page, further settings are available:

- *Design Controls* and *Design* (Subcategories):
  The subcategories contain parameters to specify the appearance of the quiz item.

4.9.2.4.3 Fill in the Blanks

With the *Fill in the Blanks* quiz item, you can set a quiz that has text containing gaps to be filled in where words should be.

To create one of these gap texts, proceed as follows:

1. Enter a text you wish to create as a gap text.
2. Define the gaps.
   Here you should enter 3 underscores as placeholders for the text that is to be entered.
   Corresponding to the *Interaction* type selected, the necessary input and selection options will be created in this position in the text.
   For example: `This is my___text.`
3. Select an *Interaction* in which the answers are to be entered:
   - *Text Input*
   - *Text Input (case sensitive)*
   - *Dropdown List*
   - *Drag & Drop*
4. Enter the answers.
   The order of the answers must correspond to the order of the defined gaps in the text. Accordingly, *Answer 1* refers to the first gap, *Answer 2* to the second, and so on.
5. There are differences when entering answers, depending on the type selected:
   - When working with a *Text Input*, insert an answer in the answer field.
     You can also add a number of possible values for an answer. Separate the answers by using a comma.
     For example: `Answer1,Answer2`
   - For *Dropdown List* and *Drag & Drop* options, it is necessary to define alternative answers for selection. That is why a number of possible answers are to be inserted in the response field. The answers are separated using a comma and the correct answer should be marked with an asterisk (`*`) before it.

> **Note**
> To use a decimal value as answer, for example `1,5`, add a backslash to escape the comma.
> For example: `1,1\,5,2,3,4`

> **Note**
> Make sure that the number of defined gaps matches the number of answers.

Settings

- *Shuffle Solutions:*
  Activate this setting to mix answers for the *Drag & Drop* and *Dropdown List* types into the corresponding selection for a gap.
- *Use Answer 1 Only:*
  The use of just one answer list is possible in connection with the *Dropdown List* and *Drag & Drop* types if only

one list with possible answers is to be made available for the entire *Fill in the Blanks*, to which the answers must be allocated accordingly. The correct answers are marked with an asterisk (*). Each answer can only be used once for a gap.

Quiz item on book page

For a *Fill in the Blanks* quiz item on a book page, further settings are available:

- *Design Controls* and *Design* (Subcategories):
  The subcategories contain parameters to specify the appearance of the quiz item.

4.9.2.4.4 Matching

You can create a quiz item in which texts or pictures must be matched to one another using the *Matching* quiz item.

To create this quiz item, proceed as follows:

1. Set up how the answers are to be matched. Select an *Interaction*:
   - *Drop-Down List:*
     All available answers are listed out and must be chosen according to the question.
   - *Drag & Drop:*
     All answers are available as fields in any order and are to be matched to the questions.
2. Now define the matches. Here, a *Question* must be entered and the matching answer must be defined in the *Answer* field.
   To do this, you must enter the corresponding question / answer text into the text fields.

> **Note**
> Make sure that the number of questions is equal to the number of answers and that an answer has been allocated to each question.

Matching pictures

Alternatively, you can add pictures to texts. This means that either the question and answer both contain pictures or only one of the two do. This can be done by inserting pictures using the HTML editor. You should proceed as follows:

1. You may only use the drag & drop function for matching up pictures. Set up this functionality in the *Type* section.
2. In the HTML editor of one of the questions or answers go to *Insert Object* + *-> Insert Image File...*
3. Open the folder containing the picture you wish to insert and select the picture file. Confirm this with *Open*.
4. In addition to the inserted picture, you can also add text.
5. Repeat steps 2 and 3 accordingly for the next questions / answers of the quiz item.

> **Note**
> Do not use picture files that are too large (*height, width*) for *Matching* so that they display correctly and do not have to be cropped.

> **Recommendation**
> Where there is an association between an image question and text response, the height of the text field in question aligns with that of the associated image. With images of different height, this results in different text field heights, which betrays the correct allocation of the answers.
> To align the text fields, you can modify the height of the text fields by using spaces (`Return` key).

Quiz item on book page

For a *Matching* quiz item on a book page, further settings are available:

- *Design Controls* and *Design* (Subcategories):
  The subcategories contain parameters to specify the appearance of the quiz item.

4.9.2.4.5 Connection

This quiz item allows you to establish connections between questions and answers in text or image form. This involves creating a line to highlight the assignment of a selected answer to a question.

To create a connection, select a question by clicking on it with the mouse. Then use the mouse again to specify the appropriate answer.

The following is required to create a quiz item *Connection*:

- Define the content to be connected. You can use both texts and images for this purpose.

  Enter a *Question* in the appropriate field and it a corresponding *Answer*.

> **Note**
> Ensure that the number of questions matches the number of answers and that an answer is assigned to each question.

When playing back the project, questions are presented in sequence and the answers out of sequence.

Inserting images

To define images as a question or answer, proceed as follows:

1. In the HTML editor corresponding to a question or answer, go to the function *Insert Object* + *-> Insert Image File...*
2. Call up the folder containing the image to be inserted and select the image file. Confirm this by clicking on *Open*.

3. You can now insert an additional text in the text box to accompany the inserted image.
4. Repeat steps 2 and 3 for the other questions and answers in the quiz item.

> **Note**
> Take care when Inserting images that you do not use image files that are too big (height, width) so that they can be displayed correctly when arranging the objects and do not have to be wrapped.

Quiz item on book page

For a *Connection* quiz item on a book page, further settings are available:

- *Design Controls* and *Design* (Subcategories):
  The subcategories contain parameters to specify the appearance of the quiz item.

4.9.2.4.6 Sorting

Text responses can be sorted into the correct order using the *Sorting* quiz item. This quiz item can be used, for example, to ask questions about the order in which a process must be carried out where the individual steps must be sorted.

To create a quiz item for sorting answers, proceed as follows:

1. Use the *Interaction* option to select how the possible answers are to be displayed
   - *Drop Down List:*
     All of the defined answers are displayed and should be selected accordingly.
   - *Drag & Drop:*
     All answers are positioned as fields in any order and are to be sorted into the correct order.
2. Select an *Alignment* in which the answer fields are to be sorted. *Vertical* and *Horizontal* can be chosen here.
3. Set the answers. Enter these into the answer fields in the correct order. These answers will be mixed up on generation of the quiz.
   Depending on the number of answers, a corresponding drop down list or drag & drop field is created.

Quiz item on book page

For a *Sorting* quiz item on a book page, further settings are available:

- *Design Controls* and *Design* (Subcategories):
  The subcategories contain parameters to specify the appearance of the quiz item.

4.9.2.4.7 Slide Control

In a *Slide Control* quiz, you can define a range of numbers and answer value within this range. During playback, the learner has to choose an answer using the slide control.

To create a slide control quiz, proceed as follows:

1. Enter a numerical range for your slider in the *Range* parameter. Enter the start and end values as whole numbers separated by a hyphen.
   For example: `5-20`
   Only one start and one end value can be defined. Additional values, for example, 2-5-9 are not permitted.
2. Enter the *Answer* as a whole number.
   For example: `7`
   You can only define one number as the *Answer*. It is not possible to select more than one number or define a number range for the answer.

> **Note**
> Make sure that you only use integers. Using alternative numerical values or words is not permitted.

Quiz item on book page

For a *Slide Control* quiz item on a book page, further settings are available:

- *Start Value:*
  Specifies a value, which is used as start position for the slider.
- *Design Controls* and *Design* (Subcategories):
  The subcategories contain parameters to specify the appearance of the quiz item.

4.9.2.4.8 Grid

You can create tables in which questions and answers are placed opposite one another using the *Grid* quiz item. The questions can be answered by ticking one of the possible answer options.

To create a *Grid* quiz item, you must create a table with rows and columns. To do so, proceed as follows:

1. Set the possible answers in the *Possible Answers* section. The number of answers defines the number of columns. These are then displayed horizontally in the head of the table.
   When entering the answers, they must be separated by commas.
   For example: `File,Edit,View,Insert`
2. Formulate the questions for the quiz item in the *Question x* parameter. These are then ordered vertically in the left rows.

3. You can define the answers in the *Position of Correct Answer* field. Here, a number value must be entered, which refers back to an answer from the *Possible Answers* parameter.
   For example, if you defined three answers and want one of your questions to have Answer 2 as the correct answer, then enter 2 into the answer field of the corresponding question.

Settings

- *Shuffle Solutions:*
  Activate this parameter to show the *Possible Answers* in any order. If this setting has been deactivated, the entries made under possible responses are shown in the same order in which they were input in the text field.

Quiz item on book page

For a *Grid* quiz item on a book page, further settings are available:

- *Design Controls* and *Design* (Subcategories):
  The subcategories contain parameters to specify the appearance of the quiz item.

4.9.2.4.9 Puzzle

The *Puzzle* quiz item lets you create a puzzle from a picture file. The task is to reassemble the original picture correctly.

Here, an uploaded picture is divided and the separate parts are mixed randomly. The degree of fragmentation can be set individually. The user can then use drag&drop to arrange the image components in the correct layout and thus generate the original image.

The following shows you how to go about creating a *Puzzle* quiz item:

1. Insert a picture file via the *Image* parameter.
   The file can be inserted using the *Replace Image* command.

> **Note**
> Note that quiz puzzles do not contain *Media File* parameters. The *Media File* area is used to display the *Help Image* and is therefore not available for use in other media files.

2. After inserting the picture, the puzzle must be fragmented:
   - *Pieces Horizontal:*
     The numerical value entered defines the number of parts into which the original image is subdivided horizontally.
   - *Pieces Vertical:*
     The numerical value entered defines the number of parts into which the original image is subdivided vertically.

> **Note**
> If, when fragmenting the puzzle, two optically identical fields are found, it may be the case that it cannot be recognized which picture belongs to which field. For this reason, the different puzzle parts should be fragmented in such a way as no identical parts appear.
> Alternatively, it is possible to use an image processing program prior to this to change an optically identical picture by inserting a different-colored point, the size of a single pixel, into the picture.

3. The composition of the puzzle can be set using the *Interaction* selection. A difference is discerned between the following two modes:
   - *Arrange in One Field*
   - *Arrange in Second Field*
4. This selection allows you to determine whether the user works directly within the parts of the puzzle shown or is shown a second, empty field into which he drags the parts of the puzzle.

> **Note**
> Note that the *Puzzle* quiz item is not produced as well on generation of the documentation as the option of doing puzzles is not possible in the corresponding document format.

Further options

- *Show Help Image:*
  The original picture can be shown next to the puzzle by using the *Show Help Image* parameter. This parameter is activated in the initial setup.

Quiz item on book page

For a *Puzzle* quiz item on a book page, further settings are available:

- *Fields Side by Side* (*Options* subcategory):
  Specifies, the source field and the answer field are positioned side by side instead of below each other. The parameter is used for the *Interaction* type *Arrange in Second Field*.
- *Design* (Subcategory):
  The subcategory contains parameters to specify the appearance of the quiz item.

Help Image

For a *Puzzle* on a book page, you can insert a help image as additional book page object. Use the *Image* object, to insert an image.

4.9.2.4.10 Hotspot

With the *Hotspot* quiz item, a quiz can be created in which a pre-defined area on a picture must be specified by selecting it.

To create *Hotspot* quiz item in a project, proceed as follows:

1. Use the *Image* parameter to insert the corresponding picture file within whose area a section must be selected by the user.
   The file can be inserted using the *Replace Image* command.
2. After inserting the picture, it is necessary to define an area for selection. This area can only be defined in the shape of a rectangle.
   Select the *Define Hotspot* function in the header of the macro editor.
3. After selecting the *Define Hotspot* button a window will open in which the inserted picture will display. In it, you will find a red selection box whose size and position can be changed so that the picture section can be set.
4. Now close the window with the *Confirm Selection* button.

Quiz item on book page

To create a *Hotspot* quiz item on a book page, proceed as follows:

1. Use the *Image* parameter to insert the required picture file.
   You can insert the file by using the *Replace Image* command.
2. Define an area for the hotspot selection.
   The highlight in the image box shows the current hotspot area. You can move the hotspot by drag and drop to another position and change the size by using the pointers on the highlighted border.

For a *Hotspot* on a book page, further settings are available:

- *Hotspot: Left, Top:*
  Specifies the position of the hotspot area.
- *Hotspot: Width, Height*
  Specifies the size of the hotspot area.
- *Pin* (Subcategory):
  The subcategory *Pin* offers parameters to define an individual pin to select the hotspot. You can insert an image.
  The image can also be a sprite image. This is an image file that combines many icons into one file. Using the *Sprite* parameters, you can define the image area of the pin on the file so that only this selection is shown.
- *Design* (Subcategory):
  The subcategory contains parameters to specify the appearance of the quiz item.

4.9.2.5 Documentation Macros

Documentation macros enable the compilation of extensive process documentation in addition to the recorded simulation. These macros are available to document the recorded project accordingly and to supplement the content relevant to the documentation, as well as to structure the content.

Icon	Name
	Header Information
	Partial Screenshot
	Note
	Description
	Heading
	Document Highlight
	Arrow
	Page Break
	Document Properties
	Revision Entry
	Input Values
	Logon Values

In the following chapters, you will find further information about the documentation macros.

4.9.2.5.1 Header Information

The *Header Information* macro allows you to insert a title as well as a description in the documentation.
The macro can be used for single documents to create a document title without numbering. It is recommended to hide the project title in the documentation settings.

Parameters of the macro

The following parameters are available:

- *Title:*
  You can enter a title. The title uses the text style *Title* in the Microsoft Word document.
- *Description:*
  You can enter a description. The description can contain a subtitle or additional text and is formatted with the text style *Paragraph* in Microsoft Word.

4.9.2.5.2 Transaction Code

The *Transaction Code* refers specifically to recording SAP applications and is created when you select a transaction in SAP.
When you generate documentation, a table with details of the transaction code and the menu path is created.

Parameters of the macro

The following parameters are available:

- *Transaction Code*:
  Contains the recorded transaction code.
- *SAP Menu Path:*
  You can enter an SAP menu path for the transaction to be able to find it in the SAP system menu.

4.9.2.5.3 Partial Screenshot

The *Partial Screenshot* macro allows you to create a screenshot of a specific area of the current screenshot. The partial screenshot can be used, to show an area of an application page in detail.

Parameters of the macro

The following parameters are available:

- *Title:*
  You can enter a title for the partial screenshot.
  When no caption has been entered, a consecutive image numbering system will be used in the documentation.
- *Screenshot:*
  Contains the partial screenshot image.
- *Show Actions:*
  Allows you to show the recorded actions as highlights on the screenshot. The parameter hides the actions on the screenshot of the *Screen* macro.
  With activated parameter you can use the partial screenshot instead of the *Page* macro for your documentation.

Creating a partial screenshot

To create a partial screenshot, proceed as follows:

1. Select a *Screen* macro in the thumbnail view.
2. Insert the *Partial Screenshot* macro using the *Insert Documentation Macro* toolbar.
   An editing window with the screenshot is opened.
3. Define the screenshot area.
   Adjust the selection border by moving the anchor points.
4. Select *Confirm Selection* to insert the screenshot.

Editing the partial screenshot

To edit a partial screenshot, select *Manual Crop* in the object editor. Afterwards, the editing window with the screenshot of the *Screen* macro will be opened. You can change the selection border in the editor window.

4.9.2.5.4 Note

The *Note* macro allows you to insert important information with a highlighting icon in the documentation.

Parameters of the macro

The following parameters are available:

- *Text:*
  Contains the note text for the macro.

Type icon

A *Type (Icon)* can be assigned to the note, which can be selected from four different types. Each type is represented by an icon:

Type	Icon
Info	
Remark	
Tip	
Warning	

The images of the icons are located in the resources *trainer Style* and *Documentation Style*. You can replace these with your own images.

Creating a note

To create a note, proceed as follows:

1. Select a macro in the thumbnail view.
   The *Note* will be inserted after the selected macro
2. Insert the *Note* macro using the *Insert Documentation Macro* toolbar.
   A dialog box is opened.
3. Select a *Type (Icon)* and enter a *Text*.
4. Select *Ok* to insert the macro.

4.9.2.5.5 Description

The *Description* macro allows you to insert additional information in the documentation.

Parameters of the macro

The following parameters are available:

- *Text:*
  Contains the description text for the macro.
- *Reset Global Index Counter:*
  Defines, that the numbering of the text start with '1'. Deactivate the option to use the numbering of all macros in the step consecutive.

Creating a description

To create a description, proceed as follows:

1. Select a macro in the thumbnail view.
   The *Description* will be inserted after the selected macro.
2. Insert the *Description* macro using the *Insert Documentation Macro* toolbar.
   A dialog box is opened.
3. Enter a *Text*.
4. Select *Ok* to insert the macro.

4.9.2.5.6 Heading

The *Heading* macro allows you to insert a heading in the documentation.
The macro can be used for single documents to create an individual document title or to insert an additional title in the project structure.

> Recommendation
> Use this macro for single documents to create an additional heading. The macro is not recommended for compound document as the headings are based on the complete content structure.

Parameters of the macro

The following parameters are available:

- *Title:*
  You can enter a title.
- *Format Template:*
  Defines format template and heading level of the title. You can enter a value between 'h1' - 'h9'.

Creating a heading

To create a description, proceed as follows:

1. Select a macro in the thumbnail view.
   The *Heading* will be inserted after the selected macro.
2. Insert the *Description* macro using the *Insert Documentation Macro* toolbar.
   A dialog box is opened.
3. Enter a *Text*.
4. Select *Ok* to insert the macro.

4.9.2.5.7 Document Highlight

The *Document Highlight* macro allows to highlight a specific area on the screenshot.

Parameters of the macro

The following parameters are available:

- *Text:*
  You can enter additional information to the highlight. The text is sequentially numbered in the step.

Creating a highlight

To create a highlight, proceed as follows:

1. Select a *Screen* macro in the thumbnail view.
2. Insert the *Document Highlight* macro using the *Insert Documentation Macro* toolbar.
   An editing window with the screenshot is opened.
3. Define the highlight area.
   Adjust the selection border by moving the anchor points.
4. Select *Confirm Selection* ✔ to insert the highlight.

Editing the highlight

To edit a highlight select *Edit* in the object editor. Afterwards, the editing window with the screenshot of the *Page* macro will be opened. You can change the selection border in the editor window.

4.9.2.5.8 Arrow

The *arrow* macro allows to mark a specific point on the screenshot.

Parameters of the macro

The following parameters are available:

- *Text:*
  You can enter additional information to the arrow. An arrow icon is inserted in front of the text in the document.
- *Arrow Color:*
  Specifies the color of the arrow.
- *Orientation:*
  Specifies the orientation of the arrow. You can select an orientation from the drop-down list.

Creating an arrow

To create an arrow, proceed as follows:

1. Select a *Screen* macro in the thumbnail view.
2. Insert the *Arrow* macro using the *Insert Documentation Macro* toolbar.
   An editing window with the screenshot is opened.
3. Define the position and size of the arrow:
   1. Move the arrow by using drag&drop.
   2. Change the orientation by using the `R` key
   3. Adjust the selection border by moving the anchor points.
4. Select *Confirm Selection* ✔ to insert the arrow.

Editing the arrow

To edit an arrow select *Edit* in the object editor. Afterwards, the editing window with the screenshot of the *Page* macro will be opened. You can change the selection border as well as the orientation in the editor window.

4.9.2.5.9 Page Break

The *Page Break* macro inserts a page break in the documentation. This allows you to specify a page break at a specific position in the project structure.

4.9.2.5.10 Document Properties

The *Document Properties* macro assigns contents to field functions of a Microsoft Word document. This involves defining document properties and inserting these as field functions in the template.

Parameters of the macro

The following parameters are available:

- *Name:*
  Contains the field function of the template.
- *Value:*
  Contains the content for the field function to be displayed in the document.

Defining a field function in Microsoft Word

A field function in Microsoft Word is defined as follows:

1. Open the template where you want to insert the field function.
2. Open the *File -> Info* page.
3. Click on *Properties -> Advanced Properties* to open the properties dialog box.
    1. Navigate to the *Custom* tab.
    2. Insert the property into the *Name* field and the corresponding content into the *Value* field. You can use the same entry.
       The content will be replaced by the macro.
    3. Click on *Add*.
    4. Confirm the dialog box with *OK*.
4. Then insert the field function into the template under *Insert -> Quick Parts -> Field...*
    1. Select the entry *DocProperty* as the *Object Name*.
    2. Select your defined field function as the *Field Property*.
5. Now save your template.

> **Note**
> If you insert the *Document Properties* macro for a BPP or Audit & Compliance document in your project, the field functions which are contained in the particular templates are read automatically and displayed in the macro editor. See also the chapter ***Process Documents***.

4.9.2.5.11 Revision Entry

The *Revision Entry* macro allows you to document modifications in processes. For each modification a macro can be created and grouped below one another.
All revision entries are created as revision history table in the documentation.

Parameters of the macro

The following parameters are available:

- *Revision Date:*
  Indicates the date of the revision.
- *Change:*
  Contains a description of the revision.
- *Changed by:*
  Indicates the author of the revision.
- *Revision ID:*
  Contains a reference number of the revision.

Documentation settings

The revision history can be activated as fragment in *Documentation Settings*. In the subcategory *Revision History*, there are further settings:

- *Hide in Project Content:*
  Defines, that the revision history only inserted as fragment.
  Deactivate the setting to display the revision history at the position as it is inserted in the project.
- *Sorting:*
  Defines the sort order of the table if several revision entries have been created.

4.9.2.5.12 Input Values

The *Input Values* macro creates a table including all available entries of the *Input Text* macros in a project. As a result, they can, for example, be clearly subdivided at the beginning of a document to make them directly available in a work process.

Parameters of the macro

The following parameters are available:

- *Show Object Name:*
  Inserts the content of the object name parameters as column in the table.
- *Show Value:*
  Inserts the content of the value parameters as column in the table.
- *Show Bubble Text:*
  Inserts the content of the bubble text parameters as column in the table.
- *Show ROC:*
  Inserts the content of the ROC parameters as column in the table.
- *Show Description:*
  Inserts the content of the description parameters as column in the table.

Input values as fragment

Instead of this macro, you can also insert the input values as fragment in *Documentation Settings*. In the subcategory *Input Values,* you can specify the content.

4.9.2.5.13 Logon Values

The *Logon Values* macro allows creating a table including the necessary data requested by a process to log on to the particular system.

Parameters of the macro

The following parameters are available:

- *User ID:*
  Defines the ID of the user.
- *Role:*
  Defines the role of the user, for example, administrator, learner.
- *Application:*
  Defines the application or system to log on to.
- *View:*
  Defines the corresponding application page or view, which has to be selected for the process.

4.9.2.6 Macro Parameters for Simulation Macros

Each macro contains parameters, which define the design and the behavior for different use case like rerecording, playback, and documentation. You are able to adapt these parameters for a selected macro in the macro editor.

The following section gives you an overview about the available parameters. Further information about a macro and specific macro parameter is available in the macro descriptions.

> **Note**
> The available settings are specific for each macro.

4.9.2.6.1 General Parameters

In the macros, there are the following general parameters:

- *Comment:*
  You can enter a general comment to assist editing in the *Comment* field. This is displayed in the thumbnail view in place of the macro text.
  You can amend the displayed comment as follows:
  - Comment preceded by '+': Comment is appended to the macro text in brackets
  - Comment preceded by '*': Comment is inserted in brackets in front of the macro text
  - Comment preceded by '/': The comment is not displayed, only the macro text
- *Use Text from* (Interaction macro):
  Specifies the text type used. This allows you to use different texts for demo mode and practice mode or to use the same text for both modes.
  - *Both Modes*
  - *Demo Mode*
  - *Practice Mode*
- *Demo Text / Practice Text* (Interaction macro):
  Contains the text for the macro to be displayed for a specific mode.

- *Text:*
  Contains the text for the macro to be displayed during playback. For some macros the parameter is mode-specific.
- *Object Name* (Interaction macro):
  Contains the name of the recorded control.
  The parameter is used in all interaction macros and is shown in the bubble text.
- *Object Image* (Interaction macro):
  Contains the icon or an image of the recorded control.
  The parameter is used in all interaction macros and is shown in the bubble text.

Editing object name and object image

It may be necessary to edit the name or the image of the parameters. For example:

- If a control in an application has changed but it is not worth rerecording a project.
- If changes have been made to the highlights on a screenshot.

Any change to the parameters is automatically incorporated in the bubble texts.

- **Editing an object name**
  Change the name by entering a new name.
- **Editing an object image**
  Select the *Update Object Image* function in the macro editor. An editing window appears in which you can make the necessary changes to the icon. Drag the highlight to the desired position and confirm with *Confirm* .
  You can also use the *Replace Image...* function to insert an image. The button opens an option menu with functions for creating or inserting an icon. Select the appropriate method.

4.9.2.6.2 Subcategory: Bubble

The parameters of the *Demo Bubble* and *Practice Bubble* subcategories are used for the display of the action macro's bubbles.
The settings provide the possibility to define different appearances for the bubble in the different modes.

- *Style:*
  Here you can choose which bubble style you would like to use. The bubble styles are saved in the *Resources* .
- *Width/Height:*
  Specifies the size of the bubble in pixels.
- *Orientation:*
  Here you can specify in which direction the tip of your bubble should be pointing. If you choose the option *Center* – the bubble will have no point and it will be positions in the middle of the chosen area.
- *Display Duration:*
  Specifies, how long a bubble is visible during playback. The setting is defined in seconds.
- *Translate Manually:*
  The option *Translate Manually* option ensures that customized bubble content is not replaced by text automatically generated by *Automated Translation* or a rerecording. The options are activated as soon as the

contents of a bubble is edited manually. In this case the contents can be exported by using *Export Translatable* (menu *Tools -> Translation*) in order to be translated manually by a translator.

4.9.2.6.3 Subcategory: Simulation

The subcategory *Simulation* contains parameters that specify the display of content during playback:

- *Highlight in Demo / Practice:*
  Specifies, that the highlight for the control is displayed during playback. The setting is available for demo mode and practice mode.
- *Bubble in Demo / Practice:*
  Specifies, that the bubble with the explanation is displayed during playback. The setting is available for demo mode and practice mode.
- *In Mode:*
  Specifies, for which of the modes the object should be displayed during playback.

4.9.2.6.4 Subcategory: Documentation

The macro parameters required for documentation creation are found in the subcategory *Documentation*.

- *Show in Documentation:*
  Specifies, whether this macro is to be taken into consideration during the creation of documentation. Disabling this parameter makes it possible to hide certain, specific actions described by macros in the documentation.

Screen macro

For the *Screen* macros, there are the following parameters:

- *Show in Process:*
  Specifies to show the step in the process flow of a documentation.
- *As Heading in Documentation:*
  Specifies to use the *Screen Title* as heading in the documentation.
- *Image Size:*
  Specifies the size of the screenshot in percentage.
- *Screenshot Position / Size:*
  Shows the position and size of the screenshot.
- *Border Width:*
  Puts a border at your defined pixel width around the screenshot. The standard color is white and can be changed in *Documentation Settings*.

Interaction macros

For the interaction macros, there are the following parameters:

- *Highlight Position / Size:*
  Shows the position and size of the highlight.

> Recommendation
> Use the *Document Highlight* function to change the marker position.

- *Marker Orientation:*
  Specifies the orientation of the marker on the screenshot. It is recommended to adapt the markers if the screenshot displays more than one marker.

4.9.2.6.5 Subcategory: Rerecord

The subcategory *Rerecord* contains parameters that are required for a rerecording.

- *Interactive:*
  The option *Interactive* means that when a recording is being repeated, the rerecording will stop at this macro and manual recording of the macro will resume. Automatic rerecording will continue thereafter. This option is particularly important at those points in the project where it is known that the desired object for the action to be recorded is to be found in another position or a different object for the recording must be selected.

> Note
> Do not change the parameters of the *Object Type*, *Click Position*, *Recognition Method,* and *Object Key* manually to allow a correct rerecording.

4.9.2.6.6 Subcategory: Control

The parameters describing how a control is displayed and executed in the project can be defined in the *Control* subcategory.

- *Position and Size:*
  The parameter defines how a control is orientated in the screen view in relation to the upper left-hand corner as well as the width and height of the control. For editing the parameters select the *Edit* button to open an editing dialog box.

Various individual parameters are available for the different interactions:

- **Macro Text Input:**
  The color and text design of the *Text input* macro can be defined. It can also be defined whether the text entry is to be portrayed as a password.
  - *All Values:*
    If control is a drop-down box is included, all of the drop-down box's options are saved in the parameter

All Values. The chosen entry is flagged with an asterisk {*}. While the project is being edited, the value can be changed by assigning the flag to the corresponding entry.

- **Macro Mouse Action:**
  For the *Mouse Action* macro it is possible to define both the cursor type and the state of the button when it is clicked.
- **Macro Checkbox:**
  For the *Checkbox* macro it is possible to define both the cursor type and the type of checkbox, whether the latter is to be used as a radio button.

4.9.2.6.7 Subcategory: Advanced

The subcategory *Advanced* contains the parameter:

- *Jump Target:*
  Displays the selected jump target after the creation of a branch. You can select another target from the drop-down list.

4.9.2.7 SAP Companion Macros

For SAP Companion projects, the following macros are available:

Icon	Name
	Settings
	Screen
	Tile
	Link Tile
	Guided Tour Step

4.9.2.7.1 Settings

The *Settings* macro is required for the initialization of the content and defines the project type. It is located at the beginning of a project. When using the recording, this macro is inserted automatically.

Parameters of the macro

The following parameters are available:

- *Type:*
  Specifies the content type of the project.
  - *Context Help*
  - *Guided Tour*

4.9.2.7.2 Screen

The *Screen* macro defines the application page.

Macro Parameters

The macro contains the following parameters:

- *Title:*
  Contains the name of the screen. The name of the application window is inserted during the recording.
- *Screenshot:*
  Contains the screenshot of the recorded screen.

Further Functions

At the top of the macro editor, the following functions are available for the macro:

- *Update Screen:*
  This function allows you to update the recorded screen.
- *Add Tile* (Context Help):
  This function allows you to add a *Tile* for the *Screen*. The tile is added below the screen.
  See also *Tile*.
- *Add Tile with Link* (Context Help):
  This function allows you to add a *Link Tile* macro.
  See also *Link Tile*.

4.9.2.7.3 Tile

The *Tile* macro allows you to add help information to be displayed in a tile. You can edit the title and the text of the tile in the carousel and the text of the bubble.

The macro can be inserted using the macro editor's toolbar when a *Screen* macro is selected.

Parameters of the Macro

The following parameters are available:

- *Tile Title:*
  Contains the title of the bubble and the carousel tile.
- *Tile Text:*
  Contains the text for the macro to be displayed in a tile of the carousel.
- *Bubble Text:*
  Contains the text of the bubble.
- *Hotspot Size:*
  Defines the size of the hotspot. Select a size from the dropdown list.
- *Bubble Size:*
  Defines the size of the bubble. Select a size from the dropdown list.

4.9.2.7.4 Link Tile

The *Link Tile* macro allows you to add a link for further content in the tile. The content can be SAP Enable Now content, an external web page, or a document. Alternatively, you can display content in a lightbox as an overlay on the screen.

The macro can be inserted using the macro editor's toolbar when a *Screen* macro is selected.

Parameters of the Macro

The following parameters are available:

- *Tile Title:*
  Contains the title of the bubble and the carousel tile.
- *Tile Text:*
  Contains the text for the macro to be displayed in a tile of the carousel.
- *Link to:*
  Specifies the link target. Select *Edit Link...* to open the *Edit Link* dialog box.

- *Show in Lightbox:*
  Specifies that the linked object is displayed in an overlay on top of the application. Otherwise, it will open in a new browser window or tab.
- *Lightbox Size:*
  Specifies the size of the lightbox. There are the following options:
  - *Full Screen*
  - *Client Area*
  - *User-Defined*
  - *User-Defined (Overlay):*
    The option allows you to specify a lightbox with a custom size, which will be displayed as an overlay of the application and the carousel.
- *Width, Height:*
  Specifies the width and the height of the lightbox. The parameter is displayed for the option *User-Defined*.
- *Show as Splash Screen:*
  Specifies that the linked object will be shown the first time in each session when the corresponding application is opened. Only the first tile with splash screen will be shown.

4.9.2.7.5 Guided Tour Step

The *Guided Tour Step* macro defines a step of the guided tour for a recorded control of the application.

Parameters of the Macro

The following parameters are available:

- *Bubble Title:*
  Contains the title of the bubble.
- *Bubble Text:*
  Contains the text of the bubble.
- *Show Arrow:*
  Specifies that the bubble is shown with an arrow.
- *Center Bubble:*
  Specifies that the bubble is shown in the center of the screen. If the setting is deactivated, the bubble is shown on the object.
- *Object Image (Advanced Layout):*
  Contains the icon or an image of the recorded control. The object image will be shown in the bubble text.

4.9.2.8 SAP Companion for desktop Macros

Fundamentally, there are the following macros for the SAP Companion for desktop projects:

Icon	Name
	Context Help Style
	Guided Tour Style
	Application Context
	Screen Context
	Guided Tour Step
	Mouse Action
	Input Text
	Select Single
	Radio / Checkbox
	Explanation
	Link Tile Available in SAP Companion mode
	Page Specifier See *Recording a Page Specifier*

Icon	Name
	Include SAP Companion for desktop Project See *Merging Projects*

4.9.2.8.1 Context Help Style

Used for type: Context help

The *Context Help Style* defines how the context help is displayed during playback. The macro is located in the first step of a project.

The following settings are available:

- *Display Variant:*
  The setting defines the variants for the object bubble. See also *Variants of the Object Bubble*.
  The following variants are available in the drop-down list:
  - *Icon*
  - *Tooltip*
  - *Bubble*
- *Mini Icons Style:*
  Specifies a style resource for the mini bubbles of the object bubbles.
- *Highlights:*
  Specifies whether highlights are displayed for the objects.

4.9.2.8.2 Guided Tour Style

Used for type: Guided tour

The *Guided Tour Style* defines how the guided tour is displayed during playback. The macro is located in the first step of a project.

The following settings are available:

- *Bubble Style:*
  Specifies the bubble style for displaying the object bubble. All available bubbles of the workarea are displayed in the dropdown list.
- *Mini Icons Style:*
  Specifies a style resource for the mini bubbles of the object bubbles.

- *Highlights:*
  Specifies whether highlights are displayed for the objects.
- *Start from Arbitrary Step:*
  Specifies that the guided tour is started from an arbitrary step and not from the beginning.
- *Focus Layer:*
  Displays a gray layer to highlight the required control of the current step.
- *Restricted Mode:*
  Specifies that only the current action can be executed. The other controls of the application page are blocked. The setting can be used if *Focus Layer* has been activated.
- *Interactive Mode:*
  Specifies that the user has to navigate in the object bubble to the next step. No page recognition is done during playback.
- *Start Automatically:*
  Specifies that this guided tour will be started automatically when SAP Companion for desktop is open, and the page key matches the current user screen for the first time. After that, the tour can be started manually from SAP Companion for desktop.

Guided Tour Window

The style and positioning of the window used for the guided tour can be customized in this area.

This area contains the following settings:

- *Style:*
  Specifies the style for displaying the window.
- *Alignment:*
  Specifies the alignment of the window of the screen. Activate the *Free* option, to specify a *Position*.
- *Position:*
  Specifies the position of the window on the screen. The values are specified in pixels and relate to the upper left-hand corner of the screen.
- *Size:*
  Specifies the width and height of the window in pixels. If the amount of text to be displayed exceeds the area available in the window, a scrollbar appears automatically.

Tour End

The subcategory *Tour End* contains the information that is displayed at the end of a completed guided tour.

- *End Window:*
  Specifies that a window is shown at the end of the guided tour. The window allows the user to close the guided tour manually. If this option is deactivated, the window is not shown and the guided tour closes automatically.
- *Text:*
  You can enter the text to be displayed in the bubble in the text box. The text box is preset with a default text.
- *Next Project:*
  You can select a project that is started after the completion of the current tour. The new tour starts immediately and no end bubble is displayed.

Advanced

- *Source:*
  If a project was converted from a simulation, the parameter indicates the UID of the original project.

4.9.2.8.3 Application Context

The *Application Context* macro defines the application recorded for the SAP Companion for desktop project. The macro is always placed in the second step.

Macro parameters

The macro contains the following parameters:

- *Display Name:*
  Defines the title which will be displayed during playback.
- *Program:*
  Contains the name of the program as used by the operating system. The parameter can contain multiple entries separated by a semicolon.

Further functions

At the top of the macro editor, you will find the following functions for macros:

- *Record Compatible Application:*
  This function allows you to record an additional application. The executable name will be saved in the *Program* parameter.
- *Insert Explanation:*
  This function allows you to insert an *Explanation* macro with information about the application.

4.9.2.8.4 Screen Context

The *Screen Context* macro defines the application page.

Macro parameters

The macro contains the following parameters:

- *Screen Title:*
  Contains the name of the application window.
- *Screenshot (Screen):*
  Contains the screenshot of the recorded screen.

- *Exclude from SAP Companion for desktop (Key):*
  Specifies that the page key will not be considered for the context recognition process in the SAP Companion for desktop.
- *Activate Form:*
  Specifies that the step is a form. All actions of the step are displayed in one bubble during playback.

Further functions

At the top of the macro editor, you will find the following functions for macros:

- *Update Screen:*
  This function allows you to update the recorded screen.
- *Record Page Specifier:*
  This function allows you to record a page specifier for the screen. See also the chapter *Recording a Page Specifier*.
- *Record Object:*
  This function allows you to record an object for the screen.
- *Insert Explanation:*
  This function allows you to insert an *Explanation* macro with information about the application.

4.9.2.8.5 Guided Tour Step

Used for type: guided tour

The *Guided Tour Step* macro defines the individual steps for the guided tour. This macro can be used to define the tour sequence. This macro is found at the beginning of a step.

The name of the guided tour step is defined in the *Name* field. This can be selected in the *Next Step* macro.

4.9.2.8.6 Explanation

The *Explanation* macro allows you to add further information to your project content.

The macro can be inserted during recording or from the macro editor. See also the chapter *Inserting an Explanation*.

Parameters of the macro

The following parameters are available:

- *Text:*
  Contains the bubble text.

- *Type (Icon):*
  A *Type (Icon)* can be assigned to the bubble, which can be selected from four different types. Each type is represented by an icon:

Type	Icon
Info	
Remark	
Tip	
Warning	

- *Force Display* (Context help):
  Specifies, that the macro content is always displayed as instant help, even if instant help is disabled during playback of SAP Companion for desktop.
- *Focus Layer* (Guided tour):
  Displays a gray layer to highlight the explanation.

4.9.2.8.7 Link Tile

The *Link Tile* macro is available in SAP Companion mode and allows you to add external links or content to the SAP Companion for desktop. It can be videos or PDF documents with further information or links to an external FAQ. The linked content can be displayed in a separate content window or a new browser window or tab and can also be used as an announcement.

4.9.2.8.8 Properties of the Interaction Macros

The macros for interactions are:

	Mouse Action
	Input Text
	Select Single
	Radio / Checkbox

The interaction macros contain the following properties, which are used for the playback of SAP Companion for desktop project:

General

- *Object Name:*
  Contains the recorded name of the object. You can change the text in the parameter.
- *Object Image:*
  Contains the recorded icon of the object. You can change the image by clicking on *Replace Image* .
- *Input Text:*
  Contains the input value of a text field. You can change the value in the parameter.
- *Text:*
  Contains the bubble text of the object. The bubble text is a text module from the dictionaries and can contain the object name, object image and input text.

Guided Tour

- *Optional:*
  This option specifies whether the step is optional for the user in a guided tour.
  During playback a different icon will be shown in the step list. If the control is not visible on the page or if the page is wrong the step will be skipped.
- *Focus Layer:*
  Displays a gray layer to highlight the required control of the current step.

Context Help

- *Display Variant (Advanced Layout):*
  The setting defines the variants for the object bubble. See also *Context Help Style*.
  The following variants are available in the drop-down list:

- *Global:*
  Uses the setting from *Context Help Style* macro.
- *Icon*
- *Tooltip*
- *Bubble*

Subcategories

- *Object Bubble:*
  Contains settings for the style and the behavior of the object bubble.
  See also *Subcategory: Object Bubble*.
- *Highlights:*
  Contains settings for the style of the highlight.

> Recommendation
> The highlights of the macros are deactivated by default. To activate the highlights, use the setting *Show Highlight*.

- *Next Step (Guided Tour):*
  Contains settings for jumping to the next guided tour step.
  See also *Subcategory: Next Guided Tour Step*.

Further functions

At the top of the macro editor, you will find the following functions for macros:

- *Update Object :*
  This function allows you to update the object.

4.9.3 Using the Project Editor

The project editor has different components, which allow you to edit your project. The main components are:

- *Thumbnail view*
- *Step view*
- *Macro editor*

You will find further information in the following chapters.

4.9.3.1 Thumbnail View

The thumbnail view sequentially displays the steps with their screenshots and corresponding macros. When selecting a macro, the corresponding screenshot is displayed in the step view with its highlights and bubbles, and the macros settings are displayed in the macro editor.

Changing the display size

The display size of the screenshots can be adjusted by changing the size of the thumbnail view of by using the mouse wheel with pressed `Ctrl` key.

Changing the order

The order of the macros or the steps can be changed using drag & drop. You can even move one or more macros within a step or all steps as a whole as well as assign new positions to one or more steps in the project.

> Recommendation
> Changing the order of steps or macros always results in a subsequent change to the project itself. For this reason, you should make sure the project is still a coherent unit.

4.9.3.2 Steps of a Project

A project uses steps to organize the content in sections. Generally, a step contains a screen and an interaction macro and can contain further macros. All steps are numbered consecutively and have a step name.

Steps are automatically inserted into the project during recording for each new screenshot. You can add further steps by using the menu entry *Insert -> Add Step* or during recording.

The order of the steps can be changed in the thumbnail view. A step can be previewed in step view.

Basic attributes

A step has the following attributes:

- *Name:*
  Contains the name of the step. In general, the name of the application window is entered during recording. You can change the name for your content.
- *Translate Manually:*
  Specifies, that the name will be used for translation when exporting a translation file. The parameter is activated when a name has been changed.
  You can activate the option manually to translate the name.

Steps in simulation projects

The step names are displayed in the progress display of the trainer during playback in demo mode. You can hide the step names in *Playback Settings*.

- *Show in Progress Display:*
  Specifies, that the step is displayed as control in progress display of trainer bar.
- *Jump Target:*
  Specifies, that the step can be used as jump target for creating a branch.

> **Note**
> Within a recorded project, the first step has a special status. It generally includes only the *Simulation Start* macro in order to properly initialize the project for playback. For this reason, it is never set as a *Jump Target*.

The step names can also be used as chapter title in a generated documentation. Active the use of the step name in *Documentation Settings*.

4.9.3.3 Step View

The step view displays the screenshot of the *Screen* macro and the content of the macros for a step. The view allows you to edit the size and position of highlights and bubbles directly on the screenshot.

4.9.3.3.1 Showing Bubbles

For steps with more than one macro, all bubbles can also be viewed simultaneously. This facilitates positioning bubbles and ensures that other areas in the application are not hidden by the bubbles by accident.

There are two options in the toolbar:

- *Show Bubbles for Step*
- *Show Bubble for Macro*

4.9.3.3.2 Selecting an Edit Mode

The edit mode specifies the displayed playback mode of the step view. The active edit mode is also used for the preview playback.

The *Edit Mode* control in the toolbar allows you to select a mode for editing.

4.9.3.3.3 Zoom

The *Zoom* functions allow you to zoom into a screen or a page of the edit view. This makes it easier for you to edit and to position objects.

The following functions are available in the editor toolbar:

- *Zoom In:*
  Zooms in to the screen.
- *Zoom Out:*
  Zooms out of the screen.
- *Show Selection:*
  Zooms to display the selected object in the editor view.

- *Zoom to Fit:*
  Zooms to display the full screen in the editor view.
- *Zoom to 100%:*
  Zooms to display the screen with a size of 100% in the editor view.

4.9.3.4 Macro Editor

The parameters for a macro are displayed in the macro editor and can be edited there. Select a macro in thumbnail view to display the parameters.

The parameters are divided into subcategories which you can open and close by clicking on the plus and minus symbol. At the top of the editor, there are additional functions for editing your macros.

Activating a parameter

The green button located in front of each setting indicates whether the parameter is active or inactive. Select the button to activate or deactivate the parameter.
If a parameter is deactivated, then the fallback value for the parameter is used.

Selecting a layout

A *Layout Selection* in the title bar allows you to show and hide detailed parameters for a macro. You can choose between *Standard Layout* and *Advanced Layout*. The parameters of the *Advanced Layout* are recommended for advanced users, who need a detailed set of parameters.

In macros that contain text the HTML editor is opened when selecting the text box.

4.9.3.5 Layouts

You can choose a layout to organize your standard components in the project editor. Layout changes influence the thumbnail view, the step view, and the macro editor. The layouts make it possible for you to change the look of your project editor to fit your needs.

The following layouts are available:

- *Horizontal Layout:*
  The components are aligned horizontally.
- *Vertical Layout:*
  The components are aligned vertically.
- *Divided Layout - 1:*
  The thumbnails and steps are aligned side by side, with the macro editor below it.
- *Divided Layout - 2:*
  The thumbnail view is displayed horizontally and the macro editor and the step view appear below next to one another.

- *Divided Layout - 3:*
  The thumbnail view is displayed horizontally and the macro editor and the step view appear below next to one another.

4.9.3.6 HTML Editor

The HTML editor allows you to create and to edit the text of your content. The text is created in HTML format.

Select a text field to open the HTML editor in a pop-up window.

4.9.3.6.1 Functions of the HTML Editor

The HTML editor offers the following functions:

Function	Description
Text styles	
¶ *Paragraph Style*	Contains the paragraph and list styles of the *Text Styles*. Select a style from the dropdown box to specify a style for a selected paragraph.
a *Character Style*	Contains the character styles of the *Text Styles*. Select a style from the dropdown box to specify a style for selected text.
▭ *Block Style*	Contains the block styles of the *Text Styles*. Select a style from the dropdown box to insert a block.
▦ *Table Style*	Contains the table styles of the *Text Styles*. Select a style from the dropdown box to specify a style for a selected table.
Text formatting and structure	
Font Type	Contains a list with all the available fonts that are installed on your PC. Select a font type from the dropdown box to change the font type of a selected text.
Font Size	Contains a list with predefined font sizes.

Function	Description
	Select a font size from the dropdown box to change the font size of a selected text.
B I U *Bold / Italic / Underlined*	Changes the format of a text. Select a button to set or to remove the format of a selected text.
A *Font Color*	Changes the color of a text. Select the button to open the *Color Selection* dialog box. Select a color to change the font color of a selected text. See chapter *Color Selection Dialog Box*.
A *Remove Formatting*	Resets a text back to its original format. Select the button to reset the format for a selected text. You can also go to the context menu of the text editor and select *Paste in Format > Unformatted Text*. To paste unformatted text using the keyboard, press `SHIFT+CTRL+V` on Windows in Producer or Manager or `OPTION+COMMAND+SHIFT+V` on Mac in the Manager.
1 2 3 ☰ *Numbered List / Bulleted List*	Creates a list of the selected type for a paragraph. The list uses the default styles for bulleted and numbered lists. You can also select a list style from the *Paragraph Styles*. Select a button to set or to remove the list of a selected text. For numbered lists, you can define a start value. Double-clicking a list opens a dialog to determine that value.
☰ ☰ ☰ *Align Left / Center / Align Right*	Changes the alignment for a paragraph. Select a button to set or to remove the alignment of a selected text.
⇤ ⇥ *Outdent / Indent*	Increases or decreases the indent for a paragraph. Select a button to indent a selected text. Select a button again to indent the text to the next level.
Edit and insert controls	
▦ *Table Operations*	Opens a dropdown menu with functions to edit a table.

Function	Description
Cell Operations	Opens a dropdown menu with functions to edit cells.
Show/Hide Outline	Shows the structure of the content as well as of borderless tables for editing.
Insert Object	Opens a dropdown menu with functions to insert objects in a text, for example, tables, links, placeholders, or images.
Further controls	
Left to Right / Right to Left	Toggles the text direction for a corresponding language.
Toggle Background Color	Switches the background color from yellow to grey to view and edit text better with lighter or darker font colors as needed.

4.9.3.6.2 Using Tables

You can insert tables into your content. A table uses a table style that can be specified in the *Text Styles* ¶a.

Inserting a table

To insert a table, proceed as follows:

1. Select the position for your table in your text.
2. Select *Insert Object* + *-> Insert Table...*
   The *Insert Table* dialog box is opened.
3. Specify the following parameters:
   1. *Columns:*
      Enter the number of columns.
   2. *Rows:*
      Enter the number of rows.
   3. *Alignment:*
      Select a text alignment:
      - *Auto*
      - *Left*
      - *Center*

    - *Right*
4. *Width:*
   Enter a value and select percent *%* or pixel *px* as unit.
5. *Header:*
   Select a header type:
   - *No Header*
   - *Header Row*
   - *First Column*
   - *Header Row and First Column*
6. *Table Style:*
   Select a table style. The dropdown box shows the table styles of the *Text Styles*.

4. Select *OK*.

The table is inserted in your text.

4.9.3.6.2.1 Editing a Table

To edit a table, there are the following options:

Updating a table

To update the parameters of a table, proceed as follows:

1. Select a table in your text.
2. Select *Table Operations* *-> Update Table...*
   The *Update Table* dialog box is opened.
3. Edit the following parameters:
   1. *Alignment:*
      Select a text alignment.
   2. *Width:*
      Enter a value and select percent *%* or pixel *px* as unit.
   3. *Table Style:*
      Select a table style.
4. Select *OK*.

The table is changed.

Changing or removing a table style

To change or to remove a table style, proceed as follows:

1. Select a table in your text.
2. Select the *Table Styles* dropdown box:
   - Select another style to change the style.
   - Select *None* to remove the table style and to keep the text only.

The style of the table is changed.

Deleting a table

To delete a table, proceed as follows:

> **Note**
> When deleting a table, the content of the table will also be deleted.

1. Select a table in your text.
2. Select *Edit Table* -> *Delete Table*.

The table is removed.

Converting a table to text

To convert a table to text, proceed as follows:

1. Select a table in your text.
2. Select *Edit Table* -> *Convert Table to Text*.

The table is removed and each text of a cell is inserted as paragraph.

4.9.3.6.2.2 Editing Rows and Columns

To edit rows and columns, there are the following options:

Inserting a column or row

To insert a column or row, proceed as follows:

1. Select a cell in your table.
2. Select *Cell Operations*.
3. Select a menu entry:
   - *Insert Column Left*
   - *Insert Column Right*
   - *Insert Row Above*
   - *Insert Row Below*

The column or row is inserted next to the selected cell.

Duplicating a row or column

To duplicate a column or row, proceed as follows:

1. Select a cell in your table.
2. Select *Cell Operations*.
3. Select a menu entry:
   - *Duplicate Column*

- *Duplicate Row*

The column or row is inserted next to the selected cell and contains the text and configuration of the source.

Deleting a column or row

To delete a column or row, proceed as follows:

1. Select a cell in your table.
2. Select *Cell Operations*.
3. Select a menu entry:
   - *Delete Column*
   - *Delete Row*

The column or row of the selected cell is deleted.

4.9.3.6.2.3 Editing Cells

To edit cells, there are the following options:

Updating a cell

To update the parameters of a cell, proceed as follows:

1. Select a table in your text.
2. Select *Cell Operations* -> *Update Cell...*
   The *Update Cell* dialog box is opened.
3. Edit the following parameters:
   - *Column Width:*
     Enter a value and select percent *%* or pixel *px* as unit.
   - *Row Height:*
     Enter a value and select percent *%* or pixel *px* as unit.
   - *Cell Background*
     Select *Choose Color...* to open the *Color Selection* dialog box. Select *Transparent* to remove the color.
   - *Horizontal Alignment:*
     Select a horizontal text alignment.
   - *Vertical Alignment:*
     Select a vertical text alignment.
4. Select *OK*.

The cell is changed.

Merging cells

To merge cells, proceed as follows:

1. Select two or more cells of a table.
2. Select *Cell Operations* -> *Merge Cells*

The cells are merged to one cell.

Splitting cells

To split a cell, proceed as follows:

1. Select a merged cell of a table.
2. Select *Cell Operations* -> *Split Cell*

The merged cell is separated into the original cells.

4.9.3.6.3 Inserting Objects

The *Insert Object* menu allows you to insert additional objects into your text.

You can insert the following objects:

- Table
- Link
- Placeholder
- Image or screenshot
- Video

4.9.3.6.3.1 Link

You can insert a link into your text or for an object in order to call up a website or an object from your workarea.

Inserting a link

To insert a link, proceed as follows:

1. Select a text or a position in the HTML editor.
2. Select *Insert Object* -> *Insert Link...* .
   The *Insert Link* dialog box is opened.
3. Select one of the options:
   - *Current Object*
   - *Workarea*
   - *Free*
4. Select an object from the workarea tree.
   or
   Enter a link in the *Link Target* text field.
5. Enter a tooltip in the *Tooltip* text field, if required.
6. Enter or change the *Display Text*, if required.
7. Confirm with *OK*.

Editing a link

To edit a link, proceed as follows:

1. Select a linked text in the HTML editor.
2. Select *Insert Object* + *-> Edit Link...* .
   The *Insert Link* dialog box is opened with the linked object or the entered link.
3. Edit the link.
4. Confirm with *OK*.

Inserting a link to a step

If you are working within a project, you can insert a link within the project to jump to another step:

1. Select *Insert Object* + *-> Insert Step Link...* .
   A *Select Step* dialog box is opened.
2. Select a step from the dropdown box.
3. Confirm with *OK*.

Removing a link

To remove a link, proceed as follows:

1. Select a linked text in the HTML editor.
2. Select *Insert Object* + *-> Remove Link* .

4.9.3.6.3.2 Placeholder

The placeholder inserts a variable that is dynamically assigned to specific content. This allows you to reuse available content and to change information centrally. The inserted texts can be individually formatted.

The following placeholders can be inserted:

- *Object Type: Name*
- *Object Type: Description*
- *Object Type: Short Description*
- *Macro: Object Image* (within project)
- *Macro: Object Name* (within project)
- *Macro: Hotkey* (within project)
- *Macro: Input Text* (within project)
- *Book Page: Text-to-Speech Text*

You can only insert content from the objects themselves or the objects at the next higher level in the content structure as placeholders in this case.

Inserting a placeholder

To insert a placeholder, proceed as follows:

1. Select *Insert Object* + *-> Insert Placeholder...* $.
   The *Select Placeholder* dialog box with the available placeholders is opened.
2. Choose a placeholder.
3. Select *Insert*.

> **Note**
> If no content can be assigned to a placeholder, no content is displayed in the HTML editor. In this case, check the selected placeholder and the desired content.

Editing a placeholder

To edit a placeholder, proceed as follows:

1. Select a placeholder in the HTML editor.
2. Select *Insert Object* + *-> Edit Placeholder...* .
   The *Select Placeholder* dialog box is opened with the inserted placeholder.
3. Edit the placeholder.
4. Select *Insert*.

Inserting dictionary texts

Dictionary texts can be inserted from the recording dictionary as placeholders. The texts are displayed in the activated object language.
The placeholders are to be entered manually in the *Placeholder* dialog box. You can find the respective dictionary ID in the dialog box for editing dictionary texts.

A placeholder should be written as follows:

- Pure text: `$L{Glossar-ID}`
- HTML text: `$L%{Glossar-ID}`

Inserting individual content

In addition to the standard placeholders, you can also specify placeholders for specific objects. The respective UID of the object and an exclamation mark are to be added to the displayed placeholder variables in the text box. This should have the following form:

- Standard: `$%{project:.description}`
- Extended: `$%{project!PR_A643332FC37C508E:.description}`

4.9.3.6.3.3 Image

You can insert images into your text to extend the content with further information. The following options are available:

- *Insert Image File...*
  Allows you to insert an image that will be imported into your workarea.
- *Insert Image from Workarea...*
  Allows you to insert an image that is available in your workarea.

Inserting an image

To insert an image, proceed as follows:

1. Select a position in the HTML editor.
2. Select *Insert Object* + *-> Insert Image...* or *Insert Image from Workarea*.
   - **Insert Image from Workarea**
     The *Insert Image from Workarea* dialog box is opened. Select one of the options:
     - *Current Object*
       Select an image from the current selected object.
     - *Workarea*
       Select an image from the workarea tree.
     - *Insert File...*
       Use the option to import an image into your content object.
   - **Insert Image**
     The *Insert Image* dialog box is opened.
     1. Select an image file.
     2. Select *Open*.
3. The *Insert Image* dialog box is opened.
   In the dialog box you can specify how the image is inserted. Change the following settings:
   1. *Source:*
      Shows a preview of the selected image.
      You can use the *Replace Image* button to select another image.
   2. *Size:*
      Shows the size of the image.
      You can change the size in pixel (px) or in percent (%) for *Width* and *Height*.
   3. *Margin:*
      You can enter a margin to add more space between the image and the text field border as well as the other content. You can enter a value in pixels for *Top*, *Right*, *Bottom*, or *Left*.
   4. *Float:*
      You can specify if the text floats around the image. Select the position of the image in the text, *Left* or *Right*.
   5. *Alternative Text:*
      You can enter an alternative text, that is shown if no image can be displayed, and is also used for screen readers.
   6. *Show Border:*
      Select the option to display a border around the image.
   7. *Enable Zoom:*
      Select the option to allow zooming of the image if the image is smaller than the original size.
4. Select *OK* to insert the image.

Editing an image

To edit an image, proceed as follows:

1. Select an image in the HTML editor.
2. Select *Insert Object* + *-> Edit Image...*
   The *Insert Image* dialog box is opened with the current parameters of the image.
3. Edit the image.
4. Confirm with *OK*.

4.9.3.6.3.4 Screenshot

You can create screenshots from various views to insert them into your text. The following options are available for creating a screenshot:

- *Insert Screenshot of Window:*
  Allows you to create a screenshot of an application window.
- *Insert Screenshot of Object:*
  Allows you to create a screenshot of an application object, for example, a toolbar or control.
- *Insert Screenshot of Area:*
  Allows you to create a screenshot of a specific area of your screen. This can be used to create a screenshot of parts of an application or for multiple applications.

Inserting a screenshot

To insert an image, proceed as follows:

1. Select a position in the HTML editor.
2. Select *Insert Object* + *-> Insert Screenshot...*
   - **Insert Screenshot of Window**
     By moving the mouse over the screen display, specific areas will be recognized and outlined in red. Select the desired outlined area.
   - **Insert Screenshot of Object**
     By moving the mouse over the screen display, specific objects will be recognized and outlined in red. Select the outlined object.
   - **Insert Screenshot of Area**
     With the mouse, pull the red frame over the desired area and release the mouse button.
3. The *Crop Image* window is opened.
   The window shows the made screenshot and you can adjust as needed.
   1. Change the size of the selection border to crop the screenshot.
   2. Select *Confirm Selection* .
4. The *Insert Image* dialog box is opened.
   In the dialog box, you can specify how the image is inserted. Change the following settings:

1. *Source:*
   Shows a preview of the selected image.
   You can use the *Replace Image* button to select another image.
2. *Size:*
   Shows the size of the image.
   You can change the size in pixel (px) or in percent (%) for *Width* and *Height*.
3. *Margin:*
   You can enter a margin to add more space between the image and the text field border as well as the other content. You can enter a value in pixels for *Top*, *Right*, *Bottom*, or *Left*.
4. *Float:*
   You can specify if the text floats around the image. Select the position of the image in the text, *Left* or *Right*.
5. *Alternative Text:*
   You can enter an alternative text, that is shown if no image can be displayed, and is also used for screen readers.
6. *Show Border:*
   Select the option to display a border around the image.
7. *Enable Zoom:*
   Select the option to allow zooming of the image if the image is smaller than the original size.

5. Select *OK* to insert the image.

4.9.3.6.3.5 Video

The option *Insert Object* allows you to insert videos from your workarea into your text.

Prerequisite

To use a video, import it into your workarea before inserting the video in your text.

Inserting videos

To insert a video, proceed as follows:

1. Select a position in the HTML editor.
2. Select *Insert Object* *-> Insert Video...* .
   The *Insert Video* dialog box is opened.
3. Select the video source from the following options and confirm:
   - *Current Object*
     Select a video from the current selected object.
   - *Video File URL*
     Insert a link to a video that is stored in a location available for your users.
   - *Workarea*
     Select a video from the workarea tree.
   - *Embed*
     Enter an embedded link from a video streaming platform with the desired configurations.

4. Depending on your selection, the *Insert Video* dialog box may be opened.
   In the dialog box, you can specify how the video is inserted. Change the following settings:
   1. *Source:*
      Shows the file of the selected video.
      You can use the *Edit Link...* button to select another video.
   2. *Preview Image:*
      You can insert an image that is shown as a preview before starting the video.
   3. *Size:*
      Shows the size of the video.
      You can change the size in pixels (px) or in percent (%) for *Width* and *Height*.
   4. *Margin:*
      You can enter a margin to add more space between the video and the text field border as well as the other content. You can enter a value in pixel for *Top*, *Right*, *Bottom*, or *Left*.
   5. *Float*:
      You can choose if the video is going to be shown to the left of the text surrounding it or to the right. If you choose none, the video is going to be placed on top of the text.
   6. *Play Automatically:*
      Allows you to start the video automatically after the content has been loaded. Deactivate the option if the user has to start the video manually.
   7. *Show Controls:*
      Allows you to show controls for controlling the video.
   8. *Enable Zoom:*
      Select the option to allow zooming of the video if the video is smaller than the original size.
5. Select *OK* to insert the video.

Editing videos

To edit a video, proceed as follows:

1. Select a video in the HTML editor.
2. Select *Insert Object* + *-> Edit Video...*
   The *Insert Video* dialog box is opened with the current parameters of the video.
3. Edit the video.
4. Confirm.

4.9.3.6.4 Pasting Texts and Images

When pasting copied text or images into the HTML editor, in some cases it may be possible that the formatting is displayed incorrectly. The HTML editor is equipped with several options to prevent this from happening. Copy your text or image and click on the right mouse button in the HTML editor. The context menu option *Paste in Format* will appear with the following options:

For inserting text:

- *Formatted Text* – the formatting will be preserved

- *Unformatted Text* - removes any existing formatting

For inserting images:

- *Formatted Text* – the formatting will be preserved
- *Bitmap Image* – inserts the image as a bitmap

> Recommendation
> Since the HTML Editor displays text in HTML coding, a new paragraph (`<p>...</p>`) will be created by clicking on the `Enter` key, which should normally give you larger line spacing. If, however, you would like to create a line break (`<br />`), then click on the keys `Shift + Enter`.

4.9.3.6.5 Searching for Text Strings

If there are longer and more complex text strings in the HTML editor, there is a text search function to facilitate finding specific text strings. Select *Search text* to open the *Search* dialog box..

Dialog box for searching text

A text field appears where you can enter one or more words to search for. The search function has several options to choose from to quicken the search:

- *Match whole word only:*
  If this option is deactivated, possible matches will be shown directly during the search. If this option is activated, the results will be displayed only when the entire word is found in the text.
- *Highlight all matches:*
  If this option is activated, all the matches found will be highlighted. If this option is deactivated, only the first match will be highlighted.
- *Match case:*
  This defines whether the search should be case sensitive. If this option is activated, the search function will only find exact matches. If this option is deactivated, capital or lowercase letters are irrelevant for the search.

The buttons *Next* and *Previous* allow you to switch between the displayed results. If no matches are found, a message will appear at the bottom of the dialog box.

4.10 Settings

The *Settings* section enables you to edit your personal user information and your individual settings. You can switch between the tabs *User Info, User Settings,* and *Personal Data*

User info

View and edit your user profile.

Setting	Description
Last name	Your last name.
First name	Your first name.
Middle names	Any other first names.
Email	Enter your e-mail address in this field or change it if so required. **Note:** Ensure to have a valid mail address entered, since you won't be able to get any email notification without.
Phone	Enter your telephone number in this field or change it if so required.
Interface language	In the drop-down menu, select the language in which you would like the application interface to be presented.
Change Password...	Opens a dialog where you can change your password.

User settings

Define individual options for your user account in the *User Settings* area.

General user settings

You can delete all of the settings defined for your user account by clicking on the *Clear All* button. This affects all of the settings available that have been saved for your user account, e.g., the status of your most recently viewed pages, your filters saved in the task overview and more.

Workarea options

Setting	Explanation
Show Save dialog to switch objects with unsaved changes	Defines whether the complete Save dialog is displayed when closing an object with unsaved changes or the content changes should be saved without having to reenter allocation, status, and comments.
Automatically return write access to the superordinate object when deleting an object	Defines whether the write access to this superordinate object should be automatically returned after the object is deleted.
Automatically obtain write access to the superordinate object when deleting an object	Defines whether the write access to the superordinate object should be automatically obtained for this action when deleting an object.

Confirm your settings with *Save*.

Personal Data

This tab provides the overview of all changes made to your personal data. You also see the text of the Data Protection and Privacy Statement that you haver agreed to.

You can export *Lesson Data as XLS*, which will show you the overview of your learning progress.

You can also *Withdraw Privacy Statement Consent*.

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