

SCORM 2004 & 1.2 Manual

How to use the new Editor for producing SCORM courses

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Developed for the International Relations and Security Networks (ISN)

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Introduction

Purpose of this manual

The purpose of this manual is to serve as a learning aid in authoring SCORM Learning Modules using ILIAS. This manual is supposed to be used

- as supporting material for a one-day training, teaching the use of the editor
- as a reference handbook to support you in working with the editor

Scope of this manual

This document is a manual displaying screenshots of the ILIAS default skin. Since the look & feel of the system is easily adapted, the skin of your installation might look different. Nevertheless it will offer the same functionality.

Organisation of this manual

Each section commences with an overview, followed by sub-sections containing how-tos. Each how-to comprises

- a statement of the purpose of the functionality
- information where to access it
- a detailed step-by-step instruction

Screens of high importance are explained in greater detail in boxes inserted into some of the sub-sections.

Relation to other documents

This manual is a supplement to the 'ILIAS Manual for Authors' which covers the whole range of the systems authoring functionality.

Intended audience

This document is targeted towards the participants of the Bootcamp in Berne October, 15th.

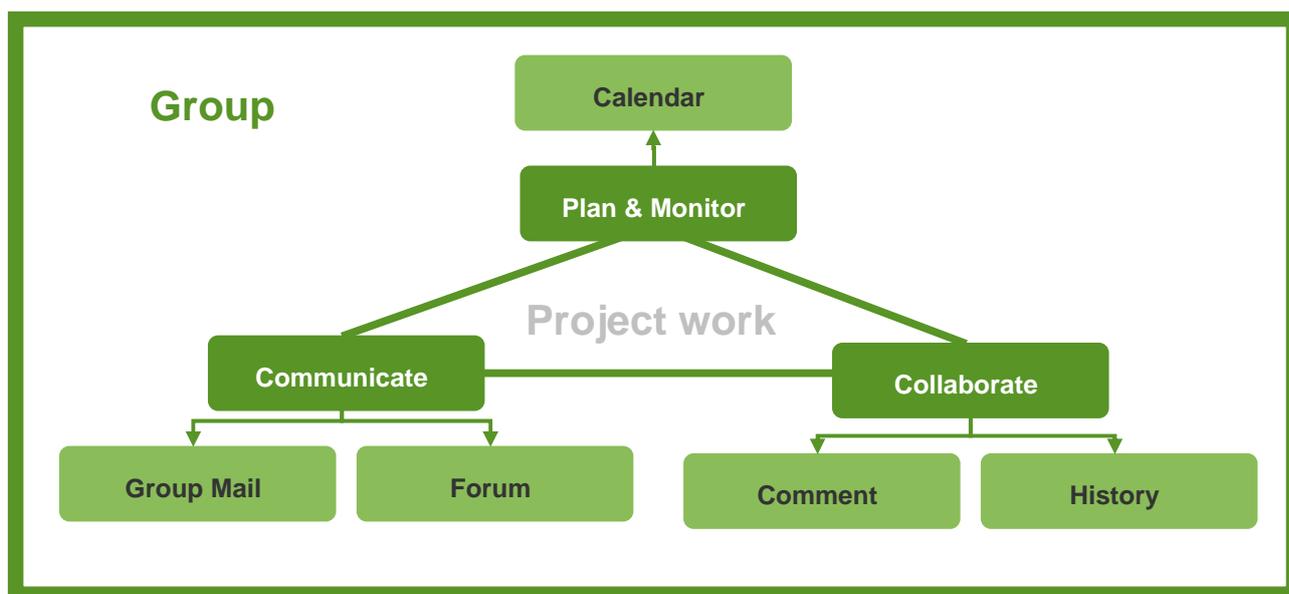
Icons used in the text

In order to improve readability, we are using some symbols to support you in independently working through this manual.

	Description	Symbol
Mnemonics	This icon indicates information of critical importance for you in becoming a proficient SCORM 2004 author.	
Hints	Hints contain good practice information about workflows. We share tips how work can be organized efficiently.	
Trouble	This icon directs your attention to possible sources of trouble you might encounter at this point.	

1 Setting up SCORM Learning Module production projects

This section outlines how to set up an SCORM Learning Module production project in ILIAS. Specifically it introduces recommendations how to create a working space of trust and productivity, to plan and monitor the project work, to facilitate communication among project members and to support collaborative editing.



Group

The production team is organized as a *Group* in ILIAS. Project members become *Group* members. The SCORM Learning Module to be edited is created in that group.

Organizing the project using the *Group* as a container is recommended because all group members will have a direct link to SCORM Learning Module Production Group available on their Personal Desktop, thus they will not have to navigate to locate it. As well the *Calendar* on the Personal Desktop will feature all milestones of the project work, the Desktop will also contain feed-back and documentation about the projects work.

Carrying out the project in a *Group* allows controlling access to your working space. The *Group* object comprises a tab in which a list of all *Group* members is contained. Each member is represented by a short profile. The means for communication are also made available in the *Group*.

Plan & Monitor

Planning and monitoring the project work is supported by the ILIAS *Calendar*. All activities, deadlines and milestones are set out and maintained in a group related calendar. This allows tracking the project's progress throughout all its stages.

Communicate

Communication is crucial for a project's success especially since SCORM Learning Modules in our setting are typically produced by multinational teams of dispersed specialists. The *Communication Tools* like *Group Mail* or *Forum* support the exchange of information within the team.

Collaborate

The *Comment Function* will be used to support the collaborative production and quality check. This allows injecting highly targeted feed-back about all kinds of project output, that other team members use to focus their effort. Collaborative online editing is a joint effort and requires all actions to be traceable and retractable. A *History Function* allows viewing revisions, comparing them and rolling back to earlier versions if necessary.

1.1 How to set up a SCORM Learning Module Production Group

Purpose: We recommend using the Group object, because it allows you to fence-off a working space for the production team. Fencing off this working space allows editing the SCORM Learning Module collaboratively and work on the project in a protected environment. People are supported in their communication within the Group.

Access Info: In order to create a dedicated working space for your SCORM Learning Module Production Group, navigate to the Repository of ILIAS: Click the Repository button in the header bar.

Step-by-Step Instruction:

1. You are taken to an overview comprising all categories of the ILIAS installation. Please select the category into which you want to place your SCORM Learning Module Production Group: To enter click the title of the category.
2. To add your SCORM Learning Module Production Group you open the drop-down menu in the right-hand-side upper corner. Select the option "Group". Click the „Add“-button next to the drop-down.

New Group

Title * "Introduction to NATO" 6.0 Production Group

Description

Group Type * Public Group
Group is visible for non-members but has special requirements to join it.

Direct Registration

Join With Group Password
Introduction

Users need to type in the correct password for joining the group.

Request Membership
Interested users can send a request/message to group administrator.

No Registration Possible
Only group administrators can add users to the group.

Closed Group
Group is not visible for non-members.

hand.

3. You are presented with a screen that allows creating a group in the way you want it. There are several options from which you can choose: a public group that has different access option, ranging from self-enrollment, password controlled access, membership granted upon request and membership by enrollment by the group administrator or a closed group. A closed group will be invisible and inaccessible to all people that do not belong to the group, but new members have to be enrolled by

Please select the "Join with Group Password" option since this option prevents passers-by to enter the group but people can be comparably easily be invited to the group by a mail that contains the link and the password.



1.2 How to add members to the SCORM Learning Module Production Group

Purpose: Group membership is the central means to control the access to your working space. Members of the group have permissions to create, edit or delete objects. If you have the according permissions you can manage group membership. This comprises

- Adding new members to the SCORM Learning Module Production Group,
- Removing group members from the group and thus expelling them
- Changing the member status of a person e.g. from a group member to group administrator

Access Info: Enter the Group. To manage members, click the “Members” tab of the group.

Step-by-Step Instruction: Add Members

1. To add a member you hit the “Add Member(s)” button.



2. You are taken to a search screen. In order to find a person please type in his or her name in the field named “Login”.
3. Check the correct person in the result list and hit “Add”.
4. Now you are taken to the updated “Edit Participants” screen. You have made that user a group member.

Step-by-Step Instruction: Dismiss members

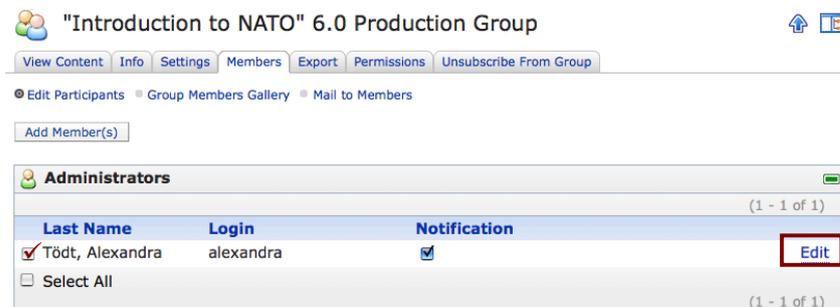
1. To remove a group member you just check the box in front of his or her name and hit the “Remove” button.
2. You will have to confirm your decision to dismiss the member from the group.



Step-by-Step Instruction: Change status of members

1. To change the role of a member, check the box in front of his or her name and hit the „Edit” button.

2. You are taken to a screen where you can assign a different member status. By default there are group members and group administrators in any given Group in ILIAS. You may introduce a more sophisticated setting of local roles to reflect your needs. Information on this can be found in the "ILIAS Administration" handbook.



1.3 How to create milestones to plan & monitor the project work

Purpose: Milestones help structuring a complex project like a SCORM Learning Module development. Milestones logically divide the project into parts and allow controlling the progress of each part. Milestones can be created for the whole group or can be personal milestones for organizing your personal work load.

The Calendar is available on the Personal Desktop and aggregates all events / milestones of the individual project member. Within the Group context, the Calendar lists all events / milestones of the Group.

The production process document "New ADL content" offers a sequence of phases and milestones that are recommended for project management.

Access Info: Milestones can be created in the Calendar. You can access the Calendar from the *Personal Desktop* or the respective SCORM Learning Module Production Group. On the Personal Desktop and within your Group you find the Mini-Calendar on the right-hand-side.

Step-by-Step Instruction: Add Milestone

1. To create a new milestone you hit the "Add Milestone" button in the Mini-Calendar.
2. You are prompted with a form creating for a new milestone.
3. You provide a title for the milestone.
4. In the field "Calendar Selection" you then choose whether this is a personal or a group milestone: You select the group's name for creating a group milestone or you make it a personal milestone.
5. You set the deadline, when the milestone is due.
6. The task completion is by default set to 0% when you create the milestone, but you may adjust the figure if appropriate.
7. you may then enter a description of the task that is required to carry out in order to meet the milestone.
8. You hit "Add Milestone".

9. ILIAS takes you to a screen where you can assign one or more users who are supposed to be responsible for carrying out the task until the deadline. .
10. You check the boxes in front of the names of the people who should be responsible and hit "Save Responsible Users".

1.4 How to facilitate communication among Group Members

Purpose: You can choose from several tools to facilitate communication within the SCORM Learning Module Production Group. We recommend using *Group Mail* or *Forum*. You can use the Group Mail function to write to all members of your group at once. The Forum is used to hold a discussion public to all group members or use it as a bulletin board. Surely you may also use other objects like files or folders to make the projects' history and documentation available to the Group members.

Step-by-Step Instruction: Group Mail

Access Info: In order to send a Group Mail you go to the "Members" tab in the Group.

1. Select the "Mail to Members" submenu.
2. ILIAS will by default send the mail to group members as well as to group administrators. If you do not want this uncheck the respective subgroup.
3. You hit "OK" and are presented with an open mail form.
4. Provide the message text, subject and attachments as you wish and hit "Send". All members of your group will receive this mail.

Step-by-Step Instruction: Forum

Access Info: In order to create a Forum you go to the "View Content" tab in the Group.

1. To add a forum you open the drop-down menu in the right-hand-side upper corner. Select the option "Forum". Click the „Add“-button next to the drop-down.
2. ILIAS presents a screen where you provide a title and a description for the forum. You hit „Save“.
3. You are taken to a screen where you can decide upon the first topic and post an article.
4. When you hit „Submit“ your article is published.

1.5 How to collaborate in a traceable and retractable way

Purpose: Collaborative online editing carries the risk of concurrent editing that is two users editing the same pages of the same SCO at the same time. A history keeps track of who has made what changes to a page. This history allows you to view revisions, compare them and rollback to earlier versions of the page if necessary.

Access Info: In order use the History function you have to access the page whose history you want to examine.

Step-by-Step Instruction:

1. You hit the "History" tab in a page.
2. You are presented with a list of all changes that where made, you can see who did it.
3. To view a former version of the page hit the respective date. You will be presented with the status of the page at that point in time.

4. If you check two radio-buttons of two history entries and you click “Compare Selected Revisions” you are provided with a two column overview. In this overview the changes are highlighted using a color code.
5. If you have decided that an older version is superior to the current one you can hit “Rollback”. You will be asked to confirm that you want to restore this old version of the page.

Please be aware that you cannot use this functionality if you have deleted a whole page. Then the page is definitely lost.

1.6 How to collaborate using comments

Purpose: The editor supports your team in reviewing the SCORM 2004 module. Team members can annotate the object. The annotations can be private notes or comments shared with other production group members. You will use private notes to flag those parts of the module you want to return to later. To direct others to review a certain part of the object you would use comments. Comments will be public in the sense that other group members can see them.

Where you find a piece of content, media, a test question, the structure or organization of some object that needs improvement or requires discussion you add comments to flag this need.

Comments allow placing feed-back exactly at the piece of content that incited the comment: they can be attached to a module, chapter, SCO or page level as well as in the organization views.

Access Info: Notes or comments regarding the

- whole package are added to the “Info” screen
- structure within the object are added at the bottom of the Organization-screen of the package
- chapter are added at the bottom of the Organization-screen of the chapter
- SCO are added at the bottom of the Organization-screen of the SCO
- Page are added at the bottom of the editing view of the page

Step-by-Step Instruction: Comment on SCO

1. In the “Organization”-tab of a SCORM Learning Module you click on a SCO's title within the organization.
2. You are taken to a screen showing the organization or structure contained in this SCO. On the bottom of the screen you find the options to add notes or comments.
3. You hit “Add Comment” in order to be prompted with a form to provide a subject and the comment itself.
4. After you entered and saved your comment it will be displayed at the bottom of the page. ILIAS adds the comment to the comments list in the context.
5. The comment will also appear on the personal desktop of all group members. They can use comments to navigate directly to the piece of content that incited the comment.

1.7 Important Screens: The Personal Desktop

The Personal Desktop is your default starting page when you login to ILIAS. Your Personal Desktop stores those objects most important to you as "Selected Item".

In the Calendar your appointments and milestones are kept.

You can access notes and comments that have been left at pieces of content that still needs work.

Open Source eLearning

Logged in as Alexandra Tödt
[Logout](#)

Personal Desktop
Repository
Search
Mail (1 New)
Administration

Personal Desktop

Overview

Personal Profile

Calendar

Notes and Comments

Bookmarks

Selected Items
Selected Items | My Memberships

- Project Documentation

[Info](#)
[Edit](#)
[Remove from desktop](#)
- "Introduction to NATO" 5.0 Production Group

[Edit](#)
[Remove from desktop](#)
- bulletin board

[Edit](#)
[Remove from desktop](#)
- Introduction to NATO 5.0

[Edit](#)
[Remove from desktop](#)
- Introduction to NATO 5.0 Media Pool

[Edit](#)
[Remove from desktop](#)

Details:

Order by type | Order by location

Calendar
✕

< October 2008 >

Mo	Tu	We	Th	Fr	Sa	Su
29	30	1	2	3	4	5 40
6	7	8	9	10	11	12 41
13	14	15	16	17	18	19 42
20	21	22	23	24	25	26 43
27	28	29	30	31	1	2 44

Details:

Mail
✕

(1-1 of 1)

New Project: [alexandra]
 Introduction to NATO 5.0

Details:

Active Users
✕

(1-1 of 1)

Alexandra Tödt [alexandra]

Details:

2 SCORM Learning Module Editing

A SCORM Learning Module or SCORM package is the word we use for the whole online SCORM course. It is a container comprising the course content and all information about its presentation.

The course content is stored in the pages, SCOs and chapters. All of which are structured in a so-called organization. The information about presentation is stored in the SCORM Module's style information.

This section introduces what procedures can be applied to the whole package of the SCORM Learning Module. We learn basic workflows like how the whole package is added, deleted and (re-)viewed. Furthermore we look at those editing operations that affect the whole package. We are introduced to the range of formats the editor produces and how they are exported and downloaded. (Finally we see how glossaries are integrated into the SCORM Learning Module.)

2.1 How to create or import a SCORM Learning Module

Purpose: Any SCORM Learning Module that you work on in your production project may be either created from scratch or imported into the system. SCORM Learning Modules to be imported might come from other ILIAS installations or from other editors. Below you find the step-by-step instructions for creating and importing the SCORM Learning Module.

Step-by-Step Instruction: Create a SCORM Learning Module

Access Info: Within your group or in the repository or wherever you deem best you open the drop-down menu in the right-hand-side upper corner. Select the option "Learning Module SCORM/AICC" and hit "Add".

1. ILIAS presents you a screen allowing to add a new SCORM Learning Module or to import an existing one.
2. To create a new SCORM Learning Module you supply a title in the upper table, you may want to provide a description as well.
3. Then you hit "Add SCORM/AICC Learning Module".
4. The new SCORM Learning Module is created.
5. You are taken to the "Settings"- tab of this newly created module.

Step-by-Step Instruction: Import a SCORM Learning Module

Access Info: Within your group or in the repository or wherever you deem best you open the drop-down menu in the right-hand-side upper corner. Select the option "Learning Module SCORM/AICC" and hit "Add".

1. You can import a SCORM Learning Module in the lower table.
2. First you select the type of module to be imported from the drop down menu: SCORM 1.2 / 2004 (JavaScript RTE), SCORM 1.2 (Java RTE) AICC, HACP.
3. You select a file browsing your computer and hit "Upload".
4. The new SCORM Learning Module is imported.

5. You are taken to the “Properties”- tab of this imported module.

If the SCORM Learning Module comes from an other editor only its properties can be edited, not the content itself. But ILIAS will recognize those objects from its own editor and will be able to edit it. This allows any kind of SCORM Learning Module to be at least deployable if not editable.



2.2 How to delete a SCORM Learning Module

Purpose: You have to delete SCORM Learning Modules mostly when you are cleaning up cluttered sandboxes in the system. Usually you would not delete a complete course.

In ILIAS you may take measures to prevent accidental deletion: 1. The delete button is a click away as you will see below. 2. The Role-Based-Access-Control allows you to grant or deny certain roles the permission to delete SCORM Learning Modules. Only grant few people this permission. 3. The system administrator has options about trash handling. He or she can make settings in such a way that objects can be recovered from the trash and are not directly annihilated.

Access Info: To delete SCORM Learning Module you enter the Production Group from the *Personal Desktop* or the ILIAS Repository.

Step-by-Step Instruction:

1. You click on “All Commands” in the right upper corner of the screen.
2. The number of command buttons in every row will increase. If you have the according permissions a “Delete” button will show up.
3. Hit the “Delete” button next to the title of a SCORM Learning Module you want to delete.
4. ILIAS will ask you to confirm the deletion.
5. If you confirm; the object will be deleted.
6. You are taken back to the screen in which you started.

2.3 Important Screens: The main Editing Menu of a SCORM Learning Module

To work on an ILIAS SCORM Module you have to get to the editing menu. This main editing menu is easy to access: You enter the Content Production Group from the Personal Desktop or the ILIAS repository. You hit the [Edit] button next to the SCORM Learning Module you want to edit.

ILIAS opens the screen where you have all the options in editing the whole package. The screen displays a tabbed menu. Below you find a more detailed description of the options offered in each tab.



Info tab: The Info tab contains the description of the SCORM Learning Module as provided in the metadata. Further the Perma-link is offered: You can use this link to direct people to this specific object without making them navigate through the whole system.

Settings tab: In this tab you may edit the settings for the whole package. You can preview the package and you can upload an updated version. Here you also can set the style you want to use for your SCORM Learning Module as well as set the default number of possible tries for the questions used in your SCORM Learning Module.

Metadata tab: Here you can edit the metadata of the whole package.

Organization tab: Allows to add/delete/move/copy chapters, SCOs and pages.

Objectives Alignment tab: This section gives an overview of all learning objectives and related assessment questions.

(Tracking Section: This section is activated only if there actually is tracking data. If tracking data exists normal content editing is disabled, only page content (without questions) can be edited. It will still be possible to fix typos. A message will be displayed accordingly.)

Export Section: Manages export files in various formats.

2.4 How to edit SCORM Learning Module Metadata

Purpose: Metadata is information that describes the content of the course. The purpose of metadata is to enhance information retrieval, management of information resources, document ownership and authenticity of digital resources as well as interoperability. Thus all packages and contained SCOs must be annotated with metadata.

Access Info: To add or edit the metadata of a SCORM Learning Module you enter the Content Production Group from the Personal Desktop or the ILIAS repository. Then hit the “Edit”-button next to the SCORM Learning Module you want to edit. Then you hit the Metadata tab.

Step-by-Step Instruction:

1. ILIAS displays the “Quick Edit” form for capturing metadata.

2. You provide and save your metadata entries. Please make sure that the people who have contributed to the course are duly mentioned and a license is picked.
3. You hit "Save".

You should hit the "Propagate to all SCOs" button, the metadata in these fields will be automatically written into all SCOs of the SCORM Learning Module. This saves your time and ensures that all parts of the package have metadata.



2.5 How to edit SCORM Learning Module Settings

Purpose: Whether a SCORM Learning Module is online or offline, in what style it is presented, the number of attempts a student can take in it – all these decisions are made in the settings of a SCORM Module. All these decisions concern the settings of the whole package.

Access Info: To change settings you click on "Edit" next to the resource title of your SCORM Learning Module. ILIAS displays the main editing menu of the SCORM Learning Module and opens the "Settings" tab.

Step-by-Step Instruction:

1. Here you can define several properties of the SCORM Learning Module. Specifically you can
 - a. (Set the SCORM Learning Module on- and offline by checking and unchecking the box)
 - b. Choose a style in which the course is presented in
 - c. Choose a glossary that should be included into the SCORM Learning Module. Just select the title of the one to be included from the drop down list.
 - d. Set the maximum number of attempts a learner can take per question.
 - e. (Default lesson mode)
 - f. (Credit mode)
2. Then you hit "Save" to save your settings.

2.6 How to export a SCORM Learning Module

Purpose: In order to use the SCORM Learning Module in a different LMS, you have to export it. You may also want to export it to have a back-up version or for some other reason. You may choose between different export formats: SCORM 1.2, SCORM 2004, PDF, ISO for CD-ROM, HTML to use the course stand-alone on a website.

Access Info: To export the SCORM Learning Module you click on [Edit] next to the resource title of your SCORM Learning Module. ILIAS displays the main editing menu of the SCORM Learning Module. You hit the "Export" tab.

Step-by-Step Instruction:

1. You hit the "Export" tab.

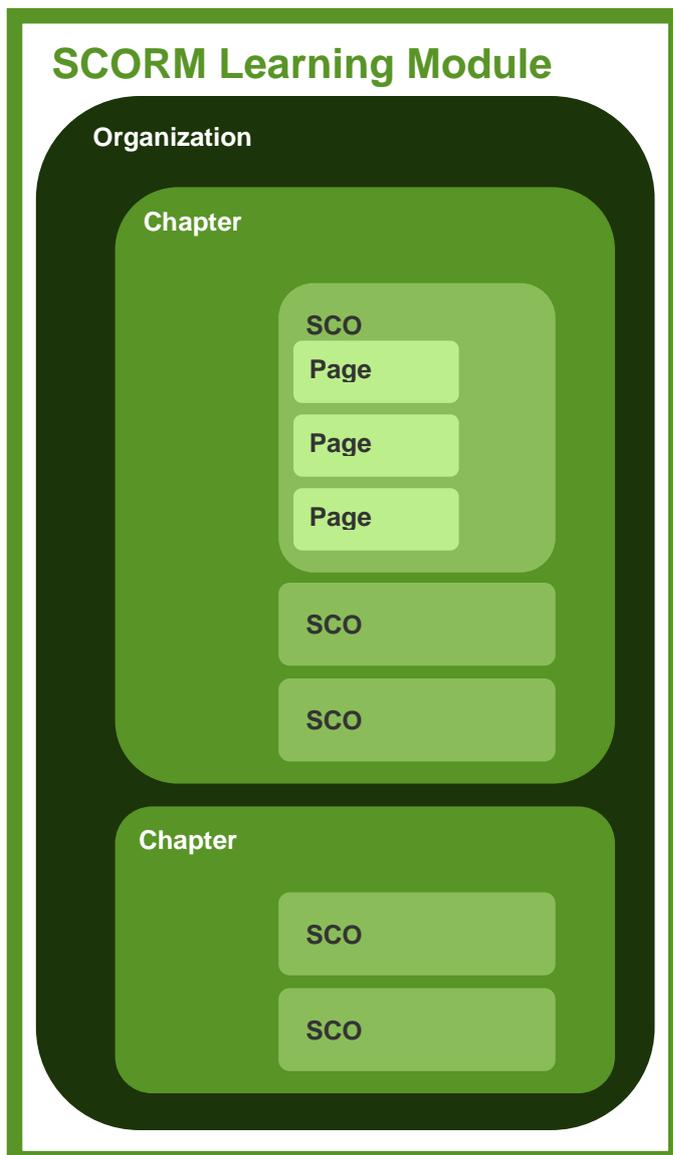
2. ILIAS opens the export section.
3. You can choose from a range of export formats. To trigger the export in the preferred format you just hit the respective button: SCORM 1.2, SCORM 2004, PDF, ISO for CD-ROM, or HTML.
4. ILIAS generates the required export file and places it in the list of export files.
5. From this list you can download it to your computer.

Please make sure that you export the SCORM Learning Module every once in a while to have a back-up copy. The exported SCORM Learning Module should be stored in a save place.



3 Setting up the Structure of the SCORM Learning Module

This section outlines how to set up the structure of a SCORM Learning Module. If the SCORM object has a didactically motivated structure it offers learners an inspiring learning experience. The content is to be properly portioned and arranged in an intriguing way. The way you structure the content in chapters, SCOs and pages is called the Organization of a SCORM Learning Module. The organization of the content is a central pedagogical means.



The top level resource SCORM is always the SCORM learning module. In the graphic on the left you see a scheme of the different objects that may be used to make up the structure of a SCORM Learning Module.

- The SCORM learning module comprises the Organization – the structure of all other objects within the module.
- Within the Organization there are Chapters. Chapters are mere containers; they contain SCOs.
- SCOs are self-contained chunks of content that comprise pages.
- As a page is presented to the user it may contain several types of content items like text, media, tables, test items and the like.

The editor allows defining a huge variety of alternative organizations. The variety and complexity of organizations however is limited by a couple of basic rules:

1. Pages can only be contained in SCOs. There are and no pages outside SCOs.
2. SCOs can only be contained in Chapters or the organization. There are not SCOs outside Chapters.

3.1 Important Screen: Organization Tab

To access the Organization tab of a SCORM Learning Module you have to hit the Edit-button next its name and then click the Organization tab. The organization tab main view shows the organization being a nested hierarchy of chapters, SCOs and pages contained in the package. You can distinguish the different types of objects by the icons used to represent them or you may hover the mouse over the icon to get a tool tip giving you the type of object.

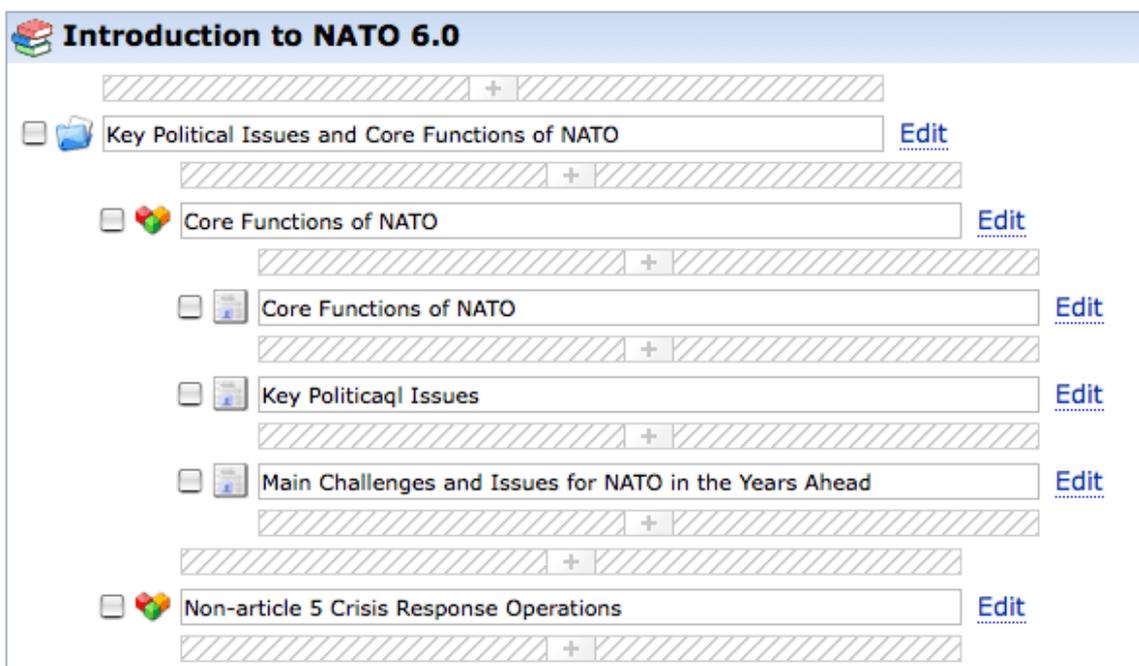
A SCORM Learning Module is represented by a .

A chapter is represented by a .

A SCO is represented by a .

A page is represented by a .

The hierarchical relation among the objects is indicated by their indentation.



To edit one of the objects in the organization you hit the Edit button at the end of its title field.

The shaded rectangular fields above and underneath each title are placeholders. These placeholders allow inserting new components like Chapters, SCOs, and pages. You may also drag and drop components on the placeholders to move them around.

The Organization is displayed in the Organization tab of a SCORM Learning Module as well as in the left hand side navigation tree. The organization in the main frame pictured above is echoed by the tree navigation on the left-hand-side. Objects without a title are represented only by the icon in both frames.

3.2 How to add Chapters to a SCORM Learning Module

Purpose: Chapters are the top level elements for structuring the hierarchy within the organization of a SCORM Learning Module.

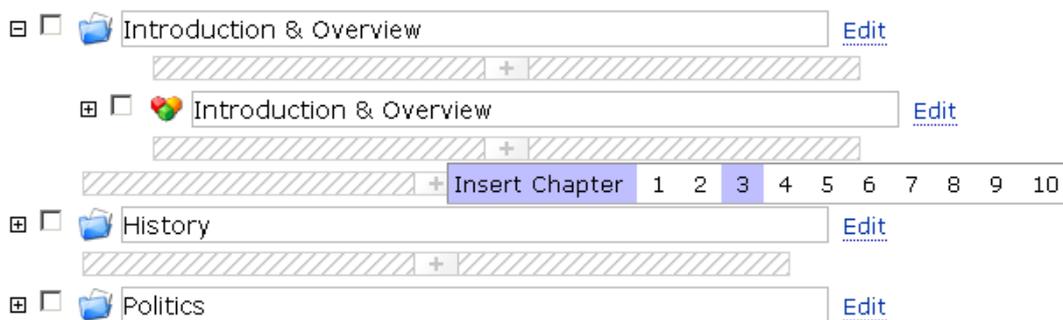
Access Info: Enter the SCORM Learning Module by hitting the “Edit”-button next to it’s title. ILIAS takes you to the main editing menu. To add a chapter you hit the Organization tab.

If the organization hierarchy is empty because you want to add the first chapter you will be presented with only a shaded rectangle. This placeholder indicates that you can add or drop a component here.

If there is already an organization set up, ILIAS displays the organization hierarchy. It visualizes the different organization components (chapters, SCOs, pages). Placeholders mark positions where new components can be added or dropped (when moving components).

Step-by-Step Instruction:

1. To add a chapter you right-click on the little plus sign on one of the placeholders.
2. ILIAS opens a box that allows you to indicate how many chapters you want to insert.



3. You select Chapter and “3”. ILIAS returns you to the organization view, where three chapters have been added beneath the position of the placeholder. The input fields for the titles all show the default title “New Chapter” and are marked in yellow.
4. You enter titles for the chapters if you want to and hit [Save Titles] at the bottom of the organization screen. Or simply press the return key on you keyboard.
5. ILIAS saves the title(s) and refreshes the organization view.

3.3 How to add SCOs

Purpose: A SCO is a container comprising of a sequence of pages and questions. But the SCO is also providing the context of the content because it also encloses a learning objective and metadata. The SCO integrates all these parts to a self-contained whole that might be used independently. The editor allows adding several SCOs in one step.

Remember: SCOs cannot be nested in SCOs.

Access Info: In the main editing menu you hit the Organization tab, ILIAS displays the organization hierarchy: You see how the different organization components like chapters, SCOs, and pages are

organized. Placeholder mark positions where new components can be added or dropped, when moving components.

Step-by-Step Instruction:

1. You click on the little plus-sign on one of the placeholders.
2. ILIAS displays a white rectangular with the options what type of component you want to insert and in the same line the number of how many components you want to insert. In this case you want to insert three SCOs, to that effect you select the “3” behind the “Insert SCO” text.
3. ILIAS returns you to the organization view. Three SCOs have been added underneath the position of the placeholder. The input fields for the titles all show the default title “New SCO” and are marked in yellow.
4. You may provide the titles and hit [Save Titles] at the bottom of the organization. Or simply press the return key on you keyboard.
5. ILIAS saves the title(s) and refreshes the organization view.

The editor will offer you adding the SCO only in those places where you are allowed to insert them. The rules introduced in the overview of this section are applied by the editor and it will thus offer you inserting SCOs not at every placeholder.



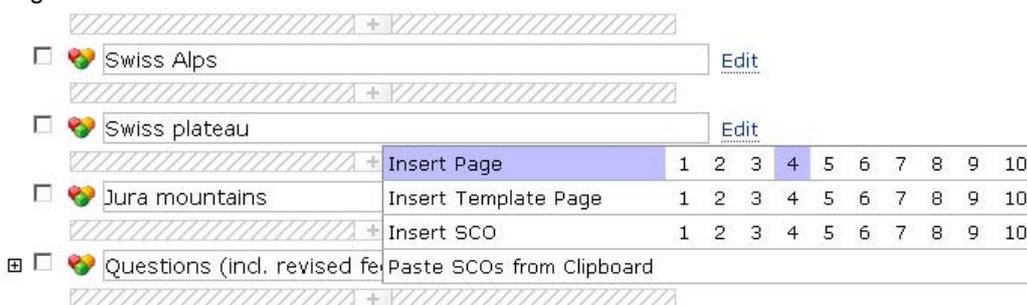
3.4 How to add Pages

Purpose: A page is the object bearing all the content that will be shown to the learner. Before the content can be inserted the page has to be created. Initially the page is created empty and you may create several pages in one step if you want to.

Access Info: You can add pages either in the Organization tab of the main editing menu or after you have hit the “Edit”-button next to a SCO’s title in it.

Step-by-Step Instruction:

1. You click on the little plus on one of the placeholders.
2. ILIAS displays a white rectangular featuring the options of types of components you may insert here. In the same line you can select the number of components you want to insert. In this case we assume that you want to insert four pages, to that effect you select the “4” behind the “Insert Page” text.



3. ILIAS returns you to the organization view. Four pages have been added underneath the position of the placeholder. The input fields for the titles carry the default titles “New Page” and are marked in yellow.
4. You may provide the titles and hit [Save Titles] at the bottom of the organization. Or simply press the return key on you keyboard.
5. ILIAS saves the title(s) and refreshes the organization view.

The editor will offer you adding the pages only in those places where you are allowed to insert them. The rules introduced in the overview of this section are applied by the editor and it will thus offer you inserting pages not at every placeholder.



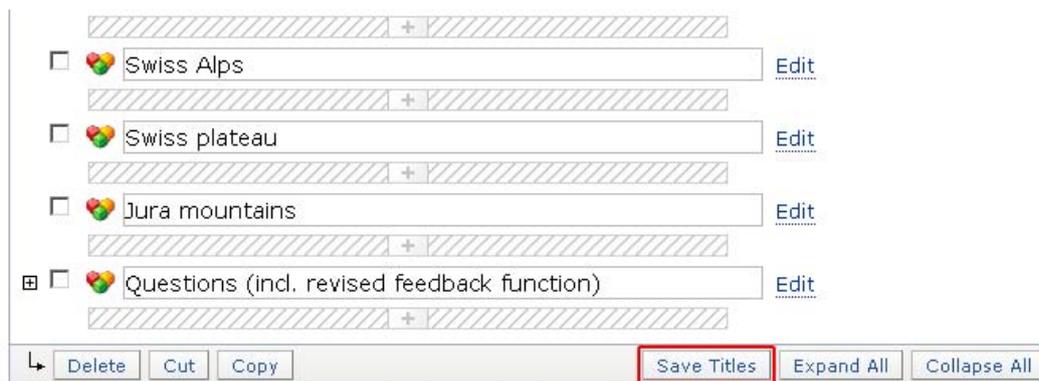
3.5 How to edit Chapter / SCO / Page title

Purpose: All objects that make up the structure of a SCORM Learning Object can be created in large numbers in only one step as described above. These objects are then created with a standard default title. You may edit proper titles directly after creation of the component or wait until you have set up your whole structure of chapters, SCOs and pages.

Access Info: To edit the title of a chapter you hit the Organization tab of your SCORM Learning Module.

Step-by-Step Instruction:

1. ILIAS displays the organization hierarchy. All title components are editable.
2. You can add or change the title of a chapter, SCO or page and then click [Save Titles] at the bottom of the screen. Or simply press the return key on you keyboard.
3. ILIAS refreshes all the titles.



3.6 How to delete a Chapter/SCO/Page

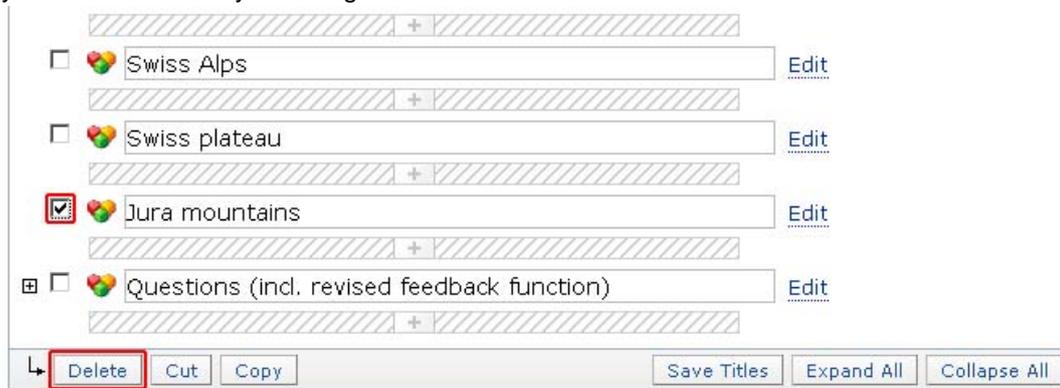
Purpose: You have to delete Chapter / SCO / page mostly when you are cleaning up those objects you have created in excess. If you ever accidentally delete a component you may ask your system administrator to recover this object from the trash.

Access Info: To delete a chapter, SCO or page you hit the Organization tab of your SCORM Learning Module.



Step-by-Step Instruction:

1. In the organization tab of the main editing menu, you select those Chapters, SCOs or pages that you want to delete by checking the boxes in front of their title.



2. Then you hit "Delete"-button on the bottom of the page.
3. ILIAS will ask you to confirm the deletion.
4. If you confirm; the object(s) will be deleted.

3.7 How to move a Chapter / SCO / Page

Purpose: You can use "drag & drop" functionality to speed up the process of arranging the structure of the Organization of a SCORM Learning Module. In addition a Clipboard helps users to move components around.

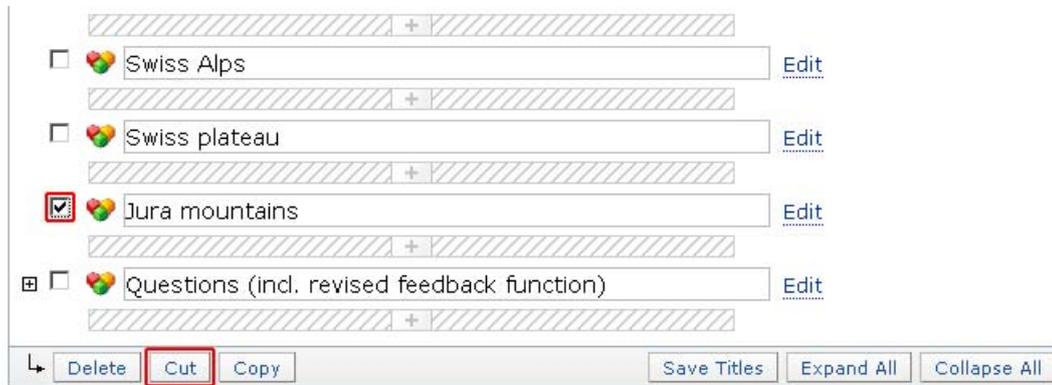
Access Info: To move chapters, SCOs or pages you hit the Organization tab of the SCORM Learning Module.

Step-by-Step Instruction: Moving using drag and drop

1. You grab the component you want to drag by clicking your left mouse button when hovering over the respective icon. You keep the button pushed and drag the icon to the placeholder where you want to drop it. The dragged object is represented by a pale gray rectangular.
2. ILIAS will demonstrate those placeholders fit for the dragged object to be dropped upon by highlighting the rectangular shape.
3. You drop the component on one of the highlighted rectangulars. You see which one is currently underneath your dragged object: the hatching is highlighted. You drop by releasing the left mouse button.
4. ILIAS inserts the object underneath the selected drop-off rectangular.

Step-by-Step Instruction: Moving using the Clipboard

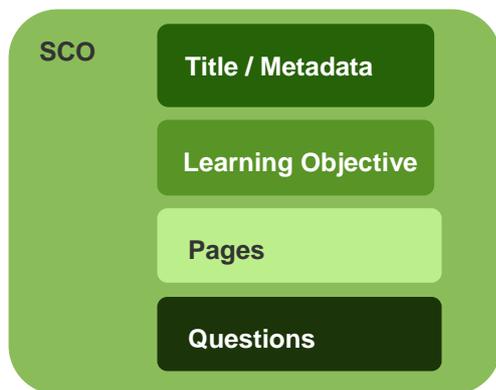
1. You select the component(s) by checking the box in front of it's icon and click "Cut" at the bottom of the screen.



2. ILIAS cuts the component(s) and stores it (them) in the clipboard.
3. You click on the placeholder rectangular at the drop-off point.
4. ILIAS will offer the option "Paste SCOs (or chapters or pages) from Clipboard" when rules allow it at this point.
5. You click on that option.
6. ILIAS pastes all the Clipboard items underneath the selected drop-off rectangular.

4 SCO Editing

The content is structured in small, instructionally sound chunks. The technical term for these instructional chunks, sections or modules is Sharable Content Object (SCO). The SCORM Learning Module comprises of an array of Chapters containing SCOs.



Each SCO should be able to be a stand-alone with a discrete beginning and end. A well-designed SCO should serve numerous audiences and thus be fit for re-use beyond your project. The SCO should contain sufficient detail so that the learner is able to understand the information with some precision.

A SCO is a container comprising of a sequence of pages and questions. But the SCO is also providing the context of the content because it also encloses a learning objective and metadata. The SCO ties all these parts to a self-contained whole that might be used independently.

4.1 How to edit a SCO's Learning Objective

Purpose: Learning objectives are the cornerstones of all SCORM Learning Modules. They state the intended learning outcome, i.e., what the learner should be able to perform or know after completing a section of material. The learner must master the learning objective in order to gain competency in the content. It is imperative that each SCO has a learning objective.

Access Info: To edit a SCO you can either click on it's title in the left-hand navigation tree or you can hit the Edit button next to it in the Organization tab. In both cases ILIAS opens the SCO edit section including a tabbed menu with the item "Learning Objectives" among others.

Step-by-Step Instruction:

1. Hit the "Properties"-tab to add or edit the learning objective for this SCO.
2. ILIAS presents you a screen where you can edit the Learning Objective(s).

The screenshot shows the ILIAS interface for editing a SCO titled 'Swiss Alps'. At the top, there are several tabs: 'Organization', 'Learning Objectives' (which is active), 'Questions', 'Preview', 'Files', 'Metadata', and 'Export'. Below the tabs, the main content area is titled 'Learning Objectives for Swiss Alps'. It contains a table with two columns: 'Title' and 'Scope'. The 'Title' column has a text input field containing 'Know the names of the 10 highest mountains in Switzerland.' and a 'Scope' column with the value 'local'. At the bottom left of the table, there is a 'Save' button.

Title	Scope
Know the names of the 10 highest mountains in Switzerland.	local

3. You hit "Save".

Note: When a SCO is added a Learning Objective is generated with the text “Objective SCO xyz”. You should replace this by a proper text but you are not forced to do it. The editor allows for empty Learning Objectives.

4.2 How to edit a SCO’s Metadata

Quick Edit	
Title	Introduction to NATO 6.0 English
Language	English
Description	This course introduces NATO's history, structures, policies and operations. English
Keywords Comma Separated	 English
Subject matter expert Comma Separated	
Instructional designer Comma Separated	
Point of Contact Comma Separated	
Status	Please select
Copyright	
Typical Learning Time	Month: 00 Days: 00 Time: 00 00 (hh:mm)
<input type="button" value="Save"/>	

Purpose: Metadata are important for the retrieval and management of a SCO. All SCOs ought to have metadata.

Access Info: You are in the SCO editing screen and hit the metadata tab.

Step-by-Step Instruction:

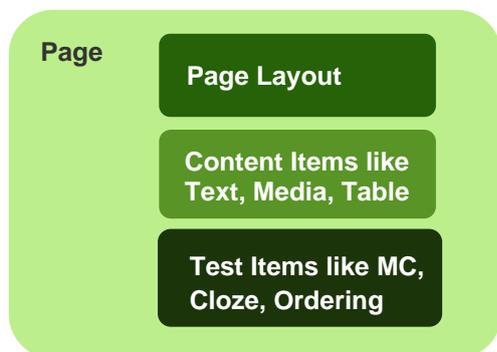
1. ILIAS displays the “Quick Edit” offering the most important metadata fields:
2. You edit the metadata and presses the [Save]-button. ILIAS saves metadata.

The metadata of a SCO can be inherited from the SCORM Learning Module. Please make sure you exploit all options of auto-generating metadata: you are advised to use the “Propagate to all SCOs” option in the metadata tab on the SCORM Learning Module level. Hitting this button will ensure that the respective metadata is written into all SCOs of the whole package and you do not have to take care of it manually.



5 Page Editing

To ensure that the learner is able to easily navigate through the course, it is recommended to structure the SCOs in a consistent manner. In the “New ADL Content Production Process” you find a recommendation how to organize your pages within a SCO: start with an attention grabber page, have some topical pages, pages containing test items and close with a summary page.



3-7 pages are considered the adequate to make up a SCO.

A page may use a page template. Page templates comprise of a combination of specific content or test items that can be chosen to be applied to a page sparing authors from generating these items manually. You are not required to use page layouts.

A page contains a variety of content items. There is also a variety of test items to choose from. Please have a look at

the menu shown by the screenshot on the next page. It summarizes the item options that may be contained in any given page.

In the edit view, you can add new content items or select existing items to be cut, deleted, moved and so forth.

Important Screen: Page Editing Tab

To access the Page Editing tab you either hit the page’s title in the left-hand navigation tree or hit the “Edit”-button next to the page's title in the Organization tab.

The page editing tab's main view comprises again several tabs:



Edit tab: In this tab you can add and edit all page content and question items.

Preview tab: Here you can look at the page. The page is presented exactly as it will be later displayed to learners.

Metadata tab: In this tab you can edit the metadata of this page.

History tab: In this tab changes on the page are represented, you may investigate who changed what and decide to roll-back to earlier versions.

Clipboard tab: Here you can cache content for later use. You can also create a media object here if you like to.

NOTE: This Clipboard is **not the same** Clipboard you are using when you copy&paste chapters / SCOs / pages in the Organization view!

5.1 Editing content

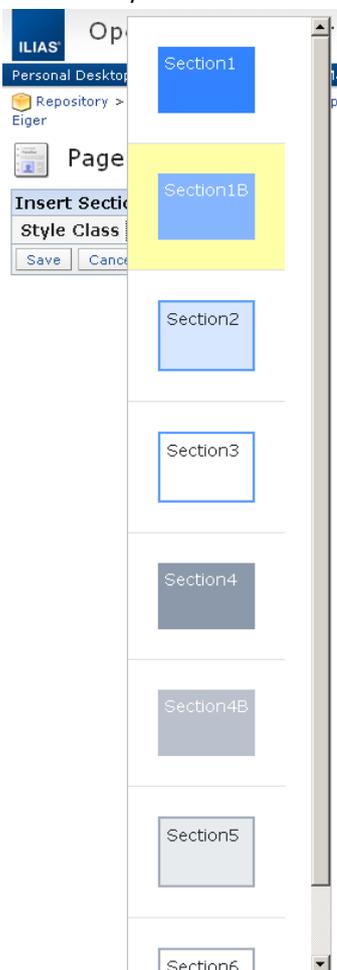
5.1.1 HOW TO ADD A SECTION ITEM

Purpose: The section item applies a special characteristic to a part of the page. This characteristic are a selection of the block styles you can assign when you format text blocks. Only here, you can use them as “container” for all the other elements, including text.

Access Info: You either click on the page's title on the left hand navigation frame or in the organization tab you hit the edit button next to the title of the page.

Step-by-Step Instruction:

1. You click on the little plus on one of the placeholders to create a file list underneath it.
2. ILIAS displays a white rectangular featuring the options of item types you may insert here.
3. You select “Insert Section”.
4. ILIAS offers you a choice of characteristics you can choose from.



5. You select the characteristic you deem best and hit save.
6. ILIAS takes you to the page editing screen. The characteristic has been applied and you may now edit the text or media or other option you wanted to emphasize as special.

NOTE: The sections you can choose from are depending from the style you chose for your SCORM Learning Module (on the “Settings” Tab of the SCORM Learning Module).

5.1.2 HOW TO ADD A TEXT ITEM

Purpose: Text has been used to convey the content to learners for centuries and has proven its merits in this respect. Inserting a text item encompasses not only plain text but as well two options of structuring the content both semantically and visually. A text item can be enhanced by a very simple syntax to become a headline or a list. This allows editing larger portions of text in a convenient fashion: you may structure it by simple means after typing it or pasting it.

Access Info: You access the main page editing tab either by hitting the “Edit”-button next to a page’s title in the Organization tab or by clicking on the page’s title in the left-hand navigation tree. ILIAS opens the main page editing screen.

Step-by-Step Instruction: Entering text

1. You click on the little plus on one of the placeholders to create some content item underneath it.
2. ILIAS displays a white rectangular featuring the options of item types you may insert here.
3. You select “Insert Text”.

The screenshot shows the ILIAS page editor interface. At the top, there is a page title "Page: Introduction" and a navigation bar with tabs for "Edit", "Preview", "Metadata", "History", and "Clipboard". Below the navigation bar, there are three dropdown menus for "Media active", "JavaScript active", and "HTML active", along with a "Set Edit Mode" button. The main content area displays the title "Introduction" in blue. Below the title, there is a placeholder with a plus sign. A context menu is open over this placeholder, listing various options: "Insert Text", "Insert Media", "Insert Question", "Insert File List", "Insert Section", "Insert Data Table", "Insert Advanced Table", "Insert Advanced List", "Insert Code", "Insert Tabs", and "Paste From Clipboard". The "Insert Text" option is highlighted. The background text of the page is partially visible, showing a paragraph about Switzerland.

- ILIAS takes you to the screen for text item editing.

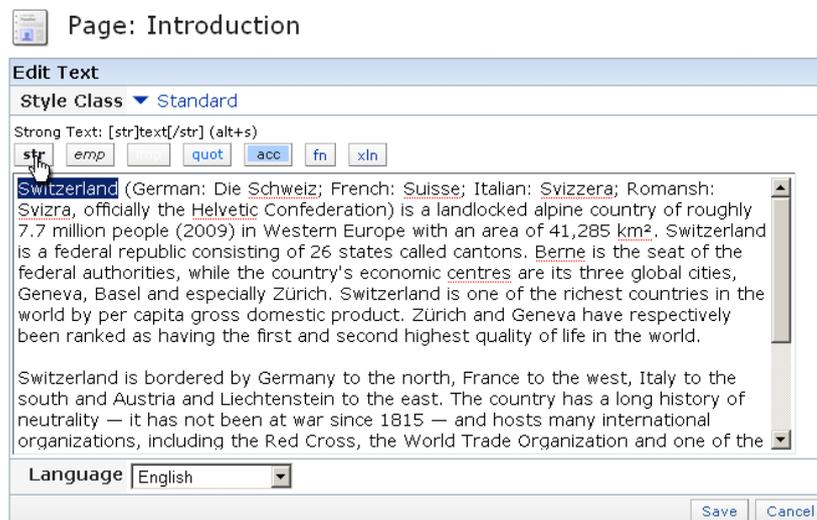


- You type or paste some text into the field.

There are two possibilities to format your text: You can format the whole text block via the drop down menu “Style Class” or you can format parts of your text via the seven buttons above the text field.

Step-by-Step Instruction: The seven buttons

- Mark the part of your text you want to format and hit the button with the text formatting you wish to apply (above the buttons you see the name of the formatting, the tags it uses as well as the keyboard shortcut which is not working at the moment...).



The formattings and what they look like:

str **Strong Text**

emp *Emphatic Text*

imp Important (colorizes the text, color depends of chosen style for your Learning Module)

quot Quotation (colorizes the text, color depends of chosen style for your Learning Module)

acc Accent (highlights the text)

- fn Footnote (creates a footnote out of the text between the tags)
- xln External Link (lets you set external links that will open in a new browser window)

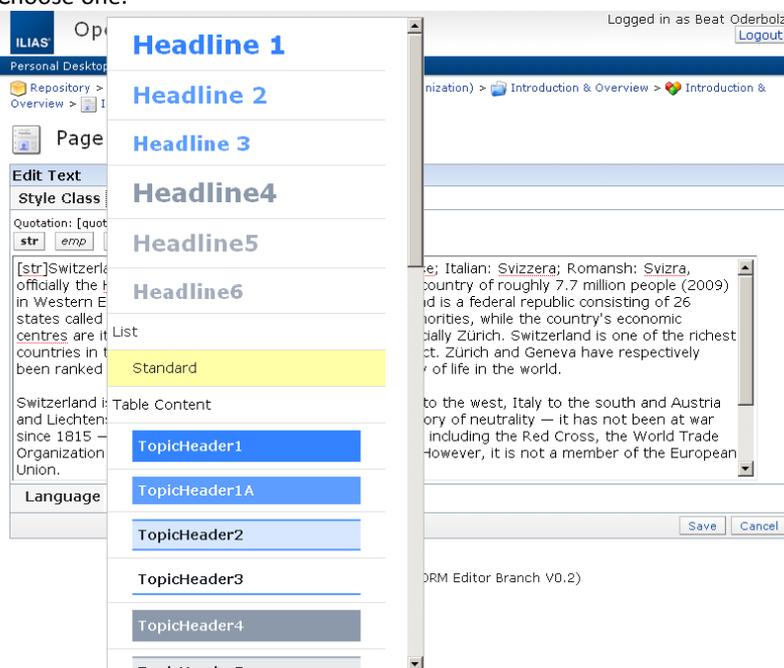
2. Format all the other parts of your text you want to be formatted
3. Hit save to save your work and return to page editing screen.

NOTE: What exactly the seven buttons do to your text depends from the style you chose for your SCORM Learning Module (on the “Settings” Tab of the SCORM Learning Module).

NOTE: It’s not possible to nest text formattings.

Step-by-Step Instruction: Style Classes

1. In the drop down menu “Style Class” you will find a lot of styles you can apply to the whole text block. Choose one.



I won’t get into detail about all these styles. Try them out, see how they look.

2. Hit save to save your work and return to page editing screen.

NOTE: The styles you can choose from are depending from the style you chose for your SCORM Learning Module (on the “Settings” Tab of the SCORM Learning Module).

5.1.3 HOW TO ADD A MEDIA ITEM

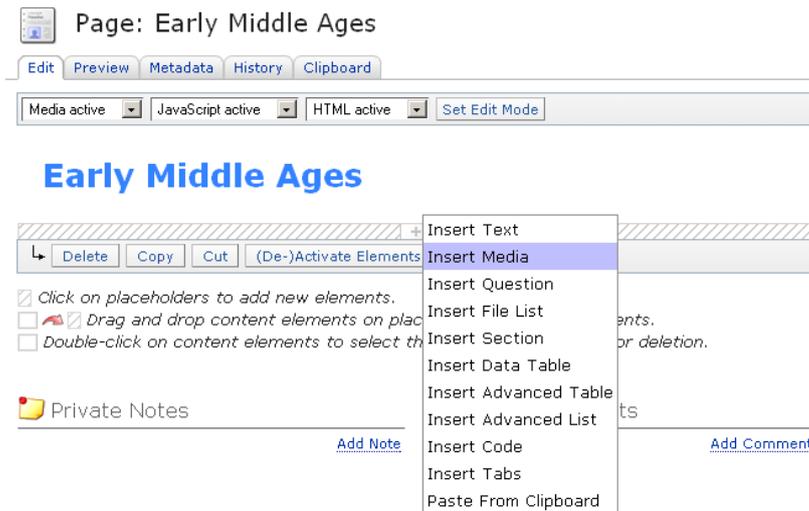
Purpose: The use of media is one of the striking advantages that online learning offers. Knowledge can be illustrated and imparted more intuitively and addressing more learner types than before. Media objects comprise

pictures, graphics, videos & audio files, Java Applets and Flash animations. All this Media items can be uploaded into a page.

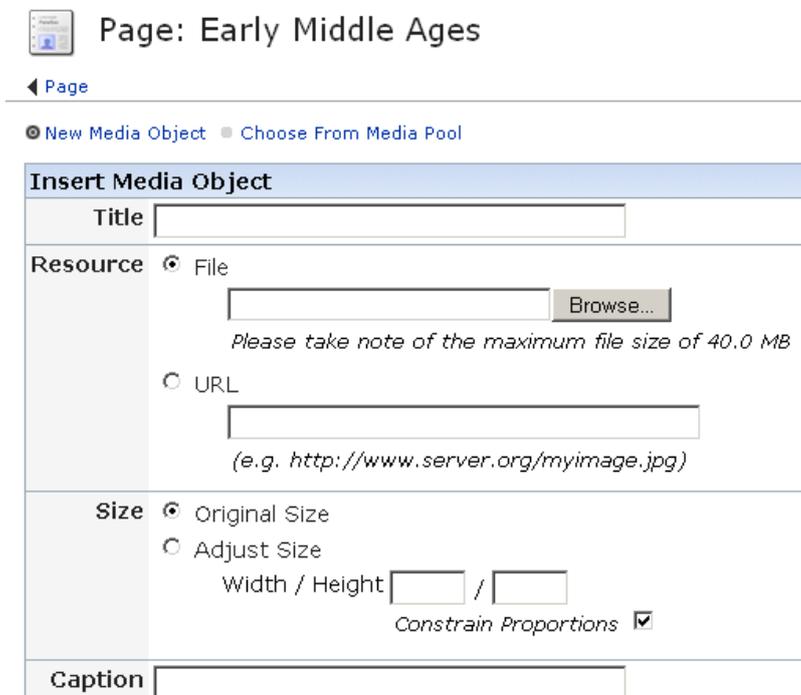
Access Info: You access the main page editing tab either by hitting the “Edit”-button next to a page's title in the Organization tab or by clicking on the page's title in the left-hand navigation tree. ILIAS opens the main page editing screen.

Step-by-Step Instruction:

1. You click on the little plus-sign on one of the placeholders and select “Insert Media”.



2. ILIAS takes you to a form, where you can insert a new media object.



(The “Insert Media Object” part is the important part here, don’t bother about the “Full Screen” part below it...)

3. You hit browse to select a Media Object from your computer.
(Alternately you can enter the URL of media on the internet. Anyhow, we strongly advise against that, because you do not have any control over external media.)
4. ILIAS shows a file upload dialog. You select a local file and hit "Save" at the bottom of the page.
5. ILIAS inserts the Media Object and takes you to an advanced media editing page. By default, you are presented with the "Default Properties" Tab.

 **Page: Early Middle Ages**

◀ Page Instance Properties **Default Properties** Usage Metadata

Insert Media Object	
Title	<input type="text" value="001.jpg"/>
Resource	<input checked="" type="radio"/> File <div style="margin-left: 20px;">001.jpg</div> <div style="margin-left: 20px;"><input type="text"/> <input type="button" value="Browse..."/></div> <div style="margin-left: 20px;"><i>Please take note of the maximum file size of 40.0 MB</i></div>
	<input type="radio"/> URL <div style="margin-left: 20px;"><input type="text"/></div> <div style="margin-left: 20px;"><i>(e.g. http://www.server.org/myimage.jpg)</i></div>
Format	image/jpeg
Size	<input checked="" type="radio"/> Resource Size (2700 x 3900) <input type="radio"/> Custom Size <div style="margin-left: 20px;">Width / Height <input type="text" value="2700"/> / <input type="text" value="3900"/></div> <div style="margin-left: 20px;"><i>Constrain Proportions</i> <input checked="" type="checkbox"/></div>
	<input type="checkbox"/> Resize Image File
Caption	<input type="text"/>

6. Leave the "Default Properties" as they are and change to the "Instance Properties" Tab. Here you can resize your media ("Size") and give it a caption ("Caption").

NOTE: You always get the best results if you import media in the size you want to show them in your

course.

Page: Early Middle Ages

◀ Page Instance Properties Default Properties Usage Metadata

Edit Media Object Instance Properties

Title 001.jpg

Local File 001.jpg

Format image/jpeg

Size Default (2700 x 3900)
 Custom
Width / Height /
Constrain Proportions

Caption Default
No Caption
 Custom

Save

7. Hit the “Save” button to get back to page editing where you will find your media object embedded.
8. You may change the alignment of the media object by clicking on it. ILIAS opens a white rectangular offering the options for alignment:
 - Align: Left
 - Align: Right
 - Align: Center
 - Align: Left Float
 - Align: Right Float

NOTE: A word about video:

If you would like to use video in your course, you are advised to use **Flash Video format** (.flv). Ilias has a flash video player integrated, so everybody who want's to use your course will be able to play the videos. You can experiment with other formats (mpg, avi, etc.), but then you have to make sure, that every student who wants to use your course has the according browser plug-ins installed. Furthermore, not every video format works the way you would expect it to do with the editor.

To cut a long story short: use the .flv format.

To convert different video formats into the .flv format you can use **Adobe Flash** or one of the many shareware applications like **Flash Video MX Pro** (<http://www.video-to-flash.com>, around 100 \$) or **Allok Video to FLV Converter** (http://www.alloksoft.com/flv_converter.htm, around 40 \$).

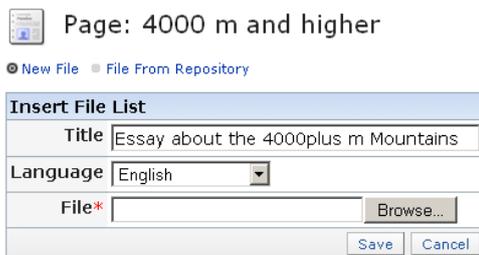
5.1.4 HOW TO ADD A FILE LIST ITEM

Purpose: By using the File List Item PDFs, DOCs or other files can be presented in the learning content. This content is displayed in the new window (which pop-ups after mouse click on the title of the file) by using corresponding programs at the learner's side. If the appropriate program does not exist learner may download and save the file on her PC. The exact behavior depends on the browser handling these files.

Access Info: You either click on the page's title on the left hand navigation frame or in the organization tab you hit the "Edit"-button next to the title of the page.

Step-by-Step Instruction:

1. You click on the little plus on one of the placeholders to create a file list underneath it.
2. ILIAS displays a white rectangular featuring the options of item types you may insert here.
3. You select "Insert file list".
4. ILIAS takes you to the form, where you can add files.
5. You may add a title to the list or merely browse your computer and upload the file.



Page: 4000 m and higher

New File File From Repository

Insert File List	
Title	Essay about the 4000plus m Mountains
Language	English
File*	<input type="text"/> <input type="button" value="Browse..."/>
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

6. You hit "Save".
7. ILIAS takes you back the main editing view of the page into which the file is embedded. The file will be offered for opening or downloading among the other content items.
8. You may append more files after this initial one.

5.1.5 HOW TO ADD A DATA TABLE

Purpose: Tables are one of the best ways for structured presentation of information. Data tables are simple tables that are quick and easy to prepare but limited as they may only contain text.

Access Info: You either click on the page's title on the left hand navigation frame or in the organization tab you hit the "Edit"-button next to the title of the page.

Step-by-Step Instruction:

1. You click on the little plus on one of the placeholders to create a data table underneath it.
2. ILIAS displays a white rectangular featuring the options of item types you may insert here.
3. You select "Insert Data Table"

4. ILIAS presents you a form, where you can create a table (or paste a copied one from a spreadsheet or in html).

 Page: 4000 m and higher

Insert Table	
Number of Columns	2
Number of Rows	2
Table Width	
Table Border	1px
Table Cell Padding	2px
Table Cell Spacing	0px
Style Class	Standard Table
Header Rows	1
Footer Rows	0
Header Columns	0
Footer Columns	0
First Row Style Class	None
Alignment	Center
Caption	
	Alignment Top
Paste Table	<input checked="" type="radio"/> HTML Table <input type="radio"/> Spreadsheet Table
	<div style="border: 1px solid gray; height: 100px; width: 100%;"></div>
Language	English
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

5. Enter all the parameters for your table.

6. In addition you can choose from different table templates (“Style Class”)...

The screenshot shows a configuration panel for a table. At the top, there is a 'Table Cell Spacing' field set to '0px'. Below it is a 'Style Class' dropdown menu currently set to 'Standard Table'. A list of style classes is displayed, including 'BlueGreyZebra', 'BlueNoZebra', 'BlueZebra', and 'Standard Table'. Each style class is accompanied by a small grid icon representing the table's appearance. Other fields include 'Header Rows', 'Footer Rows', 'Header Columns', 'Footer Columns', 'First Row Style Class', 'Alignment', and 'Caption'. A 'Paste Table' button is also visible. To the right of the configuration panel, a preview area shows a table with a 'Caption' field and a 'Top' dropdown menu.

7. ...or just give a special color to the first row of your table (“First Row Style Class”).

This screenshot shows the 'First Row Style Class' dropdown menu expanded, showing options: 'None', 'CellHighlight1', 'CellHighlight2', and 'CellHighlight3'. Each option is accompanied by a small grid icon with a colored first row. The 'Caption' field is set to 'Table' and the 'Top' dropdown is visible. The 'Paste Table' button is also present.

8. Hit “Save” and ILIAS generates the table accordingly.
9. You can write text directly into the cells. You might still add rows and columns as well as layout.

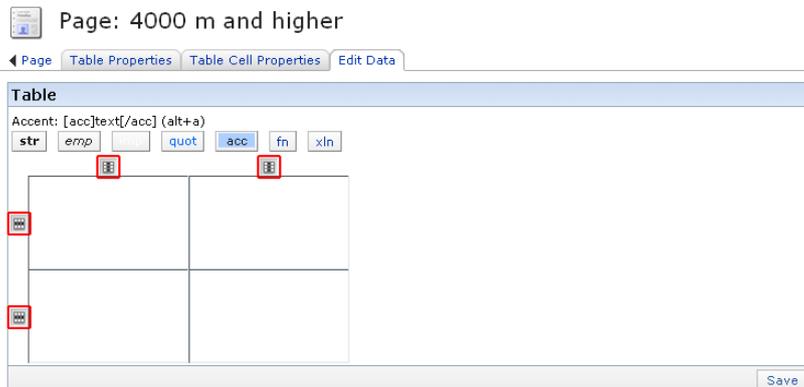
5.1.6 HOW TO ENTER DATA INTO A DATA TABLE

Access Info: You click on the table on the page edit view and choose “Edit Data” on the appearing menu.

Step-by-Step Instruction:

1. Ilias presents you a form where you can enter your text(s) directly into the cells of the table
2. If you wish, you can format your text with the seven buttons above the table.

3. Click on the strange symbols on top or on the left hand side to add or move columns or rows.



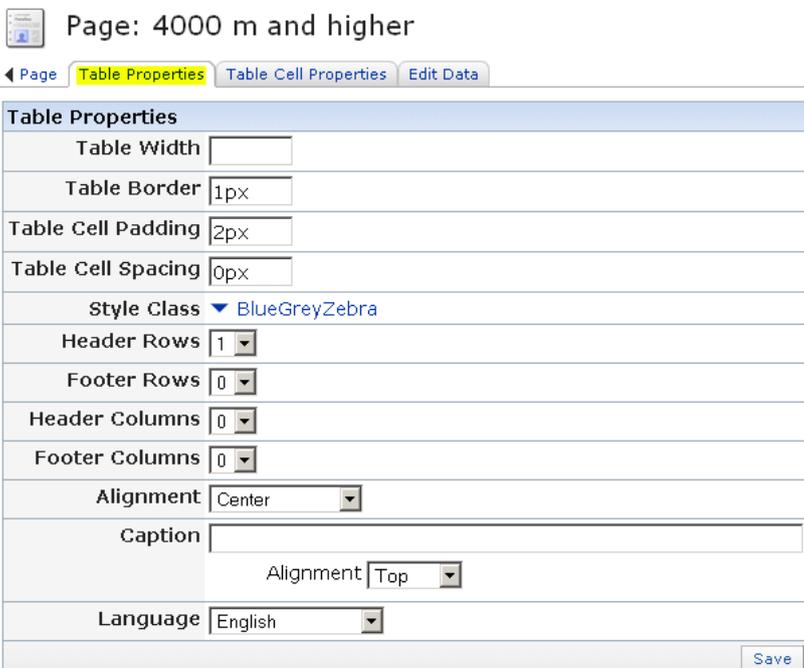
4. Hit "Save"
5. The "Back" button on top of the page takes you back to the page you have been editing.

5.1.7 HOW TO EDIT THE PROPERTIES OF A DATA TABLE

Access Info: You click on the table on the page edit view and choose "Edit Properties" on the appearing menu.

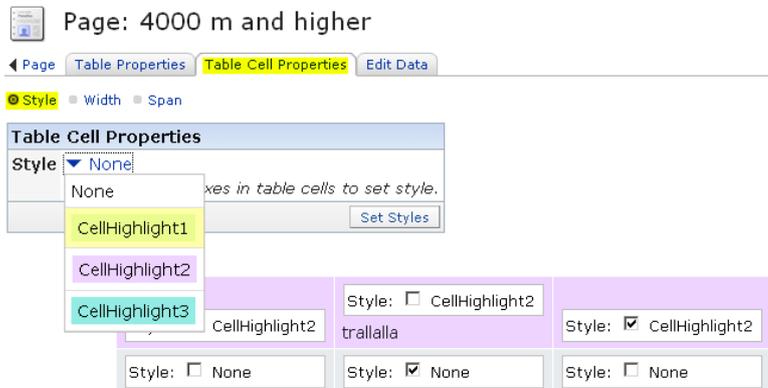
Step-by-Step Instruction:

1. Ilias presents you a form where you can edit the table properties (tab "Table Properties")



2. Click on the tab "Table Cell Properties" to edit cells

3. Under the sub-tab “Style” you can change the color of individual cells:
 1. Check the cells you want to change
 2. Under “Style”, choose a new color for these cells
 3. Hit “Set Styles”



4. Under the sub-tab “Width” you can define the width of individual columns:
 1. Enter the preferred width in the top cell of every column (in percent or pixels)
 2. Hit “Save widths”



5. The “Back” button on top of the page takes you back to the page you have been editing.

5.1.8 HOW TO ADD AN ADVANCED TABLE

Purpose: Tables are one of the best ways for structured presentation of information. Cells of advanced tables may contain not only text but as well media objects, tables, lists, questions or file lists. They are more versatile than data tables but also more effort to edit.

Access Info: You either click on the page's title on the left hand navigation frame or in the organization tab you hit the “Edit”-button next to the title of the page.

Step-by-Step Instruction:

Advanced Tables are handled exactly like Data Tables. The only difference is, that you get placeholders in each and every cell to fill in whatever object you like: text, media, questions, file lists and so on.

5.1.9 HOW TO ADD AN ADVANCED LIST ITEM

Purpose: This content item represents content as lists. Not only text information may be listed but items, presented as binary data also (media in lists, tables in lists, lists in lists, file lists in lists).

Access Info: You either click on the page's title on the left hand navigation frame or in the organization tab you hit the "Edit"-button next to the title of the page.

Step-by-Step Instruction:

1. You click on the little plus on one of the placeholders to create an Advanced List underneath it.
2. ILIAS displays a white rectangular featuring the options of item types you may insert here.
3. You select "Insert Advanced List".
4. ILIAS takes you to a form, where you choose the way the list will be organized and the number of items.

 Page: 4000 m and higher

Insert Advanced List	
Order Type	Unordered
Number of Items	2
Start Value	<input type="text"/>
<small>Enter start value as decimal number. Default is 1.</small>	
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

5. Options in "Advanced List Items" are:
 - o Unordered: list items are bulleted
 - o Numbered: List items bear Arabic numbers
 - o Roman i: List items bear small roman numbers
 - o Roman I: List items bear capital roman numbers
 - o Alphabetical a: List items bear small letters
 - o Alphabetical A: List items bear capital letters

 Page: 4000 m and higher

Insert Advanced List	
Order Type	Unordered
Number of Items	Unordered
Start Value	<input type="text"/>
<small>Enter start value as decimal number. Default is 1.</small>	
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

6. After hitting "Save" you are taken to the page editing screen, where you can insert whatever media you like into the list.

5.1.10 HOW TO ADD A CODE ITEM

Purpose: The code item allows you to use code in a page.

Access Info: You either click on the page's title on the left hand navigation frame or in the organization tab you hit the "Edit"-button next to the title of the page.

Step-by-Step Instruction:

1. You click on the little plus on one of the placeholders to create code underneath it.
2. ILIAS displays a white rectangular featuring the options of item types you may insert here.
3. You select "Insert Code".
4. ILIAS takes you to a form, where you can make choices about the type source code you want to write or import.
5. You insert your code and hit "Save".

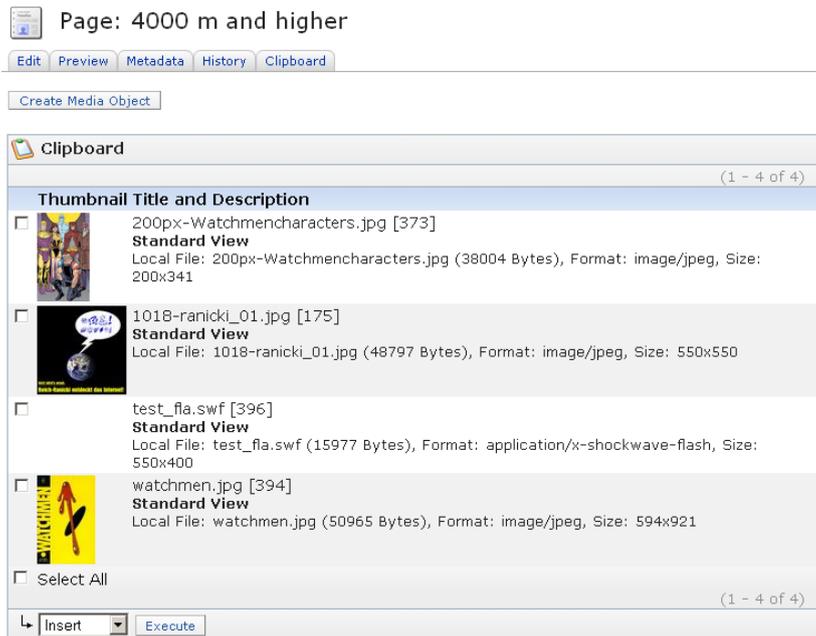
5.1.11 HOW TO EDIT BY PASTING MEDIA FROM CLIPBOARD

Access Info: You either click on the page's title on the left hand navigation frame or in the organization tab you hit the "Edit"-button next to the title of the page.

Step-by-Step Instruction:

1. You click on the little plus on one of the placeholders to paste content from the Clipboard underneath it.
2. ILIAS displays a white rectangular featuring the options of item types you may insert here.

3. You select “Paste from Clipboard” and ILIAS takes you to the clipboard tab.



4. Check the media you want to paste and hit “Execute”
5. Ilias inserts your media from the clipboard and brings you back to the page editing view.

5.1.12 HOW TO DELETE CONTENT ITEM(S)

Access Info: You either click on the page's title on the left hand navigation frame or in the organization tab you hit the “Edit”-button next to the title of the page.

Step-by-Step Instruction:

To mark items for deletion, just double click the items and then hit the “Delete”-button at the bottom of the page (you are not asked for confirmation here, since the page history allows to go back to previous version.)

OR

Click on the item you want to delete and choose “Delete” in the appearing menu (this time, you will be asked for confirmation).

5.2 Editing questions

5.2.1 HOW TO ADD A QUESTION ITEM

Purpose: Test items are used to assess a student's achievement on the learning objective: whether or not they have actually learned what they were supposed to. Since the primary purpose of test items is to measure and test learners' knowledge of the learning objective of a SCO, it is vital that the test items are written in close alignment with the learning objective. All test items have to assess if a learner has actually mastered the given objective.

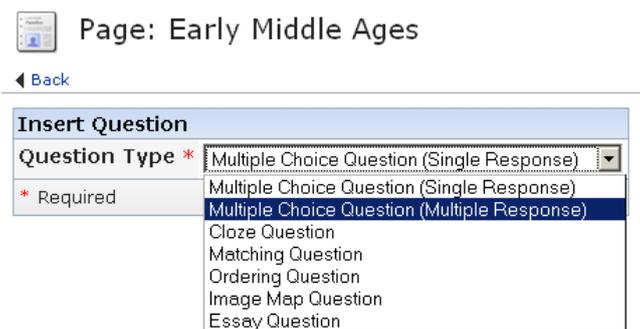
Access Info: You access the main page editing tab either by hitting the "Edit"-button next to a page's title in the Organization tab or by clicking on the page's title in the left-hand navigation tree. ILIAS opens the main page editing screen.

Step-by-Step Instruction:

1. You click on the little plus-sign on one of the placeholders and select "Insert Question".



2. ILIAS takes you to a form, where you choose can the question type you want to insert.



You can choose from the following question types:

- Multiple Choice Question (Single Response)
- Multiple Choice Question (Multiple Response)
- Cloze Question ("Fill in the blanks")
- Ordering Question
- Image Map Question ("Hot Spot Question")
- Matching Question
- Essay Question

For the specific question types, please refer to the following subsections.

5.2.2 HOW TO ADD A SINGLE CHOICE QUESTION

Purpose: Single choice questions are the gold standard in test item writing. Single choice questions prompt learners to choose one option from several different predetermined answers. The options contain one correct answer and 3-4 distractors.

Access Info: You are in the main page editing screen. You click on one of the placeholders. ILIAS displays a white rectangular featuring the options of item types you may insert here. You select “Insert Question”.

Step-by-Step Instruction:

1. ILIAS displays a screen where you can select the question type.
2. You select “Multiple Choice Question (Single Response) and hit “Save”.
3. ILIAS takes you to the form, where you can enter the question data (in the beginning, you wont see the lower part titled “Answer Text”).

Page: Act of Mediation

◀ Back Question

Multiple Choice Question (Single Response)

Title*

Question*

Shuffle Answers ▾

Number of tries*

Self-Assessment-Mode active! Enter 0 points for incorrect answers, 1 point for correct answers.

1 Answer ▾

	Answer Text	Points
<input type="checkbox"/>	12	0
<input type="checkbox"/>	15	0
<input type="checkbox"/>	19	1
<input type="checkbox"/>	21	0
<input type="checkbox"/>	24	0
<input type="checkbox"/>	Select All	

↳

* Required

4. You provide a title for the question.
5. You enter the instructions and the stem into the “Question” field.
6. You hit “Save”.
7. Then you select the number of answer options you want to provide using the drop-down menu. Then you hit “Add”.

8. Now you get the lower part of the form: ILIAS prompts you with the respective number of answer option fields.
9. You write the answers.
10. You assign points to the correct answer and hit "Save". If you assign 0 points, the answer will be counted as false. If you assign 1 or more points, it will be counted as true.
11. The "Back" button on top of the page takes you back to the page you have been editing.

5.2.3 HOW TO ADD A MULTIPLE CHOICE QUESTION

Purpose: Multiple choice questions prompt learners to choose more than one correct answer from different predetermined answers.

Access Info: You are in the main page editing screen. You click on one of the placeholders. ILIAS displays a white rectangular featuring the options of item types you may insert here. You select "Insert Question".

Step-by-Step Instruction:

1. ILIAS displays a screen where you can select the question type.
2. You select "Multiple Choice Question (Multiple Response)" and hit "Save".
3. From here on the procedure mirrors the one for Single Choice Questions with the important difference that there are more than one correct answers, so you have to assign points to all of them and hit "Save".
4. The "Back" button on top of the page takes you back to the page you have been editing.

5.2.4 HOW TO ADD A CLOZE QUESTION

Purpose: A cloze question requires the student to finish a statement or to answer a question by filling in a blank with the correct word or phrase. Cloze questions can be used to test for higher levels of content like application or synthesis. They force the student to actively produce the answer and not merely select it. This avoids guessing.

Access Info: You are in the main page editing screen. You click on one of the placeholders. ILIAS displays a white rectangular featuring the options of item types you may insert here. You select "Insert Question".

Step-by-Step Instruction:

1. ILIAS displays a screen where you can select the question type.
2. You select "Cloze Question" and hit "Save".
3. ILIAS takes you to the form, where you can enter the question data.
4. You provide a title for the question.

- You enter the instructions and the stem into the "Question" field. You can define a gap by entering [gap]/[gap] at the text position of your choice. Enter the correct solution within the gap brackets in the field. Hit "Create Gaps".

Page: The Eiger

◀ Back Question Feedback

Cloze Question

Title* Geography Question 1

Cloze Text* Please complete the following statement:
 The "Nordwand" of the Eiger was first climbed in the year [gap]1938[/gap] by a [gap]German-Austrian[/gap] group.

You can define a gap by entering [gap]/[gap] at the text position of your choice. Press the 'Create gaps' button to add an editable form for every gap.

Number of tries* 3

Self-Assessment-Mode active! Enter 0 points for incorrect answers, 1 point for correct answers.

Create Gaps

* Required

Save Cancel

- Ilias adds forms for every gap:

Page: The Eiger

◀ Back Question Feedback

Cloze Question

Title* Geography Question 1

Cloze Text* Please complete the following statement:

The "Nordwand" of the Eiger was first climbed in the year [gap]1938[/gap] by a [gap]German-Austrian[/gap] group.

You can define a gap by entering [gap]/[gap] at the text position of your choice. Press the 'Create gaps' button to add an editable form for every gap.

Number of tries* 3

Self-Assessment-Mode active! Enter 0 points for incorrect answers, 1 point for correct answers.

Create Gaps

Gap 1

Type Text Gap Change

Value 1938 Points 0 Delete

Add Gap Text

Gap 2

Type Text Gap Change

Value German-Austrian Points 0 Delete

Add Gap Text

* Required

Save Cancel

- If you want some gaps to be presented with a number of prefabricated answers, hit “Add Gap Text” and enter the distracter texts. In addition, you have to choose the gap type “Select Gap”.

Page: The Eiger

◀ Back Question Feedback

Cloze Question

Title* Geography Question 1

Cloze Text* Please complete the following statement:

The "Nordwand" of the Eiger was first climbed in the year [gap]1938[/gap] by a [gap]German-Austrian,Swiss-German,Brazilian-Mexican,Ukranian-Swiss[/gap] group.

You can define a gap by entering [gap][/] at the text position of your choice. Press the 'Create gaps' button to add an editable form for every gap.

Number of tries* 3

Self-Assessment-Mode active! Enter 0 points for incorrect answers, 1 point for correct answers.

Create Gaps

Gap 1

Type Numeric Gap Change

Value 1938 Points 1 Delete

Gap 2

Type Select Gap Change

Value Text Gap Points 1 Delete

Value Select Gap Points 0 Delete

Value Numeric Gap Points 0 Delete

Value Brazilian-Mexican Points 0 Delete

Value Ukranian-Swiss Points 0 Delete

Add Gap Text

* Required

Save Cancel

The gap type „numeric gap“ equals the text gap, but accepts numbers only.“

- Do not forget to give points for the correct answers and hit “Save”.
- The “Back” button on top of the page takes you back to the page you have been editing.

5.2.5 HOW TO ADD A MATCHING QUESTION

Purpose: Matching questions prompt learners two predefined lists of text items. Learners are presented two columns: a column of stems (“Definitions”) to be answered and a column of options (“Terms”) from which the answers are chosen. Matching questions test for knowledge level content, cause and effect knowledge, parts and wholes, problems and solutions. They test learners’ knowledge of relationships between items.

Access Info: You are in the main page editing screen. You click on one of the placeholders. ILIAS displays a white rectangular featuring the options of item types you may insert here. You select “Insert Question”.

Step-by-Step Instruction:

1. ILIAS displays a screen where you can select the question type.
2. You select "Matching Question" and hit "Save".
3. ILIAS takes you to the form, where you can enter the question data.
4. You provide a title for the question.
5. You enter the instructions and the stem into the "Question" field.
6. Add the number of terms you want to match with definitions.

Page: The Eiger

◀ Back Question

Matching Question

Title* Geography Question 2

Question* Please match the first names with the family names of the four men who where the first to climb the "Nordwand" of the Eiger.

Shuffle Answers Both (Terms and Definitions)

Number of tries* 3

Self-Assessment-Mode active! Enter 0 points for incorrect answers, 1 point for correct answers.

Add 4 Terms

Add Matching Pair

* Required

Save Cancel

7. Ilias presents a form to fill in the "terms". Fill them in an hit "Add Matching Pair"

Shuffle Answers Both (Terms and Definitions)

Number of tries* 3

Self-Assessment-Mode active! Enter 0 points for incorrect answers, 1 point for correct answers.

Add 1 Terms

Terms

Heckmair

Vörg

Harrer

Kasperek

Select All

Delete

Add Matching Pair

* Required

Save Cancel

8. Ilias presents another form to fill in the “definitions” and match them to their respective “term”. You have to hit “Add Matching Pair” once for every pair.
Don’t forget to assign points for the correct matches and hit “Save”.

Shuffle Answers: Both (Terms and Definitions)

Number of tries*: 3

Self-Assessment-Mode active! Enter 0 points for incorrect answers, 1 point for correct answers.

Add 1 Terms

Terms

Harrer

Heckmair

Kasperek

Vörg

Select All

Delete

Add Matching Pair

Definition		Term	Points
<input type="checkbox"/> Heinrich	matches	Harrer	1
<input type="checkbox"/> Anderl	matches	Heckmair	1
<input type="checkbox"/> Fritz	matches	Harrer	1

Select All

Delete

* Required

Save Cancel

9. The “Back” button on top of the page takes you back to the page you have been editing.

5.2.6 HOW TO ADD AN ORDERING QUESTION

Purpose: Ordering Questions present a number terms which learners have to sort. Learners have to determine the correct sequence of the terms. Ordering questions are adequate to tests learners’ knowledge of processes.

Access Info: You are in the main page editing screen. You click on one of the placeholders. ILIAS displays a white rectangular featuring the options of item types you may insert here. You select “Insert Question”.

Step-by-Step Instruction:

1. ILIAS displays a screen where you can select the question type.
2. You select “Ordering Question” and hit “Save”.
3. ILIAS takes you to the form, where you can enter the question data.
4. You provide a title for the question.
5. You enter the instructions and the stem into the “Question” field.

- You select the number of options that should be created and hit "Add".

Page: 4000 m and higher

◀ Back Question

Ordering Question

Title* Geography Question 3

Question* Please sort the following Swiss mountains according to their height, highest one on top.

Shuffle Answers Yes

Number of tries* 3

Add 5 Answers

* Required

Save Cancel

- ILIAS creates the form to enter the terms.
- You enter the respective data, assign points and hit "Save".

Page: 4000 m and higher

◀ Back Question

Ordering Question

Title* Geography Question 3

Question* Please sort the following Swiss mountains according to their height, highest one on top.

Shuffle Answers Yes

Number of tries* 3

Add 1 Answer

Answer Text	Solution Order	Points
Finsteraarhorn	1	1
Aletschhorn	2	1
Jungfrau	3	1
Mönch	4	1
Schreckhorn	5	1

* Required

Save Cancel

The solution order must must comply with the pattern "1;2;3;4 ..." (integers only, no skips, start with number 1).

- The "Back" button on top of the page takes you back to the page you have been editing.

5.2.7 HOW TO ADD AN IMAGE-MAP QUESTION

Purpose: Image-maps are pictures comprising clickable areas so-called hotspots. Image-map questions present learners with a picture containing several hotspots. Learners have to select the correct hotspot.

Access Info: You are in the main page editing screen. You click on one of the placeholders. ILIAS displays a white rectangular featuring the options of item types you may insert here. You select “Insert Question”.

Step-by-Step Instruction:

1. ILIAS displays a screen where you can select the question type.
2. You select “Imagemap Question” and hit “Save”.
3. ILIAS takes you to the form, where you can enter the question data.
4. You provide a title for the question.
5. You enter the instructions and the stem into the “Question” field.
6. You upload a picture (or a complete image-map). Your picture should already have the correct size!

Page: The Eiger

← Back Question

Image Map Question

Title*:

Question*:

Number of tries*:

Image:

Image Map File:

Self-Assessment-Mode active! Enter 0 points for incorrect answers, 1 point for correct answers.

* Required

- Then you add hot spot areas. You may choose their form: rectangular, circle or polygon. Then you hit "Add".

Number of tries*

Image:



Image Map File:

Self-Assessment-Mode active! Enter 0 points for incorrect answers, 1 point for correct answers.

* Required

- ILIAS asks you to place the hot spots on the picture. In a bar above the picture, Ilias gives you hints on how to do that.

Give the hotspot a comprehensible name and hit "Save".

Page: The Eiger

Please click on center of the desired area.

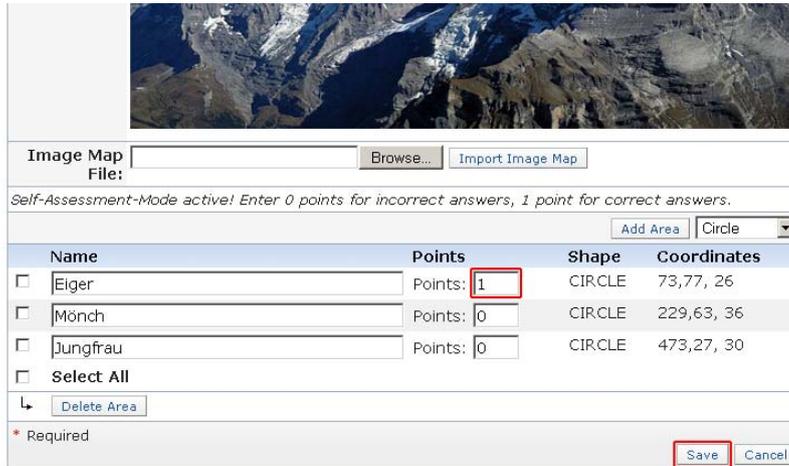
Name:

Image Map



- Repeat step number 8 for every hotspot you want to set.

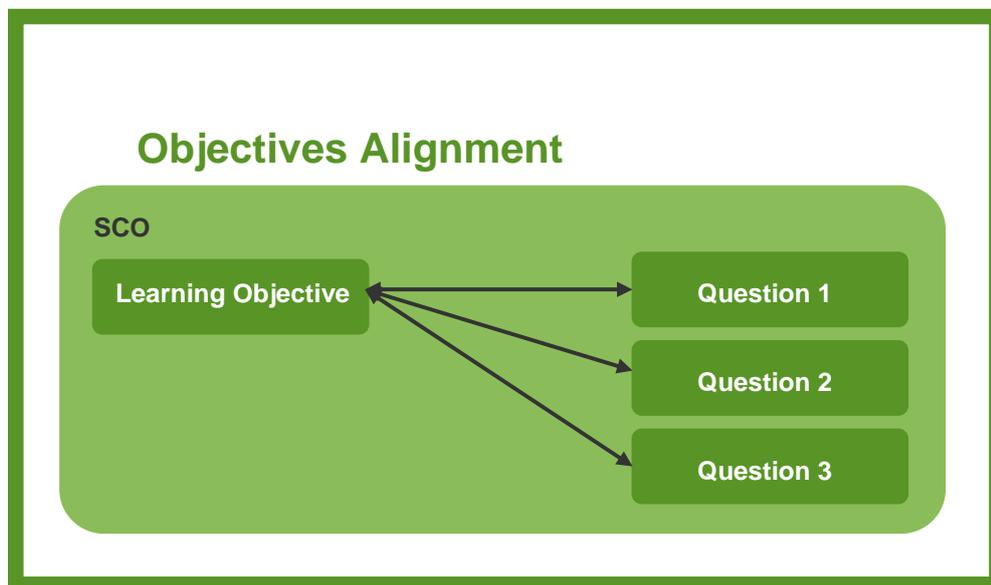
10. Assign points to the correct solution and then hit "Save".



The screenshot shows a quiz editor interface. At the top, there is a satellite image of a mountain range. Below the image, there are buttons for "Image Map File:", "Browse...", and "Import Image Map". A message reads: "Self-Assessment-Mode active! Enter 0 points for incorrect answers, 1 point for correct answers." Below this, there are buttons for "Add Area" and a dropdown menu set to "Circle". A table lists three questions with their respective points, shapes, and coordinates. The "Points" column for the first question, "Eiger", has the value "1" highlighted with a red box. Below the table, there is a "Delete Area" button and a "* Required" label. At the bottom right, there are "Save" and "Cancel" buttons, with the "Save" button highlighted by a red box.

Name	Points	Shape	Coordinates
<input type="checkbox"/> Eiger	Points: 1	CIRCLE	73,77, 26
<input type="checkbox"/> Mönch	Points: 0	CIRCLE	229,63, 36
<input type="checkbox"/> Jungfrau	Points: 0	CIRCLE	473,27, 30

11. The "Back" button on top of the page takes you back to the page you have been editing.



6.1 Important Screen: Objectives Alignment Tab

You hit the Alignment tab in the main editing menu. You see the learning objectives in the left column and the titles of the according test items in the right column.

This tab provides an overview of all SCOs, their learning objectives and the test questions that assess the learning objectives. The intention is, to check whether all SCOs have a defined and sensible learning objective and how many and which test items check these learning objectives.

The Learning Objectives Alignment View is a mere view. The test items are “assigned to the Learning Objectives by being placed in the same SCO.

6.2 How to edit the learning objectives for alignment

Purpose: Test items are designed to measure learners' knowledge of a learning objective. The Objectives Alignment view allows inspecting whether learning objectives and test items are congruent. A simple table view exhibits the objectives in one column and the associated questions in a second one so you can easily seize the level of alignment between objective and test item. If necessary you could edit both of them.

Access Info: You can access the objective alignment tab from the main editing view of the SCORM Learning Module.

Step-by-Step Instruction:

1. You click on the "Objective Alignment" tab.
2. ILIAS takes you to a two-column overview: on the left hand all SCOs of the package with their according titles and learning objectives are displayed, on the right hand side the titles of the pages and their questions are displayed.
3. At one glance you can identify not only what objective does not have questions at all, but as well if there are any imbalances in the amount of questions per objective throughout the course.
4. If you consider the objective and the questions are not congruent, you can either change the objective or the questions.
5. To change the objective click on the SCOs title to be taken to the screen, where the learning objective is editable.
6. To change the questions, click on the page title to be taken to the page, where you can edit the question.