CourseLab 2.7. User Manual



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1. What is CourseLab?

CourseLab is a powerful and easy-to-use eLearning authoring system that offers programmingfree WYSIWYG environment for creating high-quality interactive eLearning content which can be published on the Internet, Learning Management Systems (LMS), CD-ROMS and other devices.

1.1 Key Features of CourseLab

- WYSIWYG (What You See Is What You Get) environment for creating and managing high-quality interactive eLearning content.
- No HTML or other programming skills required.
- Object-oriented Model allows constructing eLearning content of almost any complexity just as easy as you put together the building blocks.
- Interface based on an Open Object Model enables to easily extend and enhance existing libraries of objects and templates including those created by the user.
- Embedded mechanisms for objects animation.
- Add any rich-media content like Macromedia Flash, Shockwave, Java, and video in different formats.
- Easy mechanism for inserting and synchronization of sound files.
- Import PowerPoint presentations into the learning material.
- Built-in screen capture mechanism, which enables emulating functionality of different software.
- Embedded event-action mechanism.
- Advanced users can access CourseLab Objects and runtime variables and functions via JavaScript.

1.2 System requirements

CourseLab Editor system requirements:

- Microsoft Windows 2000/XP/2003/Vista/7/2008;
- Internet Explorer 6.0 or higher;
- 80Mb hard drive space;
- 1 free USB port (if hardware key is used).

Minimum system requirements for viewing learning modules for computers and mobiles*:

- operating system:
 - Microsoft Windows 98, Me, NT 4.0, 2000, XP, 2003, Vista, 7, 2008;
 - MacOS X;
 - iOS; *
 - Linux;
- Browser:
 - Internet Explorer 6.0 or higher (8.0 and higher recommended); **
 - Mozilla FireFox 3.0 or higher (4.0 and higher recommended); **
 - Google Chrome 1.0 or higher (7.0 and higher recommended);
 - Apple Safari 4.0 or higher (5.1 and higher recommended);
 - Opera 11.0 or higher (12.0 and higher recommended);

- JavaScript enabled;
- XML support enabled.

* Some web technologies may not work. For example, Adobe Flash is not supported in some mobile devices.

** Local launching of Course is available for these browsers only. User must allow launching active content from local disks in browser settings.

1.3 Compliance to the Standards

eLearning Courses created using CourseLab, depending on the publishing method, support the following international learning industry standards:

- AICC (<u>http://www.aicc.org/</u>)
- SCORM 1.2 (<u>http://www.adlnet.org/</u>)
- SCORM 1.3 (SCORM 2004) (http://www.adlnet.org/)

CourseLab certified by ADL for compliance to the SCORM 2004.



1.4 CourseLab and LMS

Learning Management System (LMS) is a complex software platform, that enables automation of the management and delivery of distributed learning content. Learning Management System tracks completion of the e-learning Courses and provides/compiles reports upon completion of the course. Modern Learning Management Systems are based on the international standards for utilizing and exchanging learning content.

The complete comprehensive eLearning course can be created using CourseLab application.

When Course is ready, author starts publication process. The result of publication is ZIPpackage, which is structured according to selected e-Learning standard's Content Aggregation Model (CAM). This package contains all necessary course files and special metadata files, which contain information on Course structure.

Course package is imported into standard compliant LMS using built-in import procedures.

When learner studies course, course communicates with LMS using corresponding e-Learning standard's Run-Time Environment (RTE). Course stores its state in LMS storage and restores state on continued approaches.

2. Interface

This is what the CourseLab window looks like upon finishing New Course Wizard.



CourseLab window is divided into the panels, each of which is used for completion different tasks.

- <u>Course Pane</u> is located in the left portion of the CoursLab window. Course Pane contains the heading of the Learning Course.
- **Opened Module's window** is located in the middle of the CourseLab window.
- <u>Task Pane</u> is located in the right portion of the CourseLab window.

2.1 Course Pane

Course Pane contains the heading of the Learning Course. The same heading will be displayed for the learner in the Learning Management System.

To open or close Course Pane select menu option View -> Course.

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Course Pane is located in the left portion of the CourseLab window.



The heading consists of:

- Course name;
- names of the Chapters;
- names of the Modules.

Chapters can be grouped within another Chapters resulting in complicated Course hierarchy structure.

Double click on the name of the Module to open Module for editing.

To move Module or Chapter into the different Chapter, drag and drop name of the Module into the target Chapter's name.

To modify the sequence of the Modules and Chapters, use mouse to drag heading component into the parent's element of the heading. By doing so, the dragged element will be moved to the end of the list.

2.2 Module window

Opened Module's window is located in the middle of the CourseLab window. Module window consists of the two parts: Slide panel and Workspace.



Workspace is used for placing Objects on the Slide.

Slide panel is used for displaying drafts of the Slides. By clicking on the draft of the Slide, selected Slide will be displayed in the Workspace.

To change Slides order drag selected Slide icon into appropriate place of the Slide Panel.



Use tabs with images above in the top of the Slide Panel to switch views between Slide's drafts and Slide's names.

Use Tab and Shift+Tab to move name of the selected Slide to the right or to the left accordingly. In such a way, you can create simple Slide's hierarchy, which can be shown during playback of the Module.

You can also use Module window to open <u>Frames</u> and <u>Timeline</u> Panes.

2.3 Task Pane

Task Pane is located in the right portion of the CourseLab window. The switch on top of the Task Pane enables accessing of one of the following sections of the Task Pane:



2.3.1 Frame structure



2.3.2 Object Library



Task Pane in the "Frame Structure" mode displays all Objects that available for creating Course. Objects are grouped by their purpose.

There are two way to insert the Object on the Frame: drag the Object's icon on the Frame or double-click on its icon (in this case Object will be inserted exactly in the center of the Frame).

Objects can be <u>customized by user</u> (using Customize link at the bottom of the Pane).

2.3.3 Clip Art



For inserting frequently used pictures it is convenient to use the Clip Art section in the tasks area. It displays thumbnail images in a Clip Art folder on the computer. Click "Browse..." at the bottom of the "Clip Art" section to designate the folder which will be accessible in the Clip Art panel. In the opened "Browse for Folder" dialog box, select the folder containing pictures. It is a good idea to preload this Clip Art with the pictures you plan to use in your course.

To add a picture to the Slide, drag the thumbnail image into the working area.

2.3.4 Autoshapes



AutoShapes is a group of special Objects based on vector controls (arrows, stars, curves, rectangles etc.). Depending on the vector structure, AutoShapes can be resized to any size without losing form and quality.

To insert an Object, select the desired tab in the AutoShapes section on the Task Pane and double-click on the Object.

2.3.5 Scenarios



2.3.6 Design Templates



Task Pane in the "Templates" mode displays all Templates that available for creating Course. Using these Templates user can change Module's initial Template or add another Template to use it on some Slides.

To add new Template into current Module double-click on suitable Template icon. New Master-Slide (and Title-Slide - if confirmed) will be added into Module.

Templates can be customized by user (using Customize link at the bottom of the Pane).

User can create own Templates and save them into My Templates section. To create Template user should create Module with one empty Slide, change Master-Slide and Title-Slide according to design requirements and select menu command **Tools -> Add module to templates...**.



3. What is eLearning Course?

eLearning Course encapsulates structured, thematically self-contained learning material, which can be distributed to the learner throughout Internet or using memory devices.

Typically, the eLearning Course accommodates self learning material, but unlike book or manual provides the following:

- Powerful multimedia content Graphics, animation and other rich-media material (audio and video in different formats, Flash-movie, Java applications and others).
- Interaction presentation of the learning material may depend on the actions taken by the user.
- Different options for assessing and evaluating gathered knowledge (tests, exercises).

Incorporation of eLearning Course into the Learning Management System and intercommunication between them enables the most efficient management of the overall learning process. Within Learning Management System the eLearning Course is considered as an independent learning unit, which can be assigned for assessing the level of learning. Upon completion of eLearning Course various reports could be generated by the Learning Management System.

From the education methodology perspective eLearning Course corresponds to any conventional Learning Course - assuming that eLearning Course encloses all the necessary self-educational learning material and tests for controlling and evaluating apprehension of the learning material.

3.1 Module

Learning Module is a fundamental building block of the Course hierarchy representing the set of author-structured Slides. During the learning process the learner is led from one Slide to another sequentially, which is default behavior. If desired, author of the learning Module can define different order of the Slides appearance (for example depending on the result of the test).

Learning Module can be used for educational purposes (in this case consists of learning material only), besides that, Learning Module can be employed for assessing of the learned lessons (can contain tests and exercises). It is a common practice to combine both learning material and tests in one single Learning Module: In this case upon completion of the learning material learner is tested within the same Learning Module.

In the Learning Management System the Learning Module is one of the component part of the Learning Course and the only dynamic structural unit; system collects information regarding completion of the Learning Module. When processing information about status of all Learning Modules, the system changes the completion state of not only the particular sections of the Course but also Learning Course itself with accordance to the rules defined in the particular Learning Management System.

From the education methodology point of view Learning Module corresponds to lesson or lecture - meaning it supposed to have thematically coherent and completed learning material.

3.2 Chapter

Modules created in CourseLab can be thematically combined in Chapters. Chapters can be grouped within another Chapters resulting in complicated Course hierarchy structure. Although there is no limitation for number of Chapters and number of sub Chapters within a Chapter, it is strongly recommended to avoid using too complex hierarchy structure. The reason is that you do not mean to discourage student from pursuing this Course just because the structure of that Course is too hard to apprehend.

Within Learning Management System the Chapter is usually displayed as a folder containing Modules and/or other Chapters. The Chapter for the distance Learning System is a structural unit. There is no information regarding state of the Chapter transmitted to the System from the Modules. The system is making changes to the state of the Chapters based on state information of its Modules and other Chapters.

From the education methodology point of view Chapter can be represented as a series of thematically grouped lectures or lessons.

3.3 Slide

Slide (Interactive page) is the main building block of Module. Slides are used by the author to place learning material, tests, and exercises. The order of Slide correlation is predefined by the author.

Slide itself consists of Frames. Depending on complicity the number of Frames can vary (e.g. using animation, software scenario etc. can significantly increase the number of Frames). Any Slide has at least one Frame.

Slides are not accessible by the Learning Management System individually. The Module is the smallest system managed unit.

From the education methodology perspective Slide can be employed for expressing single point of view (thought or idea) with regards to the Module.

3.4 Frame

Frame is the smallest structural unit of the Module. In order to create a Module author uses Frames as the foundation for objects.

Even though there is no limitation for the number of Frames within a Slide, we recommend not to exceed 30-40 Frames per Slide otherwise the time elapsed for loading up the Slide could be inconveniently slow.

Similar to Slides, Frames are not accessible by the Learning Management System individually. The Module is the smallest system managed unit.

From the education methodology perspective Frame is not a self-containing unit - it is rather component of the Slide.

3.5 Master-Slide

All the Slides for the Module are created on top of the **Master Slide**. The Master slide is the slide that contains elements that are common to all or several slides: Navigation Objects within a Module, Help etc.

There is no limit for the number of Master Slides and hypothetically each Slide with assessment content might have a Master Slide, but this is rather inefficient and must be avoided. In most cases one Master Slide is enough.

LIMITATION: Since Master-Slide is "background" Slide it has limited functionality: links, hotspot areas, effects, display delays, events and actions are not supposed to work on Master-Slide. Most of Complex Objects also may not work on Master-Slide, except for Navigation Objects, which are designed especially for Master-Slide.

3.6 Title-Slide

Title-Slide is an introductory part of the Module which appears on the PC screen right after launching Module. Along with the introductory page the system loads the main part of module on the background, which makes it convenient for user.

Important! During display of the Title-Slide introduction the main code for the module is not loaded yet, therefore, not all the complex objects will be displayed. Thus only text, images, and special objects, located in Title-Slide folder (such as Start Module Button and Title-Slide Popup) should be used when editing the Title-Slide Slide. Transitions, delays, events and actions are not allowed too.

4. How to Create Course?

The following topics describe the steps for creating eLearning Course.

- <u>eLearning Course Scenario</u>
- <u>New Course Wizard</u>
- Editing Module
- Adding Modules
- Adding Chapters and grouping Modules
- Publish Course

4.1 eLearning Course Scenario

The following should be taken under consideration while creating Learning Course:

Thematic Presentation of the Learning Course must be strictly consistent.

- **Stay focused.**There is no need to pause do not follow the usual teaching approach of blending some funny story into the studying material. Student himself will set the right pace to absorb the material.
- Do not provide too many alternatives. A tree-like Course structure is rather disadvantageous if compared to linear type Course. It sends learners different directions therefore some parallel paths of the tree-like structure are in jeopardy of not being revealed at all. The only exception for using more complex structure is in case you need to provide an Example, which is relevant to the Main Objective. Note, this example should be just an additional illustration to the learning material and could be skipped causing no damage to the overall learning process. And again, if above mentioned example is an essential part of the main course the linear Course structure should be taken into consideration. Ideally, learner should be able to go through the entire Course only by pressing Next button.

Specifics of delivering Learning Material - Pieces of the Learning Material should be reasonably sized.

- Break down the Learning Material into chunks of learning content. Build the clear hierarchy structure. If learning material is extensive, break it down into Modules with respect to thematic coherence clear and consistent story lines and content. It is not recommended to group more than one learning subject into one Module; better use more Modules in the Course than overload the Modules with different learning subjects. Use thematic coherence inside each Module to distribute learning assessment into the Slides.
- **One Topic per Slide.** The learning material in the Course is divided into the Slides. Although there is a thematic relationship among the slides we do not recommend using several slides for covering a single learning Topic. Ideally, use only one Topic per Slide.

Use Interactive Multimedia features

- Utilize multimedia illustrations and graphics.. eLearning has a huge advantage over conventional learning since eLearning introduces multimedia content. Animated schemes or Flash-movie is often more comprehensive than lengthy descriptions and should be used to full extent to explore the Topic within a Slide.
- Learn as you practice. Allow audience to interact with the system as it significantly improves the process of memorizing the learning material. eLearning is interactive by its nature, thus use this potential to the full extent. Where appropriate, enable onscreen actions to demonstrate different results by manipulating with parameters. Use quizzes.

4.2 New Course Wizard

To create a new course, select File -> New -> Course...

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The New Course Wizard appears. To continue, click Next.

New Course	
Version 2.4	 Welcome to the New Course Wizard. With help of this Wizard you can to create a new learning course. In CourseLab a course contains one or more learning modules. The module is a sequence of slides, slides contains learning materials and tests. CourseLab is a tool in which your can create and edit courses, modules, slides. You can import PowerPoint presentations, or use advanced Screen Capture feature to create software scenarios. CourseLab also can package courses to use in Learning Management Systems environments, or prepare courses to distribute on CD. To continue, dick Next.

Provide the name of the course, the name of the course folder, and location where course folder should be created.

New Course
Name and location of new course Provide course name and folder location where course will be created.
Name:
My Course
<u>F</u> older:
Course1
Location:
C:\Courses
Course will be created at C:\Courses\Course1.
< <u>B</u> ack <u>N</u> ext > Cancel

The Course is created with the single Module by default. On the next page of the Master: insert name of the first Module, and Select Module template. Later on you may add more modules to the Course, as well as Chapters.

New Course
First module Provide module name and select design template.
Module Name: Module 1 Standard
< <u>B</u> ack <u>N</u> ext > Cancel

Course is created. Click Close button to finish working on the New Course Wizard.

New Course	
Version 2.4	Course successfully created and ready to use.
	< Back Finish Cancel

4.3 Editing Module

Editing module include following tasks:

- Editing Title-Slide
- Editing Master-Slide
- Editing Slides
- Preview Module
- Adding Slides

4.3.1 Editing Title-Slide

To turn On Title-Slide editing mode use **View -> Title-Slide** sub-menu or quick switching button in the Slide's Panel.



You may change picture, Logo, insert Module name and Instructions prior to presenting Module, and so on. If necessary, you can modify the look of Start button. Start button can be displayed in two ways: Inactive (displayed from the moment system starts loading the Module up until Module is loaded) and Active (displayed when the code for the Module is loaded) - arrange the necessary pictures in Graphic Editor and change corresponding pictures using Edit Object context Menu option.

LIMITATION: Title-Slide introduction appears on the screen before the system loads all of the Course Player files necessary for Module and Objects functionality, therefore only the limited number of the objects such as pictures, text blocks, auto shapes, and special objects from Title folder, which do not require Course Player, can be employed. Links, banners, animation effects and other events are not functioning on Title-Slide. Except for mentioned above WYSIWYG editing mode is used for editing Title-Slide.

4.3.2 Editing Master-Slide

To turn On Master-Slide editing mode use **View -> Master-Slide** sub-menu or quick switching button in the Slide's Panel.



If required, change/replace pictures on the Master-Slide, insert Logo, specify Module's name, and so on. The appearance of the objects on the Master-Slide can be modified with respect to overall design of the Module.

LIMITATION: Since Master-Slide is simply background for other Slides, therefore links, banners, animation effects, and events are disabled. Besides that, there is a limitation on using Objects: you can only use pictures, text blocks, auto shapes and special objects from the Navigation folder. All other Master-Slide editing features are based on WYSIWYG editing mode.

4.3.3 Editing Slide

To turn On Regular Slide editing mode use **View -> Normal** sub-menu or quick switching button in the Slide's Panel.



The following settings of the Slide can be edited:

- Name of a Slide
- Selecting Master-Slide
- Slide Content
- <u>Slide Comments</u>
- <u>Slide Transition</u>

4.3.3.1 Name of a Slide



Usually, the **name of a Slide** reflects the main topic of a Slide. The name of a Slide appears on every Frame of this Slide (in case Master Slide has a corresponding object Slide Name, which enables display of this text). Besides that, the name of a Slide is mentioned in the table of contents of the Module (again, if Master Slide has the corresponding Heading objects defined) even if the name is not displayed on the Slide itself.

By default, newly created Slide is titled as Untitled. In order to change the name of a Slide, right click on it and choose Rename... option from Context menu.

Limitation: The newly edited name of a Slide will not be displayed right away in edit mode; but it will be visible in the viewing mode.

4.3.3.2 Selecting Master-Slide



The Learning Module may contain several Master-Slides.

By Default, in the process of building a Module every newly created Slide is linked to the first Master-Slide from the list, regardless of number of Master-Slides for this Module.

You can modify Master-Slide which is the foundation for associated Slide while in editing mode: Right click on the Slide from the Slide Panel and select Master-Slide option from the context menu. In the pop-up window make a selection of desired Identifier from the list of Master-Slides.

Note, that every newly created Slide is based on the Master-Slide, which is associated with the previous Slide. For example, the foundation for new Slide 11 will be the Master-Slide of Slide 10.

4.3.3.3 Slide Content

To insert pictures, texts, and objects into the Frame of the Slide, **Insert** -> **Picture**, **Insert** -> **Text Box**, and **Insert** -> **Object...** sub-menus can be used, or corresponding toolbar buttons. Complex objects can be inserted directly from the Object Library either by double-clicking on the selected objects or by dragging and dropping the object into the working area.

20051004 - CourseLab - [Test Module]		
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		Simulations
		Tests
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2 4 <mark>3</mark>		Title

Please refer to the <u>Positioning Objects</u> section of this document for more details on the specifics of object allocation.

4.3.3.4 Slide Comments



Slide Comments is additional text block that can be attached to the Slide. It can contain author's comments and remarks to the Slide, or comments to the Slide that imported from PowerPoint presentation.

Slide Comments is not part of viewable Slide area, and it is not an object, therefore it cannot be displayed as usual text object. Special objects are used to display comments to learner (please refer to <u>Complex Objects - Navigation</u> section).

To add or edit comments to the Slide right click on the Slide from the Slide Panel and select Comments option from the context menu. RichText editing window will appear. Edit the text.

Please note, that PowerPoint makes comments white by default, therefore imported comments may be invisible (white on white).

4.3.3.5 Slide Transition



By default, it is assumed that Transition to the next Slide will be performed by using <u>Next Slide Button</u> or other user-activated navigations. Apparently, this is the most common situation when the user is in control of the timing for observing the Slide.

But there are instances when timing must be set to Transition to the next Slide regardless of the action from the user. In order to change default Transition settings, right click on the target Slide icon from the Slide Panel and select **Advance...** option from the context menu.

In the open window select Wait for Action or Immediate.

Please refer to the <u>Actions</u> section of this document for other methods of programming Slide transitions.

4.3.4 Adding Slides

Once the Module is created - it already contains the Slide.

Add text, pictures, and complex objects according to the course scenaio.

To add a new slide, select **Insert -> New Slide**, or use context menu in Slides Pane. Add as many slides as you need, and place a learning content on them.



You can always adjust position of the Slide: left click on the Slide thumbnail image that you would like move and drag this Slide to the desired location while holding down the left mouse button.

4.3.5 Preview Module

During editing you always can preview module to see how it will be showed by Web Browser.

To preview entire module select **Module -> View Module** (or press F5).



Module will be loaded into separate Web Browser window of defined size.

To preview editing slide select **Module -> View Slide** (or press Shift+F5).



Module will be loaded into separate Web Browser window of defined size and automatically advances to selected slide.

4.4 Adding Modules

Upon creation new Learning Course it contains only single Module. In case it is not enough, you can add required number of Modules and group them into the Chapters.

To add new Module to the Course you can either select **File -> New -> Module...** or use context menu by right clicking on the name of the Course from the Course Pane. Add required number of Modules and fill them with the learning content.



To change Module's order do the following: in the Course Pane drag Module with the mouse button to the parent element (Course or Chapter). Dragged Module will be placed at the end of the list.

4.5 Adding Chapters

Upon creation new Learning Course it contains only single Module, which is not placed in the Chapter. As the number of the Modules increases, it might be necessary to group Modules into the Chapters.

To add new Chapter to the Course you can either select **File -> New -> Folder** or use context menu by right clicking on the name of the Course from the Course Pane. Add required number of Chapters and fill them with the learning content.



To change Chapter's order do the following: in the Course Pane drag Chapter with the mouse button to the parent element (Course or Chapter). Dragged Chapter will be placed at the end of the list.

4.6 Publish Course

After completing of all editing tasks Course should be published.

Publishing Course - creation fully functional standalone (separate from CourseLab) version of the Learning Course intended for distribution on CD, in the Learning Management System and so on. During publishing only those elements which are required for displaying the Course are copied into the separate folder from the folder containing the working version of the Course, also some other elements added which are not used for editing, but require for Course display. The working version of the Course during publishing remains unchanged.

Depending on the prospective usage there are different choices of Course publishing:

- for Launching from the CD
- for distribution in the LMS, which supports AICC standard
- for distribution in the LMS, which supports SCORM 1.2 standard
- for distribution in the LMS, which supports SCORM 2004 standard
- for further work in CourseLab TeamWork

Sequence of the publishing steps as follows:

- Module Runtime Settings
- <u>Course Runtime Settings</u>
- Course Publication Wizard

4.6.1 Module Runtime Settings

Prior to publishing it is necessary to specify runtime settings for each Module in the Course.

Select **Module -> Runtime Settings** sub-menu. "Module Properties" dialog window opens up.

Module Prope	rties 🛛 🔀
General Object	tives Rules Checks Runtime
Module identific	ation in LMS
Identifier:	TEST_001_1
Description:	Test Module 1
	×
	OK Cancel

Select "General" tab and fill in "Identifier" and "Description" fields under "Module identification in LMS" section. These parameters will be saved in metadata files which will be used to import course structure in LMS.

Identifier is a short Module id, which will be used as Module reference code in the Learning Management System. Please use Latin characters and numbers for Course and Module code. Avoid using spaces and other special symbols.

Description – brief informal description of the Module, which will be used within Learning Management System in the Course card.

Module Properties	×
General Objectives Rules Checks Microsoft Media Player Macromedia Flash Player Apple QuickTime Player Enable Disable 	
OK Cancel	

Use "Checks" tab to specify names of the software components that need to be checked for availability on student's computer prior to launching Module.

Module Properties	×
General Objectives Rules Checks Runtime	_
Runtime	
✓ <u>s</u> how Title-Slide at module startup	
✓ preload images	
allow to view slides in sequental order only	
Options	
☑ scale module score to 100% before send it to LMS	
OK Cancel	

On "Runtime" tab you can specify some Module runtime parameters, such as:

- Show Title-Slide at Module Startup if this checkbox is unchecked Title-Slide will be automatically skipped.
- **Preload images** allows preloading all images of particular Slide before display. Usually this feature causes some delay (with "Loading images" progress bar) before transition to the Slide but then all the images of the Slide will be displayed much faster.

- Allow to view Slides in sequential order only this feature disables transition on the Slide that is unvisited yet and is not the next to last visited Slide in line. Transition to any visited Slide is not restricted.
- Scale module score to 100% legacy feature. Modern eLearning standards include special parameters for raw and scaled score.

To set Objectives and Rules please read Objectives chapter.

4.6.2 Course Runtime Settings

Prior to publishing, it is necessary to specify execution parameters for the Course.

Select File -> Course Runtime Settings sub-menu. "Course Execution Parameters" dialog window opens up.

Course Prope	rties 🛛 🔀
General	
Course identifi	cation in LMS
Identifier:	TEST_001
Description:	Test Course created with CourseLab
	OK Cancel Apply

On "General" tab fill in "Identifier" and "Description" fields under "Course identification in LMS" section. These parameters will be saved in metadata files which will be used to import course structure in LMS.

Identifier is a short Course id, which will be used as Course reference code in the Learning Management System.

LIMITATION: Please use Latin characters and numbers for Course and Module code. Avoid using spaces and other special symbols.

Description – brief informal description of the Course, which will be used within Learning Management System in the Course card.

4.6.3 Course Publication Wizard

Select File -> Publish Course... sub-menu to start Course publishing.

<u>F</u> ile	<u>E</u> dit <u>V</u> iew	<u>I</u> nsert	F <u>o</u> rmat	<u>T</u> ools		
	<u>N</u> ew			•		
2	<u>O</u> pen		Ctrl+0			
	<u>C</u> lose					
	<u>S</u> ave		Ctrl+S	;		
	Save <u>A</u> ll	Ctrl+Shift+S				
	Course Runti <u>m</u> e Settings					
	Publish Course					
	Recent Courses					
	E <u>x</u> it					

In case you have not filled in Course and Modules runtime parameters yet, next Wizard screens will contain fields for Course and Modules codes and descriptions.



Click Next button. Select desired publication type - standard compliant package or folder for CD.

Use "Run from CD" option for any local (non-LMS) launches. Use autorun.html file as starting point. Please note, that browser security settings may block active content from CD and local computer.

If you plan to proceed Course editing in CourseLab TeamWork system, select "Upload into WebTutor (CourseLab TeamWork)" - course will be uploaded into your server for further work.

Course Publication	
Publication type Select publication type	2 <mark> </mark> <
Publish course files to: Run from CD Run under SCORM 1.2 LMS Run under SCORM 2004 LMS Run under AICC LMS 	
	< <u>B</u> ack <u>N</u> ext > Cancel

Click Next button. Select name of the package (or CD folder) and location where it will be saved.

Course Publication	
Name and location of SCORM package Provide SCORM package name and folder location where SCORM package will be created.	×
Name:	
Test01	
Location:	
C:\Courses\Published	
SCORM package will be created at C: \Courses\Published\Test01.	
< <u>B</u> ack <u>N</u> ext > Ca	ancel

Click Next button and wait, while your course is published.

Course is published and saved in given location.

Course Publication	
Version 2.4	The course is successfully published.
	< Back Finish Cancel

4.6.4 Publication for CD

This publication option is used to create the course for CD, DVD or any other "local" storage type (or for demonstration purposes). The course that is published using this option is not intended to support any e-learning standard, therefore it will not send any data to LMS.

Course Publication	
Publication type Select publication type	>¦<
Publish course files to: Run from CD Run under SCORM 1.2 LMS Run under SCORM 2004 LMS Run under AICC LMS 	
	< <u>B</u> ack <u>N</u> ext > Cancel

Note, that, while the course does not send any data, it is treated by browser as "active content" anyway, therefore it can be the subject for browser security settings. Playing of active content from local computer and removable drives is not allowed by default in some browsers.

As a result of publication you will get the folder with full uncompressed course structure (excluding design time information) and small simple file *autorun.html* on the top level (see example on the picture). This file contains links to all course modules, but does not contain any specific design (use any HTML editor if you need to customize its design).

🗁 VSK				
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u>	ools <u>H</u>	<u>t</u> elp		1
🚱 Back 🔹 🕥 🕤 🏂 🍃	🔵 Sear	ch 🔀 F	olders 🕞 🎯	× *
Address 🛅 C:\Courses\VSK\VSK				🖌 ᠫ Go
Name 🔺		Size	Туре	Date Mo
1			File Folder	31.03.20
<u>2</u>			File Folder	31.03.20
Courseimages			File Folder	31.03.20
autorun.html		4 KB	HTML Document	26.03.20
🐻 imsmanifest. xml		12 KB	XML Document	26.02.20
<				>
5 objects		14.3 KB	🚽 😼 My Comput	er 🤢

Place the content of this folder on the CD and use *autorun.html* as starting point.

4.6.5 Publication for AICC LMS

This publication option is used to create the AICC standard compliant course package (i.e. ZIP archive with course files and AICC metadata files). The course that is published using this option can be imported and used in any LMS that supports AICC standard.

Course Publication	
Publication type Select publication type	**
Publish course files to: Run from CD Run under SCORM 1.2 LMS Run under SCORM 2004 LMS 	
	< <u>B</u> ack <u>N</u> ext > Cancel

Note, that the course published for using in AICC environment will support this standard only.

As a result of publication you will get the ZIP archive, that contains all course runtime files and course metadata files. In most cases you do not need to unzip the archive - most of LMS can accept ZIP archive for importing. If your LMS cannot import zipped package - unzip the archive in specified folder and use course descriptor file (with .crs extension) on the top level of folder to import course structure.

SK_AICC		
<u>F</u> ile <u>E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u>	iools <u>H</u> elp	
🚱 Back 🝷 🕥 🖌 🏂 🍃	🔎 Search 🎼 Folders	»
Address 🛅 C:\Courses\VSK\VSK_A	NICC 💌 🔁	Go
Name 🔺	Size Type	Date
VSK_001.zip	22 512 KB WinZip File	31.03
<	III]	>
1 objects	21.9 MB 🚽 My Computer	
4.6.6 Publication for SCORM 1.2 LMS

This publication option is used to create the SCORM 1.2 standard compliant course package (i.e. ZIP archive with course files and SCORM metadata files). The course that is published using this option can be imported and used in any LMS that supports SCORM 1.2 standard.

Course Publication	
Publication type Select publication type	×
Publish course files to: Run from CD Run under SCORM 1.2 LMS Run under SCORM 2004 LMS Run under AICC LMS 	
	< <u>B</u> ack <u>N</u> ext > Cancel

Note, that the course published for using in SCORM 1.2 environment will support this standard only.

As a result of publication you will get the ZIP archive, that contains all course runtime files and course metadata files. In most cases you do not need to unzip the archive - most of LMS can accept ZIP archive for importing. If your LMS cannot import zipped package - unzip the archive in specified folder and use *imsmanifest.xml* file on the top level of folder to import course structure.



4.6.7 Publication for SCORM 2004 LMS

This publication option is used to create the SCORM 2004 standard compliant course package (i.e. ZIP archive with course files and SCORM metadata files). The course that is published using this option can be imported and used in any LMS that supports SCORM 2004 standard.

Course Publication	
Publication type Select publication type	×
Publish course files to:	
	< <u>B</u> ack <u>N</u> ext > Cancel

Note, that the course published for using in SCORM 2004 environment will support this standard only.

As a result of publication you will get the ZIP archive, that contains all course runtime files and course metadata files. In most cases you do not need to unzip the archive - most of LMS can accept ZIP archive for importing. If your LMS cannot import zipped package - unzip the archive in specified folder and use *imsmanifest.xml* file on the top level of folder to import course structure.



4.6.8 Uploading into CourseLab TeamWork

This method is used to transfer working copy of the Course into CourseLab TeamWork system to allow simultaneous editing by team.

Course Publication	×
Publication type Select publication type	*
Publish course files to:	
© Run from CD	
Run under SCORM 1.2 LMS	
Run under SCORM 2004 LMS	
Run under AICC LMS	
 upload into WebTutor (CourseLabTeamWork) 	
< <u>B</u> ack Next > C	ancel

LIMITATION: CourseLab application version must be supported by CourseLab TeamWork for successful import.

On the next Wizard screen fill in CourseLab TeamWork server address, and user login and password.

Course Publication		—
Web Tutor connection Please enter Web T privileges to upload	on parameters utor server address and account da courses.	ata. Account must have
WebTutor server ad	ldress (DNS, Host, IP)	Port
http://teamwork.m	nycompany.com	80
Login	myaccount	
Password	•••••	Check access
	< <u>B</u> ack	k Next > Cancel

IMPORTANT: User must have privileges to place courses into CourseLab TeamWork system.

Press "Next" button - if all connection parameters are correct and Internet connection is present, Course will be uploaded into selected CourseLab TeamWork system.

4.7 Export Course Outline

Sometimes it may be useful to get outline of the Course (for demonstration or discussion purposes). Export Course Outline is creating "screenshots" for each Slide of the Course.

To launch Export Course Outline process select menu File -> Export Course Outline.



Export Course Outline Wizard opens up.

Course outline export	
CourseLab	Welcome to the Course Outline Export Wizard! This Wizard will help you to export course slides as images to represent the course structure. Exported course outline can be used for demonstration purposes. Please note that exported course outline is not intended for use in LMS. Click Next to continue.
	< <u>B</u> ack Next > Cancel

Select graphics file format, which will be used for export and select location on the local disk.

Course outline export		
Image format Select file format for images.		\gtrsim
Save course outline as images:		
PNG		
SMP		
) JPG		
© TIFF		
© GIF		
Location:		
C:\Courses\27_T5		
	< Back Next >	Cancel

Press "Next" button. While exporting, CourseLab will open each Slide and create screenshot. Depending on Course complexity, this process may take significant time to complete.

Course outline export		— X
CourseLab	Course outline is successfully saved to selected location.	
	< Back Finish Canc	el

When process is finished, all graphic files will be placed into selected location.

5. Objects

Object is the basic element of CourseLab, the building brick of the Learning Module. You may construct the Learning Module of any complexity by employing various Objects and building relationships among them.

When you insert the Object of any shape into the Frame it is placed into the Rectangular Placeholder. You can change size and orientation of this Rectangular Placeholder. There are 3 types of Objects allocation within the Rectangular Placeholder:

- Object that can automatically adjust it's size to the size of Rectangular Placeholder (For example, pictures, and AutoShapes are always resizing it's height and width to fit the Rectangular Placeholder),
- Object that can resize by itself (autofit to contents depending, for example, on the amount of the text)
- fixed-size Object

Two main types of Objects are used in the CourseLab for building up learning Module: internal and complex.

Internal Objects are the primary and most frequently used Objects; they are built into the CourseLab. In fact, you can create entire learning Module by utilizing only internal Objects such as:

- text (including tables);
- images;
- autoshapes.

Since these types of Objects are the most commonly used, the access to the Editor menu is very simple - editing buttons are conveniently located on the toolbar.

Complex Objects are external to CourseLab and loaded into the CourseLab using the Open Object Interface.

For simulations of software execution the special object <u>Cursor</u> can also be employed.

5.1 Text

Text – embedded into the editor object, which is used for creating areas within a Frame with formatted text and tables.

5.1.1 Using Text

Inserting Text

You can add Text to a Frame as follows: select **Insert -> Text Box** menu option, or choose "Text Box" icon from the toolbar.



Area of text appears on the Slide with "Enter Text" instruction on it.

Alternatively, copy desired text to Clipboard using any text editor and Paste it into the Frame. Text Box with copied text will be created automatically. This insertion method is more convenient to use in many cases.

Editing Text

Using left mouse button, double click on Text Box or use "Edit text" option from the context menu to open text editing window. Text Editing Window will open up.



5.2 Images

CourseLab enables insertion of the graphics created by any graphic editor tool into the Slides of learning module. Please note that CourseLab itself does not support graphic editing.

5.2.1 Using Images

To insert picture into Frame of the learning Module you can either choose "Picture" sub-menu within "Insert" menu or use "Insert Picture From File" Icon on the toolbar. Locate the picture you need to insert and press "Open" button.



Picture will be inserted into the Slide and file itself will be copied into the "Images" folder of learning Module. In case file being copied already exists, the User will be prompted to cancel file overwriting.

LIMITATION: Since Learning Modules can be further used on Internet, all file names of the pictures should be web-safe, in particular it is recommended to use letters and numbers of Latin alphabet only; no spaces and no special characters.

5.2.2 Valid Graphic File Formats

Any internet-friendly graphic file formats can be used in a learning course. Because learning courses can be hosted on the Internet, it is strongly recommended that you use small graphic files in compressed graphic formats such as GIF, JPG, and PNG. Each format has some advantages and disadvantages, which should be taken under consideration. Below is the brief overview of these formats.

GIF (Graphics Interchange Format)

GIF is the most common format for Internet graphics as it is supported by all Browsers and majority of graphic editors. GIFs use a special compression algorithm (limited to 256 or less colors and simple linear compression along the horizontal axis) allowing for a very small size of graphic file if there are large areas of the same color. It is therefore not suitable for storing photos and images with the large grated areas - the stored image will have a large file size and poor quality. GIFs support transparency (you can choose a single color in the image that will be rendered as invisible, allowing the background to show through when the image is viewed on a

Web page) but you have to remember that GIF supports only 1-bit transparency: each pixel for the given color (so called Alpha Channel)is completely removed.

The latest version of the GIF format supports animation created by stringing together various still images. GIF animation can be used in a learning Module. The CourseLab editor will not play a GIF animation – only the first GIF image is displayed on the Slide in editing mode. The GIF animation will display properly when the course is published.

JPG (Joint Photographic Experts Group)

JPG is one of the most common formats for graphic images on the Internet and is supported by all Browsers and most graphic editors. When JPG compression is executed, the source image is divided into square blocks with specific color and brightness information (so called chrominance/luminance scheme) created for each block, which enables coding of this area. The human eye is more sensitive of them to the details of shapes than to color information therefore JPG compression reduces color information to Variable size while using 256-grade brightness scale. The degree of color information depends on the user-defined quality setting. Having said that, JPG format is very practical for displaying smooth color transitions and well suited for compressing photos and pictures with high color gradient areas. However, if the source image has multiple contrasting color changeovers, the compressed image will degrade depending on the level of compression (there will be mottled areas around color's edges). JPG allows the user to choose the balance between file size and image quality but choosing a higher quality can make the file size very large and slow to upload. Most Internet graphics are set to 72 dots per inch (dpi). Unlike GIFs, the JPEG format does not support transparency.

PNG (Portable Network Graphics)

The Portable Network Graphics (PNG) format was designed to replace the older and simpler GIF and JPG formats. When saving at an 8-bit depth (PNG-8)the format is comparative to GIF (in general, it provides about 15% better compression ratio than GIF, since PNG-8 performs compression along both horizontal and vertical axes). When saving to a 24-bit depth (PNG-24), the format provides high-quality color changeovers and a very good level of file compression. PNG supports transparency and preserves the quality of the color changeovers regardless of the underlying color. The only disadvantage of the PNG format is that it has limited support in older versions of Internet Browsers and limited support by some graphic editors. Nevertheless, since the older versions of Browsers are not supported in CourseLab Courses, we encourage using this format if possible.

Other Formats

You can use other graphical formats which are supported by Internet Browsers, such as BMP, WMF, and others. However, consider the fact that some Browsers display these formats incorrectly. Besides, BMP files (and other non-compressed formats) are very large in size. The choice is yours - if you are confident that images will be displayed correctly and network traffic permits it – you may use these types of format in your Course.

5.2.3 Optimizing Pictures

Change the Size of Picture

Once picture is inserted, you may format picture within CourseLab using controls on "Size" tab on the "Format Picture" dialog window.

Format				X
Colors and Line	es Size Positio	on Display	Sound	
Size and rota	te			
Wi <u>d</u> th:	500 🗘	H <u>e</u> ight:	328	
Ro <u>t</u> ation:	0° 🗘			
Scale				
<u>W</u> idth:	100 %	<u>H</u> eight:	100 %	
✓ Lock <u>a</u> sp	ect ratio			
Original size				
Width:	500	Height:	328	Reset
File:	courvoisier.jpg			
		ОК	Cancel	Apply

Things to consider:

- By enlarging the picture you are not increasing the amount of information stored in the image file, therefore the quality will definitely suffer.
- The browser's formatting capability that is used for minimizing pictures is far from perfect if compared to graphic editing tools. Besides that, remember that any formatting changes you apply to Slide's picture will not affect the size of the loaded image file.

Therefore we do not recommend making significant changes to the format of the picture when editing a Slide.

Optimizing Pictures

After the picture is inserted and its size is changed to fit Slide layout it is recommended to optimize file size of picture. Use **Tools -> Compress Images** menu to optimize Module image files.



All scaled pictures in Module will be automatically resized to fit user-defined width and height exactly with maximal possible picture quality and re-saved. Besides, pictures in BMP, WMF, EMF formats will be converted and re-saved in PNG format to minimize file sizes.

5.2.4 Clip Art Pane

For inserting frequently used pictures it is very convenient to use Clip Art Pane in the tasks area. It displays images thumbnails from the folder on the computer. To add picture into the Slide, drag image thumbnail into the working area.

Unlike using the Insert From File menu, the above mentioned picture inserting method eliminates the inconvenience of specifying the path to the picture file each time within "Open" dialog box.

Use **Insert -> Picture -> Clip Art** ... sub-menu to start using Images collection or "Insert Clip Art Icon" in the toolbar. In the right part of the main editor window, tasks area will open up displaying the selected pane "Clip Art".



Click "**Browse...**" link at the bottom of the Clip Art Pane to specify folder containing pictures which will be accessible from the Clip Art Pane. In the opened "Select Folder" dialog box, select folder containing pictures.



To place picture on the slide simply drag and drop image icon into slide area.

5.3 Complex Objects

5.3.1 Rapid Development

5.3.1.1 Image Gallery 1 (with paging)

Image Gallery 1 is used for displaying multiple images in one block with "paging", i.e. one by one. In case width or height of the image is more than object's image block, images will be automatically resized to fit the block. Images that are less than image block will be displayed "as is" (no scaling). If allowed, user also can click the image to open original size picture in separate window.

Example of object appearance:



There are 4 configurable zones in the Object:

- Background (blue on the picture).
- Images block (white area with gradient where images are displayed).
- Caption (text block below the image block with text description for each image).
- Buttons.

IMPORTANT! Please take in account, that each image will consume time to download and computer resources to handle. Though there are no technical restrictions on quantity of images in the object, you should consider possible learners computer and network restrictions.

Object parameters

Image Gallery 1					
Images Images block	Description But	ton Bac	kgroun	nd Sou	und
Images list:		+	_	• ₽	
Image	Description	Sour	nd		
C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6	"Buran" .is Transportung "E Transportung "E Setting up : "Energia - Buran "Energia - Buran Ignition! Poekhali! "Buran" orbiter Back to Earth "Buran" before I. "Buran" landing				
Transition:	Box out				~
Duration:	0.5 sec	o.			
Display original in Tooltip Open:	nage in separate w Click on the	indow — e picture t	o view	full size	
Window title:	Full size pic	ture			
Tooltip Close:	Click on the	e picture t	o close	this pic	*
ОК	Cancel	Арр	ly 📄		Help

On the "Images" tab you can define the list of images with their descriptions and optional sound files for each image, transition effects. **Display original image in separate window** checkmark allows opening original image.

Use "+" button to open image properties dialog.

	X
Image file:	oCourse 2.6\2\images\buran3.jpg
Image description:	Transportung "Energia - Buran" to TE
Sound file:	
	OK Cancel

Select image file and fill Description field. You can also attach sound file to each image (.swf or .mp3/.wma/.wav). It will be played when user selects this image.

Image Gallery 1		×
Images Images block	Description Button Background Sound	_
Display backgrou	nd	
Border color:	#CCCCCC	
Fill color main:	#CCCCCC	
Fill color gradient:	#FFFFFF	
Color scheme:	White 💙	
Border width:	6 px	1
Gradient angle:	180 degrees	
Corner arc size:	0.015 (from 0 to 1)	
Inner margin:	10 px	
ОК	Cancel Apply Help	

On the "Images block" tab you can switch displaying of image block on and off and define its display parameters:

- color scheme (one of predefined or custom),
- border width,
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.

Image Gallery 1		×
Images Images block	Description Button Background Sound	_
Display backgrou	Ind	
Border color:	#CCCCCC	
Fill color main:	#CCCCCC	
Fill color gradient:	#FFFFFF	
Color scheme:	Steel Blue	
Border width:	6 px	
Gradient angle:	0 degrees	
Comer arc size:	0.06 (from 0 to 1)	
Inner margin:	6 px	
Block height (%):	15	
Interblock spacing:	6 px	
ОК	Cancel Apply Help	

On the "Description" tab you can switch displaying of descriptions on and off and define its display parameters:

- color scheme (one of predefined or custom),
- border width,
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.

Image Gallery 1		×
Images Images block Descrip	tion Button	Background Sound
Use default color scheme		
Color scheme:	Steel Blue	~
	Normal	MouseOver
Border color:	#CCCCCC	#FFFFFF
Fill color main:	#CCCCCC	#FFFFFF
Fill color gradient:	#FFFFFF	#CCCCCC
Border width:	6 px	
Gradient angle:	0 degrees	3
Buttons on description pane	•	
ОК Са	ncel	Apply Help

On the "Button" tab you can define buttons display parameters:

- color scheme (one of predefined or custom),
- border width,
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,

Image Gallery 1		×
Images Images block Descr	iption Button Background Sound	_
Display background		
Border color:	#CCCCCC	
Fill color main:	#CCCCCC	
Fill color gradient:	#FFFFFF	
Color scheme:	Blue 💌	
Border width:	6 px	
Gradient angle:	0 degrees	
Comer arc size:	0.025 (from 0 to 1)	
Inner margin:	10 px	
ОК	Cancel Apply Help	

On the "Background" tab you can switch displaying of background block on and off and define its display parameters:

- color scheme (one of predefined or custom),
- border width,
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.

Image Gallery 1	
Images Images block Descript	ion Button Background Sound
Use sound effects	
Events with sound:	Mouseover and click
Mouseover sound:	Standard 4
Sound file:	
Click sound:	Standard 2
Sound file:	
OK Car	ncel Apply Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.1.2 Image Gallery 2 (with icons ribbon)

Image Gallery 2 (with icons ribbon) is used for displaying multiple images in one block on click on icons in the icon ribbon. In case width or height of the image is more than object's image block, images will be automatically resized to fit the block. Images that are less than image block will be displayed "as is" (no scaling). If allowed, user also can click the image to open original size picture in separate window.

Example of object appearance:



There are 4 configurable zones in the Object:

- Background (blue on the picture).
- Images block (white area with gradient where images are displayed).
- Caption (text block below the image block with text description for each image).
- Icons block.

IMPORTANT! Please take in account, that each image will consume time to download and computer resources to handle. Though there are no technical restrictions on quantity of images in the object, you should consider possible learners computer and network restrictions.

Object parameters

ge Gallery 2	
Explanation	Background Sound
Images	Icons block Images block
lmages list:	+ - + + 😭
Image	Description Sound
C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6 C:\Courses\2.6	"Buran" .js Transportung "E Transportung "E Setting up "Energia - Buran "Energia - Buran Ignition! Poekhali! "Buran" orbiter Back to Earth "Buran" before I "Buran" landing
Transition:	Box out 💌
Duration:	0.5 sec.
Display original i	mage in separate window
Tooltip Open:	Click on the picture to view full size
Window title:	Full size picture
Tooltip Close:	Click on the picture to close this pict
ОК	Cancel Apply Help

On the "Images" tab you can specify the list of "image-description-sound" blocks and using transition effects.

Use "+" button to open image properties dialog.

	X
lmage file:	Course 2.6\1\images\buran20.jpg
Create icon automatically	
Icon file:	
Image description:	As it could be - "Buran"&nbs TE
Sound file:	
	OK Cancel

Select image file and fill Description field. You can also attach sound file to each image (.swf or .mp3/.wma/.wav). It will be played when user selects this image.

Image Gallery 2		
Explanation Images	Background Icons block	Sound Images block
Display background Use default color sch	neme	
Color scheme:	Blue	~
lcons height:	50 px	
Block margin:	6 px	
Border color:	#CCCCCC	
Fill color main:	#CCCCCC	
Fill color gradient:	#FFFFFF	
Border width:	6 px	
Gradient angle:	0 degrees	
Comer arc size:	0.025	
Interblock spacing:	6 px	
ОК	Cancel A	pply Help

On the "Icons block" tab you can switch displaying of icons ribbon on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width,
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.

Image Gallery 2		×
Explanation Images	Background Icons block	Sound Images block
Display background		
Border color: Fill color main: Fill color gradient:	#CCCCCC (#CCCCCC (#FFFFFF (
Color scheme: Border width:	White 6 px	<u> </u>
Gradient angle:	0 degrees	
Comer arc size: Inner margin:	0.015 (from 10 px	0 to 1)
ОК	Cancel A	pply Help

On the "Images block" tab you can switch displaying of image block on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width,
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.

Image Gallery 2		
	Icons block	Images block
Explanation	Background	Sound
Display backgroun	d	
Border color:	#CCCCCC	
Fill color main:	#CCCCCC	
Fill color gradient:	#FFFFFF	
Color scheme:	Blue	~
Border width:	6 px	
Gradient angle:	0 degrees	
Comer arc size:	0.06 (from	0 to 1)
Inner margin:	6 px	
Block height (%):	15	
Interblock spacing:	6 px	
	Cancel An	

On the "Caption" tab you can switch displaying of description block on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width,
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.

Image Gallery 2			×
Images Explanation	Icons block Background	Images block Sound	
Border color: Fill color main: Fill color gradient:	#CCCCCCC . #CCCCCCC . #FFFFFF .		
Color scheme: Border width: Gradient angle: Comer arc size:	Blue 6 px 0 degrees 0.025 (from	• 0 to 1)	
Inner margin:	10 px		
ОК	Cancel A	pply Help	

On the "Background" tab you can switch displaying of background block on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width,
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.

Image Gallery 2		×
Images Ico	ns block Images block	
Explanation	Background Sound	
Use sound effects		
Events with sound:	Mouseover and click 🗸 🗸	
Mouseover sound:	Standard 1	
Sound file:		
Click sound:	Standard 1	
Sound file:		
ок с	Cancel <u>A</u> pply Help	

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.1.3 Pointer

Pointer is used for displaying short and/or long description when learner selects small active point on the slide.

Example of object appearance:



Object parameters

Object consists of small round active point - pointer, and 2 descriptions (short and long).

Pointer with descripti	on und				X
Pointer placement: Color scheme:	Middle right V Orange V	Font:	Nomal Tahoma	MouseOver Tahoma	Selected
Pointer size: Pointer symbol:	Medium V	Font size: Font weight:	12 px	12 px	12 px
Duration:	0.5 sec.	Font style: Font color:	Normal 💉	Nomal 🗸	Normal 🗸
		Border width: Border color:	2 px #999999	2 px #6666666	2 px #999999
		Fill color main: Fill color gradient:	#EEEEEE#FFFFFF	#CCCCCC	#CCCCCC
		Gradient angle:	0 deg.	0 deg.	0 deg.
			OK	Cancel	

On the "Pointer" tab you can define **pointer size**, **colors** (one of the predefined color schemes or custom), pointer/description **position** and **transition effects**.

Pointer symbol - optional symbol (for example, number).

Display mode:	Short on over - long on click	 Preview in editor: 	Long description 💌
 Short description 			
Description text:	Blackberries	TE	
Transition:	Random dissolve	Duration:	0.5 sec.
Color scheme:	Use pointer scheme	Border color:	#999999
Gradient angle:	0 deg.	Fill color main:	#EEEEEE
Border width:	2 px	Fill color gradient:	#FFFFFF
Corner arc size (0-1):	0.025	Sound file:	
- Long description			
Description text:	Blackberries	TE	
Transition:	Random dissolve	✓ Duration:	0.5 sec.
Color scheme:	Use pointer scheme	Border color:	#999999
Gradient angle:	0 deg.	Fill color main:	#EEEEEE
Border width:	2 px	Fill color gradient:	#FFFFFF
Comer arc size (0-1):	0.025	Sound file:	

On the "Description" tab you can select events that will trigger display of descriptions and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width,
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- transition effect.
- You can also attach sound file to each description (.swf or .mp3/.wma/.wav). It will be played when user selects this description.

Po	inter with description						
F	Pointer Description Sound						
	Events with sound:	Mouseover and click	*				
	Mouseover sound:	Standard 1	*				
	Sound file:						
	Click sound:	Standard 1	~				
	Sound file:						
				OK	Cancel	Apply	Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.1.4 Tab block (leftside tabs)

Tab block objects are used for displaying group of similar descriptions in one tabbed block.

Example of object appearance:

Avocado	
Breadfruit	The eggplant, aubergine, begun, or brinjal (Solanum melongena), is a plant of the family Solanaceae (also known as the nightshades) and
Cucumbers	genus <u>Solanum</u> . It bears a <u>fruit</u> of the same name, commonly used as a <u>vegetable</u> in cooking. As a nightshade, it is closely related to the <u>tomato</u> and <u>potato</u> and is native to <u>Bangladesh</u> . <u>Pakistan</u> , <u>Sri</u> <u>Lanka</u> and <u>India</u> .
Eggplant	It is a delicate <u>perennial</u> often cultivated as an <u>annual</u> . It grows 40 to 150 cm (16 to 57 in) tall, with large coarsely lobed <u>leaves</u> that are 10 to 20 cm

Object parameters

Tab block (leftside tabs)				
Elements Background Sound				
Elements list:	+ - + + 😭			
Tab Description	Sound Color			
Avocado The avoca Breadfruit Breadfruit tr Cucumbers The cucum Eggplant The eggpla	White White White White			
Tab width: 40 % from f	ull width			
Tab comer arc size:	0.06 (from 0 to 1)			
Description comer arc size:	0.015 (from 0 to 1)			
Border width:	6 px			
Tab inner margin:	6 px			
Description inner margin:	6 рх			
Intertab spacing:	6 px			
Tab-description spacing:	6 px			
None selected text:	Select one of the tabs lef			
OK Cance	Apply Help			

On the "Elements" tab you can define list of elements and its descriptions in the displaying order.

			×		
Display this tab selected from the start					
Tab text:	Eggplant	Т	E		
Description text:	The eggplant, aube	rgine, begun, or brinj 🛛 🕇	E		
Sound file:					
Color scheme:	White 🗸				
	Normal	MouseOver			
Border color:	#CCCCCC	#CCEEFF			
Fill color main:	#CCCCCC	#CCEEFF			
Fill color gradient:	#FFFFFF	#FFFFFF			
Gradient angle (degrees):	0	0			
Selected eler	ment (tab and descripti	on)	-		
Border color:	Border color normal	. 🖌			
Background color:	#FFFFFF				
		OK Cancel			

For each element you can define **Tab text** - short text for element. **Description text** - Rich Text field for full description of the element. Vertical scrolling will be added automatically and sound file, which will be played on tab selection. You can add sound file for each Tab.

Display this tab selected from the start makes current tab "default" tab. If this checkbox is not checked at one of the tabs, then **None selected text** will be displayed in description area at object display. If checkbox is checked at more than one tab - first checked tab becomes default, others will be ignored.

Select one of the predefined **color schemes** or define custom colors for tab/description blocks, **gradient angle** for background, and common display parameters: corner arc sizes and spacings.

Other params include:

- tab width (in percent),
- **corner radius** in pixels or relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- **border width** (in pixels),
- intertab spacing.

Tab block (leftside tabs)				
Elements Background	Sound			
Display backgrour	nd			
Border color:	#CCCCCC			
Fill color main:	#CCCCCC			
Fill color gradient:	#FFFFFF			
Color scheme:	Blue			
Border width:	6 px			
Comer arc size:	0_0025 (from 0 to 1)			
Inner margin:	10 px			
ОК	Cancel <u>A</u> pply Help			

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width (in pixels),
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.

Tab block (leftside tabs)				
Elements Background Sound	1			
Use sound effects Events with sound:	Mouseover and click			
Mouseover sound:	Standard 1			
Sound file:				
Click sound:	Standard 1			
Sound file:				
OK Can	icel <u>A</u> pply Help			

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.1.5 Tab block (top tabs)

Tab block objects are used for displaying group of similar descriptions in one tabbed block.

Example of object appearance:



Object parameters

Tab block (top tabs)			
Elements Background Sound			
Elements list:	+ - + + 😭		
Tab Description	Sound Color		
Avocado The Breadfruit Brea Cucumbers The	Green Green		
Eggplant & hbsp;The	Green		
Tab height: 15 % from fr	ull height		
Tab comer arc size:	0.025 (from 0 to 1)		
Description corner arc size:	0.0075 (from 0 to 1)		
Border width:	6 px		
Tab inner margin:	6 px		
Description inner margin:	6 px		
Intertab spacing:	6 px		
Tab-description spacing:	6 px		
None selected text:	Select one of the tabs o		
OK Cance	Apply Help		

On the "Elements" tab you can define list of elements and its descriptions in the displaying order.

		×			
Display this tab selected from the start					
Tab text:	Eggplant	TE			
Description text:	The eggplant,	aubergine, begun, TE			
Sound file:					
Color scheme:	Green	*			
	Normal	MouseOver			
Border color:	#CCCCCC	#CCEEFF			
Fill color main:	#CCCCCC	#CCEEFF			
Fill color gradient:	#FFFFFF	#FFFFFF			
Gradient angle (degrees):	0	0			
Selected element (tab and description)					
Border color:	Border color normal:	~			
Background color:	#FFFFFF				
		K Cancel			

For each element you can define **Tab text** - short text for element. **Description text** - Rich Text field for full description of the element. Vertical scrolling will be added automatically and sound file, which will be played on tab selection. You can add sound file for each Tab.

Display this tab selected from the start makes current tab "default" tab. If this checkbox is not checked at one of the tabs, then **None selected text** will be displayed in description area at object display. If checkbox is checked at more than one tab - first checked tab becomes default, others will be ignored.

Select one of the predefined **color schemes** or define custom colors for tab/description blocks, **gradient angle** for background, and common display parameters: corner arc sizes and spacings.

Other params include:

- tab height (in percent),
- **corner radius** in pixels or relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- **border width** (in pixels),
- intertab spacing.
| Tab block (top tabs) | | × |
|--------------------------|--------------------|---|
| Elements Background Soun | d | |
| Display background | | |
| Border color: | #CCCCCC | |
| Fill color main: | #CCCCCC | |
| Fill color gradient: | #FFFFFF | |
| Color scheme: | Blue | |
| Border width: | 6 px | |
| Comer arc size: | 0.02 (from 0 to 1) | |
| Inner margin: | 10 px | |
| | | |
| | | |
| | | |
| | | |
| ок с | Cancel Apply Help | |

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width (in pixels),
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.

Tab block (top tabs)		×
Elements Background Sound		
Use sound effects		
Events with sound:	Mouseover and click 💙	
Mouseover sound:	Standard 1 🛛 🗸	
Sound file:		
Click sound:	Standard 1	
Sound file:		
OK Car	ncel Apply Help	

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.1.6 Tab block (with buttons)

Tab block objects are used for displaying group of similar descriptions in one tabbed block.

Example of object appearance:



Object parameters

Tab block (bottom buttons)	×
Elements Background Sound	
Elements list:	4 - 4 4 😭
Description Sound	Color
Avocado Breadfruit Cucumbers The eggpl	Lightblue Lightblue Lightblue Lightblue
Button height: 10 % from full	height
Symbols on buttons:	Arabic numbers 🗸
Symbols sequence:	
Font:	Verdana 🗸
Font style:	Bold
Font size (px):	24
Button corner arc size:	0.1 (from 0 to 1)
Description comer arc size:	0.01 (from 0 to 1)
Border width:	4 px
Button inner margin:	6 px
Description inner margin:	6 рх
Interbutton spacing:	6 px
Button-description spacing:	6 px
None selected text:	Select one of the button TE
OK Cancel	Apply Help

On the "Elements" tab you can define list of elements and its descriptions in the displaying order.

Display this button selected	from the start		
Description text:	The eggpla	nt, aubergine, begun	TE
Sound file:			
Color scheme:	Green	~	•
	Normal	MouseOver	Selected
Border color:	#CCCCCC	#CCEEFF	#CCEEFF
Fill color main:	#CCCCCC	#CCEEFF	#FFFFFF
Fill color gradient:	#FFFFFF	#FFFFFF	#CCEEFF
Font color:	#999999	#9999FF	#9999FF
Gradient angle (degrees):	0	0	0
Use custom description fill o	olor		
Fill color:	#FFFFF		
		ОК	Cancel

For each element you can define **Tab text** - short text for element. **Description text** - Rich Text field for full description of the element. Vertical scrolling will be added automatically and sound file, which will be played on tab selection. You can add sound file for each Tab.

Display this tab selected from the start makes current tab "default" tab. If this checkbox is not checked at one of the tabs, then **None selected text** will be displayed in description area at object display. If checkbox is checked at more than one tab - first checked tab becomes default, others will be ignored.

Select one of the predefined **color schemes** or define custom colors for tab/description blocks, **gradient angle** for background, and common display parameters: corner arc sizes and spacings.

Other params include:

- tab height (in percent),
- **corner radius** in pixels or relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- **border width** (in pixels),
- interbutton spacing.

Tab block (bottom buttons	5)	×
Elements Background Soun	d	
Display background		
Border color:	#CCCCCC	
Fill color main:	#CCCCCC	
Fill color gradient:	#FFFFFF	
Color scheme:	Blue	
Border width:	6 px	
Gradient angle:	0 degrees	
Comer arc size:	0.02 (from 0 to 1)	
Inner margin:	10 px	
ок с	ancel Apply Help	

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- color scheme (one of predefined or custom),
- border width (in pixels),
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.

Tab block (top tabs)		×
Elements Background Sound		
Use sound effects		
Events with sound:	Mouseover and click	
Mouseover sound:	Standard 1	
Sound file:		
Click sound:	Standard 1	
Sound file:		
OK Car	ncel Apply Help	

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.1.7 Tab block (accordion)

Tab block objects are used for displaying group of similar descriptions in one tabbed block.

Example of object appearance:



Object parameters

Accordion tab blo	ck					×
Elements Backgrou	ind Sound					
Elements list:			÷		• 😭	
Tab	Description	Sound	C	Color		
Avocado A Breadfruit E Eggplant 8 Cucumbers C	Avocado is Breadfruit is Anbsp; The Cucumbers		G G G	reen reen reen reen		0
Tab height:	40 px					
Tab corner arc size	e:	0.025	(from	0 to 1)		
Description corner arc size:		0.0075	(from	0 to 1)		
Border width:	Border width:		c			
Tab inner margin:		6 px	c			
Description inner m	argin:	6 рх	c			
Intertab spacing:		6 рх	c			
None selected text	:	Select o	one of t	the tabs	TE	
ОК	Cance		Apply		Help	

On the "Elements" tab you can define list of elements and its descriptions in the displaying order.

Display this tab selected from	om the start			
Tab text:	Eggplant	Eggplant		
Description text:	The eggpl	lant, aubergine, begu	n. TE	
Sound file:				
Color scheme:	Green		~	
	Normal	MouseOver	Selected	
Border color:	#CCCCCC	#CCEEFF	#CCEEFF	
Fill color main:	#CCCCCC	#CCEEFF	#FFFFFF	
Fill color gradient:	#FFFFFF	#FFFFF	#CCEEFF	
Font color:	#999999	#9999FF	#9999FF	
Gradient angle (degrees):	0	0	0	
Use custom description fill	color			
Background color:	#FFFFFF]		
		OK	Cancel	

For each element you can define **Tab text** - short text for element. **Description text** - Rich Text field for full description of the element. Vertical scrolling will be added automatically and sound file, which will be played on tab selection. You can add sound file for each Tab.

Display this tab selected from the start makes current tab "default" tab. If this checkbox is not checked at one of the tabs, then **None selected text** will be displayed in description area at object display. If checkbox is checked at more than one tab - first checked tab becomes default, others will be ignored.

Select one of the predefined **color schemes** or define custom colors for tab/description blocks, **gradient angle** for background, and common display parameters: corner arc sizes and spacings.

Other params include:

- tab height (in pixels),
- **corner radius** in pixels or relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- **border width** (in pixels),
- intertab spacing.

Accordion tab block		×
Elements Background Soun	d	
✓ Display background		
Border color:	#CCCCCC	
Fill color main:	#CCCCCC	
Fill color gradient:	#FFFFFF	
Color scheme:	Blue	
Border width:	6 px	
Gradient angle:	0 degrees	
Corner arc size:	0.02 (from 0 to 1)	
Inner margin:	10 px	
ок с	Cancel Apply Help	

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width (in pixels),
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.

Accordion tab block		×
Elements Background Sound		
Use sound effects		
Events with sound:	Mouseover and click 🗸 🗸	
Mouseover sound:	Standard 1	
Sound file:		
Click sound:	Standard 1	
Sound file:		
OK Car	ncel <u>Apply</u> Help	

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.1.8 Tab block (timeline)

Tab block objects are used for displaying group of similar descriptions in one tabbed block.

Example of object appearance:



Object parameters

Tab block (time	eline)	
Elements Backg	round Sound	
Elements list:		4 - 4 4 😭
Tab	Description	Sound Color 🔥
1803	War betwe	Green
1805	War of the	Green
1806	War of the	Green
1809	War of the	Green
1012	The invasio	dieen
Button height:	10 % from	full height
Button arrow off	fset:	15 px
Description corr	ner arc size:	0.01 (from 0 to 1)
Border width:		4 px
Button inner ma	rgin:	6 px
Description inne	er margin:	6 px
Interbutton space	cing:	6 px
Button-descripti	on spacing:	6 px
None selected t	ext:	Select one of the button TE
0	Canc	cel Apply Help

On the "Elements" tab you can define list of elements and its descriptions in the displaying order.

Display this button selecte	d from the start
Tab text:	1812 TE
Description text:	The Invasion of RussiaThe Treaty of Tils TE
Sound file:	
Color scheme:	Green
	Normal MouseOver Selected
Border color:	#CCCCCC #CCEEFF #CCEEFF
Fill color main:	#CCCCCC #CCEEFF #FFFFFF
Fill color gradient:	#FFFFFF #FFFFFF #CCEEFF
Gradient angle (degrees):	0 0 0
Use custom description fill	color
Background color:	#FFFFFF
	OK Cancel

For each element you can define **Tab text** - short text for element. **Description text** - Rich Text field for full description of the element. Vertical scrolling will be added automatically and sound file, which will be played on tab selection. You can add sound file for each Tab.

Display this tab selected from the start makes current tab "default" tab. If this checkbox is not checked at one of the tabs, then **None selected text** will be displayed in description area at object display. If checkbox is checked at more than one tab - first checked tab becomes default, others will be ignored.

Select one of the predefined **color schemes** or define custom colors for tab/description blocks, **gradient angle** for background, and common display parameters: corner arc sizes and spacings.

Other params include:

- tab height (in percent),
- **corner radius** in pixels or relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- **border width** (in pixels),
- intertab spacing.

Tab block (timeline)		×
Elements Background Soun	Id	
Display background		
Border color:	#CCCCCC	
Fill color main:	#CCCCCC	
Fill color gradient:	#FFFFFF	
Color scheme:	Blue	
Border width:	6 px	
Comer arc size:	0.02 (from 0 to 1)	
Inner margin:	10 px	
ОКС	Cancel Apply Help	

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width (in pixels),
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.

Tab block (timeline)		×
Elements Background Sound		
Use sound effects		
Events with sound:	Mouseover and click 💙	
Mouseover sound:	Standard 1 👻	
Sound file:		
Click sound:	Standard 1	
Sound file:		
OK Car	ncel <u>A</u> pply Help	

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.1.9 Managed tab block vertical

Tab block objects are used for displaying group of similar descriptions in one tabbed block. This type of Object its own Controls ribbon with Next/Previous buttons.

Example of object appearance:



Object parameters

Managed to	ab block	vertical					×
Elements	Tabs	Controls	Descriptions	Backgr	ound	Sound	
Element	s list:			÷	-	4 4	
Tab							
Howar Pierce	d Stem Morgan						
Rest	ore objec	t state					
(ОК		Cancel	Appl	y	H	lelp

On the "Elements" tab you can define list of elements and its descriptions in the displaying order.

This Object can restore its state, i.e. when learner returns to the Slide it will see Object in the same state.

Display this tab selecte	ed from the start
Tab text:	Howard Stem
Description text:	Controversial radio DJ Howard Stem is to rep
Sound file:	
	OK Cancel

Tab text - short text that will be displayed on the Tab. **Description** - full text that will be displayed in Description Area of the Object when corresponding Tab is selected. This is Rich Text field - it can contain pictures, tables, links etc. Scroll bar will be added automatically when text size will exceed Description Area size. For each element you can define sound file with narration.

Display this tab selected from the start checkbox allows displaying this Tab selected from the start (and also displaying its preview in Edit mode). In case no Tab is selected first Tab will be selected by default. In case more than one Tab is selected - first selected Tab will be active, others will be ignored.

Managed tab block vertical			
Elements Tabs Controls [Descriptions Background Sound		
Color scheme:	Steel Blue		
Custom color:	#CCCCFF		
Brightness:	Light 🔻		
Color scheme selected:	Olive		
Custom color:	#FFFF99		
Fill brightness:	Light 🔻		
Border width:	1 px		
Tab width (%):	30		
Tab font:	Tahoma 🔻		
Custom font:			
Font size:	12 px		
Font style:	Bold		
Margin top/bottom:	12 px		
Margin left/right:	12 px		
Shadow strength:	Nomal		
ок с	Cancel Apply Help		

Select **color schemes** for idle and selected states - one of predefined or custom. You can also lighten or darken colors of selected color schemes. Change **tab width** (in percents of full Object width) and Tab font settings.

Managed tab block vertical	X
Elements Tabs Controls	Descriptions Background Sound
Display controls ribbon	
Title text:	DJs
Color scheme:	Blue
Custom color:	#980007
Fill brightness:	Normal
Title font:	Tahoma 🔻
Custom font:	
Font style:	Bold
ОК	Cancel Apply Help

On the **Controls** tab you can change display parameters for Controls ribbon and buttons or switch it off.

Managed tab block vertical	×
Elements Tabs Controls De	escriptions Background Sound
Color scheme:	White
Custom color:	#EEEEFF
Fill brightness:	Normal
Border width:	1 px
Margin top/bottom:	12 px
Margin left/right:	12 px
OK Ca	ncel <u>A</u> pply Help

On Descriptions tab you can change display parameters for Description Area.

Managed tab block vertical			
Elements Tabs Controls De	escriptions Background Sound		
Display background			
Color scheme:	Grey		
Fill color:	#CCCCCC		
Gradient color:	#EEEEE		
Border color:	#FFFFFF		
Fill brightness:	Lightest 🔹		
Border width:	2 px		
Gradient angle:	0 deg.		
Comer radius:	10 px		
Inner margin:	12 px		
Shadow strength:	Normal		
ОК Са	ncel Apply Help		

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width (in pixels),
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- corner radius,
- inner margin.

Пояснения Использовать звук	Подложка	Звук
🗸 Использовать звук		
	овые эффекты	_
События со звуком:	Нажатие и нав	едение 🔻
Звук для наведения:	Стандартный 1	•
Звуковой файл:		
Звук для нажатия:	Стандартный 1	-
Звуковой файл:		

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Item Displayed	On every tab selection
on First Item Displayed	When first tab is selected
on Last Item Displayed	When las tab is selected
on All Items Displayed	When last unvisited tab is selected. Note that this event fires only once.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
NEXT ITEM	Selects next tab (if applicable)
PREVIOUS ITEM	Selects previous tab (if applicable)
DISPLAY	Selects tab that is selected in method parameter, starting from 1 (if applicable).

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
item	Number of current opened tab (starting from 1)	\$ <mark>OBJ_ID</mark> .item
allVisited	Returns "1" if all tabs have been visited, "0" otherwise.	\$ <mark>OBJ_ID</mark> .allVisited

5.3.1.10 Managed tab block "Sequence"

Tab block objects are used for displaying group of similar descriptions in one tabbed block. This type of Object its own Controls ribbon with Next/Previous buttons.

The main feature of this Object is its ability to group elements.

Example of object appearance:

DJs	
Controversial radio DJ Howard Stern is to replace Piers Morgan on the judging panel of America's Got Talent, it has been announced.	Â
Stern, 57, who presents a daily radio show on Sirius XM, will join Howie Mandel and Sharon Osbourne on the team.	ĩ
The star has vowed to give honest opinions and said it was likely that "feelings are going to be hurt".	Е
An original "shock jock", Stern has often been in trouble for off-colour remarks and comic transgressions.	
In 2004, he was dropped by media giant Clear Channel after it was fined for indecency.	
Despite his sometimes offensive and often sexual language, the DJ says he does not deliberately set out to cause controversy.	
Howard Stern	+
Group Group	

Object parameters

Managed ta	ab block "S	equence"		×
Elements	Tabs Co	ontrols Descrip	tions Background	Sound
Group lis	t:		+ - +	۰ 😭
Schem	e		Title	
Steel E	Blue	Normal	Group	
Custon	n	Normal	Group	
Rest	ore object st	ate		
	ОК	Cancel	Apply	Help

On the "Elements" tab you can define list of groups, elements in groups and their descriptions.

This Object can restore its state, i.e. when learner returns to the Slide it will see Object in the same state.

In the Group Edit dialog you can fill in all elements for this group, its color scheme.

	—
Color scheme:	Steel Blue 👻
Custom color:	#980007
Fill brightness:	Nomal
Group name:	Group
Group elements list:	4 - 4 4 😭
Display this element selecte	Element
No	Howard Stem
	OK Cancel
IJ	
Display this element selected	from the start
Element name: Ho	oward Stem
Description text: Co	ntroversial radio D.I Howard Stem is to ren

Tab text - short text that will be displayed on the Tab. **Description** - full text that will be displayed in Description Area of the Object when corresponding Tab is selected. This is Rich Text field - it can contain pictures, tables, links etc. Scroll bar will be added automatically when text size will exceed Description Area size. For each element you can define sound file with narration.

OK

....

Cancel

Display this tab selected from the start checkbox allows displaying this Tab selected from the start (and also displaying its preview in Edit mode). In case no Tab is selected first Tab will be selected by default. In case more than one Tab is selected - first selected Tab will be active, others will be ignored.

Managed tab block "Sequence"	
Elements Tabs Controls D	escriptions Background Sound
Border width:	1 px
Shadow strength:	Nomal
	Group font
Font:	Tahoma 🔻
Custom font:	
Font size:	11 px
Font style:	Bold
	Element font
Font:	Tahoma 🔻
Custom font:	
Font size:	11 px
Font style:	Bold
OK Ca	ncel <u>Apply</u> Help

Select **color schemes** for idle and selected states - one of predefined or custom. You can also lighten or darken colors of selected color schemes. Change Tab font settings.

Managed tab block "Sequence"		
Elements Tabs Controls De	escriptions Background Sound	
Display controls ribbon		
Title text:	DJs	
Color scheme:	Blue	
Custom color:	#980007	
Fill brightness:	Nomal	
Title font:	Tahoma 🔹	
Custom font:		
Font style:	Bold	
ОК Са	ncel Apply Help	

On the **Controls** tab you can change display parameters for Controls ribbon and buttons or switch it off.

Managed tab block "Sequence"		
Elements Tabs Controls De	escriptions Background Sound	
Color scheme:	By group scheme	
Custom color:	#EEEFF	
Fill brightness:	Normal	
Border width:	1 px	
Margin top/bottom:	12 px	
Margin left/right:	12 px	
Use custom fill color		
Fill color:	#FFFFFF	
ОК Са	ncel Apply Help	

On Descriptions tab you can change display parameters for Description Area.

Managed tab block "Sequence"	X
Elements Tabs Controls De	escriptions Background Sound
Display background	
Color scheme:	Grey
Fill color:	#CCCCCC
Gradient color:	#EEEEE
Border color:	#FFFFFF
Fill brightness:	Lightest 👻
Border width:	2 px
Gradient angle:	0 deg.
Comer radius:	10 px
Inner margin:	12 px
Shadow strength:	Nomal
OK Ca	ncel Apply Help

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width (in pixels),
- **fill gradient angle** from 0 (north direction) to 360 degrees counterclockwise,
- corner radius,
- inner margin.

Managed tab block "Sequence"			×			
Elements	Tabs	Controls	Descriptions	Background	Sound	
Us	e sound (effects				
Event	s with so	und:	Mouseove	er and click	-	
Mouse	eover sou	und:	Standard	1	-	
Sound	d file:					
Click :	sound:		Standard	1	-	
Sound	d file:					

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Item Displayed	On every tab selection
on First Item Displayed	When first tab is selected
on Last Item Displayed	When las tab is selected
on All Items Displayed	When last unvisited tab is selected. Note that this event fires only once.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
NEXT ITEM	Selects next tab (if applicable)
PREVIOUS ITEM	Selects previous tab (if applicable)
DISPLAY	Selects tab that is selected in method parameter, starting from 1 (if applicable).

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
group	Current group number (starting from 1)	\$ <mark>OBJ_ID</mark> .group
item	Current tab number inside the group (starting from 1)	\$ <mark>OBJ_ID</mark> .item
allVisited	Returns "1" if all tabs have been visited, "0" otherwise.	\$ <mark>OBJ_ID</mark> .allVisited

5.3.1.11 Managed tab block "Accordion"

Tab block objects are used for displaying group of similar descriptions in one tabbed block. This type of Object its own Controls ribbon with Next/Previous buttons.

Example of object appearance:

DJs
Howard Stern
Controversial radio DJ Howard Stern is to replace Piers Morgan on the judging panel of America's Got Talent, it has been announced.
Stern, 57, who presents a daily radio show on Sirius XM, will join Howie Mandel and Sharon Osbourne on the team. ${}_{\rm E}$
The star has vowed to give honest opinions and said it was likely that "feelings are going to be hurt".
An original "shock jock", Stern has often been in trouble for off-colour remarks and comic transgressions.
In 2004, he was dropped by media giant Clear Channel after it was fined for indecency.
Despite his sometimes offensive and often sexual language, the DJ says he does not deliberately set out to
Peirce Morgan

Object parameters

Managed tab block "Accordion"		x
Elements Tabs Controls Descriptions	Background Sound	
Elements list:	4 - 4 \$ 😭	
Tab		
Howard Stem Peirce Morgan		
Restore object state		I
OK Cancel	Apply Help	

On the "Elements" tab you can define list of elements and its descriptions in the displaying order.

This Object can restore its state, i.e. when learner returns to the Slide it will see Object in the same state.

Display this tab selected from the start		
Tab text:	Howard Stem	
Description text:	Controversial radio DJ Howard Stem is to rep $\boxed{\text{TE}}$	
Sound file:		
OK Cancel		

Tab text - short text that will be displayed on the Tab. **Description** - full text that will be displayed in Description Area of the Object when corresponding Tab is selected. This is Rich Text field - it can contain pictures, tables, links etc. Scroll bar will be added automatically when text size will exceed Description Area size. For each element you can define sound file with narration.

Display this tab selected from the start checkbox allows displaying this Tab selected from the start (and also displaying its preview in Edit mode). In case no Tab is selected first Tab will be selected by default. In case more than one Tab is selected - first selected Tab will be active, others will be ignored.

Managed tab block "Accordion"		
Elements Tabs Controls De	escriptions Background Sound	
Color scheme:	Steel Blue	
Custom color:	#CCCCFF	
Brightness:	Light	
Color scheme selected:	Olive 🔻	
Custom color:	#FFFF99	
Fill brightness:	Light -	
Border width:	1 px	
Tab font:	Tahoma 🔻	
Custom font:		
Font size:	12 px	
Font style:	Bold	
Margin top/bottom:	12 px	
Margin left/right:	12 px	
Shadow strength:	Nomal	
OK Cancel <u>A</u> pply Help		

Select **color schemes** for idle and selected states - one of predefined or custom. You can also lighten or darken colors of selected color schemes. Change Tab font settings.

Managed tab block "Accordion"		
Elements Tabs Controls Descriptions Background Sound		
V Display controls ribbon		
Title text:	DJs	
Color scheme:	Blue	
Custom color:	#980007	
Fill brightness:	Nomal	
Title font:	Tahoma	
Custom font:		
Font style:	Bold	
OK Cancel <u>Apply</u> Help		

On the **Controls** tab you can change display parameters for Controls ribbon and buttons or switch it off.

Managed tab block "Accordion"		
Elements Tabs Controls Descriptions Background Sound		
Color scheme:	By tab scheme 💌	
Custom color:	#EEEEFF	
Fill brightness:	Normal	
Border width:	1 px	
Margin top/bottom:	12 px	
Margin left/right:	12 px	
☑ Use custom fill color		
Fill color:	#FFFFFF	
OK Cancel <u>A</u> pply Help		

On Descriptions tab you can change display parameters for Description Area.

Managed tab block "Accordion"			
Elements Tabs Controls	Descriptions Background Sound		
V Display background			
Color scheme:	Grey 💌		
Fill color:	#CCCCCC		
Gradient color:	#EEEEEE		
Border color:	#FFFFF		
Fill brightness:	Lightest 🗸		
Border width:	2 px		
Gradient angle:	0 deg.		
Comer radius:	10 px		
Inner margin:	12 px		
Shadow strength:	Normal		
OK Cancel <u>A</u> pply Help			

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width (in pixels),
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- corner radius,
- inner margin.
| Managed tab block "Accordion" | | | | | |
|-------------------------------|-----------|----------|--------------|--------------|-------|
| Elements | Tabs | Controls | Descriptions | Background | Sound |
| Use | e sound (| effects | | | |
| Events | s with so | und: | Mouseove | er and click | - |
| Mouse | eover sou | und: | Standard | 1 | - |
| Sound | l file: | | | | |
| Click s | ound: | | Standard | 1 | - |
| Sound | file: | | | | |
| | | | | | |
| | ОК | | Cancel | Apply | Help |

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon		
on Item Displayed	On every tab selection		
on First Item Displayed	When first tab is selected		
on Last Item Displayed	When las tab is selected		
on All Items Displayed	When last unvisited tab is selected. Note that this event fires only once.		

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result	
NEXT ITEM	Selects next tab (if applicable)	
PREVIOUS ITEM	Selects previous tab (if applicable)	
DISPLAY	Selects tab that is selected in method parameter, starting from 1 (if applicable).	

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax	
item	Number of current opened tab (starting from 1)	\$ <mark>OBJ_ID</mark> .item	
allVisited	Returns "1" if all tabs have been visited, "0" otherwise. \$OBJ_ID.		

5.3.1.12 Managed tab block "Process"

Tab block objects are used for displaying group of similar descriptions in one tabbed block. This type of Object its own Controls ribbon with Next/Previous buttons.

Example of object appearance:



Object parameters

Managed tab block "Process"	×
Elements Tabs Controls Descriptions	Background Sound
Elements list:	4 - 4 8 🚰
Title	
Howard Stem Pierce Morgan	
Restore object state	
OK Cancel	Apply Help

On the "Elements" tab you can define list of elements and its descriptions in the displaying order.

This Object can restore its state, i.e. when learner returns to the Slide it will see Object in the same state.

Display this tab selected	I from the start
Step title:	Howard Stem
Description text:	Controversial radio DJ Howard Stem is to rep
Sound file:	
	OK Cancel

Tab text - short text that will be displayed on the Tab. **Description** - full text that will be displayed in Description Area of the Object when corresponding Tab is selected. This is Rich Text field - it can contain pictures, tables, links etc. Scroll bar will be added automatically when text size will exceed Description Area size. For each element you can define sound file with narration.

Display this tab selected from the start checkbox allows displaying this Tab selected from the start (and also displaying its preview in Edit mode). In case no Tab is selected first Tab will be selected by default. In case more than one Tab is selected - first selected Tab will be active, others will be ignored.

Managed tab block "Process"		
Elements Tabs Controls D	escriptions Background Sound	
Color scheme:	Steel Blue 🔻	
Custom color:	#CCCCFF	
Brightness:	Light 🔻	
Color scheme selected:	Olive •	
Custom color:	#FFFF99	
Fill brightness:	Light -	
Border width:	1 px	
Tab font:	Tahoma	
Custom font:		
Font size:	12 px	
Font style:	Bold	
Shadow strength:	Normal	
ОК Са	incel Apply Help	

Select **color schemes** for idle and selected states - one of predefined or custom. You can also lighten or darken colors of selected color schemes. Change Tab font settings.

Managed tab block "Process"				
Elements Tabs Controls Descriptions Background Sound				
Display controls ribbon				
Title text:	DJs			
Color scheme:	Custom			
Custom color:	#980007			
Fill brightness:	Normal			
Title font:	Tahoma 🔹			
Custom font:				
Font style:	Bold			
ОК Са	ncel Apply Help			

On the **Controls** tab you can change display parameters for Controls ribbon and buttons or switch it off.

Managed tab block "Process"		
Elements Tabs Controls D	escriptions Background Sound	
Color scheme:	White	
Custom color:	#EEEFF	
Fill brightness:	Normal	
Border width:	1 px	
Margin top/bottom:	12 px	
Margin left/right:	12 px	
Use custom fill color		
Fill color:	#FFFFFF	
OK Ca	ncel Apply Help	

On Descriptions tab you can change display parameters for Description Area.

Managed tab block "Process"					
Elements Tabs Controls De	escriptions Background Sound				
Display background	✓ Display background				
Color scheme:	Grey				
Fill color:	#CCCCCC				
Gradient color:	#EEEEE				
Border color:	#FFFFFF				
Fill brightness:	Lightest 🔹				
Border width:	2 px				
Gradient angle:	0 deg.				
Comer radius:	10 px				
Inner margin:	12 px				
Shadow strength:	Normal				
ОК Са	ancel <u>Apply</u> Help				

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width (in pixels),
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- corner radius,
- inner margin.

Managed tab block "Process"				×		
Elements	Tabs	Controls	Descriptions	Background	Sound	
Us/	e sound	effects				
Events	s with so	und:	Mouseove	er and click	-	
Mouse	eover sou	und:	Standard	1	-	
Sound	file:					
Click s	sound:		Standard	1	-	
Sound	file:					
	ОК		Cancel	Apply	Help)

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon		
on Item Displayed	On every tab selection		
on First Item Displayed	When first tab is selected		
on Last Item Displayed	When las tab is selected		
on All Items Displayed	When last unvisited tab is selected. Note that this event fires only once.		

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
NEXT ITEM	Selects next tab (if applicable)
PREVIOUS ITEM	Selects previous tab (if applicable)
DISPLAY	Selects tab that is selected in method parameter, starting from 1 (if applicable).

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax		
item	Number of current opened tab (starting from 1)	\$ <mark>OBJ_ID</mark> .item		
allVisited	Returns "1" if all tabs have been visited, "0" otherwise.	\$ <mark>OBJ_ID</mark> .allVisited		

5.3.1.13 Guide Mark

Guide Mark objects are used in conjunction with <u>Guided Image</u> object to mark image key points. This object is visible in Edit mode only.

Examples of object appearance in Edit mode (note Guide Marks on the Image):



Object parameters

Guide Mark				×
Parameters	1			
Color (edit	tor only):	Orange		-
	ок	Cancel	Apply	Help

The only Object parameter is color - you can change it in contrast to Image colors.

5.3.1.14 Guided Image

Guided Image object is used to display Image with descriptions to Image's key points. This Object needs <u>Guide Mark</u> Objects to mark Image's key points. This type of Object its own Controls ribbon with Next/Previous buttons.

Examples of object appearance in Edit mode (note <u>Guide Marks</u> on the Image):



The same Object in real Course looks different - Guide Marks are not visible, but arrow from Description Area points exactly to the one of the Guide Marks:



Object parameters

Guided Image		X
Image Controls Backgroun	nd Sound	
Image file:	C:\Courses\27_T5	\2\images\308;
Description location:	Rightward	•
Image scaling:	By half height	By height
	By half width	By width
	No scaling	
Pointer color:	Lightblue	•
Custom color:	#980007	
Guide mark order:	4	⊧ — è + @
Display this element select	e ID	
Yes	OBJ_37	
No	OBJ_38 OBJ_39	
	000_00	
Restore object state		
ОК	Cancel	pply Help

On the "Image" tab you can define Image file, place of Description Area and list of Guide Mark Objects, which will be managed. You can also select arrow color to make it contrast relative to the Image. Image in the Object area is scaled according to selected Image scaling type - select appropriate depending on Image width and height proportions. Note that in some cases image clipping may occur.

- **By height** Image height will be scaled to Object work area height, width will be scaled in the same ratio.
- **By half height** Image height will be scaled to the half of Object work area height, width will be scaled in the same ratio.
- **By width** Image width will be scaled to Object work area width, height will be scaled in the same ratio.
- **By half width** Image width will be scaled to the half of Object work area width, height will be scaled in the same ratio.
- **No scaling** Image will be displayed in its original size. Note that if Image width or height will exceed work area size clipping may occur.

This Object can restore its state, i.e. when learner returns to the Slide it will see Object in the same state.

	(×
Display this element sele	cted from the start	
Guide mark ID:	OBJ_37	
Description:	Testing indicates that a cat's vision is greater	TE
Sound file:		
	OK Cancel	

Guide mark ID - ID of corresponding Guide Mark Object. **Description** - full text that will be displayed in Description Area of the Object when corresponding Guide Mark is selected. This is Rich Text field - it can contain pictures, tables, links etc. Scroll bar will be added automatically when text size will exceed Description Area size. For each element you can define sound file with narration.

Display this Mark selected from the start checkbox allows displaying this Description selected from the start. In case no Mark is selected first element will be selected by default. In case more than one Mark is selected - first selected element will be active, others will be ignored.

Guided Image	×
Image Controls Background	Sound
Display controls ribbon	
Title text:	Cat
Color scheme:	Blue
Custom color:	#980007
Fill brightness:	Nomal
Title font:	Tahoma 🔻
Custom font:	
Font style:	Bold
OK Ca	ncel Apply Help

On the **Controls** tab you can change display parameters for Controls ribbon and buttons or switch it off.

Guided Image	X
Image Controls Background	Sound
Display background	
Color scheme:	Grey
Fill color:	#CCCCCC
Gradient color:	#EEEEE
Border color:	#FFFFFF
Fill brightness:	Lightest 🔹
Border width:	2 px
Gradient angle:	0 deg.
Comer radius:	10 px
Inner margin:	12 px
Shadow strength:	Normal
ОК Са	ncel Apply Help

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width (in pixels),
- **fill gradient angle** from 0 (north direction) to 360 degrees counterclockwise,
- corner radius,
- inner margin.

Guided Image	X
Image Controls Background	Sound
Use sound effects	
Events with sound:	Mouseover and click 👻
Mouseover sound:	Standard 1 👻
Sound file:	
Click sound:	Standard 1 👻
Sound file:	
OK Car	ncel Apply Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Item Displayed	On every tab selection
on First Item Displayed	When first tab is selected
on Last Item Displayed	When las tab is selected
on All Items Displayed	When last unvisited tab is selected. Note that this event fires only once.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
NEXT ITEM	Selects next element (if applicable)
PREVIOUS ITEM	Selects previous element (if applicable)
DISPLAY	Selects element that is passed in method parameter, starting from 1 (if applicable).

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
item	Number of current selected element (starting from 1)	\$ <mark>OBJ_ID</mark> .item
allVisited	Returns "1" if all elements have been visited, "0" otherwise.	\$ <mark>OBJ_ID</mark> .allVisited

5.3.1.15 Managed controls block

Managed controls block is used to manage consecutive display of other Objects. In case target Objects have its own methods OPEN/CLOSE (for example <u>Pointer</u>), these methods will be used to display them, otherwise usual action DISPLAY will be used automatically.

Example of object appearance:



Object parameters

Elements Controls Background Sound Object activation order: Display this element selecte ID	÷	-	Ŷ		~
Object activation order: Display this element selecte ID	÷	-	Ŷ	4	~
Display this element selecte ID					
N. 001.44					
No OBJ_41 No OBJ_42 No OBJ_43					
Restore object state	0	L .			

On the "Elements" tab you can define namaged Objects list and order, in which they will be managed.

This Object can restore its state, i.e. when learner returns to the Slide it will see Object in the same state.

		×
Display this element select	ted from the start	
Object:	OBJ_41	
Sound file:		
	OK Cance	el 📄

Object - ID of the Object to be managed. For each Object you can add sound file with narration.

Display this element selected from the start checkbox allows displaying this Object visible from the start. In case no Object is selected first element will be selected by default. In case more than one Object is selected - first selected element will be active, others will be ignored.

Managed controls block			
Elements Controls Background	d Sound		
Display controls ribbon			
Color scheme:	Blue		
Custom color:	#980007		
Fill brightness:	Nomal		
Title text:	Title		
Title font:	Tahoma 🔹		
Custom font:			
Font style:	Bold		
OK Ca	ncel Apply Help		

On the **Controls** tab you can change display parameters for Controls ribbon and buttons or switch it off.

Managed controls block				
Elements Controls Background Sound				
Display background				
Color scheme:	Grey			
Fill color:	#CCCCCC			
Gradient color:	#EEEEE			
Border color:	#FFFFFF			
Fill brightness:	Lightest 🔹			
Border width:	2 px			
Gradient angle:	0 deg.			
Corner radius:	10 px			
Inner margin:	12 px			
Shadow strength:	Nomal			
ОК	ancei <u>A</u> pply Help			

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width (in pixels),
- **fill gradient angle** from 0 (north direction) to 360 degrees counterclockwise,
- corner radius,
- inner margin.

Managed controls block			
Elements Controls Background	Sound		
Use sound effects			
Events with sound:	Mouseover and click 🔹		
Mouseover sound:	Standard 1 👻		
Sound file:			
Click sound:	Standard 1 👻		
Sound file:			
OK Car	ncel Apply Help		

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon	
on Item Displayed	On every tab selection	
on First Item Displayed	When first tab is selected	
on Last Item Displayed	When las tab is selected	
on All Items Displayed	When last unvisited tab is selected. Note that this event fires only once.	

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result	
NEXT ITEM	Selects next tab (if applicable)	
PREVIOUS ITEM	Selects previous tab (if applicable)	
DISPLAY	Selects tab that is selected in method parameter, starting from 1 (if applicable).	

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
item	Number of current opened tab (starting from 1)	\$ <mark>OBJ_ID</mark> .item
allVisited	Returns "1" if all elements have been visited, "0" otherwise.	\$ <mark>OBJ_ID</mark> .allVisited

5.3.2 Data Visualization

5.3.2.1 Pie chart

Pie chart (circle diagram) is representing percent distribution of data. Each sector of the diagram is proportional to quantity it represents.

Example of object appearance:



Object parameters

Pie Chart						×
Elements De	scription	Background	Sound			
Elements list	t:		4 -	• • •	1	
Scheme	Value	Font	Sound	Previ		
Turquoise Orange	42 36	Apples Oranges		Non Non		
Violet	17	Plums		Non		
	ОК	Cancel		ypply (Help	

Define the list of sectors on the "Elements" tab. For each data element you can assign color scheme, text of sector, description text and its parameters. Please note that sectors are displayed exactly in the order they are entered, counterclockwise from "north" direction. Use "+" button to open sector properties dialog.

Color scheme:	Turquoise		Normal	MouseOver —	Selected
Element ID:		Font:	Tahoma 💌	Tahoma 💌	Tahoma
Numeric value:	42				
Flomont toxt:	Apples	Font size:	12 px	12 px	12 px
Instruction text:	Appies	Font weight:	Bold	Bold	Bold
Apples storage	TE	Font style:	Nomal 💌	Nomal 💌	Normal
Sound file:		Font color:	#999999	#000000	#999999
Preview description	in editor	Border width:	3 рх	3 рх	3 рх
		Border color:	#999999	#666666	#999999
		Fill color main:	#EEEEEE	#CCCCCC	#CCCCCC
		Fill color gradient:	#FFFFFF	#FFFFFF	#FFFFF
		Gradient angle:	0 deg.	0 deg.	0 deg.
				ОК	Canc

You can use one of predefined **color schemes** or select custom colors (in this case color values from the right part of dialog will be used).

Element ID - any unique (for this object) sequence of latin characters and numbers (reserved for future use, can be blank).

Numeric value defines angle value for this sector. Actual angle will be calculated automatically (sum of umeric values of all sectors will be treated as 360°).

Element text - short text on the arc inside the sector. Font parameters from right part of the dialog will be applied to this text.

LIMITATION: length of the text arc is quite small, please keep this text as short as you can. It cannot be distributed in few lines - one line only. Long texts will be cut. Please use description for long texts.

WARNING: Choosing font parameters please make sure that you have selected fonts, which are installed on learners computer. Otherwise browser will use its default fonts and object appearance will be distorted.

Description - any rich text description, that will be displayed in special description block near the "pie".

You can also attach sound file to each sector (.swf or .mp3/.wma/.wav). It will be played when user selects this sector.

Preview description in editor checkbox allows to preview diagram with one of the description blocks displayed in edit mode (if this checkmark is set on more than one sector - only first description will be displayed).

Pie Cha	art		×
Elemer	nts Description Backg	round Sound	
	Display element description	ons	
Ca	olor scheme:	Use element scheme	
Bo	order color:	#CCCCCC	
Fil	Il color main:	#CCCCCC	
Fil	ll color gradient:	#FFFFFF	
Bo	order width:	6 px	
Gr	adient angle:	0 degrees	
Co	omer arc size (0-1):	0.025	
De	escription inner margin:	20 px	
Di	splay description on:	mouse click 💙	
	Display pointer line to ele	ement	
	Use transitions on descr	iption	
1	Fransition:	Wipe down	
1	Ouration:	1 sec.	
	ок с	ancel <u>A</u> pply Help	

On the "Description" tab you can switch displaying of description blocks on and off and define its display parameters:

- color scheme (one of predefined or custom),
- border width,
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin,
- event to start display mouse click or mouse over,
- display pointer line to element enables display of connecting line between sector and description block,
- **use transitions on description** enables using transitions on displaying description block.

Pie Chart	
Elements Description Backg	ground Sound
Display element descript	ions
Color scheme:	Use element scheme
Border color:	#CCCCCC
Fill color main:	#CCCCCC
Fill color gradient:	#FFFFFF
Border width:	6 px
Gradient angle:	0 degrees
Comer arc size (0-1):	0.025
Description inner margin:	20 px
Display description on:	mouse click
Display pointer line to e	lement
Use transitions on desc	ription
Transition:	Wipe down 🖌
Duration:	1 sec.
ОК	Cancel <u>A</u> pply Help

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- color scheme (one of predefined or custom),
- border width (in pixels),
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.

Pie Chart		×
Elements Description Backgro	ound	
Use sound effects		
Events with sound:	Mouseover and click	
Mouseover sound:	Standard 1	
Sound file:		
Click sound:	Standard 1	
Sound file:		
OK Car	ncel <u>A</u> pply Help	

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.2.2 Pyramid chart

Pyramid chart is representing hierarchical data. Each level can contain more than one block. It is similar to <u>Rings chart</u> (represents the same type of hierarchy).

Example of object appearance:



Object parameters

Pyramid Chart	×
Elements Description Background Sound	
Pyramid levels: 💠 🛥 🍲 📽	
Scheme Red Orange Yellow Green Lightblue Blue Violet	
Interlevel spacing: 2 px	
OK Cancel Apply Help	

Define the list of pyramid levels and level elements (blocks) on the "Elements" tab. For each level you can assign color scheme, for each block in level - text of element, description text and its parameters. Please note that if there are no blocks defined in level, then it will not displayed

at all. Top level can have only one block - if more than one block is defined, then only first will be displayed.

WARNING: If no elements defined on current level - level will be displayed as empty level. Top level can contain one element only - if more than one is defined, only first will be displayed.

			MouseOver	Selected
Level color scheme: Red	Font:	Tahoma 🖌	Tahoma 🖌 🖌	Tahoma
	Font size:	12 px	12 px	12 px
ID Font Exp Sound Pre e001 Red Red Non	Font weight:	Bold 💌	Bold 💌	Bold
	Font style:	Normal 🖌	Normal 💌	Normal
	Font color:	#999999	#000000	#999999
	Border width:	3 рх	3 рх	3 рх
	Border color:	#999999	#666666	#999999
	Fill color main:	#EEEEEE	#CCCCCC	#CCCCCC
	Fill color gradient:	#FFFFFF	#FFFFF	#FFFFFF
Interelement spacing: 2 px	Gradient angle:	0 deg.	0 deg.	0 deg.
			ОК	Cano

Use "+" button to open level properties dialog.

You can use one of predefined **color schemes** or select custom colors (in this case color values from the right part of dialog will be used). Define font parameters in the right part of the dialog - they will be applied to short text on the elements.

WARNING: Choosing font parameters please make sure that you have selected fonts, which are installed on learners computer. Otherwise browser will use its default fonts and object appearance will be distorted.

Add level elements.

Element ID:	e001	
Element text:	Red	
Instruction text:	Red color TE	
Sound file:		
Preview description in e	ditor	
OK Cancel		

Element ID - any unique (for this object) sequence of latin characters and numbers (reserved for future use, can be blank).

Element text - short text on the arc inside the sector. Font parameters from right part of the Level dialog will be applied to this text.

LIMITATION: length of the text arc is quite small, please keep this text as short as you can. It cannot be distributed in few lines - one line only. Long texts will be cut. Please use description for long texts.

Description - any rich text description, that will be displayed in special description block near the pyramid.

You can also attach sound file to each element (.swf or .mp3/.wma/.wav). It will be played when user selects current element.

Preview description in editor checkbox allows to preview diagram with one of the description blocks displayed in edit mode (if this checkmark is set on more than one sector - only first description will be displayed).

Pyramid Chart	1		×
Elements Desc	ription Backo	ground Sound	
Display el	ement descripti	ions	
Color schen	ie:	Use element scheme	
Border colo	r:	#CCCCCC	
Fill color ma	in:	#CCCCCC	
Fill color gra	idient:	#FFFFFF	
Border widt	1:	6 px	
Gradient an	gle:	0 degrees	
Comer arc s	ize (0-1):	0.025	
Description	inner margin:	20 px	
Display des	cription on:	mouse click 💌	
🗹 Display p	pointer line to el	lement	
Use tran	sitions on desc	ription	
Transition:		Wipe down 🖌	
Duration:		1 sec.	
	ж с	Cancel Apply Help	

On the "Description" tab you can switch displaying of description blocks on and off and define its display parameters:

- color scheme (one of predefined or custom),
- border width,
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin,
- event to start display mouse click or mouse over,
- display pointer line to element enables display of connecting line between sector and description block,
- **use transitions on description** enables using transitions on displaying description block.

Pyramid Chart		
Elements Description Bac	kground Sound	
Display background		
Color scheme:	Blue	
Border color:	#CCCCCC	
Fill color main:	#CCCCCC	
Fill color gradient:	#FFFFF	
Border width:	6 рх	
Gradient angle:	0 degrees	
Comer arc size (0-1):	0.025	
Inner margin:	20 px	
ОК	Cancel Apply H	lelp

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- color scheme (one of predefined or custom),
- border width (in pixels),
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.

Pyramid Chart		×
Elements Description Backgro	und	
Use sound effects		_
Events with sound:	Mouseover and click	
Mouseover sound:	Standard 1	
Sound file:		
Click sound:	Standard 1	
Sound file:		
OK Car	ncel <u>Apply</u> Help	

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.2.3 Rings chart

Rings chart is representing hierarchical data. Each level can contain more than one sector. It is similar to <u>Pyramid chart</u> (represents the same type of hierarchy).

Example of object appearance:



Object parameters

Rings Chart	X
Elements Description Background Sound	
Ring levels: 💠 🛥 🔹 😭	
Scheme Turquoise Green Yellow Orange	
Interlevel spacing: 6 px	
OK Cancel Apply Hel;	<u> </u>

Define the list of pyramid levels and level elements (sectors) on the "Elements" tab. For each level you can assign color scheme, for each block in level - text of element, description text and its parameters. Please note that if there are no sector elements defined in level, then it will not

displayed at all. Top level can have only one element - if more than one element is defined, then only first will be displayed. Use "+" button to open level properties dialog.

Use default color scheme for leve	el		Nomal		MouseOver		Selected	
Level color scheme: Green	► F	ont:	Arial	*	Arial	*	Arial	۷
Level elements: 👍 🕳	☆ ♣ 🔗							
ID Font Sound	Previe	ont size:	12		12		12	
L2_1 Level 2	Non Fo	ont weight:	Bold	*	Bold	*	Bold	~
LZ_Z Level Z	Non	ont style:	Normal	~	Normal	~	Nomal	~
	F	ont color:	#999999		#000000		#999999	
	В	Border width:	3		3		3	
	В	Forder color:	#999999		#666666		#999999	
	В	ackground color:	#EEEEE		#CCCCCC		#CCCCCC	
	F	ill color gradient:	#FFFFFF		#FFFFFF		#FFFFFF	[
Interelement spacing: 3 p	× G	àradient angle:	0		0		0	
						ОК	Cance	

You can use one of predefined **color schemes** or select custom colors (in this case color values from the right part of dialog will be used). Use "+" button to open **level element** dialog.

Element ID:	L2_1
Element text:	Level 2, part 1
Instruction text:	This is description text for Le
Sound file:	
Preview description in ed	litor
	OK Cancel

Element ID - any unique (for this object) sequence of latin characters and numbers (reserved for future use, can be blank).

Element text - short text on the arc inside the sector. Font parameters from right part of the Level dialog will be applied to this text.

LIMITATION: length of the text arc is quite small, please keep this text as short as you can. It cannot be distributed in few lines - one line only. Long texts will be cut. Please use description for long texts. **Description** - any rich text description, that will be displayed in special description block near the pyramid.

You can also attach sound file to each element (.swf or .mp3/.wma/.wav). It will be played when user selects current element.

Preview description in editor checkbox allows to preview diagram with one of the description blocks displayed in edit mode (if this checkmark is set on more than one sector - only first description will be displayed).

Rings Chart	
Elements Description Bac	kground Sound
Display background	
Color scheme:	Blue
Border color:	#CCCCCC
Fill color main:	#CCCCCC
Fill color gradient:	#FFFFF
Border width:	6 px
Gradient angle:	0 degrees
Comer arc size (0-1):	0.025
Inner margin:	20 px
ОК	Cancel Apply Help

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- color scheme (one of predefined or custom),
- **border width** (in pixels),
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.
| Rings Chart | |
|---------------------------|--------------------------|
| Elements Description Back | ground Sound |
| Display element descript | tions |
| Color scheme: | Use element scheme |
| Border color: | #CCCCCC |
| Fill color main: | #CCCCCC |
| Fill color gradient: | #FFFFFF |
| Border width: | 6 px |
| Gradient angle: | 0 degrees |
| Comer arc size (0-1): | 0.025 |
| Description inner margin: | 20 px |
| Display description on: | mouse click |
| Display pointer line to e | element |
| Use transitions on desc | cription |
| Transition: | Wipe down 🖌 |
| Duration: | 1 sec. |
| | |
| ОК | Cancel <u>Apply</u> Help |

On the "Description" tab you can switch displaying of description blocks on and off and define its display parameters:

- color scheme (one of predefined or custom),
- border width,
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin,
- event to start display mouse click or mouse over,
- display pointer line to element enables display of connecting line between sector and description block,
- **use transitions on description** enables using transitions on displaying description block.

Pyramid Chart		×
Elements Description Backgro	ound Sound	
Use sound effects		~
Events with sound:	Mouseover and click	
Mouseover sound:	Standard 1	
Sound file:		
Click sound:	Standard 1	
Sound file:		
OK Car	ncel <u>A</u> pply Help	

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.2.4 Histogram

Histogram is representing distribution of data. Each column of the histogram is proportional to quantity it represents.

Example of object appearance:



Object parameters

Histogram Chart	\mathbf{X}
Elements Description Axes	Background Sound
Elements list:	4 - 4 4 🚰
Scheme Name	Value
Orange Atlantis Turquoise Challen Lightblue Columb Red Discov Violet Endevo	ager 10 via 28 ery 37 our 23
Intercolumn spacing (%):	10
Histogram direction:	Horizontal
Display values:	Name, value
Values text direction:	Along column
Values placement:	Auto scroll
Use transition on colum	nns
Transition:	Wipe up
Duration:	1 sec.
Display columns with de	slay
ОК	Cancel Apply Help

Define the list of columns on the "Elements" tab. For each data element you can assign color scheme, text of column, description text and its parameters. Please note that columns are displayed exactly in the order they are entered. Use "+" button to open sector properties dialog.

LIMITATION: Transitions work only in Internet Explorer.

			N 1		<u></u>
Use default color sch	eme		Nomal	- MouseOver	- Selected
Column color scheme:	Red 🗸	Font:	Tahoma 💙	Tahoma 💌	Tahoma
Column ID:	c001				
Column name:	Discovery	Font size:	12 px	12 px	12 px
Numeric value:	27	Font weight:	Bold 🗸	Bold 🗸	Bold
Description: Discover	ny bas flown 37 flights	Font style:	Nomal 💌	Nomal 💌	Normal
Sound file:		Font color:	#999999	#000000	#999999
	[]	Border width:	3 рх	3 рх	3 рх
Preview description in	editor	Border color:	#999999	#666666	#9999999
		Fill color main:	#EEEEEE	#CCCCCC	#CCCCCC
		Fill color gradient:	#FFFFFF	#FFFFFF	#FFFFFF
		Gradient angle:	0 deg.	0 deg.	0 deg.
				ОК	Car

You can use one of predefined **color schemes** or select custom colors (in this case color values from the right part of dialog will be used).

Element ID - any unique (for this object) sequence of latin characters and numbers (reserved for future use, can be blank).

Numeric value defines value for this element. Actual height will be calculated automatically depending on selected calculation method.

Element text - short text inside (or near) the column. Font parameters from right part of the dialog will be applied to this text.

LIMITATION: length of the text area is quite small, please keep this text as short as you can. It cannot be distributed in few lines - one line only. Long texts will be cut. Please use description for long texts.

WARNING: Choosing font parameters please make sure that you have selected fonts, which are installed on learners computer. Otherwise browser will use its default fonts and object appearance will be distorted.

Description - any rich text description, that will be displayed in special description block near the histogram.

Preview description in editor checkbox allows to preview diagram with one of the description blocks displayed in edit mode (if this checkmark is set on more than one sector - only first description will be displayed).

Histogram Chart	×
Elements Description Axes	Background Sound
Display element description	s
Color scheme:	Custom colors
Use solid fill for description	block
Fill color main:	#####
Fill color gradient:	#FFFFFF
Gradient angle:	0 deg.
Border color:	#000080
Border width:	2 px
Comer arc size (0-1):	0.025
Description inner margin:	20 px
Display description on:	mouse click
Display pointer line to eleme	ent
Use transitions on descrip	otion
Transition:	Wipe down
Duration:	1 sec.
OK Ca	ancel Apply Help

On the "Description" tab you can switch displaying of description blocks on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width,
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin,
- event to start display mouse click or mouse over,
- display pointer line to element enables display of connecting line between sector and description block,
- **use transitions on description** enables using transitions on displaying description block.

LIMITATION: Transitions work only in Internet Explorer.

Histogram Chart		
Elements Description Axes	Background Sound	
Display axes		
Color scheme:	White	~
Axes color:	#CCCCCC	
Axes width:	2 px	
Display axes points:	Point with values	~
Value axis points q-ty:	4	
Display grid:	Both axes	~
Base for 100%:	Custom value	~
	40	
Display axes names —		
Values axis name:	Flights	
Categories axis name:	Shuttles	
Font:	Tahoma 💉	
Font size:	12 px	
Font weight:	Bold	
Font style:	Normal	•
Font color:	#999999	
ОК	Cancel Apply	Help

On the "Axes" tab you can switch displaying of histogram axes on and off and define its parameters.

Histogram Chart	
Elements Description Axes	Background Sound
Display background	
Color scheme:	Blue
Border color:	#CCCCCC
Fill color main:	#CCCCCC
Fill color gradient:	#FFFFFF
Border width:	6 px
Gradient angle:	0 degrees
Comer arc size (0-1):	0.025
Inner margin:	20 px
	Annhy Help
	ancel Apply Help

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width (in pixels),
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.

Histogram Chart		×
Elements Description Axes	Background Sound	
Use sound effects		
Events with sound:	Mouseover and click	
Mouseover sound:	Standard 1	
Sound file:		
Click sound:	Standard 1	
Sound file:		
OK Car	ncel Apply Help	

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.2.5 Radar chart

Radar chart is representing distribution of data in multiple series and by multiple axes.

Example of object appearance:



Object parameters

Radar Chart	
Data series Axes Description	and legend Background Sound
Data series:	4 - 4 4 😭
	Sound
West Com West Co East Comp East Com North Com North Co South Com South Co	Turquoise Green Red Yellow
Series type:	Markers and lines
Display values:	On mouse over 💌
Display values:	Percents 🗸
OK Car	ncel Apply Help

Define the list of data series on the "Data series" tab. For all series you can define series type and displaying values methods. For each series you can assign color scheme, name of the series, description text and its parameters. Please note that series are displayed exactly in the order

their values are entered, counterclockwise from "north" direction. Use "+" button to open series properties dialog.

					(
Series name:	East Company	Use default color so	cheme		
Values by axes:	+ - + + 🚰	Color scheme:	Green	~	
Value		Values font:	Tahoma	~	
61 30		Font size:	11 px		
40 21		Font weight:	Bold	~	
15		Font style:	Normal	~	
Series description:	East Company TE	Font color:	#666666		
Sound file:		Border width:	3 px		
Preview description in	n editor	Nor	mal	MouseOver	Selected
		Border color: #9	99999	#666666	. #999999
		Background color: #E	EEEEE	#CCCCCC	. #CCCCCC
		Opacity (0-1): 0.1		0.2	0.2
				ОК	Cancel

You can use one of predefined **color schemes** or select custom colors (in this case color values from the right part of dialog will be used).

Fill in series values by axes.

Series name - short text in legend. Font parameters from right part of the dialog will be applied to this text.

LIMITATION: length of the text area is quite small, please keep this text as short as you can. It cannot be distributed in few lines - one line only. Long texts will be cut. Please use description for long texts.

Description - any rich text description, that will be displayed in special description block near the diagram. You can also attach sound file to each series (.swf or .mp3/.wma/.wav). It will be played when user selects current element.

Preview description in editor checkbox allows to preview diagram with one of the description blocks displayed in edit mode (if this checkmark is set on more than one sector - only first description will be displayed).

Radar Chart		
Data series Axes Descriptio	n and legend Background Sound	
Axes:	+ - + + 😭	
Name	Max	
Apples Oranges Plums Bananas Pears		
Number of points:	5 endently	
Use custom value (**) for 100%		
Axes color:	######	
Axes width:	5 px	
Name font:	Tahoma 💌	
Font size:	14 px	
Font weight:	Normal 🔽	
Font style:	Nomal	
ОК Са	ancel Apply Help	

On the "Axes" tab you can switch displaying of histogram axes on and off and define its parameters.

There are options for scaling that defined by two checkmarks (Normalize every axis independently and Use custom value (**) for 100%):

- default none of checkmarks are set (maximum value on all axes is treated as 100%, this scale is applied to all axes)
- Normalize every axis independently (maximum value of each axis is treated as 100%, scale is applied to corresponding axis only)
- Use custom value (**) for 100% (custom value for each axis is treated as 100%, scale is applied to corresponding axis only)

Radar Chart	X
Data series Axes Descripti	on and legend Background Sound
Display legend Display series description	15
Color scheme:	Use element scheme
Border color:	#CCCCCC
Fill color main:	#CCCCCC
Fill color gradient:	#FFFFFF
Border width:	6 px
Gradient angle:	0 degrees
Comer arc size (0-1):	0.025
Description inner margin:	20 px
Display description on:	mouse click
Use transition on descri	ptions
Transition:	Wipe down
Duration:	1 sec.
ОК	Cancel Apply Help

On the "Description and legend" tab you can switch displaying of description blocks on and off and define its display parameters:

- color scheme (one of predefined or custom),
- border width,
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin,
- event to start display mouse click or mouse over,
- display pointer line to element enables display of connecting line between sector and description block,
- **use transitions on description** enables using transitions on displaying description block.

LIMITATION: Transitions work only in Internet Explorer.

Radar Chart	X
Data series Axes Descrip	tion and legend Background Sound
Display background	
Color scheme:	Blue
Border color:	#CCCCCC
Fill color main:	#CCCCCC
Fill color gradient:	#FFFFFF
Border width:	6 рх
Gradient angle:	0 degrees
Comer arc size (0-1):	0.025
Inner margin:	30 px
ОК	Cancel Apply Help

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- color scheme (one of predefined or custom),
- border width (in pixels),
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- **corner radius** in pixels or in relative units from 0 to 1 (0 corresponds to no arc, 1 corresponds to half of width or height shorter one),
- inner margin.

Radar Chart	
Data series Axes Description	and legend Background Sound
Use sound effects	
Events with sound:	Mouseover and click
Mouseover sound:	Standard 1
Sound file:	
Click sound:	Standard 1
Sound file:	
OK Car	ncel Apply Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.3 External

5.3.3.1 External File Object

External File object enables opening external files such as: documents, pictures, movie, etc., in a separate Browser window. Example of External File appearance:

External File	\mathbf{X}
Parameters	
File:	CourseLab2_Guide.pdf
Caption:	Some PDF description
Caption location:	Right 🗸
 Mouse click on icon to oper Mouse click on description to Underline description 	n file to open file
OK Cancel	Apply Help

What types of files are supported by the Object?

Object is not limited by the file types. At the same time, Browser restricts opening some of the file types; therefore, in a separate Browser window you may open any file which is NOT RESTRICTED BY BROWSER. For some conventional file types Object can place the corresponding Icon into the Frame. In case of undefined file type, Text document Icon will be displayed.

Object parameters



After inserting object into Frame, specify **path to the file**, which you are going to open. Next, File will be copied into the images folder of learning Module.

Input file **Caption** and choose location of the Caption with respect to position of the Icon.

Select the activation **event to open file**: mouse click only on Icon, mouse click only on Caption, mouse click either on Icon or on Caption.

5.3.3.2 External URL

External URL object is used for opening an external Link in a separate Browser window. The exceptional feature of the "External URL" object is an ability to fully control browser settings of the window being opened. The settings are: size of the Browser window and Browser

navigation restrictions (limited availability since Microsoft introduced additional Security settings in Windows XP SP2). Example of External URL appearance:

External URL
Parameters
Use one of default icons
Icon image:
URL: http://www.courselab.com/
Window size horiz.: 800 vert.: 600 pixels
Enable browser window toolbar
Enable browser window address bar
Enable browser window status bar
Enable browser window menu bar
Enable browser window resize
Enable browser window scrollbars
OK Cancel Apply Help

Object parameters

5

After inserting object into the Frame, specify **URL** which you are going to open.

Remove checkmark, in case you prefer not to use **standard icon**. After "Display Icon" field becomes active select desired image, file will be copied into the images folder of learning Module.

Select size for the browser window to be opened, and other settings as appropriate.

5.3.3.3 IFRAME

IFRAME object is used for opening an external web-content (from file or distant server) into the area on the Frame.

WARNING! This object must be placed on top of ALL other objects on the Frame - otherwise errors may arise due to specific nature of this HTML Element.

NOTE! This object is capable to load content from other domains, therefore browser's security restrictions (i.e. cross-domain security) may apply to this object. There's no possibility to override browser security settings from content.

Example of IFRAME appearance in Edit area:



The same IFRAME in Runtime mode:



Object parameters

IFRAME for ex	ternal URL	<
Parameters		
- IFRAME	source	
⊖ File:		
O URL:	http://www.courselab.com/	
Scrolling:	Automatic 💙	
Border style:	No border 💌	
Border color:	#999999	
Border width:	2 pixels	
	OK Cancel <u>A</u> pply Help	

After inserting object into the Frame, specify **URL** or file which you are going to open. Set appearance parameters if necessary.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
REPLACE SOURCE	Replaces URL of IFRAME content.

5.3.4 Questions

The current version of CourseLab supports the following types of questions:

You can insert a separate question of certain type as well as test (using <u>Test Object</u>) which contains combination of the above listed questions.

5.3.4.1 True-False

True-False Question object enables user to choose one correct item from two predefined possible answers.

LIMITATION: No more than one question on the Slide is recommended.

Example of object appearance:

Credited question		
Is the cat mammal?		
Choose o	ne variant	
Yes	O No	
Submit answer Attem	pts: 1	
Time limit:	6 sec.	

Object parameters

True-False Question			X
Button	Texts	Sound	
Question Limitations	Scoring	Feedback Displa	зу
Question text:	Is the cat man	mmal?	
Variant True:	Yes	Т	
Variant False:	No	Т	
Variants layout:	Horizontal	~	*
Variants order:	True-False	~	•
Correct answer:	True	~	*
Weight of True**:	1		
Weight of False**:	0]	
ОК	Cancel	Apply Help	

To input **question's text**, press "TE" button of the corresponding field. The format of input area is RichText, therefore all font settings (size, color, and style) will be saved as you type the text in.

Select **variants** layout, order and correct variant. Note, that the object allows to use different weights for each variant (corresponding scoring type must be selected).

True-False Question			×
Button	Texts	S	ound
Question	Sconng	Геедраск	Display
Limit time for the answer		7	
lime limit (sec):	10		
Allow skip question			
Skipped question is:) just skippe	d	
	Granda		
Allow recurring approach	es		
On recurring approach:	Ask confirma	tion	*
Display completed question	on message		
Display continued question	message		
	ancel	Apply	Help

Use "Limitations" tab to set the following restrictions:

- 1. Number of attempts for this type of question is always 1.
- 2. **Time limit for the answer**. Upon time expiration user will be restricted to make further answer selections, and the question will be validated for correctness even if "Submit Answer" button is not pressed. If the correct answer is chosen just before time expiration, it will be credited to the user.
- Possibility to skip the question. In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as skipped (with opportunity to provide the answer later) or counted as failed (without a chance for another attempt).
- 4. Possibility to reset stored result and answer the question once again (recurring approaches).

True-False Question			×
Button	Texts	S	ound
Question Limitations	Scoring	Feedback	Display
Scoring type:	Questio	n weight	~
Question weight:	1		
Question objectives:		÷ = ÷	÷ 😭
Objective	Weight*		
total	1		
Display maximum score p Weight for each objective m ** Weight of each variant mus	oane nust be set st be set		
ОК	Cancel	Apply	Help

Use "Score" tab to specify scoring parameters for the question. The essential CheckBox is "Credit Question". In case it is not marked, all other scoring parameters are disabled, therefore they will be ignored when presenting question to the user. Such questions are referred as **not credited** questions. These questions are frequently used to prepare the user for the next Slide Topic, to keep the user focused, and so forth.

In case of the **credited** question the following options are available:

- 1. **Scoring type**. There are 3 options for this question type:
 - Question weight in case of correct answer, question weight will be placed in all question objectives.
 - Weight by objective in case of correct answer, different weight will be placed to each objective (according to weight in objective list).
 - Variant weight in case of correct answer, weight of variant will be placed to all objectives (for question with no correct answer only).
- 2. Weight of question/attempt base for calculating score.

3. Possibility to **skip the question.** In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as **skipped** (with opportunity to provide the answer later) or counted as **failed** (without a chance for another attempt).

True-False Q	uestion			×
Button		Texts	S	ound
Question	Limitations	Scoring	Feedback	Display
Display	correct answer feedback messa	ages ———		Prev
Correct ans	wer:	Correct		TE 🗆 🕴
Incorrect ar	nswer:	Incorrect		
Timeout: Offset horiz Offset vertio	ontal: cal: edback automati	Time is out 100 px 50 px ically		
Corr.:	#EOFFEO	Border . #339933	Button #33993	3
Incorr.:	#FFE0E0	. #FF6666	#FF666	6
Attmpts:	#FFE0E0	. #FF6666	#FF666	6
Timeout:	#FFE0E0	. #FF6666	#FF666	6
	οκ	Cancel	Apply	Help

Use "Feedback" tab to specify feedback options, which define what shall be displayed upon another attempt to respond (correct or incorrect) and after completing the question.

You may permit the **display of correct answer** upon question completion by marking corresponding check box. If student has used off all the attempts for response, or if the time has expired then the correct answer will be displayed; user will not be credited for this answer. This option may be used when the main objective of the question is educating rather than testing.

You may permit or restrict the **feedback messages**. You can modify the text of feedback messages, which is in RichText format. **Feedback messages** are displayed in the separate small window during Module play back. You can modify **display coordinates** for this window (the coordinates are given relative to the object's upper left corner - horizontal and vertical offsets).

ue-False Question	
Button	Texts Sound
Question Limitations	Scoring Feedback Display
Skin:	Basic 💌
Color scheme:	Lightblue 🗸
Button skin:	Variant 1 🗸
Whole variant as spot	
Use custom spots	
Unchecked spot:	
Checked spot:	
Use custom timer color	IS
Border color:	#6666666
Background color:	#9999999
Countdown color:	#00CC66
Attention color:	#FFCC66
Finish color:	#FF0000
	Canaal Aaabu Ulata

On the Display, Button and Texts tabs you can select appearance settings for the object and edit the information and warning messages.

True-False Question	
Question Limitations Button	Scoring Feedback Display Texts Sound
Use custom buttons	
Button type:	HTML button
Submit answer text:	Submit answer
Skip question text:	Skip question
Button size - width:	120 px height: 24 px
	Nomal MouseOver
Border style:	Solid 🗸 Solid 🖌
Border width:	2 px 2 px
Border color:	#6666666 #6666CC
Background color:	#F0F0F0 #F0F0F0
Font:	Arial 🗸 Arial 🗸
Custom font:	
Font size:	12 px 12 px
Font weight:	Nomal 💟 Nomal 💟
Font style:	Normal 💙 Normal 💙
Font color:	#000000 #000000
Text align:	Center 🗸 Center 🗸
ОК	Cancel Apply Help

True-False Question			×	
Question Limitations	Scoring	Feedback Displa	у	
Button	Texts	Sound		
Information	ation messages		_	
Credited:	Credited ques	tion		
Uncredited:	Uncredited qu	lestion		
Attempts:	Attempts:	Attempts:		
Time limit:	Time limit:	Time limit:		
Seconds:	sec.			
Question instruction:	Choose one v	ariant		
Correct answer:	CORRECT AI	NSWER		
Last state:	LAST QUEST	ION STATE		
Skipped:	QUESTION IS	S SKIPPED		
Skipped and failed:	QUESTION IS	S SKIPPED AND FAILED		
Wamir	ng messages —		-	
Continued question:	Continued app	proach		
Finished question:	This question	is already answered. Rec		
Recurring approach:	This question	is already answered. Pres		
Skip and fail confirm:	Skipped ques	tion will be treated failed.		
ОК	Cancel	Apply Help		

True-False Question			X
Question Limitations Button	Scoring Texts	Feedback So	Display
Use sound effects			
Events with sound:	Mouseover	and click	~
Mouseover sound:	Standard 1		~
Sound file:			
Click sound:	Standard 1		~
Sound file:			
Failure sound:	Standard 1		~
Sound file:			
Success sound:	Standard 1		~
Sound file:			
ОК Са	ncel	Apply	Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Question Start	The question is fully loaded and all elements of the question are displayed
on Change Selection	User changes selected item
on Attempt	At the moment of answer acceptance, but before answer evaluation

on Success	At the moment of answer evaluation, in case the answer is correct.
on Failure	At the moment of answer evaluation, in case the answer is incorrect.
on Time Out	At the moment of time expiration for the answer (if defined)
on Question Skipped	After "Skip Question" button is pressed
on Question End	After answer is evaluated and no more attempts left (on timeout or on attempts limit)

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
questionMode	Returns current question mode (tokens: "normal", "review").	\$ <mark>OBJ_ID</mark> .questionMode
questionType	"truefalse"	\$ <mark>OBJ_ID</mark> .questionType
questionDuration	Returns allowed question duration in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionDuration
questionTimer	Returns current question timer value in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionTimer
questionValue	Returns current question value (string values -" true" or "false").	\$ <mark>OBJ_ID</mark> .questionValue
attemptsLast	Returns current number of attempts left.	\$ <mark>OBJ_ID</mark> .attemptsLast

5.3.4.2 Single choice

Single Choice Question object enables user to choose one correct item from a list of possible answers.

LIMITATION: No more than one question on the Slide is recommended.

Example of object appearance:

Question is scored
Meow is the cry of
Select correct variant
◯ Cat
O Cow
O Dog
Sheep
SUBMIT ANSWER Attempts: 3
Question time limit: 3 sec

Object parameters

Single Choice	Question			
Button		Texts		Sound
Question	Limitations	Scoring	Feedback	Display
Question tex	t:	Meow is the	cry of	
Variants:			+	• • •
Variant	Com	ect variant	Weight***	
Cat Cow Dog Sheep	yes no no ariants on displa eight is used on ied	y ly if correspon	1 1 1 ding scoring	
	ок	Cancel	Apply	Help

To input **question's text**, press "TE" button of the corresponding field. The format of input area is RichText, therefore all font settings (size, color, and style) will be saved as you type the text in.

Use "+" button to specify **possible answers** as many as needed. In the opened sub-dialog screen press "TE" button of the corresponding field and insert text of the possible answer. Select checkbox for correct answer.

LIMITATION: No more than one answer should be marked as the correct, otherwise result will be incorrect.

Select "Shuffle variants on display" check box in case you want answers to be displayed in **random order**. Otherwise, answers will be displayed in order they were inserted. Use "Up" and "Down" arrows to change order.

Single Choice Question			
Button	Texts	Seedback	Display
Set number of attempts au Number of attempts:	itomatically		
Limit time for the answer			
Time limit (sec):	10		
Allow skip question Skipped question is:	⊖just skip ⊚failed	ped	
Allow recurring approache	s		
On recurring approach:	Display co	nfim	~
 Display completed question Display continued question 	n message n message		
ОК Са	ncel	Apply	Help

Use "Limitations" tab to set the following restrictions:

- Number of attempts. In case number of attempts is not supposed to be defined automatically (i.e. checkbox "Define automatically" is not checked), "Number of Attempts" field is available for input. There you can specify the number with respect to the level of question complexity or testing methodology. The following formula is used for Automatic attempts calculation: number of attempts equals to number of possible answers minus one (for example, 3 attempts for question with 4 answers, 4 attempts for questions with 5 answers and so on). In case automatic attempts calculation is selected, the number specified in the "Number of Attempts" field is ignored.
- 2. **Time limit for the answer**. Upon time expiration user will be restricted to make further answer selections, and the question will be validated for correctness even if "Submit Answer" button is not pressed. If the correct answer is chosen just before time expiration, it will be credited to the user.
- 3. Possibility to skip the question. In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as skipped (with opportunity to provide the answer later) or counted as failed (without a chance for another attempt).
- 4. Possibility to reset stored result and answer the question once again (recurring approaches).

Single Choice Question			
Button Question Limitations	Texts Scoring	So Feedback	Display
Credit question			
Scoring type:	Weights	by objectives**	~
Weight of question/attempt:	1		
Crediting method:	 fixed regres 	sive	
Question objectives:		÷ = ÷	۰ 😭 ب
Objective	Weight**		
total	1		
Display question maximum	n score pane		
* Weight of 1 attempt for regre	ssive method		
** Weight for every objective m	nust be set		
*** Weight for every variant mu	ist be set		
ОК Са	ancel	Apply	Help

Use "Score" tab to specify scoring parameters for the question. The essential CheckBox is "Credit Question". In case it is not marked, all other scoring parameters are disabled, therefore they will be ignored when presenting question to the user. Such questions are referred as **not credited** questions. These questions are frequently used to prepare the user for the next Slide Topic, to keep the user focused, and so forth. In case of the **credited** question the following options are available:

- 1. **Scoring type**. There are 3 options for this question type:
 - Question weight in case of correct answer, question weight will be placed in all question objectives.
 - Weight by objective in case of correct answer, different weight will be placed to each objective (according to weight in objective list).
 - Variant weight in case of correct answer, weight of variant will be placed to all objectives (for question with no correct answer only).

- 2. Weight of question/attempt base for calculating score.
- 3. The following **crediting methods** can be used:
 - **Fixed** (Upon the correct response user gets the same score regardless the number of attempts. This score is equal to the base weight)
 - Regression method (In this case user is getting the highest possible score for providing the correct answer from the first try; the number of points is decreasing on the second try and so forth, until all tries are used). The maximum number of points in this case is equal to the base number of points multiplied by the number of attempts. Regression method enables more accurate performance evaluation but requires applying additional requirements to question parameters. It is important that number of tries for this method should not exceed the automatically calculated one (which is number of possible answers minus one), otherwise regression method will become ineffective.
- 4. Possibility to skip the question. In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as skipped (with opportunity to provide the answer later) or counted as failed (without a chance for another attempt).

Single Choice Question				×
Button	Texts		s	ound
Question Limitations	Scorir	ng	Feedback	Display
Display correct answ	er essages —			Prev
Correct answer:	Correct	t		
Incorrect answer:	Incorre	ct		
No more attempts:	No mo	re attemr	ots left	
Timeout:	Time is			
Offeet becievetel	Time is			
Offset nonzontal:	100	px		
Offset vertical:	50	рх		
Feedback box width:	250	рх		
Hide feedback autor	matically —			
after	3	sec.		
Backgroun	Borde	r	Button	
Corr.: #E0FFE0	#339	933	#33993	33
Incorr.: #FFE0E0	#FF6	666	#FF66	66
Attmpts: #FFE0E0	#FF6	666	#FF66	6
Timeout: #FFF0F0		666		
ОК	Cancel		Apply	Help

Use "Feedback" tab to specify feedback options, which define what shall be displayed upon another attempt to respond (correct or incorrect) and after completing the question.

You may permit the **display of correct answer** upon question completion by marking corresponding check box. If student has used off all the attempts for response, or if the time has expired then the correct answer will be displayed; user will not be credited for this answer. This option may be used when the main objective of the question is educating rather than testing.

You may permit or restrict the **feedback messages**. You can modify the text of feedback messages, which is in RichText format. **Feedback messages** are displayed in the separate small window during Module play back. You can modify **display coordinates** for this window (the coordinates are given relative to the object's upper left corner - horizontal and vertical offsets).

Question Limitation	-	
Guestion	Texts Scoring Feedbac	Sound Display
		·
Skin:	Basic	*
Color scheme:	Lightblue	*
Button skin:	Variant 1	~
Use custom timer	colors	
Border color:	#666666	
Background color:	#999999	
Countdown color:	#00CC66	
Attention color:	#FFCC66	
Finish color:	#FF0000	
Unchecked spot: Checked spot:	l	

On the Display, Button and Texts tabs you can select appearance settings for the object and edit the information and warning messages.

Single Choice Question		
Question Limitations Button	Scoring Feedback Display Texts Sound	
Use custom buttons -		
Button type:	HTML button	
Submit answer text:	Submit answer	
Skip question text:	Skip question	
Button size - width:	120 px height: 24 px	
	Nomal MouseOver	
Border style:	Solid 🗸 Solid 🗸	
Border width:	2 px 2 px	
Border color:	#6666666 #6666CC	
Background color:	#F0F0F0 #F0F0F0	
Font:	Arial 🗸 Arial	
Custom font:		
Font size:	12 px 12 px	
Font weight:	Normal 🗸 Normal 🗸	
Font style:	Normal 🗸 Normal 🗸	
Font color:	#000000 #000000	
Text align:	Center 🔽 Center 🔽	
OK Cancel Apply Help		

In capito indipanti antabasino, thoreas, and pan fair topostapi, reporting and an gales. Highling, its mean yaman in teams date a spear parameters.

Single Choice Question			X
Question Limitations	Scoring	Feedback	Display
Button	Texts	Sou	und
Use sound effects			
Events with sound:	Mouseover	and click	~
Mouseover sound:	Standard 1		~
Sound file:			
Click sound:	Standard 1		~
Sound file:			
Failure sound:	Standard 1		~
Sound file:			
Success sound:	Standard 1		~
Sound file:			
OK Car	ncel	Apply	Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Question Start	The question is fully loaded and all elements of the question are displayed
on Change Selection	User changes selected item
on Attempt	At the moment of answer acceptance, but before answer evaluation
---------------------	---
on Success	At the moment of answer evaluation, in case the answer is correct.
on Failure	At the moment of answer evaluation, in case the answer is incorrect.
on Time Out	At the moment of time expiration for the answer (if defined)
on Attempts Limit	After answer evaluated, in case the number of attempts decreased to zero.
on Question Skipped	After "Skip Question" button is pressed
on Question End	After answer is evaluated and no more attempts left (on timeout or on attempts limit)

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
questionMode	Returns current question mode (tokens: "normal", "review").	\$ <mark>OBJ_ID</mark> .questionMode
questionType	"choice"	\$ <mark>OBJ_ID</mark> .questionType
questionDuration	Returns allowed question duration in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionDuration
questionTimer	Returns current question timer value in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionTimer
itemQuantity	Returns total variants quantity.	\$ <mark>OBJ_ID</mark> .itemQuantity
questionValue	Returns current question value (spot values divided by "~": for example, "0~1~0~0" - 0 corresponds to empty spot, 1 - to checked spot). Note, that the order of spots is always as it was defined in object - no matter shuffled or not.	\$OBJ_ID.questionValue
attemptsLast	Returns current number of attempts left.	\$ <mark>OBJ_ID</mark> .attemptsLast
attemptsTotal	Returns allowed number of attempts.	\$ <mark>OBJ_ID</mark> .attemptsTotal

5.3.4.3 Multiple select

Multiple Select Question object enables user to choose one or several correct items from a list of possible answers.

LIMITATION: No more than one Test on the Slide is recommended.

Example of object appearance:

Question is scored
Which states are in North America?
Select all correct variants
Arizona
V Alaska
Hawaii
Visconsin
SUBMIT ANSWER Attempts: 3
Question time limit: 3 sec

Object parameters

Multiple Selec	ct Question			×
Button	Limitations	Texts	Feedback	Sound Display
Question text	:	Which state:	s are in North A	merica TE
Variants:			+ -	e 🗣 😭
Variant	Com	ect variant	Weight***	
Alaska Arizona Hawaii Visconsin	yes yes no yes		1 1 1	_
Shuffle va	ariants on displa eight is used on ed	y ly if correspon	iding scoring	
	ок	Cancel	Apply	Help

To input **question's text**, press "TE" button of the corresponding field. The format of input area is RichText, therefore all font settings (size, color, and style) will be saved as you type the text in.

Use "+" button to specify **possible answers** as many as needed. In the opened sub-dialog screen press "TE" button of the corresponding field and insert text of the possible answer. Select checkbox for correct answer.

Select "Shuffle variants on display" check box in case you want answers to be displayed in **random order**. Otherwise, answers will be displayed in order they were inserted. Use "Up" and "Down" arrows to change order.

Multiple Select Question			×
Button	Texts	So	ound
Question Limitations	Scoring F	eedback	Display
Set number of attempts a	utomatically —		
Number of attempts:	1		
Limit time for the answer			
Time limit (sec):	10		
Allow skip question			
Skipped question is:	◯ just skipped		
Allow recurring approache	es		
On recurring approach:	Display confirm	1	~
 ✓ Display completed question ✓ Display continued question 	on message on message		
ОК Са	ancel A	pply	Help

Use "Limitations" tab to set the following restrictions:

- Number of attempts. In case number of attempts is not supposed to be defined automatically (i.e. checkbox "Define automatically" is not checked), "Number of Attempts" field is available for input. There you can specify the number with respect to the level of question complexity or testing methodology. The following formula is used for Automatic attempts calculation: number of attempts equals to number of possible answers minus one (for example, 3 attempts for question with 4 answers, 4 attempts for questions with 5 answers and so on). In case automatic attempts calculation is selected, the number specified in the "Number of Attempts" field is ignored.
- 2. **Time limit for the answer**. Upon time expiration user will be restricted to make further answer selections, and the question will be validated for correctness even if "Submit Answer" button is not pressed. If the correct answer is chosen just before time expiration, it will be credited to the user.
- Possibility to skip the question. In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as skipped (with opportunity to provide the answer later) or counted as failed (without a chance for another attempt).
- 4. Possibility to reset stored result and answer the question once again (recurring approaches).

Multiple Select Question
Button Texts Sound Question Limitations Scoring Feedback Display
✓ Credit question Scoring type: Weight of question (attempt)' ✓ Weight of question/attempt: 1 Crediting method: fixed regressive Question objectives: Objective Weight **
total 1
Display question maximum score pane Weight of 1 attempt for regressive method Weight for every objective must be set
*** Weight for every variant must be set
OK Cancel Apply Help

Use "Score" tab to specify scoring parameters for the question. The essential CheckBox is "Credit Question". In case it is not marked, all other scoring parameters are disabled, therefore they will be ignored when presenting question to the user. Such questions are referred as **not credited** questions. These questions are frequently used to prepare the user for the next Slide Topic, to keep the user focused, and so forth.

In case of the **credited** question the following options are available:

1. Scoring type:

- Question weight in case of correct answer, question weight will be placed in all question objectives.
- Weight by objective in case of correct answer, different weight will be placed to each objective (according to weight in objective list).
- Sum of variant weights sum of all selected variant weights will be placed to all objectives (for question with no correct answer only).

- Max of variant weights maximal weight of all selected variant weights will be placed to all objectives (for question with no correct answer only).
- Min of variant weights minimum of all selected variant weights will be placed to all objectives (for question with no correct answer only).
- Avg of variant weights average of all selected variant weights will be placed to all objectives (for question with no correct answer only).
- Avg of all variant weights sum of all selected variant weights regarding full number of variants will be placed to all objectives (for question with no correct answer only).
- Base weight of a question/attempt base number of points for the question (or attempt for regression method). This number is used to calculate the Total score for the question. If fixed crediting method is used, the base weight of question equals the total score.
- 3. The following **crediting methods** can be used:
 - **Fixed** (Upon the correct response user gets the same score regardless the number of attempts. This score is equal to the base weight)
 - Regression method (In this case user is getting the highest possible score for providing the correct answer from the first try; the number of points is decreasing on the second try and so forth, until all tries are used). The maximum number of points in this case is equal to the base number of points multiplied by the number of attempts. Regression method enables more accurate performance evaluation but requires applying additional requirements to question parameters. It is important that number of tries for this method should not exceed the automatically calculated one (which is number of possible answers minus one), otherwise regression method will become ineffective.
- 4. Possibility to skip the question. In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as skipped (with opportunity to provide the answer later) or counted as failed (without a chance for another attempt).

Multiple Sele	ect Question			×
Buttor	1	Texts	9	Sound
Question	Limitations	Scoring	Feedback	Display
Display	r correct answer	ages ———		Prev
Correct an	swer:	Correct		TE 🗆
Incorrect a	answer:	Incorrect		
No more a	ttempts:	No more atte	empts left	
Timeout		Time is out		
Offeet here		100		
Offset non	zontal:	100 px		
Offset vert	ical:	50 px		
Feedback	box width:	250 рх		
Hide fe	edback automat	tically		
	after	3 se	с.	
	Backgroun	Border	Button	
Corr.:	#EOFFE0 .	#339933	#3399	33
Incorr.:	#FFE0E0 .	#FF6666	#FF66	66
Attmpts:	#FFE0E0	#FF6666	#FF66	66
Timeout:	#FFE0E0	#FF66666	#FF66	
	ок	Cancel	Apply	Help

Use "Feedback" tab to specify feedback options, which define what shall be displayed upon another attempt to respond (correct or incorrect) and after completing the question.

You may permit the **display of correct answer** upon question completion by marking corresponding check box. If student has used off all the attempts for response, or if the time has expired then the correct answer will be displayed; user will not be credited for this answer. This option may be used when the main objective of the question is educating rather than testing.

You may permit or restrict the **feedback messages**. You can modify the text of feedback messages, which is in RichText format. **Feedback messages** are displayed in the separate small window during Module play back. You can modify **display coordinates** for this window (the coordinates are given relative to the object's upper left corner) Note, that there is a check box displayed next to every Edit button for the text feedback; it enables to turn On/Off display of feedback messages in CourseLab Editor. By default, all check boxes are empty to avoid overloading the question Object with too many details.

ultiple Select Question			
Button	Texts	Sound	d
Question Limitations	Scoring	Feedback	Display
Skin:	Basic		*
Color scheme:	Lightblue		*
Button skin:	Variant 1		~
Use custom timer colo	rs		
Border color:	#666666		
Background color:	#999999		
Countdown color:	#00CC66		
Attention color:	#FFCC66		
Finish color:	#FF0000 .		
Unchecked spot:]
ОК	Cancel	Apply	Help

On the Display, Button and Texts tabs you can select appearance settings for the object and edit the information and warning messages.

Multiple Select Question	. 🔀
Question Limitations Button	Scoring Feedback Display Texts Sound
Use custom buttons -	
Button type:	HTML button
Submit answer text:	Submit answer
Skip question text:	Skip question
Button size - width:	120 px height: 24 px
	Nomal MouseOver
Border style:	Solid 💙 Solid 💙
Border width:	2 px 2 px
Border color:	#6666666 #6666CC
Background color:	#FOFOFO #FOFOFO
Font:	Arial 🗸 Arial
Custom font:	
Font size:	12 px 12 px
Font weight:	Nomal 💙 Nomal 🗸
Font style:	Nomal 💙 Nomal 💙
Font color:	#000000 #000000
Text align:	Center 💙 Center 🗸
ОК	Cancel Apply Help

In capito indipanti antabasino, thoreas, and pan fair topostapi, reporting and an gales. Highling, its mean yassant in basine date a spear parameters.

Multiple Select Question			X
Question Limitations Button	Scoring Texts	Feedback	Display nd
Use sound effects			
Events with sound:	Mouseover	and click	*
Mouseover sound:	Standard 1		~
Sound file:			
Click sound:	Standard 1		~
Sound file:			
Failure sound:	Standard 1		~
Sound file:			
Success sound:	Standard 1		~
Sound file:			
OK Car	ncel	Apply	Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Question Start	The question is fully loaded and all elements of the question are displayed
on Change Selection	User changes selected item

on Attempt	At the moment of answer acceptance, but before answer evaluation
on Success	At the moment of answer evaluation, in case the answer is correct.
on Failure	At the moment of answer evaluation, in case the answer is incorrect.
on Time Out	At the moment of time expiration for the answer (if defined)
on Attempts Limit	After answer evaluated, in case the number of attempts decreased to zero.
on Question Skipped	After "Skip Question" button is pressed
on Question End	After answer is evaluated and no more attempts left (on timeout or on attempts limit)

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
questionMode	Returns current question mode (tokens: "normal", "review").	\$ <mark>OBJ_ID</mark> .questionMode
questionType	"select"	\$ <mark>OBJ_ID</mark> .questionType
questionDuration	Returns allowed question duration in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionDuration
questionTimer	Returns current question timer value in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionTimer
itemQuantity	Returns total variants quantity.	\$ <mark>OBJ_ID</mark> .itemQuantity
questionValue	Returns current question value (spot values divided by "~": for example, "0~1~1~0" - 0 corresponds to empty spot, 1 - to checked spot). Note, that the order of spots is always as it was defined in object - no matter shuffled or not.	\$OBJ_ID.questionValue
attemptsLast	Returns current number of attempts left.	\$ <mark>OBJ_ID</mark> .attemptsLast
attemptsTotal	Returns allowed number of attempts.	\$ <mark>OBJ_ID</mark> .attemptsTotal

5.3.4.4 Ordered items

Ordered Items types of questions require from the user to specify the right order of presented items.

LIMITATION: No more than one question on the Slide is recommended.

Example of object appearance:

Question is scored			
How to make coffee espresso?			
Place variants in correct order			
 Enjoy the taste of fresh espresso 			
Grind coffee beans			
Turn espresso machine on			
Place ground coffee in espresso machine			
Attempts: 3			
Question time limit: 15 sec			

Object parameters

Ordering Que	estion				
Button	Limitations	Texts Scoring	Sou Feedback	und Display	
Question tex	t:	How to make	coffee espresso?		
Variants:			+ - +	۰ 😭 🔸	
Variant			Weight***		
Enjoy the taste of fresh espresso *** Variant weight is used only if corresponding scoring type is selected					
	ок	Cancel	Apply	Help	

To input **question's text**, press "TE" button of the corresponding field. The format of input area is RichText, therefore all font settings (size, color, and style) will be saved as you type the text in.

Use "+" button to specify **possible answers** as many as needed. In the opened sub-dialog screen press "TE" button of the corresponding field and insert text of the variant.

Note, that for this type of question the correct Order of Items will be the **order specified by author**. Question items are ALWAYS presented randomly to the user. Use "Up" and "Down" arrows to change items order.

Ordering Question			×
Button	Texts	S	ound
Question Limitations	Scoring	Feedback	Display
Set number of attempts a	utomatically		
Number of attempts:	1		
Limit time for the answer			
Time limit (sec):	10		
Allow skip question			
Skipped question is:) just skip	ped	
	(e) falled		
Allow recurring approach	es		
On recurring approach:	Display co	nfim	~
 Display completed question Display continued question 	on message on message		
ОКСС	ancel	Apply	Help

Use "Limitations" tab to set the following restrictions:

- Number of attempts. In case number of attempts is not supposed to be defined automatically (i.e. checkbox "Define automatically" is not checked), "Number of Attempts" field is available for input. There you can specify the number with respect to the level of question complexity or testing methodology. The following formula is used for Automatic attempts calculation: number of attempts equals to number of possible answers minus one (for example, 3 attempts for question with 4 answers, 4 attempts for questions with 5 answers and so on). In case automatic attempts calculation is selected, the number specified in the "Number of Attempts" field is ignored.
- 2. **Time limit for the answer**. Upon time expiration user will be restricted to make further answer selections, and the question will be validated for correctness even if "Submit Answer" button is not pressed. If the correct answer is chosen just before time expiration, it will be credited to the user.
- 3. Possibility to skip the question. In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as skipped (with opportunity to provide the answer later) or counted as failed (without a chance for another attempt).
- 4. Possibility to reset stored result and answer the question once again (recurring approaches).

Ordering Question	K
Button Texts Sound	ļ
Question Limitations Sconng Feedback Display	4
Credit question	
Scoring type: Weight of question (attempt)	
Weight of question/attempt: 1	
Crediting method: fixed	
total 1	
Display question maximum score pane	
* Weight of 1 attempt for regressive method	
** Weight for every objective must be set	
""" Weight for every variant must be set	
OK Cancel Apply Help	

Use "Score" tab to specify scoring parameters for the question. The essential CheckBox is "Credit Question". In case it is not marked, all other scoring parameters are disabled, therefore they will be ignored when presenting question to the user. Such questions are referred as **not credited** questions. These questions are frequently used to prepare the user for the next Slide Topic, to keep the user focused, and so forth.

In case of the **credited** question the following options are available:

1. Scoring type:

- Question weight in case of correct answer, question weight will be placed in all question objectives.
- Weight by objective in case of correct answer, different weight will be placed to each objective (according to weight in objective list).
- Sum of variant weights sum of all selected variant weights will be placed to all objectives (for question with no correct answer only).

- Max of variant weights maximal weight of all selected variant weights will be placed to all objectives (for question with no correct answer only).
- Min of variant weights minimum of all selected variant weights will be placed to all objectives (for question with no correct answer only).
- Avg of variant weights average of all selected variant weights will be placed to all objectives (for question with no correct answer only).
- Avg of all variant weights sum of all selected variant weights regarding full number of variants will be placed to all objectives (for question with no correct answer only).
- Base weight of a question/attempt base number of points for the question (or attempt for regression method). This number is used to calculate the Total score for the question. If fixed crediting method is used, the base weight of question equals the total score.
- 3. The following **crediting methods** can be used:
 - **Fixed** (Upon the correct response user gets the same score regardless the number of attempts. This score is equal to the base weight)
 - Regression method (In this case user is getting the highest possible score for providing the correct answer from the first try; the number of points is decreasing on the second try and so forth, until all tries are used). The maximum number of points in this case is equal to the base number of points multiplied by the number of attempts. Regression method enables more accurate performance evaluation but requires applying additional requirements to question parameters. It is important that number of tries for this method should not exceed the automatically calculated one (which is number of possible answers minus one), otherwise regression method will become ineffective.
- 4. Possibility to skip the question. In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as skipped (with opportunity to provide the answer later) or counted as failed (without a chance for another attempt).

Ordering Question				
Buttor	1	Texts	So	und
Question	Limitations	Scoring	Feedback	Display
Display	/ correct answer / feedback messa	ages		- Prev
Correct an	swer:	Correct	[
Incorrect a	answer:	Incorrect	[
No more a	ttempts:	No more atter	mpts left	
Timeout:		Time is out	1	
Offset hori	zontal:	100 px		_
Offset vert	ical:	50 px		
Feedback	box width:	250 px		
Hide fe	edback automat	ically		
	after	3 sec	i.	
	Backgroun	Border	Button	
Corr.:	#EOFFE0 .		#339933	
Incorr.:	#FFE0E0	#FF6666	#FF6666	
Attmpts:	#FFE0E0	#FF6666	#FF6666	
Timeout:	#FFE0E0	#FF6666	#FF6666	
	OK	Cancel	Apply	Halp
			1949	Ticip

Use "Feedback" tab to specify feedback options, which define what shall be displayed upon another attempt to respond (correct or incorrect) and after completing the question.

You may permit the **display of correct answer** upon question completion by marking corresponding check box. If student has used off all the attempts for response, or if the time has expired then the correct answer will be displayed; user will not be credited for this answer. This option may be used when the main objective of the question is educating rather than testing.

You may permit or restrict the **feedback messages**. You can modify the text of feedback messages, which is in RichText format. **Feedback messages** are displayed in the separate small window during Module play back. You can modify **display coordinates** for this window (the coordinates are given relative to the object's upper left corner) Note, that there is a check box displayed next to every Edit button for the text feedback; it enables to turn On/Off display of feedback messages in CourseLab Editor. By default, all check boxes are empty to avoid overloading the question Object with too many details.

Button Texts Sound Question Limitations Scoring Feedback Display Skin: Basic Color scheme: Lightblue Use custom timer colors Border color: #6666666 Background color: #999999 Countdown color: #00CC66 Attention color: #FFCC66 Finish color: #FF0000 Up normal: Down normal: Down disabled:	Button Texts Sound Question Limitations Scoring Feedback Display Skin: Basic Imitations Imitations Imitations Imitations Skin: Basic Imitations Imitations <td< th=""><th>dering Question</th><th></th><th></th><th></th></td<>	dering Question			
Question Limitations Scoring Feedback Display Skin: Basic • Color scheme: Lightblue • Use custom timer colors • Border color: #6666666 • Background color: #9999999 • Countdown color: #00CC66 • Attention color: #FFCC66 • Finish color: #FF0000 • Up normal: • • Down normal: • • Down disabled: • •	Question Limitations Scoring Feedback Display Skin: Basic • Color scheme: Lightblue • Use custom timer colors • Border color: #6666666 • Background color: #999999 • Countdown color: #00CC66 • Attention color: #FFCC66 • Finish color: #FF0000 • Up normal: • • Down normal: • • Down disabled: • •	Button	Texts	S	ound
Skin: Basic Color scheme: Lightblue Color scheme: Lightblue Use custom timer colors Border color: #6666666 Background color: #9999999 Countdown color: #900CC66 Attention color: #FFCC66 Finish color: #FF0000 Use custom spots Up normal: Up disabled: Down normal:	Skin: Basic Color scheme: Lightblue Ouse custom timer colors Border color: #6666666 Background color: #999999 Countdown color: #00CC66 Attention color: #FFCC66 Finish color: #FF0000 Up normal: Up disabled: Down normal: Down disabled:	Question Limitations	Scoring	Feedback	Display
Color scheme: Lightblue Use custom timer colors Border color: #6666666 Background color: #9999999 Countdown color: #00CC66 Attention color: #FFCC66 Finish color: #FF0000 Up normal: Up disabled: Down normal:	Color scheme: Lightblue	Skin:	Basic		*
Use custom timer colors Border color: #6666666 Background color: #999999 Countdown color: #00CC66 Attention color: #FFCC66 Finish color: #FF0000	Use custom timer colors Border color: #666666 Background color: #999999 Countdown color: #00CC66 Attention color: #FFCC66 Finish color: #FF0000 Up normal: Up disabled: Down normal: Down disabled:	Color scheme:	Lightblue		*
Border color: #6666666 Background color: #9999999 Countdown color: #00CC66 Attention color: #FFCC66 Finish color: #FF0000 Use custom spots Up normal: Down normal: Down disabled:	Border color: #6666666 Background color: #9999999 Countdown color: #00CC66 Attention color: #FFCC66 Finish color: #FF0000 Use custom spots Up normal: Up disabled: Down normal: Down disabled:				
Background color: #9999999 Countdown color: #00CC66 Attention color: #FFCC66 Finish color: #FF0000 Use custom spots Up normal: Up disabled: Down normal: Down disabled:	Background color: #9999999 Countdown color: #00CC66 Attention color: #FFCC66 Finish color: #FF0000 Up normal: Up disabled: Down normal: Down disabled:	Border color:	#666666		
Countdown color: #00CC66 Attention color: #FFCC66 Finish color: #FF0000	Countdown color: #00CC66 Attention color: #FFCC66 Finish color: #FF0000 Use custom spots Up normal: Up disabled: Down normal: Down disabled:	Background color:	#999999		
Attention color: #FFCC66 Finish color: #FF0000 Use custom spots Up normal: Up disabled: Down normal: Down disabled:	Attention color: #FFCC66 Finish color: #FF0000 Up normal: Up disabled: Down normal: Down disabled:	Countdown color:	#00CC66		
Finish color: #FF0000 Up normal: Up disabled: Down normal: Down disabled:	Finish color: Up normal: Up disabled: Down normal: Down disabled:	Attention color:	#FFCC66		
Up normal:	Use custom spots Up normal: Up disabled: Down normal: Down disabled:	Finish color:	#FF0000		
Up disabled:	Up disabled:	Use custom spots			
Down normal:	Down normal:	Up disabled:			
Down disabled:	Down disabled:	Down normal:			
		Down disabled:			
		ОК	Cancel	Apply	Help

On the Display, Button and Texts tabs you can select appearance settings for the object and edit the information and warning messages.

Ordering Question	Σ		
Question Limitations Button	Scoring Feedback Display Texts Sound		
Use custom buttons			
Button type:	HTML button		
Submit answer text: Submit answer			
Skip question text:	Skip question		
Button size - width:	120 px height: 24 px		
	Nomal MouseOver		
Border style:	Solid 🗸 Solid 🗸		
Border width:	2 px 2 px		
Border color:	#6666666 #6666CC		
Background color:	#F0F0F0 #F0F0F0		
Font:	Arial 🗸 Arial 🗸		
Custom font:			
Font size:	12 px 12 px		
Font weight:	Nomal 🗸 Nomal 🗸		
Font style:	Nomal 🗸 Nomal 🗸		
Font color:	#000000 #000000		
Text align:	Center 🗸 Center 🗸		
OK Cancel Apply Help			

In capito indipanti antabasino, thoreas, and pan fair topostapi, reporting and an gales. Highling, its mean yassant in basine date a spear parameters.

Ordering Question			
Question Limitations	Scoring	Feedback	Display
Button	Texts	Sou	Ind
Use sound effects			
Events with sound:	Mouseover	and click	~
Mouseover sound:	Standard 1		~
Sound file:			
Click sound:	Standard 1		~
Sound file:			
Failure sound:	Standard 1		~
Sound file:			
Success sound:	Standard 1		~
Sound file:			
OK Car	ncel	Apply	Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Question Start	The question is fully loaded and all elements of the question are displayed
on Item Moved	User moves any item

on Attempt	At the moment of answer acceptance, but before answer evaluation
on Success	At the moment of answer evaluation, in case the answer is correct.
on Failure	At the moment of answer evaluation, in case the answer is incorrect.
on Time Out	At the moment of time expiration for the answer (if defined)
on Attempts Limit	After answer evaluated, in case the number of attempts decreased to zero.
on Question Skipped	After "Skip Question" button is pressed
on Question End	After answer is evaluated and no more attempts left (on timeout or on attempts limit)

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
questionMode	Returns current question mode (tokens: "normal", "review").	\$ <mark>OBJ_ID</mark> .questionMode
questionType	"range"	\$ <mark>OBJ_ID</mark> .questionType
questionDuration	Returns allowed question duration in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionDuration
questionTimer	Returns current question timer value in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionTimer
itemQuantity	Returns total variants quantity.	\$ <mark>OBJ_ID</mark> .itemQuantity
questionValue	Returns current question item order (spot numbers starting from 0 divided by "~": for example, "3~1~0~2" - "0~1~2~3" in this case corresponds to correct order).	\$OBJ_ID.questionValue
attemptsLast	Returns current number of attempts left.	\$ <mark>OBJ_ID</mark> .attemptsLast
attemptsTotal	Returns allowed number of attempts.	\$ <mark>OBJ_ID</mark> .attemptsTotal

5.3.4.5 Numerical fill-in-blank

Numerical fill-in-Blank Questions require from the user to enter the correct number into the answer field using keyboard.

LIMITATION: No more than one question on the Slide is recommended.

Example of object appearance:

Question is scored			
How many stars are on the flag of USA?			
Enter numeric value			
Hint: how many states you know? 50			
SUBMIT ANSWER Attempts: 1			
Question time limit: 6 sec			

Object parameters

Numeric Fill-I	n-Blank Qu	estion		
Button		Texts	So	und
Question	Limitations	Scoring	Feedback	Display
Question text:	How many s	tars are on the f	lag of USA?	TE
Variants:			+ - +	۰ 😭
Explanation		Max.size		
		10		
C	ж (Cancel	Apply	Help

To input **question's text**, press "TE" button of the corresponding field. The format of input area is RichText, therefore all font settings (size, color, and style) will be saved as you type the text in.

Specify the **approximate length** of the entry field in symbols. We recommend allowing some extra space for that purpose. For example, if desired answer is 3.224 then the field size is 5 symbols (including decimal point). We recommend using double size of the desired length (4 symbols in this example) so that user does not get a hint about the correct answer.

If necessary, enter **description** message for the answer field. Description message appears to the left of the answer field and may contain for example, units of measure for the answer.

Specify **conditions for the correct answer.** Use "+" menu button to add conditions to the list of conditions menu as many as needed. In the opened sub-dialog screen fill in the list of conditions for validating an answer. In the simple case only single condition is used (for example, when entered answer must exactly match some number).

In case you need to specify the interval of numbers (for example when the answer should be the number in the range of 7 to 8) you should specify two conditions: a) greater than 7 b) less than 8. Therefore any number in the range of 7 to 8 (excluding 7 and 8 otherwise different conditions should be used: greater or equal to 7 AND less or equal to 8) will be treated as correct answer.

IMPORTANT! When user's response is checked, there is no difference whether comma or dot symbols are used as a decimal separator. However, for specifying the correct answer in CourseLab editor, it is recommended to use decimal POINT.

Numeric Fill-In-Blank Question				
Button	Texts	S	ound	
Question Limitations	Scoring	Feedback	Display	
Number of attempts:	1			
Limit time for the answer				
Time limit (sec):	10			
Allow skip question				
Skipped question is:) just skir	ped		
	 failed 			
Allow recurring approach	es	unfirm		
 Display completed question message Display continued question message 				
ОКС	ancel	Apply	Help	

Use "Limitations" tab to set the following restrictions:

1. **Number of attempts**. "Number of Attempts" field is always available for input (there is no automatic attempts calculation rule). There you can specify the number of answer attempts with respect to the level of question complexity or testing methodology.

- 2. **Time limit for the answer**. Upon time expiration user will be restricted to make further answer selections, and the question will be validated for correctness even if "Submit Answer" button is not pressed. If the correct answer is chosen just before time expiration, it will be credited to the user.
- 3. Possibility to skip the question. In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as skipped (with opportunity to provide the answer later) or counted as failed (without a chance for another attempt).
- 4. Possibility to reset stored result and answer the question once again (recurring approaches).

Numeric Fill-In-Blank Question				
Button Texts Sound				
Question Limitations Scoring Feedback Disp	ay			
Credit question				
Scoring type: Weight of question (attempt) 🗸				
Weight of question/attempt: 1				
Crediting method: fixed 				
◯ regressive				
Question objectives: 💠 🛥 🛊 😭				
Objective Weight**				
total 1				
Display question maximum score pane				
* Weight of 1 attempt for regressive method				
** Weight for every objective must be set				
OK Cancel Apply Help	,			

Use "Score" tab to specify scoring parameters for the question. The essential CheckBox is "Credit Question". In case it is not marked, all other scoring parameters are disabled, therefore they will be ignored when presenting question to the user. Such questions are referred as **not credited** questions. These questions are frequently used to prepare the user for the next Slide Topic, to keep the user focused, and so forth. In case of the **credited** question the following options are available:

1. Scoring type:

- Question weight in case of correct answer, question weight will be placed in all question objectives.
- Weight by objective in case of correct answer, different weight will be placed to each objective (according to weight in objective list).
- 2. **Base weight of a question/attempt** base number of points for the question (or attempt for regression method). This number is used to calculate the Total score for the question. If fixed crediting method is used, the base weight of question equals the total score.
- 3. The following **crediting methods** can be used:
 - **Fixed** (Upon the correct response user gets the same score regardless the number of attempts. This score is equal to the base weight)
 - Regression method (In this case user is getting the highest possible score for providing the correct answer from the first try; the number of points is decreasing on the second try and so forth, until all tries are used). The maximum number of points in this case is equal to the base number of points multiplied by the number of attempts. Regression method enables more accurate performance evaluation but requires applying additional requirements to question parameters. It is important that number of tries for this method should not exceed the automatically calculated one (which is number of possible answers minus one), otherwise regression method will become ineffective.
- 4. Possibility to skip the question. In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as skipped (with opportunity to provide the answer later) or counted as failed (without a chance for another attempt).

Numeric Fill	-In-Blank Qu	estion		×	
Buttor	1	Texts	9	ound	
Question	Limitations	Scoring	Feedback	Display	
Display	r correct answer r feedback mess	ages ———			
Correct an	swer:	Correct		TE 🗆	
Incorrect a	answer:	Incorrect			
No more a	ttempts:	No more atte	mpts left		
Timeout:		Time is out			
Offset hori	zontal:	100 px			
Offset ver	ical:	50 px			
Easthack	hav width:	250 px			
Feedback	Dox width.	200 px			
Hide fe	Hide feedback automatically				
	arter	3 sec	3.		
	Backgroun	Border	Button		
Corr.:	#EOFFE0 .	#339933	#3399	33	
Incorr.:	#FFE0E0	#FF6666	#FF66	66	
Attmpts:	#FFE0E0 .	#FF6666	#FF66	66	
Timeout:	#FFE0E0 .	#FF6666	#FF66	66	
	ок	Cancel	Apply	Help	

Use "Feedback" tab to specify feedback options, which define what shall be displayed upon another attempt to respond (correct or incorrect) and after completing the question.

You may permit the **display of correct answer** upon question completion by marking corresponding check box. If student has used off all the attempts for response, or if the time has expired then the correct answer will be displayed; user will not be credited for this answer. This option may be used when the main objective of the question is educating rather than testing.

You may permit or restrict the **feedback messages**. You can modify the text of feedback messages, which is in RichText format. **Feedback messages** are displayed in the separate small window during Module play back. You can modify **display coordinates** for this window (the coordinates are given relative to the object's upper left corner) Note, that there is a check box displayed next to every Edit button for the text feedback; it enables to turn On/Off display of feedback messages in CourseLab Editor. By default, all check boxes are empty to avoid overloading the question Object with too many details.

Numeric Fill-In-Blank Qu	lestion		×
Button	Texts		Sound
Question Limitations	Scoring	Feedback	Display
Skin:	Basic		~
Color scheme:	Lightblue		*
Border style:	Solid		~
Border width:	2 px		
Background color:	#FFFFFF]	
Font:	Arial	*	
Font size:	12 px		
Font color:	#000000		
Use custom timer color	rs		
Border color:	#666666		
Background color:	#999999		
Countdown color:	#00CC66		
Attention color:	#FFCC66		
Finish color:	#FF0000		
ОК	Cancel	Apply	Help

On the Display, Button and Texts tabs you can select appearance settings for the object and edit the information and warning messages.

Numeric Fill-In-Blank Q	uestion			
Question Limitations Button	Scoring Feedback Display Texts Sound			
Use custom buttons				
Button type:	HTML button			
Submit answer text:	Submit answer			
Skip question text:	Skip question			
Button size - width:	120 px height: 24 px			
	Nomal MouseOver			
Border style:	Solid 💙 Solid 💙			
Border width:	2 px 2 px			
Border color:	#6666666 #6666CC			
Background color:	#FOFOFO #FOFOFO			
Font:	Arial 🗸 Arial			
Custom font:				
Font size:	12 px 12 px			
Font weight:	Normal 💟 Normal 💟			
Font style:	Normal 💙 Normal 💙			
Font color:	#000000 #000000			
Text align:	Center 🗸 Center 🗸			
OK Cancel <u>A</u> pply Help				

Numeric Fill-In-Blank Question				
Question Limitations Button	Scoring Feedback Display Texts Sound			
Contract				
Credited:	Credited question			
Uncredited:	Uncredited question			
Attempts:	Attempts:			
Time limit:	Time limit:			
Seconds:	sec.			
Question instruction:	Enter numeric value			
Correct answer:	CORRECT ANSWER			
Last state:	LAST QUESTION STATE			
Skipped:	QUESTION IS SKIPPED			
Skipped and failed: QUESTION IS SKIPPED AND FAILED				
Wamir	ng messages			
Continued question:	Continued approach. Number of attempt			
Finished question:	This question is already answered. Rec			
Recurring approach:	This question is already answered. Pres			
Skip and fail confirm:	Skipped question will be treated failed.			
Numbers only:	nly: Please enter only numbers and signs			

Numeric Fill-In-Blank Ques	tion		×
Question Limitations	Scoring	Feedback	Display
Button	Texts	Sou	und
Use sound effects			
Events with sound:	Mouseover	and click	~
Mouseover sound:	Standard 1		~
Sound file:			
Click sound:	Standard 1		~
Sound file:			
Failure sound:	Standard 1		~
Sound file:			
Success sound:	Standard 1		~
Sound file:			
ОК Са	ncel	Apply	Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Question Start	The question is fully loaded and all elements of the question are displayed
on Attempt	At the moment of answer acceptance, but before answer evaluation

on Success	At the moment of answer evaluation, in case the answer is correct.
on Failure	At the moment of answer evaluation, in case the answer is incorrect.
on Time Out	At the moment of time expiration for the answer (if defined)
on Attempts Limit	After answer evaluated, in case the number of attempts decreased to zero.
on Question Skipped	After "Skip Question" button is pressed
on Question End	After answer is evaluated and no more attempts left (on timeout or on attempts limit)

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
questionMode	Returns current question mode (tokens: "normal", "review").	\$ <mark>OBJ_ID</mark> .questionMode
questionType	"numeric"	\$ <mark>OBJ_ID</mark> .questionType
questionDuration	Returns allowed question duration in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionDuration
questionTimer	Returns current question timer value in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionTimer
itemQuantity	Returns total variants quantity.	\$ <mark>OBJ_ID</mark> .itemQuantity
questionValue	Returns current question field value (if there is more than one input field, then returns string: values delimited by "~").	\$ <mark>OBJ_ID</mark> .questionValue
attemptsLast	Returns current number of attempts left.	\$ <mark>OBJ_ID</mark> .attemptsLast
attemptsTotal	Returns allowed number of attempts.	\$ <mark>OBJ_ID</mark> .attemptsTotal

5.3.4.6 Text fill-in-blank

Text Fill-in-Blank types of questions require from the user to fill in the correct answer into the blank spaces using the keyboard. In general, entered text can contain numbers, but when user's response is evaluated numbers are interpreted as text characters rather than numbers.

LIMITATION: No more than one question on the Slide is recommended.

Example of object appearance:

Question is scored					
"Alice in Wonderland" was written by					
Enter text string					
Enter name and surname Lewis Carroll					
SUBMIT ANSWER Attempts: 1					
Question time limit: 3 sec					

Object parameters

Text Fill-In-Blank Question
Button Texts Sound Question Limitations Scoring Feedback Display
Question text: "Alice In Wonderland" was written
Variants: 💠 🛥 🗣 😭
Explanation Max.size
10

To input **question's text**, press "TE" button of the corresponding field. The format of input area is RichText, therefore all font settings (size, color, and style) will be saved as you type the text in.

Specify the **approximate length** of the entry field in symbols. We recommend allowing some extra space for that purpose.

If necessary, enter **description** message for the answer field. Description message appears to the left of the answer field and may contain answer format instructions, for example, "Use capital letter to answer".

Specify **conditions for the correct answer.** Use "+" menu button to add conditions to the list of conditions menu as many as needed. In the opened sub-dialog screen fill in the list of conditions for validating an answer. In the simple case only single condition is used (for example, when entered answer must exactly match some word). You can also set condition "Contain". In this case entered answer will be validated on whether or not it contains the

character string specified by author. For example, if "Contain" "point" conditions is set, either one of the following words will be considered as correct answers: Pointing, pointless, and pinpoint.

Lastly, you can set the "Match Case" condition to match case when validating the answer. In this case, for above mentioned example the word "Pointing" which starts from the capital letter will not be considered as correct answer.

Text Fill-In-Blank Question				
Button	Texts	Texts Sound		
Question Limitations	Scoring Fe	eedback	Display	
Number of attempts:	1			
Limit time for the answer				
Time limit (sec):	10			
Allow skip question				
Skipped question is:) just skipped			
	() failed			
Allow recurring approach	es			
On recurring approach:	Display confirm		~	
 ✓ Display completed question ✓ Display continued question 	on message on message			
ОК Са	ancel A	pply	Help	

Use "Limitations" tab to set the following restrictions:

- 1. **Number of attempts**. "Number of Attempts" field is always available for input (there is no automatic attempts calculation rule). There you can specify the number of answer attempts with respect to the level of question complexity or testing methodology.
- 2. **Time limit for the answer**. Upon time expiration user will be restricted to make further answer selections, and the question will be validated for correctness even if "Submit Answer" button is not pressed. If the correct answer is chosen just before time expiration, it will be credited to the user.

- 3. Possibility to **skip the question.** In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as **skipped** (with opportunity to provide the answer later) or counted as **failed** (without a chance for another attempt).
- 4. Possibility to reset stored result and answer the question once again (recurring approaches).

Text Fill-In-Blank Question						
Button Texts Sound						
Question Limitations Scoring Feedback Display						
Credit question						
Scoring type: Weight of question (attempt)						
Weight of question/attempt: 1						
Crediting method: fixed 						
◯ regressive						
Question objectives: 💠 🛥 🛊 😭						
Objective Weight**						
total 1						
Display question maximum score pane Weight of 1 attempt for regressive method ** Weight for every objective must be set						
OK Cancel Apply Help						

Use "Score" tab to specify scoring parameters for the question. The essential CheckBox is "Credit Question". In case it is not marked, all other scoring parameters are disabled, therefore they will be ignored when presenting question to the user. Such questions are referred as **not credited** questions. These questions are frequently used to prepare the user for the next Slide Topic, to keep the user focused, and so forth. In case of the **credited** question the following options are available:

1. Scoring type:

 Question weight - in case of correct answer, question weight will be placed in all question objectives.

- Weight by objective in case of correct answer, different weight will be placed to each objective (according to weight in objective list).
- Base weight of a question/attempt base number of points for the question (or attempt for regression method). This number is used to calculate the Total score for the question. If fixed crediting method is used, the base weight of question equals the total score.
- 3. The following **crediting methods** can be used:
 - **Fixed** (Upon the correct response user gets the same score regardless the number of attempts. This score is equal to the base weight)
 - Regression method (In this case user is getting the highest possible score for providing the correct answer from the first try; the number of points is decreasing on the second try and so forth, until all tries are used). The maximum number of points in this case is equal to the base number of points multiplied by the number of attempts. Regression method enables more accurate performance evaluation but requires applying additional requirements to question parameters. It is important that number of tries for this method should not exceed the automatically calculated one (which is number of possible answers minus one), otherwise regression method will become ineffective.
- 4. Possibility to skip the question. In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as skipped (with opportunity to provide the answer later) or counted as failed (without a chance for another attempt).

Text Fill-In-Blank Question							
Butto	1	Texts	S	ound			
Question	Limitations	Scoring	Feedback	Display			
Display correct answer Display feedback messages Prev.							
Correct ar	iswer:	Correct		TE 🗆			
Incorrect	answer:	Incorrect					
No more a	ttempts:	No more atte	empts left				
Timeout:		Time is out					
Offset hor	izontal:	100 px					
Offset ver	tical:	50 px					
Feedback	: box width:	250 px					
After 3 sec.							
	Backgroun	Border	Button				
Corr.:	#EOFFE0	#339933	#33993	3			
Incorr.:	#FFE0E0	#FF6666	#FF666	6			
Attmpts:	#FFE0E0	#FF6666	#FF666	6			
Timeout:	#FFE0E0	#FF6666	#FF666	6			
			,				
	ок	Cancel	Apply	Help			

Use "Feedback" tab to specify feedback options, which define what shall be displayed upon another attempt to respond (correct or incorrect) and after completing the question.

You may permit the **display of correct answer** upon question completion by marking corresponding check box. If student has used off all the attempts for response, or if the time has expired then the correct answer will be displayed; user will not be credited for this answer. This option may be used when the main objective of the question is educating rather than testing.

You may permit or restrict the **feedback messages**. You can modify the text of feedback messages, which is in RichText format. **Feedback messages** are displayed in the separate small window during Module play back. You can modify **display coordinates** for this window (the coordinates are given relative to the object's upper left corner) Note, that there is a check box displayed next to every Edit button for the text feedback; it enables to turn On/Off display of feedback messages in CourseLab Editor. By default, all check boxes are empty to avoid overloading the question Object with too many details.
Text Fill-In-Blank Questi	on		×
Button	Texts		Sound
Question Limitations	Scoring	Feedback	Display
Skin:	Basic		~
Color scheme:	Lightblue		*
Border style:	Solid		*
Border width:	2 px		
Background color:	#FFFFFF		
Font:	Arial	~	
Font size:	12 px		
Font color:	#000000		
Use custom timer color	s		
Border color:	#666666		
Background color:	#999999		
Countdown color:	#00CC66		
Attention color:	#FFCC66		
Finish color:	#FF0000		
ОК	Cancel	Apply	Help

On the Display, Button and Texts tabs you can select appearance settings for the object and edit the information and warning messages.

Text Fill-In-Blank Quest	ion	×
Question Limitations Button	Scoring Feedback Display Texts Sound	
Use custom buttons -		
Button type:	HTML button	
Submit answer text:	Submit answer	
Skip question text:	Skip question	
Button size - width:	120 px height: 24 px	
	Nomal MouseOver	
Border style:	Solid 💙 Solid 💙	
Border width:	2 px 2 px	
Border color:	#6666666 #6666CC	
Background color:	#F0F0F0 #F0F0F0	
Font:	Arial 🗸	
Custom font:		
Font size:	12 px 12 px	
Font weight:	Nomal 💙 Nomal 💙	
Font style:	Nomal 💙 Nomal 🗸	
Font color:	#000000 #000000	
Text align:	Center 💙 Center 🗸	
ок	Cancel <u>A</u> pply Help	

Text Fill-In-Blank Question				
Question Limitations	Scoring Feedback Display			
Button	Texts Sound			
Information messages				
Credited:	Credited question			
Uncredited:	Uncredited question			
Attempts:	Attempts:			
Time limit:	Time limit:			
Seconds:	sec.			
Question instruction:	Enter text value			
Correct answer:	CORRECT ANSWER			
Last state:	LAST QUESTION STATE			
Skipped:	QUESTION IS SKIPPED			
Skipped and failed:	QUESTION IS SKIPPED AND FAILED			
Wamir	ng messages			
Continued question:	Continued approach. Number of attempt			
Finished question:	This question is already answered. Rec			
Recurring approach:	This question is already answered. Pres			
Skip and fail confirm:	Skipped question will be treated failed.			
ОК	Cancel Apply Help			

Text Fill-In-Blank Question			X
Question Limitations	Scoring	Feedback	Display
Button	Texts	500	und
Use sound effects			
Events with sound:	Mouseover	r and click	~
Mouseover sound:	Standard 1		~
Sound file:			
Click sound:	Standard 1		~
Sound file:			
Failure sound:	Standard 1		~
Sound file:			
Success sound:	Standard 1		~
Sound file:			
ОК Са	ncel	Apply	Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Question Start	The question is fully loaded and all elements of the question are displayed
on Attempt	At the moment of answer acceptance, but before answer evaluation

on Success	At the moment of answer evaluation, in case the answer is correct.
on Failure	At the moment of answer evaluation, in case the answer is incorrect.
on Time Out	At the moment of time expiration for the answer (if defined)
on Attempts Limit	After answer evaluated, in case the number of attempts decreased to zero.
on Question Skipped	After "Skip Question" button is pressed
on Question End	After answer is evaluated and no more attempts left (on timeout or on attempts limit)

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
questionMode	Returns current question mode (tokens: "normal", "review").	\$ <mark>OBJ_ID</mark> .questionMode
questionType	"text"	\$ <mark>OBJ_ID</mark> .questionType
questionDuration	Returns allowed question duration in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionDuration
questionTimer	Returns current question timer value in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionTimer
itemQuantity	Returns total variants quantity.	\$ <mark>OBJ_ID</mark> .itemQuantity
questionValue	Returns current question field value (if there is more than one input field, then returns string: values delimited by "~").	\$ <mark>OBJ_ID</mark> .questionValue
attemptsLast	Returns current number of attempts left.	\$ <mark>OBJ_ID</mark> .attemptsLast
attemptsTotal	Returns allowed number of attempts.	\$ <mark>OBJ_ID</mark> .attemptsTotal

5.3.4.7 Matching pairs (one-to-one)

Matching Pairs type of questions require from the user to match the provided question items on one-to-one basis.

LIMITATION: No more than one question on the Slide is recommended.

Example of object appearance:

IMPORTANT! Matching pairs type of question is space consuming when placed into the Frame, therefore we do not recommend setting the width of the object to less than 700 pixels.

Question is scored

Connect events with corresponding dates

Connect pairs to match correctly

1492 Discovery of America				
1903	First airplane			
1945	First man on the Moon			
1969	The end of World War II			
Attempts: 3				
Question time limit: 4 sec				

Object parameters



To input **question's text**, press "TE" button of the corresponding field. The format of input area is RichText, therefore all font settings (size, color, and style) will be saved as you type the text in. Considering specifics of matching pairs questions, it is not always necessary to display the text of the question. Remove corresponding checkmark, in case you want the question text not to be displayed.

Specify **variants of matching question items.** In the list of answers menu add as many variants of matching question items as needed using "+" menu button. In the opened sub-dialog pairs editor screen press "TE" button of the corresponding field and insert text of base item and it's corresponding match, which is in RichText format. Please remember, that there are size limitations for entering both the base items and matches, therefore try using short texts and small fonts. Inserted question items appear in in the List of items. If desired, you can edit entered items by pressing "Edit" button under the "List" menu.

Note, that in matching pairs types of questions the correct matching pairs will be the ones **specified by author**. Unlike the question base items, which will be displayed in order they were inserted, the matches will ALWAYS be displayed in random order.

Matching Pairs Question			×		
Button	Texts	Sc	ound		
Question Limitations	Scoring	Feedback	Display		
Set number of attempts au	tomatically —				
Number of attempts:	1				
Limit time for the answer					
Time limit (sec):	10]			
Allow skip question					
Skipped question is:) just skippe	ed			
	 failed 				
Allow recurring approache	s				
On recurring approach:	Display confi	m	~		
 Display completed question Display continued question 	 Display completed question message Display continued question message 				
ОК Са	ncel	Apply	Help		

Use "Limitations" tab to set the following restrictions:

- 1. Number of attempts. In case number of attempts is not supposed to be defined automatically (i.e. checkbox "Define automatically" is not checked), "Number of Attempts" field is available for input. There you can specify the number with respect to the level of question complexity or testing methodology. The following formula is used for Automatic attempts calculation: number of attempts equals to number of possible answers minus one (for example, 3 attempts for question with 4 answers, 4 attempts for questions with 5 answers and so on). In case automatic attempts calculation is selected, the number specified in the "Number of Attempts" field is ignored.
- 2. **Time limit for the answer**. Upon time expiration user will be restricted to make further answer selections, and the question will be validated for correctness even if "Submit Answer" button is not pressed. If the correct answer is chosen just before time expiration, it will be credited to the user.

- 3. Possibility to **skip the question.** In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as **skipped** (with opportunity to provide the answer later) or counted as **failed** (without a chance for another attempt).
- 4. Possibility to reset stored result and answer the question once again (recurring approaches).

Matching Pairs Question			×
Button	Texts	S	ound
Question Limitations	Scoring	Feedback	Display
Scoring type:	Weight	of question (atte	empt)' 🗸
Weight of question/attemp	t: 1		
Crediting method:	 fixed 		
	🔿 regre	ssive	
Question objectives:		÷ - •	۰ 😭 ا
Objective	Weight**	•	
total	1		
 Display question maxim Weight of 1 attempt for reg 	um score pane ressive method		
** Weight for every objective	e must be set		
*** Weight for every match n	nust be set		
ОК	Cancel	Apply	Help

Use "Score" tab to specify scoring parameters for the question. The essential CheckBox is "Credit Question". In case it is not marked, all other scoring parameters are disabled, therefore they will be ignored when presenting question to the user. Such questions are referred as **not credited** questions. These questions are frequently used to prepare the user for the next Slide Topic, to keep the user focused, and so forth.

In case of the **credited** question the following options are available:

1. Scoring type. There are 3 options for this question type:

- Question weight in case of correct answer, question weight will be placed in all question objectives.
- Weight by objective in case of correct answer, different weight will be placed to each objective (according to weight in objective list).
- Sum of variant weights sum of all selected variant weights will be placed to all objectives (for question with no correct answer only).
- Max of variant weights maximal weight of all selected variant weights will be placed to all objectives (for question with no correct answer only).
- Min of variant weights minimum of all selected variant weights will be placed to all objectives (for question with no correct answer only).
- Avg of variant weights average of all selected variant weights will be placed to all objectives (for question with no correct answer only).
- Avg of all variant weights sum of all selected variant weights regarding full number of variants will be placed to all objectives (for question with no correct answer only).
- Base weight of a question/attempt base number of points for the question (or attempt for regression method). This number is used to calculate the Total score for the question. If fixed crediting method is used, the base weight of question equals the total score.

3. The following crediting methods can be used:

- **Fixed** (Upon the correct response user gets the same score regardless the number of attempts. This score is equal to the base weight)
- Regression method (In this case user is getting the highest possible score for providing the correct answer from the first try; the number of points is decreasing on the second try and so forth, until all tries are used). The maximum number of points in this case is equal to the base number of points multiplied by the number of attempts. Regression method enables more accurate performance evaluation but requires applying additional requirements to question parameters. It is important that number of tries for this method should not exceed the automatically calculated one (which is number of possible answers minus one), otherwise regression method will become ineffective.
- 4. Possibility to skip the question. In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as skipped (with opportunity to provide the answer later) or counted as failed (without a chance for another attempt).

Matching Pa	irs Question			×
Buttor	1	Texts	9	ound
Question	Limitations	Scoring	Feedback	Display
Display	/ correct answer / feedback mess	ages		Prev. –
Correct an	swer:	Correct		TE 🗆
Incorrect a	answer:	Incorrect		
No more a	ttempts:	No more atte	mpts left	
Timeout:		Time is out		
Offset hori	zontal:	100 px		
Offset vert	ical:	50 px		
Feedback	box width:	250 px		
		- II		
Hide te	after	3 sec	3.	
		<u> </u>		
	Backgroun	Border	Button	
Corr.:	#E0FFE0 .	#339933	#3399	33
Incorr.:	#FFE0E0	#FF6666	#FF66	66
Attmpts:	#FFE0E0 .	#FF6666	#FF66	66
Timeout:	#FFE0E0 .	#FF6666	#FF66	66
	C		. —	
	OK (Cancel	Apply	Help

Use "Feedback" tab to specify feedback options, which define what shall be displayed upon another attempt to respond (correct or incorrect) and after completing the question.

You may permit the **display of correct answer** upon question completion by marking corresponding check box. If student has used off all the attempts for response, or if the time has expired then the correct answer will be displayed; user will not be credited for this answer. This option may be used when the main objective of the question is educating rather than testing.

You may permit or restrict the **feedback messages**. You can modify the text of feedback messages, which is in RichText format. **Feedback messages** are displayed in the separate small window during Module play back. You can modify **display coordinates** for this window (the coordinates are given relative to the object's upper left corner) Note, that there is a check box displayed next to every Edit button for the text feedback; it enables to turn On/Off display of feedback messages in CourseLab Editor. By default, all check boxes are empty to avoid overloading the question Object with too many details.

Matching Pairs Question			X
Button Question Limitations	Texts Scoring	S Feedback	ound Display
Skin:	Basic		~
Color scheme:	Lightblue		~
Base width:	250 px		
Match width:	350 px		
Use custom timer color	s		
Border color:	#666666		
Background color:	#999999		
Countdown color:	#00CC66		
Attention color:	#FFCC66		
Finish color:	#FF0000		
ОК	Cancel	Apply	Help

On the Display, Button and Texts tabs you can select appearance settings for the object and edit the information and warning messages.

Matching Pairs Question	n	×
Question Limitations Button	Scoring Feedback Display Texts Sound	
Use custom buttons		
Button type:	HTML button	
Submit answer text:	Submit answer	
Skip question text:	Skip question	
Button size - width:	120 px height: 24 px	
	Nomal MouseOver	
Border style:	Solid 🗸 Solid 🖌	
Border width:	2 px 2 px	
Border color:	#6666666 #6666CC	
Background color:	#F0F0F0 #F0F0F0	
Font:	Arial 🔽 Arial 🔽	
Custom font:		
Font size:	12 px 12 px	
Font weight:	Nomal 🗸 Nomal 🗸	
Font style:	Nomal 🗸 Nomal 🗸	
Font color:	#000000 #000000	
Text align:	Center 🗸 Center 🗸	
ОК	Cancel Apply Help	

Matching Pairs Question	J		E			
Question Limitations	Scoring	Feedback	Display			
Button	Texts	S	ound			
Information messages						
Credited:	Credited questio	Credited question				
Uncredited:	Uncredited ques	stion				
Attempts:	Attempts:					
Time limit:	Time limit:					
Seconds:	sec.					
Correct answer:	CORRECT ANS	WER				
Last state:	LAST QUESTIC	N STATE				
Skipped:	QUESTION IS S	SKIPPED				
Skipped and failed:	QUESTION IS S	SKIPPED AND	FAILED			
Wamir	ng messages —					
Continued question:	Continued appro	ach. Number	of attempt			
Finished question:	This question is	already answe	ered. Rec			
Recurring approach:	This question is	already answe	ered. Pres			
Skip and fail confirm:	Skipped questio	n will be treate	ed failed.			
ОК	Cancel	Apply	Help			

Matching Pairs Question			×
Question Limitations	Scoring	Feedback	Display
Button	Texts	Sou	und
Use sound effects			
Events with sound:	Mouseover	and click	*
Mouseover sound:	Standard 1		~
Sound file:			
Click sound:	Standard 1		~
Sound file:			
Failure sound:	Standard 1		~
Sound file:			
Success sound:	Standard 1		~
Sound file:			
OK Car	ncel	Apply	Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Question Start	The question is fully loaded and all elements of the question are displayed
on Item Moved	User moves any item

on Attempt	At the moment of answer acceptance, but before answer evaluation
on Success	At the moment of answer evaluation, in case the answer is correct.
on Failure	At the moment of answer evaluation, in case the answer is incorrect.
on Time Out	At the moment of time expiration for the answer (if defined)
on Attempts Limit	After answer evaluated, in case the number of attempts decreased to zero.
on Question Skipped	After "Skip Question" button is pressed
on Question End	After answer is evaluated and no more attempts left (on timeout or on attempts limit)

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
questionMode	Returns current question mode (tokens: "normal", "review").	\$ <mark>OBJ_ID</mark> .questionMode
questionType	"oto"	\$ <mark>OBJ_ID</mark> .questionType
questionDuration	Returns allowed question duration in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionDuration
questionTimer	Returns current question timer value in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionTimer
itemQuantity	Returns total variants quantity.	\$ <mark>OBJ_ID</mark> .itemQuantity
questionValue	Returns current match item order (match numbers starting from 0 divided by "~": for example, "3~1~0~2" - "0~1~2~3" in this case corresponds to correct order).	\$OBJ_ID.questionValue
attemptsLast	Returns current number of attempts left.	\$ <mark>OBJ_ID</mark> .attemptsLast
attemptsTotal	Returns allowed number of attempts.	\$ <mark>OBJ_ID</mark> .attemptsTotal

5.3.4.8 Matching groups (one-to-many)

Matching Groups Question require from the user to match the provided question items on one-to-many basis.

LIMITATION: No more than one Test on the Slide is recommended.

Example of object appearance:

IMPORTANT! Matching pairs type of question is space consuming when placed into the Frame, therefore we do not recommend setting the width of the object to less than 700 pixels.

Credited question

Distribute animals into corresponding groups					
Dre	ag elements to correct group				
Mammals	Whale				
Birds					
Insects					
Fishes					
	Attempts: 1				

Object parameters

Matching Groups Question	×
Button Texts Sound	٦
Question Limitations Scoring Feedback Display	1
Display question block Question text: Distribute animals into corresp TE	
Variants: 💠 🛶 🗣 🖓	
Variants Mammals Birds Insects Fishes	
✓ Display slots on group base	
Number of displayed slots: Max. number of matches	
Custom number of slots: 4	
*** Match weight is used only if corresponding scoring type is selected	
OK Cancel Apply Help	

To input **question's text**, press "TE" button of the corresponding field. The format of input area is RichText, therefore all font settings (size, color, and style) will be saved as you type the text in.

Specify **variants of groups and corresponding matching items.** In the list of variants add as many groups as needed using "+" menu button.

					×
Group base:	Mammals	 			TE
Matches:	+	-	٠		*
Matches	Weight**				
Cat Dog Porcupine Rat Whale	1 1 1 1				
	ОК) (С	ance	

Please remember, that there are size limitations, therefore try using short texts and small fonts. If suitable, you can define weight of each "base-match" pair to use it in complex scoring types.

Unlike the group items, which will be displayed in order they were inserted, the matches will ALWAYS be displayed in random order.

Number of displayes slots on the base restricts maximal number of matches that can be attached to base. It can be 0 (no restriction, there will be no match slots on the bases), exact number of matches for this group (in fact, this is the hint for user), maximal number of matches (i.e. from group with maximal number of matches) and custom. Note, that if the number of displayed slots is not 0, then user will see the warning No more slots message when trying to attach more matches than defined by this value.

Matching Groups Question	×
Button	Texts Sound
Question	Scoring Feedback Display
Set number of attempts au	tomatically
Number of attempts:	1
Limit time for the answer	
Time limit (sec):	10
Allow skip question	
Skipped question is:	◯ just skipped ● failed
Allow recurring approache	s
On recurring approach:	Display confirm
Display completed question	n message
Display continued question	n message
OK Car	ncel <u>A</u> pply Help

Use "Limitations" tab to set the following restrictions:

- Number of attempts. In case number of attempts is not supposed to be defined automatically (i.e. checkbox "Define automatically" is not checked), "Number of Attempts" field is available for input. There you can specify the number with respect to the level of question complexity or testing methodology. The following formula is used for Automatic attempts calculation: number of attempts equals to number of possible answers minus one (for example, 3 attempts for question with 4 answers, 4 attempts for questions with 5 answers and so on). In case automatic attempts calculation is selected, the number specified in the "Number of Attempts" field is ignored.
- 2. **Time limit for the answer**. Upon time expiration user will be restricted to make further answer selections, and the question will be validated for correctness even if "Submit Answer" button is not pressed. If the correct answer is chosen just before time expiration, it will be credited to the user.
- 3. Possibility to **skip the question.** In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as **skipped** (with opportunity to provide the answer later) or counted as **failed** (without a chance for another attempt).
- 4. Possibility to reset stored result and answer the question once again (recurring approaches).

Matching Groups Questio	n					×
Button Question Limitations	Tex	ts pring	Feed	S	Sound)isplay
Credit question Scoring type: Weight of question/attempt Crediting method: Question objectives: Objective total	t:	Weight 1 fixed regree Weight**	of ques	tion (att	empt)	
Display question maximu Weight of 1 attempt for regr ** Weight for every objective *** Weight for every match m	um sco ressive e must be	re pane method be set set				
ОК	Cancel		Apply	/		Help

Use "Score" tab to specify scoring parameters for the question. The essential CheckBox is "Credit Question". In case it is not marked, all other scoring parameters are disabled, therefore they will be ignored when presenting question to the user. Such questions are referred as **not credited** questions. These questions are frequently used to prepare the user for the next Slide Topic, to keep the user focused, and so forth. In case of the **credited** question the following options are available:

- 1. **Scoring type**. There are 3 options for this question type:
 - Question weight in case of correct answer, question weight will be placed in all question objectives.
 - Weight by objective in case of correct answer, different weight will be placed to each objective (according to weight in objective list).
 - Sum of variant weights sum of all selected variant weights will be placed to all objectives (for question with no correct answer only).
 - Max of variant weights maximal weight of all selected variant weights will be placed to all objectives (for question with no correct answer only).

- Min of variant weights minimum of all selected variant weights will be placed to all objectives (for question with no correct answer only).
- Avg of variant weights average of all selected variant weights will be placed to all objectives (for question with no correct answer only).
- Avg of all variant weights sum of all selected variant weights regarding full number of variants will be placed to all objectives (for question with no correct answer only).
- 2. Weight of question/attempt base for calculating score.
- 3. The following **crediting methods** can be used:
 - **Fixed** (Upon the correct response user gets the same score regardless the number of attempts. This score is equal to the base weight)
 - Regression method (In this case user is getting the highest possible score for providing the correct answer from the first try; the number of points is decreasing on the second try and so forth, until all tries are used). The maximum number of points in this case is equal to the base number of points multiplied by the number of attempts. Regression method enables more accurate performance evaluation but requires applying additional requirements to question parameters. It is important that number of tries for this method should not exceed the automatically calculated one (which is number of possible answers minus one), otherwise regression method will become ineffective.
- 4. Possibility to skip the question. In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as skipped (with opportunity to provide the answer later) or counted as failed (without a chance for another attempt).

Matching Groups Question]	×
Button Question Limitations	Texts Scoring Feedback	Sound Display
 Display correct answer ✓ Display feedback messat Correct answer: Incorrect answer: No more attempts: Timeout: Offset horizontal: Offset vertical: Feedback box width: 	Correct Incorrect No more attempts left Time is out 100 px 50 px 250 px	Prev
Hide feedback automatic after	ally3 sec.	
Backgroun Corr.: #E0FFE0 Incorr.: #FFE0E0 Attmpts: #FFE0E0 Timeout: #FFE0E0	Border Button #339933 #3399 #FF6666 #FF66 #FF6666 #FF66 #FF6666 #FF66 #FF6666 #FF66	33 66 66
ОК С	ancel <u>A</u> pply	Help

Use "Feedback" tab to specify feedback options, which define what shall be displayed upon another attempt to respond (correct or incorrect) and after completing the question.

You may permit the **display of correct answer** upon question completion by marking corresponding check box. If student has used off all the attempts for response, or if the time has expired then the correct answer will be displayed; user will not be credited for this answer. This option may be used when the main objective of the question is educating rather than testing.

You may permit or restrict the **feedback messages**. You can modify the text of feedback messages, which is in RichText format. **Feedback messages** are displayed in the separate small window during Module play back. You can modify **display coordinates** for this window (the coordinates are given relative to the object's upper left corner) Note, that there is a check box displayed next to every Edit button for the text feedback; it enables to turn On/Off display of feedback messages in CourseLab Editor. By default, all check boxes are empty to avoid overloading the question Object with too many details.

latching Groups Questio	on 💈
Button	Texts Sound
Question Limitations	Scoring Feedback Display
Skin:	Basic 🗸
Color scheme:	Lightblue 💌
Base width:	250 px
Use custom timer color	18
Border color:	#666666
Background color:	#999999
Countdown color:	#00CC66
Attention color:	#FFCC66
Finish color:	#FF0000
ОК	Cancel Apply Help

On the Display, Button and Texts tabs you can select appearance settings for the object and edit the information and warning messages.

atching Groups Questi	ion
Question Limitations Button	Scoring Feedback Display Texts Sound
Use custom buttons	
Button type:	HTML button
Submit answer text:	Submit answer
Skip question text:	Skip question
Button size - width:	120 px height: 24 px
	Nornal MouseOver
Border style:	Solid 🗸 Solid 🗸
Border width:	2 рх 2 рх
Border color:	#6666666 #66666CC
Background color:	#F0F0F0 #F0F0F0
Font:	Arial 🗸 Arial 🗸
Custom font:	
Font size:	12 px 12 px
Font weight:	Normal 🗸 Normal 🗸
Font style:	Normal 🗸 Normal 🗸
Font color:	#000000 #000000
Text align:	Center 🗸 Center 🗸
ОК	Cancel Apply Help

Matching Groups Question				
Question Limitations	Scoring	Feedback Display		
Button	lexts	Sound		
Informa	tion messages			
Credited:	Credited ques	tion		
Uncredited:	Uncredited qu	uestion		
Attempts:	Attempts:			
Time limit:	Time limit:			
Seconds:	sec.			
Question instruction:	Drag elements	s to correct group		
Correct answer:	CORRECT A	NSWER		
Last state:	LAST QUESTION STATE			
Skipped:	QUESTION IS SKIPPED			
Skipped and failed:	QUESTION IS SKIPPED AND FAILED			
Tooltip on Detach match:	Click on the s	lot to detach		
Wamin	g messages 💷			
Continued question:	Continued ap	proach. Number of attempt		
Finished question:	This question is already answered. Rec			
Recurring approach:	This question is already answered. Pres			
Skip and fail confirm:	Skipped question will be treated failed.			
No more slots in group:	No more slots in group: No more empty slots in this group			
ок	Cancel	Apply Help		

Matching Groups Question		
Question Limitations Button	Scoring Feedback Texts Soun	Display d
Use sound effects		
Events with sound:	Mouseover and click	~
Mouseover sound:	Standard 1	▼
Click sound:	Standard 1	····
Sound file:		
Failure sound:	Standard 1	~
Sound file:		
Success sound:	Standard 1	~
Sound file:		
OK Car	ncel <u>A</u> pply	Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Question Start	The question is fully loaded and all elements of the question are displayed
on Item Moved	User moves any item
on Attempt	At the moment of answer acceptance, but before answer evaluation

on Success	At the moment of answer evaluation, in case the answer is correct.
on Failure	At the moment of answer evaluation, in case the answer is incorrect.
on Time Out	At the moment of time expiration for the answer (if defined)
on Attempts Limit	After answer evaluated, in case the number of attempts decreased to zero.
on Question Skipped	After "Skip Question" button is pressed
on Question End	After answer is evaluated and no more attempts left (on timeout or on attempts limit)

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
questionMode	Returns current question mode (tokens: "normal", "review").	\$ <mark>OBJ_ID</mark> .questionMode
questionType	"otm"	\$ <mark>OBJ_ID</mark> .questionType
questionDuration	Returns allowed question duration in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionDuration
questionTimer	Returns current question timer value in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionTimer
itemQuantity	Returns total variants quantity.	\$ <mark>OBJ_ID</mark> .itemQuantity
attemptsLast	Returns current number of attempts left.	\$ <mark>OBJ_ID</mark> .attemptsLast
attemptsTotal	Returns allowed number of attempts.	\$ <mark>OBJ_ID</mark> .attemptsTotal

5.3.4.9 Multiple matching groups (many-to-many)

Multiple Matching Groups Question require from the user to match the provided question items on many-to-many basis.

LIMITATION: No more than one question on the Slide is recommended.

Example of object appearance:

IMPORTANT! This type of question is space consuming when placed into the Frame, therefore we do not recommend setting the width of the object to less than 700 pixels.

Credited question

Which types of engines are used on	these transportation units?
Conn	ect matches to correct groups
Combustion 1 2 3	1 Car
	2 Tank
Steam	3 Locomotive
Gas turbines	4 Airplane
	5 Submarine
Electric	
SUBMIT ANSWER	Attempts: 1

Object parameters

ultiple Group Matching				
Button Question Limitations	Texts Scoring	Feedback	Sound	d Display
Display question block - Question text:	Which types	s of engines a	are u	TE
Group bases:		4 -	<u>ه</u>	. 🔊
Group text Combustion Steam Gas turbines Electric				
Matches:		÷ -	ن 1	• 😭
Match Car Tank Locomotive Airplane Submarine				
Display slots on group bas Number of displayed slots: Custom number of slots: *** Match weight is used only type is selected	e Max. numb 4 if correspondi	per of matche	95	~
ОК С	ancel	Apply		Help

To input **question's text**, press "TE" button of the corresponding field. The format of input area is RichText, therefore all font settings (size, color, and style) will be saved as you type the text in.

Specify list of groups and corresponding matching items for each group **by number in the list of matches.**

	Σ
Group text	Combustion
Matches:	+ - + + 😭
Match number	Weight***
1 2 3	1 1 1 1
4 5	1
	OK Cancel

If suitable, you can define weight of each "base-match" pair to use it in complex scoring types.

Unlike the group items, which will be displayed in order they were inserted, the matches will ALWAYS be displayed in random order.

Number of displayes slots on the base restricts maximal number of matches that can be attached to base. It can be 0 (no restriction, there will be no match slots on the bases), exact number of matches for this group (in fact, this is the hint for user), maximal number of matches (i.e. from group with maximal number of matches) and custom. Note, that if the number of displayed slots is not 0, then user will see the warning No more slots message when trying to attach more matches than defined by this value.

Multiple Group Matching			×
Button	Texts	So	ound
Question Limitations	Scoring	Feedback	Display
Set number of attempts a Number of attempts:	utomatically —		
Limit time for the answer	10		
Time innic (sec).			
Allow skip question			
Skipped question is:	just skippedíailed	1	
Allow recurring approach	es		
 ✓ Display completed question ✓ Display continued question 	on message		
ОК Са	ancel	Apply	Help

Use "Limitations" tab to set the following restrictions:

- 1. Number of attempts. In case number of attempts is not supposed to be defined automatically (i.e. checkbox "Define automatically" is not checked), "Number of Attempts" field is available for input. There you can specify the number with respect to the level of question complexity or testing methodology. The following formula is used for Automatic attempts calculation: number of attempts equals to number of possible answers minus one (for example, 3 attempts for question with 4 answers, 4 attempts for questions with 5 answers and so on). In case automatic attempts calculation is selected, the number specified in the "Number of Attempts" field is ignored.
- 2. **Time limit for the answer**. Upon time expiration user will be restricted to make further answer selections, and the question will be validated for correctness even if "Submit Answer" button is not pressed. If the correct answer is chosen just before time expiration, it will be credited to the user.
- 3. Possibility to skip the question. In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as skipped (with opportunity to provide the answer later) or counted as failed (without a chance for another attempt).
- 4. Possibility to reset stored result and answer the question once again (recurring approaches).

Multiple Group Matching			δ
Button	exts	So	ound
Question Limitations	Scoring	Feedback	Display
Credit question	Weight o	f question (atte	mot) v
Weight of question/attempt:	1		mpty •
Crediting method:	 fixed regres 	sive	
Question objectives:	Chegres	+ - +	₽ 😭
Objective	Weight**		
total	1		
Display question maximum s Weight of 1 attempt for regressi Weight for every objective must *** Weight for every match must	core pane ve method st be set he set		
OK Can	xel	Apply	Help

Use "Score" tab to specify scoring parameters for the question. The essential CheckBox is "Credit Question". In case it is not marked, all other scoring parameters are disabled, therefore they will be ignored when presenting question to the user. Such questions are referred as **not credited** questions. These questions are frequently used to prepare the user for the next Slide Topic, to keep the user focused, and so forth.

In case of the **credited** question the following options are available:

- 1. **Scoring type**. There are 3 options for this question type:
 - Question weight in case of correct answer, question weight will be placed in all question objectives.
 - Weight by objective in case of correct answer, different weight will be placed to each objective (according to weight in objective list).

- Sum of variant weights sum of all selected variant weights will be placed to all objectives (for question with no correct answer only).
- Max of variant weights maximal weight of all selected variant weights will be placed to all objectives (for question with no correct answer only).
- Min of variant weights minimum of all selected variant weights will be placed to all objectives (for question with no correct answer only).
- Avg of variant weights average of all selected variant weights will be placed to all objectives (for question with no correct answer only).
- Avg of all variant weights sum of all selected variant weights regarding full number of variants will be placed to all objectives (for question with no correct answer only).
- 2. Weight of question/attempt base for calculating score.
- 3. The following **crediting methods** can be used:
 - **Fixed** (Upon the correct response user gets the same score regardless the number of attempts. This score is equal to the base weight)
 - Regression method (In this case user is getting the highest possible score for providing the correct answer from the first try; the number of points is decreasing on the second try and so forth, until all tries are used). The maximum number of points in this case is equal to the base number of points multiplied by the number of attempts. Regression method enables more accurate performance evaluation but requires applying additional requirements to question parameters. It is important that number of tries for this method should not exceed the automatically calculated one (which is number of possible answers minus one), otherwise regression method will become ineffective.
- 4. Possibility to **skip the question.** In case this option is selected user is able to ignore the question by pressing "Skip Question" button. The author of the course can specify whether or not skipped question will be classified as **skipped** (with opportunity to provide the answer later) or counted as **failed** (without a chance for another attempt).

ltiple Gro	up Matching			
Buttor		Texts	Feedback	Sound
Juestion	Limitations	Sconng	recuback	Display
Display	correct answer	r		
Display	/feedback.mess	sages		Prev
Correct ar	iswer:	Correct		TE
Incorrect a	answer:	Incorrect		TE 🗆
No more a	ittempts:	No more atte	mpts left	TE
Timeout:		Time is out		TE 🗆
Offset hor	izontal:	100 px		
Offset ver	tical:	50 px		
Feedback	box width:	250 px		
Hide fe	edback automa	itically		
	after	3 sec	3.	
	Backgroun	Border	Button	
Corr.:	#EOFFE0	#339933	#3399	33 🛄
Incorr.:	#FFE0E0	#FF6666	#FF66	66
Attmpts:	#FFE0E0	#FF6666	#FF66	66
Timeout:	#FFE0E0	#FF6666	#FF66	66

Use "Feedback" tab to specify feedback options, which define what shall be displayed upon another attempt to respond (correct or incorrect) and after completing the question.

You may permit the **display of correct answer** upon question completion by marking corresponding check box. If student has used off all the attempts for response, or if the time has expired then the correct answer will be displayed; user will not be credited for this answer. This option may be used when the main objective of the question is educating rather than testing.

You may permit or restrict the **feedback messages**. You can modify the text of feedback messages, which is in RichText format. **Feedback messages** are displayed in the separate small window during Module play back. You can modify **display coordinates** for this window (the coordinates are given relative to the object's upper left corner) Note, that there is a check box displayed next to every Edit button for the text feedback; it enables to turn On/Off display of feedback messages in CourseLab Editor. By default, all check boxes are empty to avoid overloading the question Object with too many details.

Aultiple Group Matching	g	×
Button Question Limitations	Texts Sound Scoring Feedback Displa	y
Skin:	Basic	
Color scheme:	Lightblue 🗸	
Base width:	250 px	
Use custom timer color	rs	7
Border color:	#6666666	
Background color:	#999999	
Countdown color:	#00CC66	
Attention color:	#FFCC66	
Finish color:	#FF0000	
ОК	Cancel Apply Help	

On the Display, Button and Texts tabs you can select appearance settings for the object and edit the information and warning messages.

Multiple Group Matching						
Question Limitations Button	Scoring Fee Texts	dback Display Sound				
Use custom buttons						
Button type:	HTML button					
Submit answer text:	Submit answer					
Skip question text:	Skip question					
Button size - width:	120 px height:	24 px				
	Nomal	MouseOver				
Border style:	Solid 💌	Solid 🗸				
Border width:	2 px	2 px				
Border color:	#666666	#6666CC				
Background color:	#F0F0F0	#FOFOFO				
Font:	Arial 🗸	Arial 🗸				
Custom font:						
Font size:	12 px	12 px				
Font weight:	Normal 🗸	Nomal 🖌				
Font style:	Nomal 🖌	Nomal 🖌				
Font color:	#000000	#000000				
Text align:	Center 🔽	Center 🔽				
OK Cancel <u>A</u> pply Help						
Multiple Group Matching	:					
--------------------------------	--					
Question Limitations Button	Scoring Feedback Display Texts Sound					
Informa	ition messages					
Credited:	Credited question					
Uncredited:	Uncredited question					
Attempts:	Attempts:					
Time limit:	Time limit:					
Seconds:	SEC.					
Question instruction:	Connect matches to correct groups					
Correct answer:	CORRECT ANSWER					
Last state:	LAST QUESTION STATE					
Skipped:	QUESTION IS SKIPPED					
Skipped and failed:	QUESTION IS SKIPPED AND FAILED					
Tooltip on Detach match:	Click on the slot to detach					
Wamin	g messages					
Continued question:	Continued approach. Number of attempt					
Finished question:	This question is already answered. Rec					
Recurring approach:	This question is already answered. Pres					
Skip and fail confirm:	Skipped question will be treated failed.					
No more slots in group:	No more empty slots in this group					
Already attached:	This match is aready attached to this gr					
ОК	Cancel Apply Help					

Multiple Group Matching	X
Question Limitations Button	Scoring Feedback Display Texts Sound
Use sound effects	
Events with sound:	Mouseover and click 🖌
Mouseover sound:	Standard 1
Sound file:	
Click sound:	Standard 1
Sound file:	
Failure sound:	Standard 1
Sound file:	
Success sound:	Standard 1
Sound file:	
OK Car	ncel <u>A</u> pply Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Question Start	The question is fully loaded and all elements of the question are displayed

on Item Moved	User moves any item
on Attempt	At the moment of answer acceptance, but before answer evaluation
on Success	At the moment of answer evaluation, in case the answer is correct.
on Failure	At the moment of answer evaluation, in case the answer is incorrect.
on Time Out	At the moment of time expiration for the answer (if defined)
on Attempts Limit	After answer evaluated, in case the number of attempts decreased to zero.
on Question Skipped	After "Skip Question" button is pressed
on Question End	After answer is evaluated and no more attempts left (on timeout or on attempts limit)

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
questionMode	Returns current question mode (tokens: "normal", "review").	\$ <mark>OBJ_ID</mark> .questionMode
questionType	"mtm"	\$ <mark>OBJ_ID</mark> .questionType
questionDuration	Returns allowed question duration in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionDuration
questionTimer	Returns current question timer value in seconds (if defined).	\$ <mark>OBJ_ID</mark> .questionTimer
itemQuantity	Returns total variants quantity.	\$ <mark>OBJ_ID</mark> .itemQuantity
attemptsLast	Returns current number of attempts left.	\$ <mark>OBJ_ID</mark> .attemptsLast
attemptsTotal	Returns allowed number of attempts.	\$ <mark>OBJ_ID</mark> .attemptsTotal

5.3.5 Popup

Such objects as Pop-up windows are used for displaying various explanations to the text on the Slide. Basically, text size for explanations is considerably bigger than the one used for the similar Balloon type of objects. Therefore, Pop-up window can be activated by clicking on the link or button. It does not close automatically, it remains open. Compared to Balloon type of object, Pop-up window type has it's own windows closing mechanism.

5.3.5.1 Standard Popup Window

Such objects as **Pop-up windows** are used for displaying various explanations to the text on the Slide. Basically, text size for explanations is considerably bigger than the one used for the similar Balloon type of objects. Therefore, Pop-up window can be activated by clicking on the link or button. It does not close automatically, it remains open. Compared to Balloon type of object, Pop-up window type has it's own windows closing mechanism.

Note, that this object is capable to make text substitution in Rich Text. Text substitutions can be variable values and object properties. Because Rich Text format is quite complex, additional markers for substitution area are used - double curle brackets. Text substitutions will be applied only for double curle brackets areas. For example {{\$oBJ_19.x}} will be substituted by value of X coordinate of OBJ_19 object's top-left corner, and {{#att_left}} will be substituted by value of CourseLab variable named att_left. If no substitution is found, all double curle brackets area will remain intact.

Example of object appearance:



Object parameters

Standard popup window	×
Parameters Sound	
Color scheme: Lightblue	
Header text: Header text TE	
Window text: Lorem ipsum dolor sit amet, consectetuer adipiscing eli TE	
Inner margin: 5 px	
 Display popup close button Close window on mouse click 	
OK Cancel Apply Help	

Select **color scheme** for the object. The "Base color" refers to the color of the window title and border. The background color for the part of the window containing the main text is usually white. Input **text for the header** and the **main part** of the window. By default, title text is centered and has a font corresponding to the default font of selected learning Module. You can change these settings while in editing mode.

Specify value for **text margin**. Text margin defines the space between border of the window and text block.

Define **window closing rule**: it can be closed by clicking on pop-up window "Close" button (which looks similar to conventional Windows "Close" button) or by clicking anywhere within a pop-up window. Note, you can omit selecting closing rule, but in this case, it will be your responsibility to define closing procedure. Depending on the purpose of inserted pop-up window, it might be necessary to disable display of pop-up right after Frame loading and define actions enabling display of pop-up window.

If necessary, select display effect for the object. This object can utilize additional efects: zoom in and fly in.

This object can be displayed as **modal**, i.e. it will be displayed as only active object (all other objects will be dimmed).

Standard popup window		×
Parameters Sound		
Use sound effects		
Click sound:	Standard 1	
Sound file:		
OK Cance	Apply Help	

On the "Sound" tab you can switch item display sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Since object has its own closing mechanism, it is capable of generating the closing Event. While building Frame, we can use closing event for initiating various actions. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Text Refreshed	After text is refreshed
on Text Added	After text is added
on Close Object	Right after the moment when user clicks on Popup Close Button (or on the window if "Hide window on mouse click" is checked

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
CLOSE TAB	Closes the object.
REFRESH TEXT	Refreshes the text in the object, Can be useful if the text contains dynamically changed substitutes.
ADD TEXT	Adds the text to the current text. Note, that the style of closest paragraph will be used for new text.

5.3.5.2 Relief Popup Window

Such objects as **Pop-up windows** are used for displaying various explanations to the text on the Slide. Basically, text size for explanations is considerably bigger than the one used for the similar Balloon type of objects. Therefore, Pop-up window can be activated by clicking on the link or button. It does not close automatically, it remains open. Compared to Balloon type of object, Pop-up window type has it's own windows closing mechanism.

Note, that this object is capable to make text substitution in Rich Text. Text substitutions can be variable values and object properties. Because Rich Text format is quite complex, additional markers for substitution area are used - double curle brackets. Text substitutions will be applied only for double curle brackets areas. For example {{\$oBJ_19.x}} will be substituted by value of X coordinate of OBJ_19 object's top-left corner, and {{#att_left}} will be substituted by value of CourseLab variable named att_left. If no substitution is found, all double curle brackets area will remain intact.

Example of object appearance:



Object parameters

Relief Popup Window	×
Parameters Sound	
Color scheme:	
Header text:	
Header text	
Window text:	
Window text TE	
Inner margin: 5 px	
 Display popup close button Close window on mouse click 	
OK Cancel Apply Help	

Select **color scheme** for the object. The "Base color" refers to the color of the window title and border. The background color for the part of the window containing the main text is usually white. Input **text for the header** and the **main part** of the window. By default, title text is centered and has a font corresponding to the default font of selected learning Module. You can change these settings while in editing mode.

Specify value for **text margin**. Text margin defines the space between border of the window and text block.

Define **window closing rule**: it can be closed by clicking on pop-up window "Close" button (which looks similar to conventional Windows "Close" button) or by clicking anywhere within a pop-up window. Note, you can omit selecting closing rule, but in this case, it will be your responsibility to define closing procedure. Depending on the purpose of inserted pop-up window, it might be necessary to disable display of pop-up right after Frame loading and define actions enabling display of pop-up window.

If necessary, select display effect for the object. This object can utilize additional efects: zoom in and fly in.

This object can be displayed as **modal**, i.e. it will be displayed as only active object (all other objects will be dimmed).

Relief Popup Window		×
Parameters Sound		
Use sound effects		
Click sound:	Standard 1	
Sound file:		
OK Cance	el Apply Help	

On the "Sound" tab you can switch item display sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Since object has its own closing mechanism, it is capable of generating the closing Event. While building Frame, we can use closing event for initiating various actions. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Text Refreshed	After text is refreshed
on Text Added	After text is added
on Close Object	Right after the moment when user clicks on Popup Close Button (or on the window if "Hide window on mouse click" is checked

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
CLOSE TAB	Closes the object.
REFRESH TEXT	Refreshes the text in the object, Can be useful if the text contains dynamically changed substitutes.
ADD TEXT	Adds the text to the current text. Note, that the style of closest paragraph will be used for new text.

5.3.5.3 Text Popup Window

Such objects as **Pop-up windows** are used for displaying various explanations to the text on the Slide. Basically, text size for explanations is considerably bigger than the one used for the similar Balloon type of objects. Therefore, Pop-up window can be activated by clicking on the link or button. It does not close automatically, it remains open. Compared to Balloon type of object, Pop-up window type has it's own windows closing mechanism.

Note, that this object is capable to make text substitution in Rich Text. Text substitutions can be variable values and object properties. Because Rich Text format is quite complex, additional markers for substitution area are used - double curle brackets. Text substitutions will be applied only for double curle brackets areas. For example {{\$0BJ_19.x}} will be substituted by value of X coordinate of OBJ_19 object's top-left corner, and {{#att_left}} will be substituted by value of CourseLab variable named att_left. If no substitution is found, all double curle brackets area will remain intact.

Example of object appearance:



Object parameters

Text window		
Parameters Sound		
Header text:	Header text	
Text:	Controversial radio DJ Howard S	
Inner margin:	6 px	
Color scheme:	Blue	
Custom color:	#6080b0	
Gradient type:	Simple	
Gradient angle:	0 deg.	
Border width:	1 px	
Transition:	Fly in 🔻	
Duration:	1 sec.	
Direction:	Left	
Shadow strength:	Normal	
Display modal		
OK Cancel Apply Help		

Select **color scheme of the Object**. Gradient fill will be created automatically according to selected scheme. Enter **header text** and **window text**. By default, header is centered and has text parameters defined as default for the Module.

If necessary, select display effect for the object. This object can utilize additional efects: zoom in and fly in.

This object can be displayed as **modal**, i.e. it will be displayed as only active object (all other objects will be dimmed).

Text window	×
Parameters Sound	
Use sound effects	
Close sound:	Standard 1 💌
Sound file:	
ОК Са	ncel Apply Help

On the "Sound" tab you can switch item display sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Since object has its own closing mechanism, it is capable of generating the closing Event. While building Frame, we can use closing event for initiating various actions. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Text Refreshed	After text is refreshed
on Text Added	After text is added
on Close Object	Right after the moment when user clicks on Popup Close Button (or on the window if "Hide window on mouse click" is checked

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result	
CLOSE TAB	Closes the object.	
REFRESH TEXT	Refreshes the text in the object, Can be useful if the text contains dynamically changed substitutes.	
ADD TEXT	Adds the text to the current text. Note, that the style of closest paragraph will be used for new text.	

5.3.6 Balloons

5.3.6.1 Simple Balloon

Balloon objects are used for opening various instructions for a text on the Slide. In general, amount of text in Balloon instruction is relatively small (smaller than the instructions used for the similar Pop-up window types of objects). Balloon object is intended to open up when the user's mouse moves over affected area versa the mouse click and closes when the user's mouse moves away from the active area. Therefore, Balloon types of objects do not have their own closing mechanism. Compared to Pop-up window type of object, Balloon objects can have pointer arrow.

Example of object appearance:



Object parameters

Simple Balloon		
Parameters		
Border color:	Steel Blue	
Arrow:	bottom-left 💌	
Balloon text:		
Balloon inner margin: 5 pixels		
OK Cancel	Apply Help	

Select **border color** with respect to the overall design of the Slide. Press "Apply" button to observe changes. Select **direction of arrow pointer** and input **Balloon text**. If necessary, specify value for **inner margin**. Inner margin defines the space between balloon border and the text.

5.3.6.2 Standard Balloon

Balloon objects are used for opening various instructions for a text on the Slide. In general, amount of text in Balloon instruction is relatively small (smaller than the instructions used for the similar Pop-up window types of objects). Balloon object is intended to open up when the user's mouse moves over affected area versa the mouse click and closes when the user's mouse moves away from the active area. Therefore, Balloon types of objects do not have their own closing mechanism. Compared to Pop-up window type of object, Balloon objects can have pointer arrow.



This is the TRIGGER TEXT for balloon.

Object parameters

Standard Balloon 🛛 🗙		
Parameters		
Background-Border color:	yellow-orange	
Arrow:	bottom-left 💌	
Balloon text: Some explanation on TRIGG	GER TEXT	
Balloon inner margin:	5 pixels	
ОК	Cancel Apply Help	

Select **color scheme (background-border color)** with respect to the overall design of the Slide. Press "Apply" button to observe changes. Select **direction of arrow pointer** and input **Balloon text**. If necessary, specify value for **inner margin**. Inner margin defines the space between balloon border and the text.

5.3.6.3 Convex Balloon

Balloon objects are used for opening various instructions for a text on the Slide. In general, amount of text in Balloon instruction is relatively small (smaller than the instructions used for the similar Pop-up window types of objects). Balloon object is intended to open up when the user's mouse moves over affected area versa the mouse click and closes when the user's mouse moves away from the active area. Therefore, Balloon types of objects do not have their own closing mechanism. Compared to Pop-up window type of object, Balloon objects can have pointer arrow.



Object parameters

Convex Balloon	
Parameters	
Balloon color:	Violet 🗸
Arrow:	bottom-left 💌
Balloon text: Some explanation on TRIGG	ER TEXT
Balloon inner margin:	2 pixels
OK Cancel	Apply Help

Select **balloon color** with respect to the overall design of the Slide. Press "Apply" button to observe changes. Select **direction of arrow pointer** and input **Balloon text**. If necessary, specify value for **inner margin**. Inner margin defines the space between balloon border and the text.

5.3.6.4 Gradient Balloon

Balloon objects are used for opening various instructions for a text on the Slide. In general, amount of text in Balloon instruction is relatively small (smaller than the instructions used for the similar Pop-up window types of objects). Balloon object is intended to open up when the user's mouse moves over affected area versa the mouse click and closes when the user's mouse moves away from the active area. Therefore, Balloon types of objects do not have their own closing mechanism. Compared to Pop-up window type of object, Balloon objects can have pointer arrow.



Object parameters

Gradient Balloon	X
Parameters	
Balloon color:	Yellow
Arrow:	bottom-left 🗸
Balloon text: Some explanation on TF	
Balloon inner margin:	5 pixels
OK Canc	el <u>A</u> pply Help

Select **balloon color** with respect to the overall design of the Slide. Press "Apply" button to observe changes. Select **direction of arrow pointer** and input **Balloon text**. If necessary, specify value for **inner margin**. Inner margin defines the space between balloon border and the text.

5.3.6.5 Idea Balloon

Balloon objects are used for opening various instructions for a text on the Slide. In general, amount of text in Balloon instruction is relatively small (smaller than the instructions used for the similar Pop-up window types of objects). Balloon object is intended to open up when the user's mouse moves over affected area versa the mouse click and closes when the user's mouse moves away from the active area. Therefore, Balloon types of objects do not have their own closing mechanism. Compared to Pop-up window type of object, Balloon objects can have pointer arrow.



Object parameters

Idea Balloon	×	
Parameters		
Background-Border color:	lightblue-blue	
Алтоw:	bottom-left	
Balloon text: Some explanation on TRIGGER TEXT		
Balloon inner margin:	5 pixels	
ОК С	Cancel Apply Help	

Select **color scheme (background-border color)** with respect to the overall design of the Slide. Press "Apply" button to observe changes. Select **direction of arrow pointer** and input **Balloon text**. If necessary, specify value for **inner margin**. Inner margin defines the space between balloon border and the text.

5.3.7 Design

5.3.7.1 Gradient Area

The Gradient Area type of objects is generally used for decoration purposes.

Example of object appearance:



Object parameters

Gradient Area	X
Parameters	
Color 1:	#Oa6cce
Color 2:	########
Direction:	 horizontal
	◯ vertical
ОК	Cancel Apply Help

Select color for the **start** (color 1) and the **end** (color 2) of the Gradient areas with respect to the selected design of the Slide. Click "Apply" to view changes.

Select **direction** of the gradient – vertical or horizontal.

5.3.7.2 Click Area

The **Click Area** type of objects is used for defining transparent click area anywhere on the Frame. Transparent by default, click area can be made visible (and blinking) using object methods. This may be useful, for example, to highlight click area in case of incorrect click.

The object is invisible by default, therefore object's placeholder is displayed in Edit mode:

Click Area

After inserting object into the Frame, adjust object's size and position in relation to the Frame structure. Open "Properties" dialog screen.

Click Area		
Highlighting		
Blink area Blink timer:	0.5 sec	
Opacity level:	40 percents	
Background color:	#FF9900	
Border style:	No border 🖌	
Border color:	#CC6600	
Border width:	2 pixels	
Preview highlighted		
WARNING! Highlight preview cannot be transparent in CourseLab workarea, but has real colors and shape		
OK Cance	el Apply Help	

On the **Highlighting** tab you can select blinking timer, background color, border parameters and opacity of the object in the Highlight mode. Check the **Preview highlighted** checkmark to preview object's Highlight mode. Be aware that there's no possibility to display transparency for this object in CourseLab Edit mode, therefore only background and border can be previewed.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
HIGHLIGHT ON	Turns the object in the Highlight mode
HIGHLIGHT OFF	Turns the object back to Invisible mode

5.3.7.3 Active Zone

The **Active Zone** type of Object is used to control mouse click on any part of the Frame and to launch different actions on correct and incorrect clicks. Transparent by default, a click area can be made visible using Object Methods. This may be useful, for example, to highlight the click area if of an incorrect click.

The object is invisible by default, therefore object's placeholder is displayed in Edit mode:



WARNING! This Object captures ALL mouse clicks in selected control area, therefore all clickable objects (links, buttons, Objects with actions etc.) located under control area will not accept clicks while this Object is active.

This Object evaluates mouse clicks on all Frame. Therefore no more than one Object of such type can be used in active mode simultaneously. To activate/deactivate this Object use Object's special methods ACTIVATE AREA/DEACTIVATE AREA.

Once involved, this object cannot be hidden as easy as any other Object due to its special abilities. To switch off this Object completely use Object's special method DESTROY AREA.

After inserting this Object into a Frame, adjust the Object's size and position in relation to the Frame structure. Open the "Properties" dialog screen. The mouse click on the defined Active zone is always considered as correct. There are 3 modes of incorrect mouse click control: Whole Frame, Selected Object or Selected Area, depending on area to control incorrect click.

Active Zone	Active Zone
Zone Incorrect Correct Highlight	Zone Incorrect Correct Highlight
Click control zone Whole frame	Click control zone Selected object
Object to control:	Object to control: OBJ_11
Position X: 5 px Y: 40 px	Position X: 5 px Y: 40 px
Size - width: 500 px height: 500 px	Size - width: 500 px height: 500 px
OK Cancel Apply Help	OK Cancel Apply Help

- 1. Whole Frame mode mouse click anywhere on the Frame (except for Active zone) will be considered as incorrect.
- 2. **Selected Object** mode mouse click anywhere on the Object (except for Active zone) will be considered as incorrect. Mouse clicks outside the Object are not evaluated at all.
- 3. **Selected Area** mode mouse click anywhere on the area on the Frame that is defined by coordinates (except for Active zone) will be considered as incorrect. Mouse clicks outside this area are not evaluated at all.

Active Zone						×
Zone Incorrect Correct	Highlight					
Attempts allowed:	3					
On attempt:		÷	_	¢		
On last attempt:	Actions o	nly				~
Temporary highlight						
Highlight duration:	3 sec	D.				
OK Cance		App	у		H	lelp

The number of **attempts allowed** can be defined on the Incorrect tab. Each attempt can have its own lists of Objects to display and to hide. Besides, highlighting of Active zone could be used after last incorrect attempt.

						X
Attempt number: 1						-
ID		· ·	_	- u r	Ť	
Hide objects:		÷	-	٩	4	P
ID						
			_		_	_
	ОК		Ca	ncel		

The lists of Objects to display and to hide in case of correct attempt can be defined on Correct tab.

Active Zone						×
Zone Incorrect Correct Highlight						
Display objects:	4	_	1		P	
ID						
Hide objects:	÷	-	1		1	1
ID						
						1
OK Cancel	Арр	y		H	lelp	

Parameters of highlighting can be defined on Highlight tab.

Active Zone				
Zone Incorrect Correct	Highlight			
Opacity:	30 %			
Background color:	#FF9900			
Border style:	No border 🗸			
Border color:	#CC6600			
Border width:	40 px			
Preview highlighting in editor				
LIMITATION: Opacity cannot be applied in preview mode				
OK Cancel Apply Help				

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event

on Control Started	When object switches into Active mode (start listening clicks).
on Click Accepted	When mouse click is captured anywhere on the Frame. Click is not evaluated yet.
on Click Out Of Control Area	First stage of click evaluation is complete – click is outside the control area. Further evaluation is stopped.
on Click Within Control Area	First stage of click evaluation is complete – click is inside the control area. Click will be evaluated further on stage 2.
on Click Within Correct Zone	Second stage of click evaluation is complete – click is inside the Active zone (i.e. correct). This event is fired BEFORE any actions in Object's list are processed.
on Click Out Of Correct Zone	Second stage of click evaluation is complete – click is outside the Active zone (i.e. incorrect). This event is fired BEFORE any actions on Object's list are processed.
on Control Stopped	When Object is deactivated

Object Methods

The state of the Object can be modified using methods.

Method name Execution Result	
ACTIVATE AREA	Turns the Object into Active mode.
DEACTIVATE AREA	Turns the Object into Inactive mode.
DESTROY AREA	DESTROY AREA

5.3.7.4 Notifier

The **Notifier** type of objects is used to attract learner's attention to the part of the Frame. There are three different shapes, which can be used as (optionally blinking) notifier: arrow, transparent rectangle with visible corners and colored transparent rectangular area.

Examples of Notifier appearance:



After inserting object into the Frame, open "Properties" dialog screen. Depending on selected object **appearance**, you can change various parameters:

Notifier	X
Parameters	
Notifier appearance: Blink notifier Blink timer:	Arrow
Arrow direction:	Top-right 🗸
Arrow color:	Red
OK Cance	el Apply Help

For **arrow** you can select arrow direction and color.

Notifier	
Parameters	
Notifier appearance: Blink notifier Blink timer:	Comers 💌 0.5 sec
Comer arm length:	6 pixels
Comer arm width:	2 pixels
Corner arm color:	#FF0000
OK Canc	el Apply Help

For **Corners** you can select corners size and color.

Notifier	X	
Parameters		
Notifier appearance: Blink notifier Blink timer:	Transparent area	
Opacity level:	40 percents	
Background color:	#FF9900	
Border style:	Double V	
Border width:	#CC6600	
WARNING! Notifier area cannot be transparent in CourseLab workarea, but has real colors and shape		
OK Cance	el <u>Apply</u> Help	

For **Transparent area** you can select blinking timer, background color, border parameters and opacity of the object. Be aware that there's no possibility to display transparency for this object in CourseLab Edit mode, therefore only background and border can be viewed.

5.3.7.5 Gradient Backing with rounded corners

Gradient Backing with rounded corners is used for design purpose.

Example of object appearance:



Object parameters

Gradient Backing with rour	nded corners
Parameters	
Color scheme:	Slate blue
Border color:	#CCCCCC
Fill color:	#CCCCCC []
Gradient color:	#FFFFFF
Comer radius:	6 px
Border width:	1 px
Shadow strength:	Nomal
ОК	Cancel Apply Help

Select **color scheme** for the Object - one of predefined or custom, according to your design requirements. Change border width and corner radius, if needed.

5.3.7.6 Image thumbnail with magnification feature

Image thumbnail with magnification feature is used to display magnified image on user click. Picture will be sized to maximal size that is allowed by Course Template.

Example of object appearance in Thumbnail mode:



Example of object appearance in Magnified mode:



Object parameters

Image thumbnail with magnific	ation feature
Parameters	
Image file:	
Button color:	Golden
Fill color:	Blue
Shadow strength:	Nomal
Magnify button tooltip:	Click here to magnify the image
Close button tooltip:	Click here to close magnified image
Close on mouse click anywh	nere on image
OK Car	ncel <u>A</u> pply Help

Select image file. Define **color schemes** for button and background. Change tooltips if needed.

5.3.7.7 Button for Next/Previous

Button can be used to launch Actions. It has predefined symbols for Next/Previous.

Example of object appearance:



Object parameters

Button	×
Parameters	
Button color:	Grey
Gradient type:	Button
Button symbol:	Next
Symbol color:	Blue
Shadow strength:	Nomal
ОК Са	ncel Apply Help

Select **color schemes** for Button.

5.3.8 Title-Slide

Title Slide group of objects is used strictly on the Title Slide.

5.3.8.1 Start Module Button

Start Module button appears in inactive state on the Splash Screen Slide while the main block of Module is loading and becomes active only when Module is fully loaded.

Example of object appearance:

START MODULE	Þ
--------------	---

Object parameters

Start Module Button	×
Parameters	
┌ 🔽 Use default button set	
While loading:	
After loading:	
OK Cancel Apply Help	

By default, the standard Start Module button is used. If you wish to use different button, then create 2 images using any graphical editor:

- First picture will be displayed while the main block of Module is loading (specify path in the "Picture before loading" field).
- The second picture will be displayed after the main block of Module is loaded (specify path in the "Picture after loading" field).

5.3.8.2 Title-Slide Popup

Title-Slide Popup button and window appears on the Title-Slide and may be useful for providing descriptions or help instructions.

Example of object appearance:



Object parameters

Title-Slide popup				
Popup window Buttons				
□ Vse default border colo	or –			
Border color:				
Design based as				
Popup header:	Modu	le descrip	otion	Œ
Popup text:				TE
Popup size horiz.:	500	vert.:	530	pixels
Popup position horiz.:	0	vert.:	0	pixels
On open close other pop	ups			
OK Cance	*	Арр	ly	Help

On the **Popup window** tab you can define popup window size and border, window header and text (these are RichText fields).

If **On open close other popups** checkmark is set, then only one (last opened) popup window will be displayed.

Title-Slide popup	
Popup window Buttons	
Use default buttons	
Open popup button:	
Close popup button:	
Open popup button tooltip:	Module description
Close popup button tooltip:	Close description
OK Cancel	Apply Help

By default, the standard button is used. If you wish to use different button, then create 2 corresponding images using any graphical editor.

5.3.9 Media

5.3.9.1 Flash

Flash-movie object is used for playing Adobe Flash Movies. Adobe Flash movie files have .swf extension.

IMPORTANT! The Adobe Flash Player software should be installed on the computer for playing Flash-movie. You can get the latest free version of Adobe Flash Player at <u>http://www.adobe.com</u>). To insure correct functionality of the learning Course remember to turn on the feature, which checks whether or not Flash Player has been installed on the target machine before loading the learning Module ("Module menu – Runtime Settings – Checks").

Flash-movie cannot be played in edit mode, only placeholder of the movie is visible.

Object parameters

Flash-movie
Parameters
Flash source File: C:\Courses\2.4 sandbox\000002\1\image URL: Code:
Display mode: Transparent layer Background color: #FFFFFF Custom parameters: + - + + +
Parameter Value custom_1 22 start_msg Hello!
OK Cancel Apply Help

Specify **Flash-movie source.** There are three options:

- 1. Local **file** (file will be automatically copied into the "Images" folder of learning Module);
- 2. URL full URL of Flash-movie;
- 3. **Code** this option allows you to insert code from YouTube and similar services. Object will try to determine Flashmovie URL from this code. However, use this option with great care, because it is potentially erroneous.

Be aware, that URL and Code options refer to external content, therefore this Flashmovie becomes the subject for Flash Player security settings (cross-domain security).

Select the playing mode. Adobe Flash Player supports the following window modes for playing the movie:

- 1. Window Mode Always on top of all layers. Flash movie plays in its own virtual window in the Frame above the core browser display window, therefore no other objects in the Frame can cover/screen Flash-movie object. Background color for the Flash-movie precisely corresponds to the one selected by the user.
- 2. Transparent Mode. Flash movie plays in the separate layer of the Frame and overlaps other objects placed underneath. However, the objects placed on top can overlap Flash movie. In case the background color for the Frame is not defined by user and Flash movie has transparent areas, then the objects layered underneath will be showing through the transparent portions of the movie. Since transparent mode is resource consuming, animation performance might be slower, therefore we do not recommend using transparent mode, unless it is absolutely necessary.
- 3. **Opaque Mode**. Flash-movie plays in the separate layer of the Frame and overlaps other objects placed underneath. However, the objects placed on top can overlap Flash-movie. Compared to transparent mode Flash-movie in opaque mode will always have the background color defined, even if you do not explicitly specify Background color (White is default color).

If necessary, you can specify **background color** for the Flash-movie object.

Custom parameters can be added to Flash-movie (if Flash-movie is designed to handle these parameters). Be aware that parameter name must not contain whitespaces and special symbols, and parameter value must not contain quotes, left and right angle brackets.

Object Methods

Method name	Execution Result
PLAY	Start playing Flash-movie.
STOP	Stops playing Flash-movie.
REWIND	Rewind the movie to the start position
PAUSE	Pauses playing
CONTINUE	Continues playing from paused state

The state of the Object can be modified using methods.

5.3.9.2 Shockwave

Shockwave-movie object is used for playing Adobe Shockwave-movies created using Adobe Shockwave technology. Adobe Shockwave-movie files have .dcr extension. Adobe Shockwave technology is far more versatile than Adobe Flash. The wider range of the features has a drawback in terms of size of the Adobe Shockwave-movie, complexity of creation, and requirement to have a Adobe Shockwave player installed. Although, Adobe Shockwave player is distributed free of charge, it has a bigger size and it is less universal compared to Flash Player. Nevertheless, if you have a Adobe Shockwave-movie you can insert it into the Frame just as easy as Adobe Flash-movie.

IMPORTANT! The Adobe Shockwave Player software should be installed on the computer for playing Shockwave-movies. You can get the latest free of charge version of Adobe Shockwave Player at http://www.adobe.com). To insure correct functionality of the learning Course remember to turn on the feature, which checks whether or not Shockwave Player has been installed on the target machine before loading the learning Module ("Module menu – Runtime Settings – Checks").

Object parameters

Shockwave-movie	
Parameters	
File:	T\1\images\1blank.dcr
OK Cano	el <u>A</u> pply Help

Specify **path** to the Shockwave-movie file, which you are going to insert. Next, file will be automatically copied into the images folder of learning Module.

LIMITATION: During insertion of the Shockwave-movie object, the content for this object is unknown to the CourseLab editor; therefore movie placeholder will be displayed in the editing mode instead.

5.3.9.3 Video

Video clip object is used for playing Video clips in the different formats.

Windows Media Player is used by default for playing MPEG, AVI, and WMV formats. For FireFox browser family it is recommended to install latest version of Microsoft Windows Media Player plugin from Port 25 Team (<u>http://port25.technet.com/pages/windows-media-player-firefox-plugin-download.aspx</u>).

QuickTime Player is used by default for playing QuickTime MOV and 3gp formats. Note, that QuickTime Player must be installed on learner's computer (free download at http://www.apple.com/quicktime/).

Real Player is used by default for playing clips in Real Media RM, RAM and RPM files. Note that RealMedia Player must be installed on learner's computer (free download at http://www.real.com/).

IMPORTANT! Additional software should be installed on the computer for playing video clips. To insure correct functionality of the learning Course remember to

turn on the feature, which checks whether or not required software has been installed on the target machine before loading the learning Module ("Module menu – Runtime Settings – Checks").

LIMITATION: During insertion of the Video clip object, the content for this object is unknown to the CourseLab editor; therefore Video clip placeholder will be displayed in the editing mode instead.

Object parameters

Video	X	
Parameters		
Video source		
File: F:\WindowsMedia	aSample.wmv	
O URL:		
Player selection:	Automatic 🗸	
Player controls:	Hide 💌	
Movie autostart		
Windowless mode (WMP IE, FF, NS7)		
Invisible mode		
ОК Са	ncel <u>A</u> pply Help	

Specify Video source. There are two options:

- 1. Local **file** (file will be automatically copied into the "Images" folder of learning Module);
- 2. **URL** full URL of movie;

Be aware, that URL option refers to external content, therefore this Video clip becomes the subject for browser security settings (cross-domain security).

Player selection option allows you to define desired player software explicitly. Note, that depending on this option and selected video source object placeholder may change the appearance. For example, this is Windows Media Player placeholder on the picture.



Display of the **player controls** can be further adjusted.

In case **Movie Autostart** check box is selected, Video clip is launched as soon as it is loaded, otherwise user should manually select "Play" button using video controls, or object methods.

Windowless mode enables to launch Windows Media Player as inline element (i.e. in this case it can be overlapped by other objects), otherwise it will be launched in window mode (and by default it cannot be overlapped by other objects). Note, that not all players and browsers support windowless mode, however.

Invisible mode enables to launch player software as a hidden element. This mode may be useful for playing audiofiles.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism. Yellow cells contain events used only for streaming media.

Event	Triggered Upon
on Playing Tick	Fires every second while the player is playing media. Use it with currentPosition property to create time-binded actions.
on Change Play State	Fires at the moment when playing state of the media is changed (state itself doesn't matter - just changed).
on Play Stopped	At the moment when playing of media stops (no matter was it learner's click or the end of media).
on Play Paused	At the moment when playing of media becomes paused.
on Play Started	At the moment when playing of media starts (position doesn't matter).
on Play Begin	At the moment when playing of media starts from the beginning.
on Play Resumed	At the moment when playing of media starts from the paused state.
on End Of Media	At the moment when playing of media stops on the end of media.
on Position Changed	Fires when current position is changed by slider control or method.
on Media Changed	At the moment when player media is changed.
on Media Error	At the moment when player generates media error.
-------------------------------	--
on Waiting Server Response	At the moment when player starts for waiting server responce.
on Reconnect To Server	At the moment when player starts reconnecting to server.
on Start Buffering Media	At the moment when player starts buffering.
on Preparing Media	At the moment when media is loaded and player starts preparing.
on Media Is Ready	At the moment when media is loaded and player is ready to start.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
PLAY	Start playing clip.
STOP	Stops playing clip.
PAUSE	Pauses playing. Use PLAY method to continue from paused.
SET PROPERTY	Sets one of the player properties.
REPLACE MEDIA	Replaces video source of player.

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Note, that these properties are available only for Windows Media Player and QuickTime Player (not for Real Player).

Property	Returns	Syntax
autoStart	Returns 1 if AutoStart is set to true, 0 otherwise.	\$ <mark>OBJ_ID</mark> .autoStart
mute	Returns 1 if mute sound is set to true, 0 otherwise.	\$ <mark>OBJ_ID</mark> .mute
volume	Returns current sound volume (range 0-100).	\$ <mark>OBJ_ID</mark> .volume
currentMedia	Returns current media name (if exists), empty string otherwise.	\$ <mark>OBJ_ID</mark> .currentMedia
duration	Returns full media duration in seconds.	\$OBJ_ID.duration
currentPosition	Returns current position in media in seconds.	\$OBJ_ID.currentPosition
currentState	Returns current object state (tokens: "undefined", "stopped", "paused", "playing" ,"forward", "backward", "buffering", "waiting", "ended", "preparing", "ready", "reconnect").	\$OBJ_ID.currentState
url	Returns current media URL if available.	\$ <mark>OBJ_ID</mark> .url
isOnline	(WMP only) Returns 1 if player object has access to the network, 0 otherwise.	\$ <mark>OBJ_ID</mark> .isOnline

5.3.9.4 Java

Java Applet object is used for inserting Java Applets into the learning Course.

IMPORTANT! Java Virtual Machine should be installed on the computer for running Java Applets (free download at <u>http://www.sun.com/</u>). To insure correct

functionality of the learning Course, remember to turn on the feature, which checks whether or not Java has been installed on the target machine before loading the learning Module (Module menu – Runtime Settings – Checks).

Java-applet cannot be played in edit mode, only placeholder of the applet is visible.

Object parameters

Java applet	×
Files Parameters	Java
JAR-archive: Start file:	D:\Courses\starwars.jar start.class
Class file:	
Additional files:	+ - 4 🗣 😭
ОК	Cancel <u>A</u> pply Help

Select **path to files**. Files will be copied into images folder.

Java applet	
Files Parameters	Java
Horizontal margin: Vertical margin: Alt text:	0 pixels 0 pixels
Applet parameters:	
Name	Value
ОК	Cancel <u>A</u> pply Help

Define **margins** if necessary. **Alt text** will be displayed to user if there is no Java installed on the computer.

Applet parameters will be transferred to applet on launch.

Java applet	
Files Parameters Java	
Java machine:	Sun Java Machine 🗸
OK Cano	cel <u>A</u> pply Help

Java Machine selection has practical meaning in very rare cases.

5.3.9.5 Flash Video

Flash Video clip object is used for playing Video clips in Flash Video format (FLV).

IMPORTANT! The Adobe Flash Player 9 or higher should be installed on the computer for playing Flash Video. You can get the latest free version of Adobe Flash Player at <u>http://www.adobe.com</u>). To insure correct functionality of the learning Course remember to turn on the feature, which checks whether or not Flash Player has been installed on the target machine before loading the learning Module ("Module menu – Runtime Settings – Checks").

LIMITATION: Flash Video file must contain metadata to allow full functionality of the object (i.e. file must be converted in FLV 1.1 format). If your FLV-file is converted with FLV 1.0 converter, then only basic object methods and properties can be used (though FLV-file still can be played).

Flash-movie cannot be played in edit mode, only placeholder of the movie is visible.

Object parameters

Flash-video		
Parameters		
File: C:\Courses\2.4 sandbox\20071227\1\ima		
O URL:		
Display mode:	Transparent layer	
Background color:	#FFFFFF	
Player controls:	Show	
Movie autostart		
OK Cancel Apply Help		

Specify Flash video source.

There are two options:

- 1. Local **file** (file will be automatically copied into the "Images" folder of learning Module);
- 2. URL full URL of movie;

Be aware, that URL option refers to external content, therefore this Video clip may become the subject for browser and Flash Player security settings (crossdomain security).

Select the playing mode. Adobe Flash Player supports the following window modes for playing the movie:

- 1. Window Mode Always on top of all layers. Flash movie plays in its own virtual window in the Frame above the core browser display window, therefore no other objects in the Frame can cover/screen Flash-movie object. Background color for the Flash-movie precisely corresponds to the one selected by the user.
- 2. Transparent Mode. Flash movie plays in the separate layer of the Frame and overlaps other objects placed underneath. However, the objects placed on top can overlap Flash movie. In case the background color for the Frame is not defined by user and Flash movie has transparent areas, then the objects layered underneath will be showing through the transparent portions of the movie. Since transparent mode is resource consuming, animation performance might be slower, therefore we do not recommend using transparent mode, unless it is absolutely necessary.
- 3. **Opaque Mode**. Flash-movie plays in the separate layer of the Frame and overlaps other objects placed underneath. However, the objects placed on top can overlap Flash-movie. Compared to transparent mode Flash-movie in opaque mode will always have the background color defined, even if you do not explicitly specify Background color (White is default color).

If necessary, you can specify **background color** for the Flash-movie object.

Display of the **player controls** can be further adjusted.

In case **Movie Autostart** check box is selected, Video clip is launched as soon as it is loaded, otherwise user should manually select "Play" button using video controls, or object methods.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

IMPORTANT! Most of properties and events of this object are not native to Flash Video or Flash, they are simulated by software. Due to this fact and due to delays in Flash-JavaScript communication, some delay (up to 1 sec) may occur a) between calling the object's method and method's execution b) between changing Flash Video playing state and corresponding object's event c) in changing property values. Please be aware of this fact.

Event	Triggered Upon	
on Playing Tick	Fires every second while the player is playing media. Use it with currentPosition property to create time- binded actions.	
on Change Play State	Fires at the moment when playing state of the media is changed (state itself doesn't matter - just changed).	
on Play Stopped	At the moment when playing of media stops (no matter was it learner's click or the end of media).	
on Play Started	At the moment when playing of media starts (position doesn't matter).	
on End Of Media	At the moment when playing of media stops on the end of media.	
on Position Changed	Fires when current position is changed by slider control or method.	

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
PLAY	Start playing clip.
STOP	Stops playing clip.
REWIND	Rewinds clip to the beginning (does not change playing state).
PAUSE	Pauses playing. Use PLAY method to continue from paused.
CONTINUE	Start playing clip from current position.
SET VOLUME	Sets sound volume (integer 0-100).
MUTE	Mutes sound.
UNMUTE	Unmutes sound.
SET POSITION	Sets playing position in seconds (does not change playing state). May not work with FLV 1.0 files

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

IMPORTANT! Most of properties and events of this object are not native to Flash Video or Flash, they are simulated by software. Due to this fact and due to delays

in Flash-JavaScript communication, some delay (up to 1 sec) may occur a) between calling the object's method and method's execution b) between changing Flash Video playing state and corresponding object's event c) in changing property values. Please be aware of this fact.

Property	Returns	Syntax
mute	Returns 1 if mute sound is set to true, 0 otherwise.	\$ <mark>OBJ_ID</mark> .mute
volume	Returns current sound volume (range 0-100).	\$ <mark>OBJ_ID</mark> .volume
duration	Returns full media duration in seconds.	\$ <mark>OBJ_ID</mark> .duration
currentPosition	Returns current position in media in seconds.	\$ <mark>OBJ_ID</mark> .currentPosition
currentState	Returns current object state (tokens: "0" - means "stopped", 1 - means "playing"	\$ <mark>OBJ_ID</mark> .currentState

5.3.10 Navigation

Navigation Objects enable transition among Slides and Frames. The majority of Navigation objects have certain usage limitations, therefore be cautious when implementing.

5.3.10.1 Universal Button

Universal button is configurable Button Template that allows to use it to display selected Objects.

Example of object appearance:



Object parameters

Universal Button	×
Parameters Sound	
Enabled button:	
MouseOver button:	
Disabled button:	
Enabled button tooltip:	
Disabled button tooltip:	
Treat as navigation object	
Strict Navigation mode	
Use Open/Close methods of targ	et object
Target object:	
ок Са	ancel Apply Help

This Object has no predefined images. Use any graphic editor to create following 3 pictures:

• The first picture displays the button in enabled state (specify path to the image under "Enabled Button");

- The second picture will replace the first one in case user moves mouse over the enabled button (specify path to the image under "OnMouseOver Button");
- The third picture displays the disabled button (specify path to the image under "Disabled Button").

You can specify mouse over tooltip messages for both enabled and disabled buttons.

Define if this button should accept Navigation Events.

Actions on Button click can be defined in Actions dialog. However, if the Object that you want to manage has its own OPEN and CLOSE methods, then you can select this Object as target.

Universal Button	
Parameters Sound	
Use sound effects	
Events with sound:	Mouseover and click 👻
Mouseover sound:	Standard 1
Sound file:	
Click sound:	Standard 1
Sound file:	
ок	Cancel Apply Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name Execution Result

DISABLE ACCESS	Restrict access to Button.
ENABLE ACCESS	Permit access to Button.

5.3.10.2 Navigation Menu

Navigation Menu enables tracing of the current Slide name and an instant transition to another Slide upon selecting its name (if there are no restrictions for such transition by other conditions). In case there exists <u>Alternative path</u> in the Module, object will use alternative Module structure from Alternative path.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:



Navigation Menu	×	
Parameters Sound		
Background color:	#FFFFFF	
Font:	Tahoma 🗸	
Font size:	11 px	
Font weight:	Nomal	
Font style:	Nomal	
Font color:	#000000	
✓ Display slides hierarchy		
Strict Navigation mode		
Strict slide order message:	You cannot jump to this slid	
* If alternative module structure is defined		
in Module Structure object this object will		
use this structure automatically		
OK Cancel	Apply Help	

Object parameters

You can modify different Navigation menu display settings.

The marker **"Show Slide hierarchy**" enables to modify display mode of the Slide's structure in the Module.

Strict Navigation Mode – automatic blocking of the navigation object from the moment the Slide was opened until all objects on this Slide displayed in the Timeline panel of the frame were played back.

Strict slide order message will be displayed if the learner will try to jump more than one slide further and strict slide order mode is enabled in Module run-time settings.

Navigation Menu	
Parameters Sound	
Use sound effects	
Change selection sound:	itandard 1 🗸
Sound file:	
OK Cancel	Apply Help

On the "Sound" tab you can switch item display sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name Execution Result	
DISABLE ACCESS	Restrict access to Navigation menu.
ENABLE ACCESS	Permit access to Navigation menu.

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
disabled	Returns 1 if object is currently disabled, 0 otherwise. \$OBJ_ID.disabled	
selectedID	Returns ID of current Slide	\$ <mark>OBJ_ID</mark> .selectedID

selectedName Returns slide name of current Slide \$OBJ_ID		\$ <mark>OBJ_ID</mark> .selectedName
selectedNumber Returns number of current Slide \$0		\$ <mark>OBJ_ID</mark> .selectedNumber
totalEntries	Return total number of selector options	\$ <mark>OBJ_ID</mark> .totalEntries

5.3.10.3 Current Position

Current Position object enables tracing of the Slide number against the total number of Slides.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

POSITION: 1/2

Object parameters

Current position		
Parameters		
Text:	POSITION:	
Divider:	/	
Font:	Tahoma 💌	
Font size:	11 pixels	
Font weight:	Bold	
Font style:	Normal 🖌	
Font color:	#76a8eb	
OK Cancel Apply Help		

By default, object displays the following label: "POSITION: N/M" (where N is a Slide number, and M is a total number of Slides). You can modify text, divider, and some other display parameters with respect to the overall design of the learning Module.

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
currentPosition	Returns number of current Slide	\$ <mark>OBJ_ID</mark> .currentPosition

5.3.10.4 Contents Tab

Contents tab enables displaying the list of the Slides within Module and transition to other Slides by selecting their names (unless transition to selected Slide is in agreements with other conditions). In case there exists <u>Alternative path</u> in the Module, object will use alternative Module structure from Alternative path.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

First Slide		
((Test Course	
	Contents	TS
→ First Slide	<u>.</u>	Iestic
Second Slide		8
Second Slide - Explanation		Selector
		Select C

Object parameters

Contents Tab		
Display Parameters	Sound	
Use default ta	b set	
Enabled tab:		
OnMouseOver ta	b:	
Disabled tab:		
OnClick Tab:		
Border color:		#000000
Area size	horizontal:	500 px vert.: 460 px
Default tab color:		Orange 🗸
Tab vertical offset:		0 px
Enabled tab tooltip	:	Contents
Disabled tab tooltip	:	Contents disabled
OK Cancel Apply Help		

In case the **default tab** is used, you can select color, change vertical margin with relation to the top border of the object, and specify mouse over tooltip messages for both enabled and disabled tabs.

If **default tab** marker is unchecked you can use custom images for displaying tabs, change object's border size, and color.

Contents Tab		
Display Parameters Sound		
Headertext:	Contents	
Use default slide icon set		
Unvisited slide icon:		
Current slide icon:		
Visited slide icon:		
Display slide hierarchy		
Use default node icon set		
Closed node icon:		
Open node icon:		
Strict slide order message:	You cannot jump to this slide until you	
ОК Са	ancel Apply Help	

Use default Slides icon set marker enables you to replace Slide's icons, if desired.

The marker "**Show Slide hierarchy**" enables to modify display mode of the Slide's structure in the Module. Besides, you can replace images, which represents hierarchy nodes, if desired.

Strict Navigation Mode – automatic blocking of the navigation object from the moment the Slide was opened until all objects on this Slide displayed in the Timeline panel of the Frame were played back.

Strict slide order message will be displayed if the learner will try to jump more than one slide further and strict slide order mode is enabled in Module run-time settings.

Contents Tab	
Display Parameters Sound	
Use sound effects	
Events with sound:	Mouseover and click
Mouseover sound:	Standard 1
Sound file:	
Click sound:	Standard 1
Sound file:	
ОК	Cancel Apply Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
DISABLE ACCESS	Restrict access to Tab.
ENABLE ACCESS	Permit access to Tab.
OPEN TAB	Opens Tab (if access is not disabled)
CLOSE TAB	Closes Tab

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
----------	---------	--------

disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled
open	Returns 1 if object is currently open, 0 otherwise.	\$ <mark>OBJ_ID</mark> .open

5.3.10.5 Help Tab

Help Tab object enables displaying the Help text block for the Module.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

First Slide		
Test Course		
Help		
eLearning Module Structure	^	Que
Learning Module is a fundamental building block of the Course hierarchy representing the set of author-structured Slides. During the learning process the learner is led from one Slide to another sequentially, which is default behavior. Slide (Interactive page) is the main building block of Learning Module. Slides are used by the author to place learning material, tests, and exercises. The order of Slide correlation is predefined by the author.		of
Navigation		
eLearning Module navigation controls (the list may vary depending on author's design):		
 "Prev" and "Next" buttons enable to jump on previous and next slide correspondingly; "Replay" button enable to start current slide once again from the beginning (it may be useful, for example, to repeat animation on slide etc.); "Contents" tab or button with popup window displays the list of all slides and enables transition to any slide in the Module (if 		,

Object parameters

Help Tab			×
Display Parameters	Sound		_
Use default tab	set		1
Enabled tab:			
OnMouseOver tab:	:		
Disabled tab:			
OnClick Tab:			
Border color:		#000000	
Area size	horizontal:	500 px vert.: 460 px	
Default tab color:		Orange 🗸	
Tab vertical offset:		92 px	
Enabled tab tooltip:		Help	
Disabled tab tooltip:		Help disabled	
	к с	ancel Apply Help	

In case the **default tab** is used, you can select color, change vertical margin with relation to the top border of the object, and specify mouse over tooltip messages for both enabled and disabled tabs.

If **default tab** marker is unchecked you can use custom images for displaying tabs, change object's border size, and color.

Help Tab		×
Display Parameters Sound	ł	
Header text:	Help	TE
Area text:		TE
Strict Navigation mode		
ОК	Cancel Apply	Help

You can modify header of the Help tab and insert Help text into the Rich Text fields.

Strict Navigation Mode – automatic blocking of the navigation object from the moment the Slide was opened until all objects on this Slide displayed in the Timeline panel of the Frame were played back.

Help Tab	
Display Parameters Sound	
Use sound effects	
Events with sound:	Mouseover and click
Mouseover sound:	Standard 1
Sound file:	
Click sound:	Standard 1
Sound file:	
ОК	Cancel Apply Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
DISABLE ACCESS	Restrict access to Tab.
ENABLE ACCESS	Permit access to Tab.
OPEN TAB	Opens Tab (if access is not disabled)
CLOSE TAB	Closes Tab

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property Returns	Syntax
------------------	--------

disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled
open	Returns 1 if object is currently open, 0 otherwise.	\$ <mark>OBJ_ID</mark> .open

5.3.10.6 Calculator Tab

Calculator tab enables displaying the Calculator, which can be used for calculations inside the Module.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

First Slide								
((a transmission					Test (Course	
			Calcu	lator				
		_		_	_	_	ĩ	Qu
						0		of
			Backs	pace	CE	С		Sele
	МС	7	8	9	/	^		
	MR	4	5	6	x	%		TOR
	M-	1	2	3		1/x		ALCULA
	M+	0	•	+/-	+	=		
•	r							

Object parameters

Calculator Tab		
Display Parameters	Sound	
Use default tal	o set	
Enabled tab:		
OnMouseOver tal	D:	
Disabled tab:		
OnClick Tab:		
Border color:		#000000
Area size	horizontal:	500 px vert.: 460 px
Default tab color:		Orange 💌
Tab vertical offset:		184 px
Enabled tab tooltip:		Calculator
Disabled tab tooltip:		Calculator disabled
	ок	Cancel Apply Help

In case the **default tab** is used, you can select color, change vertical margin with relation to the top border of the object, and specify mouse over tooltip messages for both enabled and disabled tabs.

If **default tab** marker is unchecked you can use custom images for displaying tabs, change object's border size, and color.

Calculator Tab		×
Display Parameters Sound		
Header text:	Calculator	E
Description:		TE
Strict Navigation mode		
ОК	Cancel Apply	Help

You can modify header of the Calculator tab and insert short description text into the Rich Text fields.

Strict Navigation Mode – automatic blocking of the navigation object from the moment the Slide was opened until all objects on this Slide displayed in the Timeline panel of the Frame were played back.

Calculator Tab	
Display Parameters Sound	
Use sound effects	
Events with sound:	Mouseover and click
Mouseover sound:	Standard 1
Sound file:	
Click sound:	Standard 1
Sound file:	
ОК (Cancel Apply Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
DISABLE ACCESS	Restrict access to Tab.
ENABLE ACCESS	Permit access to Tab.
OPEN TAB	Opens Tab (if access is not disabled)
CLOSE TAB	Closes Tab

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property Returns	Syntax
------------------	--------

disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled
open	Returns 1 if object is currently open, 0 otherwise.	\$ <mark>OBJ_ID</mark> .open
value	Returns current value from calculator display	\$ <mark>OBJ_ID</mark> .value

5.3.10.7 Settings Tab

Settings Tab object enables displaying current Settings or Statistics for the Module.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

Settings		
This is optional description of objectives.		
Module state		
🔀 🔚 Total score	5(10)	
Module objectives state		
Objective name	Score	
n1 n1	0(5)	
🖌 🗌 Second obj	0(10)	
		SETTINGS

Object parameters

Settings	Tab				
Display	Parameters	Objectives To	exts Sound		
	lse default tal	set			_
Enat	oled tab:				
OnM	louseOver Ta	ıb:			
Disa	bled Tab:				
OnC	lick Tab:				
Bord	ler color:		#000000		
Area	i size	hor.:	500 px	vert.: 460 px	
Defaul	t tab color:		Orange		~
Tab ve	ertical offset:		276 px		
Enable	ed tab tooltip:		Module parar	neters	
Disabl	ed tab tooltip:		Module parar	meters disabled	
		ок с	ancel	Apply He	lp

In case the **default tab** is used, you can select color, change vertical margin with relation to the top border of the object, and specify mouse over tooltip messages for both enabled and disabled tabs.

If **default tab** marker is unchecked you can use custom images for displaying tabs, change object's border size, and color.

Settings Tab		
Display Parameters Object	tives Texts Sound	
Header text:	Parameters	TE
Display description		
Description text:		TE
Strict Navigation mode:		
ОК	Cancel Apply	Help

You can modify header of the Settings tab and insert description texts into the Rich Text fields.

Strict Navigation Mode – automatic blocking of the navigation object from the moment the Slide was opened until all objects on this Slide displayed in the Timeline panel of the Frame were played back.

ttings Tab		
Display Parameters Object	ives Texts Sound	
Display main objective	status	1
Main objective header:	Main module objective	
Display state of other n	nodule objectives	1
Other objectives header:	Module objectives TE	
Use default status icon	ı set	ר ר
Compl not attempted		
Compl incomplete		
Compl completed		
Success - unknown:		
Success - passed:		
Success - failed:		
Score display type:	Percentage (%)	
ОК	Cancel Apply Help	-

On the **Objectives** tab you can select which Module parameters will be displayed.

Settings Tab	
Display Parameters Objectives T	exts Sound
Objectives column header:	Objective
Score column header:	Score
Completion status tooltip:	Completion status:
Success status tooltip:	Success status:
Status values to	poltips
Unknown:	Unknown
Not attempted:	Not attempted
Incomplete:	Incomplete
Completed:	Completed
Passed:	Passed
Failed:	Failed
ок с	ancel Apply Help

On the **Texts** tab you can define messages and tooltips that will be presented to learner.

Settings Tab	
Display Parameters Objectives	Texts Sound
Use sound effects Events with sound Mouseover sound:	Mouseover and click
Sound file:	
Click sound:	Standard 1
Sound file:	
ОК	Cancel Apply Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name Execution Result	
DISABLE ACCESS	Restrict access to Tab.
ENABLE ACCESS	Permit access to Tab.
OPEN TAB	Opens Tab (if access is not disabled)
CLOSE TAB	Closes Tab

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
----------	---------	--------

disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled
open	Returns 1 if object is currently open, 0 otherwise.	\$ <mark>OBJ_ID</mark> .open

5.3.10.8 Search Tab

Search Tab object enables search functionality within the current Module.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

Search	H	
Case: insensitive -	SEAR	
Search inclusion: Any word 💌		

Object parameters

Search Tab	\mathbf{X}	
Display Search Texts Styles S	Sound	
Use default tab set		
Enabled tab:		
OnMouseOver tab:		
Disabled tab:		
OnClick Tab:		
Border color:	#000000	
Area size horizontal:	500 px vert.: 460 px	
Default tab color:	Turquoise	
Tab vertical offset:	0 px	
Enabled tab tooltip:	Search	
Disabled tab tooltip:	Search disabled	
Strict Navigation mode		
OK Cancel Apply Help		

In case the **default tab** is used, you can select color, change vertical margin with relation to the top border of the object, and specify mouse over tooltip messages for both enabled and disabled tabs.

If **default tab** marker is unchecked you can use custom images for displaying tabs, change object's border size, and color.

Strict Navigation Mode – automatic blocking of the navigation object from the moment the Slide was opened until all objects on this Slide displayed in the Timeline panel of the Frame were played back.

Search Tab		X
Display Search Texts Styles S	ound	
Use default slide icon set		
Unvisited slide icon:		
Current slide icon:		
Visited slide icon:		
Search options		5
Enable case sensitivity selection	n	
Enable search logic selection		
By default:		
Case sensitive:	No 💌	
Search logic:	Any word 💌	
Search logic scope:	Slide	
Search results:	Link only	
ок с	ancel <u>Apply</u> Help	

The **Search** tab contains options for search processing. You can disable user controls for selecting case sensitivity and search logic selection - in this case user cannot change these settings in the search form and default search settings will be applied in every search.

- **Case sensitive** option sets default case sensitivity for search process.
- Search logic defines search inclusion in case user enters more than one word in query. Any word means that all Slides or Objects containing any of eneterd words will be found (i.e. OR operation). All words means that only Slides or Objects containing all of enetersd words will be found (i.e. AND operation).
- **Search logic scope** means the scope, to which Search logic will be applied Slide or Object.
- Search results can be presented as simple links or links with short text fragment.

Search Tab		
Display Search Texts St	yles Sound	
Header: Instruction text: Button text: Search logic: Any word: All words:	Search You can use * wildcards in conditions an Search Search inclusion: Any word All words	E
Case sensitivity:	Case:	
Insensitive:	sensitive	
Found:	Slides found:	
No results:	No results found	
Empty query:	Empty query - nothing to search	
OK Cancel Apply Help		

On the **Texts** tab you can define messages and tooltips that will be presented to learner.

Search Tab		$\overline{\mathbf{X}}$	
Display Search Tex	ds Styles Sound		
	Field and options	Button	
Font:	Tahoma 🗸	Tahoma 🐱	
Font size:	11 px	11 px	
Font weight:	Normal 🗸	Normal 🗸	
Font style:	Nomal 🗸	Normal 🗸	
Font color:	#000000	#000000	
Border style:	Solid 🗸	Solid 🗸	
Border width:	2 px	2 px	
Border color:	#666666	#666666	
Background color:	#FFFFFF	#F0F0F0	
	Background	Text	
Highlighted:	#FFEEDD	#CC0000	
OK Cancel Apply Help			

Styles tab contains style parameters for presenting search form and results.

Search Tab	
Display Search Texts Styles	Sound
Use sound effects Events with sound: Mouseover sound: Sound file:	Mouseover and click Standard 1
Click sound:	Standard 1
ОК	Cancel Apply Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name Execution Result	
DISABLE ACCESS	Restrict access to Tab.
ENABLE ACCESS	Permit access to Tab.
OPEN TAB	Opens Tab (if access is not disabled)
CLOSE TAB	Closes Tab

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
----------	---------	--------

disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled
open	Returns 1 if object is currently open, 0 otherwise.	\$ <mark>OBJ_ID</mark> .open

5.3.10.9 About Tab

About Tab object enables displaying the information text block for the Module.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

First Slide		
Test Course		
About		
This eLearning Module was developed using <u>CourseLab® eLearning</u> <u>Content Editor</u> . Depending on purpose this Module can be used in any AICC- or SCORM-compatible Learning Management System, on CD etc.	~	Qu Df
Hardware/Software requirements		Sele
This eLearning Module can be played on any PC that meets requirements below:		
 Operating System - Microsoft® Windows 98, Me, NT, 2000, XP (limited support of Windows 95) or Linux; Internet Browser - Microsoft® Internet Explorer 5.0 (Internet Explorer 5.5 or higher recommended), Mozilla FireFox 1.0 or higher, Netscape® 7.2 or higher; JavaScript enabled; XML support enabled (Microsoft® XML Parser 3.0 or higher recommended for Internet Explorer). 		
Additional requirements may be applied depending on media types used by Module author.		
	>	ABOUT

Object parameters

About Tab		
Display Parameters	Sound	
Use default tab set		
Enabled tab:		
OnMouseOver Tab:		
Disabled Tab:		
OnClick Tab:		
Border color:		#000000
Area size	hor.:	500 px vert.: 460 px
Default tab color:		Turquoise
Tab vertical offset:		368 px
Enabled tab tooltip:		About
Disabled tab tooltip:		Access is not allowed
OK Cancel Apply Help		

In case the **default tab** is used, you can select color, change vertical margin with relation to the top border of the object, and specify mouse over tooltip messages for both enabled and disabled tabs.

If **default tab** marker is unchecked you can use custom images for displaying tabs, change object's border size, and color.
About Tab		×
Display Parameters	Sound	
Header text:	About	
Area text:	This eLearning Module was developed TE	
Strict Navigation	mode:	
	OK Cancel Apply Help	

You can modify header of the tab and insert short description text into the Rich Text fields.

Strict Navigation Mode – automatic blocking of the navigation object from the moment the Slide was opened until all objects on this Slide displayed in the Timeline panel of the Frame were played back.

About Tab	
Display Parameters Sound	
Use sound effects Events with sound:	Mouseover and click
Mouseover sound:	Standard 1
Sound file:	
Click sound:	Standard 1
Sound file:	
ОК	Cancel Apply Help

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
DISABLE ACCESS	Restrict access to Tab.
ENABLE ACCESS	Permit access to Tab.
OPEN TAB	Opens Tab (if access is not disabled)
CLOSE TAB	Closes Tab

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
----------	---------	--------

disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled
open	Returns 1 if object is currently open, 0 otherwise.	\$ <mark>OBJ_ID</mark> .open

5.3.10.10 Next Slide Button

Next Slide Button Object is a special object which enables transition to the next Slide from the current Slide. In case there exists <u>Alternative path</u> in the Module, object will use alternative Module structure from Alternative path.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:



Object parameters

Next Slide Button		×
Parameters Sound		_
Use default button set		
Enabled button:		
OnMouseOver button:		
Disabled button:		
OnClick button:		
Enabled button tooltip:	Next Slide	
Disabled button tooltip:	Access is not allowed	1
Strict Navigation mode		
ОК С	Cancel Apply Help	

By default, standard button set is used. In case you prefer to use different button, remove the check mark "Use default button set". Fields for specifying path to the pictures become active. Use any graphic editor to create following four pictures:

- The first picture displays the button in enabled state (specify path to the image under "Enabled Button");
- The second picture will replace the first one in case user moves mouse over the enabled button (specify path to the image under "OnMouseOver Button");
- The third picture displays the disabled button (specify path to the image under "Disabled Button");
- The fourth picture displays the button being pressed (specify path to the image under "OnClick Button").

You can specify mouse over tooltip messages for both enabled and disabled buttons.

Strict Navigation Mode – automatic blocking of the navigation object from the moment the Slide was opened until all objects on this Slide displayed in the Timeline panel of the Frame were played back.

Next Slide Button	
Parameters Sound	
Use sound effects	
Events with sound:	Mouseover and click
Mouseover sound:	Standard 1
Sound file:	
Click sound:	Standard 1
Sound file:	
ОК	Cancel Apply Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
DISABLE ACCESS	Restrict access to Button.
ENABLE ACCESS	Permit access to Button.

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled

5.3.10.11 Previous Slide Button

Previous Slide Button Object is a special object which enables transition to the previous Slide from the current Slide. In case there exists <u>Alternative path</u> in the Module, object will use alternative Module structure from Alternative path.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:



Object parameters

Previous Slide Button	X
Parameters Sound	
Use default button set	
Enabled button:	
OnMouseOver button:	
Disabled button:	
OnClick button:	
Enabled button tooltip:	Next Slide
Disabled button tooltip:	Access is not allowed
Strict Navigation mode	
ок са	ancel Apply Help

By default, standard button set is used. In case you prefer to use different button, remove the check mark "Use default button set". Fields for specifying path to the pictures become active. Use any graphic editor to create following four pictures:

- The first picture displays the button in enabled state (specify path to the image under "Enabled Button");
- The second picture will replace the first one in case user moves mouse over the enabled button (specify path to the image under "OnMouseOver Button");
- The third picture displays the disabled button (specify path to the image under "Disabled Button");
- The fourth picture displays the button being pressed (specify path to the image under "OnClick Button").

You can specify mouse over tooltip messages for both enabled and disabled buttons.

Strict Navigation Mode – automatic blocking of the navigation object from the moment the Slide was opened until all objects on this Slide displayed in the Timeline panel of the Frame were played back.

Previous Slide Button	
Parameters Sound	
Use sound effects	
Events with sound:	Mouseover and click
Mouseover sound:	Standard 1
Sound file:	
Click sound:	Standard 1
Sound file:	
ОК	Cancel Apply Help

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
DISABLE ACCESS	Restrict access to Button.
ENABLE ACCESS	Permit access to Button.

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled

5.3.10.12 Slide Name

Slide Name object enables to automatically display the current Slide name defined in the Editor.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

	Second Slide		
1		Test Course	
	y)	Second Slide	

Object parameters

Slide Name		
Display		
Background color:	#c4dafb	
Font:	Arial	
Font color:	#182d80	
Font size:	18 pixels	
Font weight:	Bold	
Font style:	Nomal	
Text align:	Center 🗸	
OK Cancel Apply Help		

You can modify background color and font settings for the Slide Name with respect to the overall design of the learning Module.

LIMITATION: The Slide Name will be displayed completely only while playing the actual Course. Name substitute will be displayed in the editing mode instead.

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
slideName	Returns slide name of current Slide	\$ <mark>OBJ_ID</mark> .slideName

5.3.10.13 Window title

Window title object is used to configure format of title of the module window.

LIMITATION. If the module is viewed in the frame or IFRAME (some LMS use this displaying method by default) window title will NOT be changed.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

Module name : Slide name

Note, that this object is "virtual", hidden, therefore you can see such placeholder in editor.



Object parameters

Window Title	X
Parameters	
Display window title	
Title contains:	Module + chapter + slide*
Module name:	Module name
Divider:	:
* Alternative path object req	uired
ОК	Cancel Apply Help

Select title contents. Module name (which usually is in Course structure pane) can be redefined for title, because window title is usually limited in length, so it is better to use shorter variant here. Note that chapter name is available only if <u>Alternative Path</u> object is defined for this module.

5.3.10.14 Sound On/Off Button

Sound On/Off Button object is a special object, which enables turning on and off the audio feature of the Module.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:



Object parameters

Sound Button		
Parameters Sound		
Use default button set		-
Enabled Off button:		
OnMouseOver Off button:		
Enabled On button:		
OnMouseOver On button:		
Default button color:	Turquoise	
On button tooltip:	Sound is on. Turn sound off.	
Off button tooltip:	Sound is off. Turn sound on.	
OK Cano	cel Apply Help	,

By default, standard button set is used. In case you prefer to use different button, remove the check mark "Use default button set". Fields for specifying path to the pictures become active. Use any graphic editor to create following four pictures:

- The first picture displays the "Sound" button in On state and the button can be pressed to turn the Sound Off (specify path to the image under "Enabled Off Button")
- The second picture will replace the first one in case user moves mouse over the enabled button (specify path to the image under "OnMouseOver Off Button").
- The third picture displays the "Sound" button in "Off" state and the button can be pressed to turn the Sound On (specify path to the image under "Enabled On Button")
- The fourth picture will replace the third one, in case user moves mouse over the enabled turn On button (specify path to the image under "OnMouseOver On Button").

You can specify mouse over tooltip messages for both enabled and disabled buttons.

Sound Button		
Parameters Sound		
Use sound effects		
Events with sound:	Mouseover and click	
Mouseover sound:	Standard 1	
Sound file:		
Click sound:	Standard 1	
Sound file:		
OK Car	ncel <u>Apply</u> Help	

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
TOGGLE SOUND	Toggles sound on and off

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
soundOn	Returns 1 if object is sound is currently on, 0 otherwise.	\$ <mark>OBJ_ID</mark> .soundOn

5.3.10.15 Close Module Button

Close Module Button object is a special object, which enables correct closing of the learning Module.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:



Object parameters

Close Module Button		
Parameters Sound		
Use default button set		
Enabled button:		
OnMouseOver button:		
OnClick button:		
Enabled button tooltip:	Close module	
 Display confirmation dialog befor 	e close	
Confirmation text:	Module window will be closed. Are yo	
ОКС	ancel <u>Apply</u> Help	

By default, standard button set is used. In case you prefer to use different button, remove the check mark "Use default button set". Fields for specifying path to the pictures become active. Use any graphic editor to create following three pictures:

- The first picture displays the button in enabled state (specify path to the image under "Enabled Button");
- The second picture will replace the first one in case user moves mouse over the enabled button (specify path to the image under "OnMouseOver Button");
- The third picture will replace the second one when button is pressed. (specify path to the image under "OnClick button").

You can specify mouse over tooltip messages for both enabled and disabled buttons.

Close Module Button		
Parameters Sound		
Use sound effects		
Events with sound	Mouseover and click	
Mouseover sound:	Standard 1	
Sound file:		
Click sound:	Standard 1	
Sound file:		
ОК	Cancel Apply Help	

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.10.16 Replay Slide Button

Replay Slide Button object is a special object, which enables current Slide reloading (for example, to repeat animation used in the Slide).

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

()

Object parameters

Replay Slide Button		
Parameters Sound		
Use default button set		
Enabled button:		
OnMouseOver button:		
OnClick button:		
Disabled button:		
Default button color:	Turquoise	
Enabled button tooltip:	Replay current slide	
Disabled button tooltip:	Access is not allowed	
Strict Navigation mode		
ОК С	ancel Apply Help	

By default, standard button set is used. In case you prefer to use different button, remove the check mark "Use default button set". Fields for specifying path to the pictures become active. Use any graphic editor to create following four pictures:

- The first picture displays the button in enabled state (specify path to the image under "Enabled Button");
- The second picture will replace the first one in case user moves mouse over the enabled button (specify path to the image under "OnMouseOver Button");
- The third picture displays the disabled button (specify path to the image under "Disabled Button");
- The fourth picture displays the button being pressed (specify path to the image under "OnClick Button").

You can specify mouse over tooltip messages for both enabled and disabled buttons.

Strict Navigation Mode – automatic blocking of the navigation object from the moment the Slide was opened until all objects on this Slide displayed in the Timeline panel of the Frame were played back.

Replay Slide Button	
Parameters Sound	
Use sound effects	
Events with sound:	Mouseover and click
Mouseover sound:	Standard 1
Sound file:	
Click sound:	Standard 1
Sound file:	
ОК	Cancel Apply Help

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
DISABLE ACCESS	Restrict access to Button.
ENABLE ACCESS	Permit access to Button.

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax	
disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled	

5.3.10.17 Simple Progress Bar

Simple Progress Bar is a special object, which indicates amount of the visited Slides relative to the overall amount of the Slides. In case there exists <u>Alternative path</u> in the Module, object will use alternative Module structure from Alternative path.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

(Object parameters		
1	Simple Progress Bar		
	Parameters		
	└ Se default icon set		
	Visited slide icon:		

Simple Progress bai		
Parameters		
Use default icon set —		_
Visited slide icon:		
Current slide icon:		
Unvisited slide icon:		
Icon spacing:	1 px	
Background color:	#CCCCCC	
Border width:	1 px	
Border color:	#000000	
Inner margin:	1 px	
ОК	Cancel Apply H	elp

By default, the standard Slide's icons are used. If you wish to use different icons – uncheck the marker. Fields for inserting pictures become available. Create 3 images using any graphical editor:

- The first image will be displayed indicating already visited Slide.
- The second image will be displayed indicating the current Slide.
- The third image will be displayed indicating the Slides which are yet to be displayed.

You can also, modify appearance parameters of the Progress Bar.

5.3.10.18 Extended Progress Bar

Extended Progress Bar is a special object, which indicates amount of the visited Slides relative to the overall amount of the Slides. Unlike Simple Progress Bar, Extended Progress Bar displays the name of the current Slide; it also enables exploring the names of other Slides and enables

transition to them. In case there exists <u>Alternative path</u> in the Module, object will use alternative Module structure from Alternative path.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

Second Slide - Explanation	
2/3 Second Slide	

Object parameters

Use default rectangular	icons	lcon size	hor.: 11 px ver
Visited slide icon: Current slide icon: Unvisited slide icon:		Visite Background color: Border color:	d slide icon #009900 . #333333 .
Enable jump to slide on ic	on click	Border width:	nt slide icon
con spacing:	1 px	Background color:	#FFCC33
Background color:	#999999	Border color:	#333333
Border width:	1 px	Border width:	1 px
Border color:	#000000	Unvi	sited slide icon
nner marrin:	1 m	Background color:	#CCCCCC
nnermargin.	I PA	Border color:	#333333
		Border width:	1 px

By default, the standard Slide's icons are used. If you wish to use different icons – uncheck the marker. Fields for inserting pictures become available. Create 3 images using any graphical editor:

- The first image will be displayed indicating already visited Slide.
- The second image will be displayed indicating the current Slide.
- The third image will be displayed indicating the Slides which are yet to be displayed.

Otherwise you can modify appearance parameters of the default Slide's icons.

Sim	ple Progress Bar			
Pa	rameters Display Sound			
Г	Display current slide name		Display slide names on Mouse	Over
	Font:	Arial 🗸	Font:	Arial
	Font size:	11 px	Font size:	9 px
	Font weight:	Nomal	Font weight:	Normal
	Font style:	Nomal	Font style:	Normal
	Font color:	#000000	Font color:	#000000
	Text spacing:	1 px	Text spacing:	1 px
	Display slide numbers			
	Strict slide order message:	You cannot jump to this slide until you		
	- In case Alternative module path is	set		
1	Display mode:	Whole module		
			OK Can	cel <u>Apply</u>

You can also modify appearance parameters for slide name captions.

Simple Progress Bar			
Parameters Display Sound]		
Use sound effects			
Events with sound:	Mouseover and click	*	
Mouseover sound:	Standard 1	*	
Sound file:			
Click sound:	Standard 1	*	
Sound file:			
			OK Cancel Apply

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.10.19 Help Popup Window

Help Popup Window object enables display of the help content for the learning Module. Object consists of two parts: button to call the object and pop up window with help content. Only "Help" button is visible in editing mode.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

Help	×
eLearning Module Structure	^
Learning Module is a fundamental building block of the Course hierarchy representing the set of author-structured Slides. During the learning process the learner is led from one Slide to another sequentially, which is default behavior	
Slide (Interactive page) is the main building block of Learning Module. Slides are used by the author to place learning material, tests, and exercises. The order of Slide correlation is predefined by the author.	Ξ
Navigation	
eLearning Module navigation controls (the list may vary depending on author's design):	
 "Prev" and "Next" buttons enable to jump on previous and next slide correspondingly; "Replay" button enable to start current slide once again from the beginning (it may be useful, for example, to repeat animation on slide etc.); 	
 "Contents" tab or button with popup window displays the list of all slides and enables transition to any slide in the Module (if no restrictions were applied by author); Navigation drop-down menu displays the list of all slides and enables transition to any slide in the Module (if no restrictions were applied by 	
 author); "Sound On/Off" button toggles narration (if narration exists in the Module); 	~

Object parameters

Help Popup Window		
Window Button Sound		
Use default border colo	r	
Default border color:	Turquoise	
Border color:		
Headertext:	Help	
Window text:	eLearning Module Structure	
Window size hor.:	450 vert.: 507 px	
Window position hor.:	0 vert.: 0 px	
Strict Navigation mode		
ок	Cancel Apply Help	

In the opened dialog you can select the border color for the object with respect to the overall design of the learning Module. Also, you can modify title text and style.

You may input the Help content into the "Window text" field, which is in Rich Text Format mode that enables insertion of the formatted text, tables, pictures, and so on. Please be advised that width of the text area is limited; therefore avoid using tables and pictures that exceed 450 pixels in width.

You can modify size and location of pop up Help window with respect to the design of the learning Module, however, there are technical limitations for significant width and height changes.

Strict Navigation Mode – automatic blocking of the navigation object from the moment the Slide was opened until all objects on this Slide displayed in the Timeline panel of the Frame were played back.

Help Popup Window		
Window Button Sound		
Use default button set		
Enabled button:	C:\Courses\2.6_PG\	
OnMouseOver button:	C:\Courses\2.6_PG\	
OnClick button:	C:\Courses\2.6_PG\	
Disabled button:	C:\Courses\2.6_PG\	
Window close button:	C:\Courses\2.6_PG\	
Enabled button tooltip:	Help	
Disabled button tooltip:	Access is not allowed	
Close button tooltip:	Close help window	
OK Canc	el <u>Apply</u> Help	

By default, standard button set is used. In case you prefer to use different button, remove the check mark "Use default button set". Fields for specifying path to the pictures become active. Use any graphic editor to create following five pictures:

- The first picture displays the button in enabled state (specify path to the image under "Enabled Button");
- The second picture will replace the first one in case user moves mouse over the enabled button (specify path to the image under "OnMouseOver Button");
- The third picture displays the button being pressed (specify path to the image under "OnClick Button");
- The fourth picture displays the disabled button (specify path to the image under "Disabled Button");
- The fifth picture displays Help Popup Window Close button.

You can specify mouse over tooltip messages for buttons.

Help Popup Window		×
Window Button Sound		
Use sound effects		
Events with sound:	Mouseover and click	
Mouseover sound:	Standard 1	
Sound file:		
Click sound:	Standard 1	
Sound file:		
OK Car	ncel <u>A</u> pply Help	

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
DISABLE ACCESS	Restrict access to Button.
ENABLE ACCESS	Permit access to Button.

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled
open	Returns 1 if object is currently open, 0 otherwise.	\$ <mark>OBJ_ID</mark> .open

5.3.10.20 Contents Popup Window

Contents Popup Window enables displaying current Module contents, indicates visited Slides, and allows navigation within a Module. Object consists of two parts: button to call the object and Contents Popup Window. Only "Contents" button is visible in editing mode. In case there exists <u>Alternative path</u> in the Module, object will use alternative Module structure from Alternative path.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

	Contents	×
✓ <u>First Slide</u>		
Second Slide's Child		-
		~

Object parameters

Contents Popup Window	×
Window Button Display Sound	
Use default border color Default border color: Border color:	
Header text: Contents TE Window size hor.: 450 vert.: 507 px Window position hor.: 0 vert.: 0 px	
OK Cancel Apply Help	

In the opened dialog you can select the border color for the results window with respect to the overall design of the learning Module. Also, you can modify title text and style. You can modify size and location of popup window with respect to the design of the learning Module, however, there are technical limitations for significant width and height changes.

Contents Popup Window	
Window Button Display Sound	
Use default button set	
Enabled button:	C:\Courses\2.6_PG\
OnMouseOver button:	C:\Courses\2.6_PG\
OnClick button:	C:\Courses\2.6_PG\
Disabled button:	C:\Courses\2.6_PG\
Window close button:	C:\Courses\2.6_PG\
Enabled button tooltip:	Contents
Disabled button tooltip:	Access is not allowed
Close button tooltip:	Close Contents window
ОК Са	ncel Apply Help

By default, standard button set is used. In case you prefer to use different button, remove the check mark "Use default button set". Fields for specifying path to the pictures become active. Use any graphic editor to create following five pictures:

- The first picture displays the button in enabled state (specify path to the image under "Enabled Button");
- The second picture will replace the first one in case user moves mouse over the enabled button (specify path to the image under "OnMouseOver Button");
- The third picture displays the button being pressed (specify path to the image under "OnClick Button");
- The fourth picture displays the disabled button (specify path to the image under "Disabled Button");
- The fifth picture displays Help Popup Window Close button.

You can specify mouse over tooltip messages for buttons.

Contents Popup Window	X
Window Button Display Sound	
Use default slide icon set	
Unvisited slide icon:	
Current slide icon:	
Visited slide icon:	
Display slide hierarchy	
Use default node icon set	
Closed node icon:	
Open node icon:	
Strict Navigation mode	
Strict slide order message:	You cannot jump to this slide until you
ОК Са	ancel Apply Help

Use default Slides icon set marker enables you to replace Slide's icons, if desired.

The marker "**Show Slide hierarchy**" enables to modify display mode of the Slide's structure in the Module. Besides, you can replace images, which represents hierarchy nodes, if desired.

Strict Navigation Mode – automatic blocking of the navigation object from the moment the Slide was opened until all objects on this Slide displayed in the Timeline panel of the Frame were played back.

Strict slide order message will be displayed if the learner will try to jump more than one slide further and strict slide order mode is enabled in Module run-time settings.

Contents Popup Window	
Window Button Display Sou	nd
Use sound effects	
Events with sound:	Mouseover and click
Mouseover sound:	Standard 1
Sound file:	
Click sound:	Standard 1
Sound file:	
ОК	Cancel Apply Help

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
DISABLE ACCESS	Restrict access to Button.
ENABLE ACCESS	Permit access to Button.

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled
open	Returns 1 if object is currently open, 0 otherwise.	\$ <mark>OBJ_ID</mark> .open

5.3.10.21 Search Popup Window

Search Popup Window enables search functionality within the current Module. Only "Search" button is visible in editing mode.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

Search 🔀
Case: Insensitive • Search Inclusion: Any word •

Object parameters

Search Popup Window	×
Window Button Search Texts Styles Sound	_
Use default border color	
Default border color: Brown	
Border color:	
Window size hor.: 500 vert.: 416 px	
Window position hor.: 30 vert.: 30 px	
	_
OK Cancel Apply Help	

Window tab contains controls for popup window displaying parameters. You can select the border color for the object with respect to the overall design of the learning Module. Also, you can modify title text and style. You can modify size and location of popup window with respect to the design of the learning Module, however, there are technical limitations for significant width and height changes.

Search Popup Window	×
Window Button Search Texts Si	tyles Sound
Use default button set	
Enabled button:	
OnMouseOver button:	
OnClick button:	
Disabled button:	
Window close button:	
Enabled button tooltip:	Search
Disabled button tooltip:	Search disabled
Close button tooltip:	Close search window
Strict Navigation mode	
OK Car	ncel Apply Help

By default, standard button set is used. In case you prefer to use different button, remove the check mark "Use default button set". Fields for specifying path to the pictures become active. Use any graphic editor to create following five pictures:

- The first picture displays the button in enabled state (specify path to the image under "Enabled Button");
- The second picture will replace the first one in case user moves mouse over the enabled button (specify path to the image under "OnMouseOver Button");
- The third picture displays the button being pressed (specify path to the image under "OnClick Button");
- The fourth picture displays the disabled button (specify path to the image under "Disabled Button");
- The fifth picture displays Help Popup Window Close button.

You can specify mouse over tooltip messages for buttons.

Strict Navigation Mode – automatic blocking of the navigation object from the moment the Slide was opened until all objects on this Slide displayed in the Timeline panel of the Frame were played back.

Search Popup Window		×
Window Button Search Texts	Styles Sound	
Use default slide icon set		_
Unvisited slide icon:		
Current slide icon:		
Visited slide icon:		
Search options		=
Enable case sensitivity selectio	n	
Enable search logic selection		
By default:		
Case sensitivity:	No	
Search logic:	Any word 🖌	
Search scope:	Slide 🗸	
Results format:	Link only	
ок с	ancel <u>A</u> pply He	alp

The **Search** tab contains options for search processing. You can disable user controls for selecting case sensitivity and search logic selection - in this case user cannot change these settings in the search form and default search settings will be applied in every search.

- **Case sensitive** option sets default case sensitivity for search process.
- Search logic defines search inclusion in case user enters more than one word in query. Any word means that all Slides or Objects containing any of eneterd words will be found (i.e. OR operation). All words means that only Slides or Objects containing all of enetersd words will be found (i.e. AND operation).
- Search logic scope means the scope, to which Search logic will be applied Slide or Object.
- Search results can be presented as simple links or links with short text fragment.

Search Popup Window		
Window Button Search	Texts Styles Sound	
Header text:	Search TE	
Button text:	Search	
Search logic:	Search inclusion:	
Any word:	Any word	
All words:	All words	
Case sensitivity:	Case:	
Sensitive:	insensitive	
Insensitive:	sensitive	
Found:	Slides found:	
No results:	No results found	
Empty query:	Empty query - nothing to search	
ОК	Cancel Apply Help)

On the **Texts** tab you can define messages and tooltips that will be presented to learner.

Search Popup Wind	low	
Window Button Se	arch Texts Styles Sound	
	Field and options	Button
Font:	Tahoma 💌	Tahoma 💌
Font size:	11 px	11 px
Font weight:	Normal 💌	Normal 🖌
Font style:	Normal 💌	Nomal 🗸
Font color:	#000000	#000000
Border style:	Solid 🗸	Solid 🗸
Border width:	2 px	2 px
Border color:	#666666	#6666666
Background color:	#FFFFFF	#F0F0F0
	Background	Font
Highlighting:	#FFEEDD	#CC0000
C	K Cancel	Apply Help

Styles tab contains style parameters for presenting search form and results.

Search Popup Window	
Window Button Search Text	s Styles Sound
Use sound effects Events with sound: Mouseover sound: Sound file:	Mouseover and click Standard 1
Click sound:	Standard 1
Sound file:	
ОК	Cancel Apply Help

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
DISABLE ACCESS	Restrict access to Button.
ENABLE ACCESS	Permit access to Button.

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled
open	Returns 1 if object is currently open, 0 otherwise.	\$ <mark>OBJ_ID</mark> .open

5.3.10.22 Glossary Popup Window

Glossary Popup Window is used to display systematic glossary of terms with descriptions. Object consists of two parts: button to call the object and Glossary Popup Window. Only "Glossary" button is visible in editing mode.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

	Glossary	×
	* A B C E	
Avocado	he eggplant, aubergine, begun, or brinjal (Solanum	^
Breadfruit	melongena), is a plant of the family Solanaceae (also known	
Cucumber	as the nightshades) and genus <u>Solanum</u> . It bears a <u>fruit</u> of the	
Eggplant	nightshade, it is closely related to the <u>tomato</u> and <u>potato</u> and is native to <u>Bangladesh</u> , <u>Pakistan</u> , <u>Sri Lanka</u> and <u>India</u> .	
	It is a delicate <u>perennial</u> often cultivated as an <u>annual</u> . It grows 40 to 150 cm (16 to 57 in) tall, with large coarsely	×

Object parameters
Glossary Popup Window			
Item list:	<u> </u>	+ - + + 😭	
ID	ltem	Description	
a001 b001 c001 e001	Avocado Breadfruit Cucumber Eggplant	The avocado (Persea Breadfruit (Artocarpus a The cucumber is a cre he eggplant, aubergine	
✓ Display first letter sele	ction ribbon		
Nothing is selected:	Select item to display description		
Item not found	Item not found		
Left column width: 30 %			
OK Cancel <u>A</u> pply Help			

On the "Items" tab you can add as many glossary terms as you wish. Each term can be explained in Rich Text description. If you are planning to use external glossary calls (for example, you may need open some specific term description on click on the link, button, or image) it is recommended to use Item ID - unique for each term. Though there is also possibility to select term by its name, searching by name is generally slower than searching by ID, and also may lead to error (for example, if term contains some specific characters). Note, that you do not need to enter terms in alphabetic order - they will be sorted in alphabetic order automatically for display.

		×
Item ID:	e001	
ltem	Eggplant	
Item description:	he eggplant, aubergine, begun, or brinjal	TE
	OK Cancel	

You can also enable displaying **first letter ribbon** to allow learner select all terms starting with specific letter. This ribbon is created automatically.

Glossary Popup Window
Items Window Button Styles Sound
Items Window Button Styles Sound Image: Color: Image: Color: Image: Color: Header text: Glossary TE Window size hor.: 706 vert.: Window position hor.: 23 vert.: 47 px
OK Cancel Apply Help

Window tab contains controls for popup window displaying parameters. You can select the border color for the object with respect to the overall design of the learning Module. Also, you can modify title text and style. You can modify size and location of popup window with respect to the design of the learning Module, however, there are technical limitations for significant width and height changes.

Glossary Popup Window		
Items Window Button Styles Sound		
Use default button set Enabled button: OnMouseOver button: OnClick button: Disabled button:		
Window close button:		
Enabled button tooltip: Glossary		
Close button tooltip: Close closesper window		
Close button tooltip: Strict Navigation mode		
OK Cancel Apply Help		

By default, standard button set is used. In case you prefer to use different button, remove the check mark "Use default button set". Fields for specifying path to the pictures become active. Use any graphic editor to create following five pictures:

- The first picture displays the button in enabled state (specify path to the image under "Enabled Button");
- The second picture will replace the first one in case user moves mouse over the enabled button (specify path to the image under "OnMouseOver Button");
- The third picture displays the button being pressed (specify path to the image under "OnClick Button");
- The fourth picture displays the disabled button (specify path to the image under "Disabled Button");
- The fifth picture displays Help Popup Window Close button.

You can specify mouse over tooltip messages for buttons.

Strict Navigation Mode – automatic blocking of the navigation object from the moment the Slide was opened until all objects on this Slide displayed in the Timeline panel of the Frame were played back.

Glossary Popup Window			
Items Window Butte	on Styles Sound		
	Normal	MouseOver	Selected
Font:	Tahoma 💌	Tahoma 💌	Tahoma 💌
Font size:	11 px	11 px	11 px
Font weight:	Nomal 🗸	Nomal 🗸	Normal 🗸
Font style:	Nomal 🗸	Nomal 🗸	Normal 💌
Underline:	None 🗸	None 🗸	None 💌
Font color:	#000000	#000000	#000000
Border style:	Solid 🗸	Solid 🗸	Solid 💌
Border width:	1 px	1 px	1 px
Border color:	#FFCC99	#FFCC99	#FFCC99
Background color:	#FFFFFF	#FFFFEE	#FFFFCC
Background picture:			
Inner margin:	3 px		
	ОК	Cancel	Apply Help

Style tab allows to change default text styles and margin for Glossary items.

Glossary Popup Window		
Items Window Button Style	es Sound	
Use sound effects	Moureaover and click	
Mouseover sound:	Standard 1	
Sound file:		
Click sound:	Standard 1	
Sound file:		
	OK Cancel Apply Help	

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
DISABLE ACCESS	Restrict access to Button.
ENABLE ACCESS	Permit access to Button.
DISPLAY ITEM	Opens Glossary popup window and select the term by parameter: Item ID or Item name. If both parameters will present, then Item ID will be used and Item name will be ignored.

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
----------	---------	--------

disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled
open	Returns 1 if object is currently open, 0 otherwise.	\$ <mark>OBJ_ID</mark> .open

5.3.10.23 Simple Search

Simple Search object enables search functionality within the current Module. Simple Search is displayed as search field and button.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:



Object parameters

Simple Search Field		
Window Button Field Search Sound		
Use default border color		
Border color:		
Header text: Search Results TE		
Found text: Slides found:		
Not found text: No results found		
Window size hor.: 500 vert.: 436 px		
Window position hor.: 23 vert.: 47 px		
Background Font Highlighting: #FFEEDD #CC0000		
OK Cancel Apply Help		

In the opened dialog you can select the border color for the results window with respect to the overall design of the learning Module. Also, you can modify title text and style. You can modify

size and location of popup window with respect to the design of the learning Module, however, there are technical limitations for significant width and height changes.

Simple Search Field		
Window Button Field Search S	ound	
Use default button set		
Enabled button:		
OnMouseOver button:		
OnClick button:		
Disabled button:		
Window close button:		
Enabled button tooltip:	Search	
Disabled button tooltip:	Search disabled	
Close button tooltip:	Close search window	
Empty query:	Empty query - nothing to search	
OK Cancel Apply Help		

You can configure or change Search button and its parameters on "Button" tab:

- The first picture displays the button in enabled state (specify path to the image under "Enabled Button");
- The second picture will replace the first one in case user moves mouse over the enabled button (specify path to the image under "OnMouseOver Button");
- The third picture displays the button being pressed (specify path to the image under "OnClick Button");
- The fourth picture displays the disabled button (specify path to the image under "Disabled Button");
- The fifth picture displays Help Popup Window Close button.

You can specify mouse over tooltip messages for buttons.

Simple Search Field		
Window Button Field Search	Sound	
Border style:	No border 💌	
Border width:	2 px	
Border color:	#666666	
Background color:	#FFFFFF	
Font:	Arial	
Font size:	12 px	
Font weight:	Normal	
Font style:	Nomal	
Font color:	#000000	
Text align:	Left 🗸	
ОК	Cancel <u>Apply</u> Help	

Field tab allows to change default styles for search field.

Simple Search Field		×
Window Button Field Search	Sound	
Use default slide icon set		
Unvisited slide icon:		
Current slide icon:		
Visited slide icon:		
By default:		
Case sensitivity:	No	~
Search logic:	Any word	~
Search scope:	Slide	~
Results format:	Link only	~
Strict Navigation mode		
ОКС	ancel <u>A</u> pply	Help

The **Search** tab contains options for search processing. You can disable user controls for selecting case sensitivity and search logic selection - in this case user cannot change these settings in the search form and default search settings will be applied in every search.

- **Case sensitive** option sets default case sensitivity for search process.
- Search logic defines search inclusion in case user enters more than one word in query. Any word means that all Slides or Objects containing any of eneterd words will be found (i.e. OR operation). All words means that only Slides or Objects containing all of enetersd words will be found (i.e. AND operation).
- Search logic scope means the scope, to which Search logic will be applied Slide or Object.
- Search results can be presented as simple links or links with short text fragment.

Strict Navigation Mode – automatic blocking of the navigation object from the moment the Slide was opened until all objects on this Slide displayed in the Timeline panel of the Frame were played back.

Simple Search Field	
Window Button Field Sear	ch Sound
Use sound effects Events with sound: Mouseover sound: Sound file: Click sound: Sound file:	Mouseover and click Standard 1 Standard 1 Standard 1
Sound file:	
ОК	Cancel Apply Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
DISABLE ACCESS	Restrict access to Search Field.
ENABLE ACCESS	Permit access to Search Field.

5.3.10.24 Load Progress

Load Progress object is used to change the look of default load progress indicator.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

LIMITATION: If there will be more than one object of such type in the Module, then only one of them will be used.

Example of object appearance:



Object parameters

Add object to the Master-Slide. Position it the way you prefer. Open "Properties" dialog screen.

Image Loading Progress		
Display Texts Progress B	ar Button	_
✓ Display Image Loading I	Progress	
Layout:	3 rows: text, progress, button	
Fill type:	Border and background	
Main padding:	16 px	
Background color:	#fffde1	
Border color:	#6666666	
Border style:	Solid	
Border width:	2 px	
Inner margin:	10 px	
ОК	Cancel Apply Help	5

If **Display Image Loading Progress** checkmark is not set, then no progress indicator will be displayed at all. However, we **do not recommend** to switch it off - progress indicator contains Cancel button, which is very useful in case of network problems.

Select **layout** type.

Image Loading Progress		×
Display Texts Progress B	ar Button	
Text:	Loading images	
Font:	Tahoma 🗸	
Font size:	11 px	
Font style:	Normal	
Font color:	#666666	
Text align:	Center 💌	
ОК	Cancel Apply Help	

On the Texts tab you can define message and the way it will be presented to learner.

Display Texts Progress E	Button	
	13 px	
Height: Loaded color: Unloaded color: Border color: Border style: Border width:	#008040 #6666666 #6666666 Solid ¥	

On the **Progress Bar** you can define parameters of progress bar.

Image Loading Progress		×
Display Texts Progress B	ar Button	
Button text:	Skip	
Font:	Tahoma	~
Font size:	11 px	
Font style:	Normal 🗸	
Font color:	#666666	
Background color:	#FFFFFF	
Border color:	#666666	
Border style:	Solid	~
Border width:	1 px	
Text align:	Center	
ОК	Cancel Apply	Help

You can configure or change button and its parameters on **Button** tab.

5.3.10.25 Alternative Path

Alternative Path object allows to define alternative learning path within the Module. The Module can be divided on virtual chapters, each chapter can have completion conditions. If this object exists in the Module then all navigation objects will use alternative path automatically.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

LIMITATION: If there will be more than one object of such type in the Module, then only one of them will be used.

Note, that this object is "virtual", hidden, therefore you can see such placeholder in editor.

Alternative Path
(hidden object)

Object parameters

Add object to the Master-Slide. Open object's properties. Pressing "+" add as manu "chapters" as you need.

Alternative Path							×
Chapters							
Chapter list		÷	-	1	4	P	
N	Name						
1	Chapter 1						
2	Chapter 2						
		_		_			
ОК	Cancel	Арр	ły		H	Help	
			-			-	

While adding chapter you can:

	X
Chapter number:	1 Chapter 1
Chapter title slide:	
Slide list:	4 - 4 4 😭
Slide SLIDE_1 SLIDE_5 SLIDE_6	
Chapter objective:	chap1
Incomplete message:	Please visit all chapter slides before lea
Completion conditions	4 - 4 4 😭
Op. Slide Obje	Obje Obje
AND yes no	no no Succ
	OK Cancel

- Set chapter number and name.
- Select chapter's title slide (optional).

- Create chapter's slide list. Note, that the slides will be displayed exactly in the order in this list.
- Select chapter's objective it's completion status will be changed to "completed" when all completion conditions will met.
- Change the message that will be displayed if the learner will try leave incomplete chapter.
- Set completion conditions.

Operator:	AND 🗸
Condition type:	 Slides visited
	O Objective score
	Objective completion
	Objective success
All chapter slides	
Slide list	4 - 4 4 😭
Objective:	
Condition:	8g ♥
Completion:	Completed
Success:	Success
Success:	Success

Object methods

The state of the Object can be modified using methods.

Method name	Execution Result
EXCLUDE CHAPTER	Selected chapter is excluded from alternative path.

5.3.10.26 Frame Navigator

Frame Navigator is a special object, which indicates amount of the visited Frames in particular Slide relative to the overall amount of the Frames in the Slide.

Example of object appearance:



Object parameters

Frame Navigator	
Display Sound	
Use default button set	
Begin - enabled:	- OnClick: disabled:
Back - enabled:	
Pause - enabled:	
Play - enabled:	
Next - enabled:	
End - enabled:	
Background color:	¥000000
Background color: Interbutton spacing:	Dark Grey
	OK Cancel Apply Help

By default, standard button set is used. In case you prefer to use different button, remove the check mark "Use default button set". Fields for specifying path to the pictures become active. Use any graphic editor to create pictures.

Frame Navigator			X
Display Sound			
Use sound effects			
Events with sound:	Mouseover and click	▼	
Mouseover sound:	Standard 1	▼	
Sound file:			
Click sound:	Standard 1	▼	
Sound file:			
		OK Cancel Apply Help	

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.10.27 Timer

Timer is the special object, which can be used for different time counts. This object stores its state in LMS automatically (if present).

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

Limit: 45 min. 00 sec. Left: 45 min. 00 sec.

Object parameters

Timer	×			
Parameters				
Autostart when module is loaded				
Display countdown from	limit to zero			
Time limit:	45 min. 0 sec.			
Timer text:	Left:			
Limit text:	Limit:			
Time units:	min. min. sec. sec.			
Display order:	Timer below the limit 💙			
Font:	Tahoma 🔽 0			
Font size:	11 px			
Font style:	Nomal			
Timer font color:	#000000			
Limit font color: #0000CC				
OK Cancel Apply Help				

Autostart... checkmark allows to start counting immediately on Module's loading. If there already is some timer value that was stored in LMS:

- if stored value is less than limit, then countdown will be resumed from stored value;
- if stored value is greater or equal to limit, then object will fire "on Time Out" event and stop countdown.

Check Display time limit to enable user to view the limit..

Display countdown from limit to zero toggles counting type.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Timer Start	Timer starts counting
on Time Out	Time limit is reached
on Timer Tick	Every second while timer counts. Using this event with value property to launch actions on specific moment.

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
state	1 - timer is counting, 0 - timer is stopped.	\$ <mark>OBJ_ID</mark> .state
value	Current timer value (integer in seconds)	\$ <mark>OBJ_ID</mark> .value

5.3.10.28 Comments object

Comments object enables to automatically display comments to the current Slide, that defined by the author (or imported from PowerPoint). Object default parameters are optimized for "Import" templates (intended for importing PowerPoint presentations), but this is not limitation - object can be used on any other template.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

Section 35 of the National Electricity Law (NEL) requires the Australian Energy Market Commission (AEMC) to amend the National Electricity Rules (NER) governing economic regulation of electricity transmission revenue and prices on or before 1 July 2006, or a later date that is prescribed under a Regulation made under the NEL.

The MCE made a regulation under the National Electricity Law that extends the time to make Rules governing the regulation of electricity transmission revenue and prices to 1 January 2007. This extension to the deadline enabled the Commission to consider the economic regulation of transmission services in broadly two streams – revenue and pricing.

Object parameters

Slide Comments	N 100 100 100 100 100 100 100 100 100 10		
Display Sound			
Use default comments tab			
Opening tab:			
- on MouseOver:			
Closing tab:			
- on MouseOver:			
Window border color:	#FFDB66		
Tab border color:	#FFDB66		
Tab background color:	#FFFDE0		
Tab background image:			
Window size horiz.:	550 px vert.: 550 px		
Default tab color:	Yellow		
Window background color:	#FFFFFF		
Tab tooltip:	Comments		
No comments message:	No comments		
Hide object on slides with no comments			
OK Cancel Apply Help			

In case the **Use default comments tab** is checked, then you can select default tab color, change comments window size, specify mouse over tooltip messages and message, that appears when no comments to slide is present. Note, that **window background color** will be used for all comments, except for those imported from PowerPoint where background color is explicitly specified in PowerPoint source.

If **Use default comments tab** marker is unchecked, then you can use custom images for displaying tabs, change object's border size, and color.

Checkmark **Hide object on slides with no comments** can be useful to attract learner attention. If it is checked (default state), then object will appear only on slides where comments are present.

Slide Comments	
Display Sound	
Use sound effects	
Events with sound:	Mouseover and click
Mouseover sound:	Standard 1
Sound file:	
Click sound:	Standard 1
Sound file:	
ОК	Cancel Apply Help

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.10.29 Comments Tab

Comments Tab object enables to automatically display comments to the current Slide, that defined by the author (or imported from PowerPoint). Object default parameters are optimized for "Standard" templates, but this is not limitation - object can be used on any other template.

LIMITATION: This Object can be placed only ON THE MASTER-SLIDE.

Example of object appearance:

Section 35 of the National Electricity Law (NEL) requires the Australian Energy Market Commission (AEMC) to amend the National Electricity Rules (NER) governing economic regulation of electricity transmission revenue and prices on or before 1 July 2006, or a later date that is prescribed under a Regulation made under the NEL.

The MCE made a regulation under the National Electricity Law that extends the time to make Rules governing the regulation of electricity transmission revenue and prices to 1 January 2007. This extension to the deadline enabled the Commission to consider the economic regulation of transmission services in broadly two streams – revenue and pricing.

Object parameters

Comments Tab			
Display Sound			
Use default tab set			
Enabled tab:			
OnMouseOver tab:			
Disabled tab:			
OnClick Tab:			
Border color:	#000000		
Area size horizontal:	500 px vert.: 460 px		
Default tab color:	Orange 🗸		
Window background color:	#FFFFFF		
Tab vertical offset:	276 px		
Enabled tab tooltip: Comments			
No comments message:	No comments		
OK Cancel Apply Help			

In case the **Use default comments tab** is checked, then you can select default tab color, specify mouse over tooltip messages and message, that appears when no comments to slide is present. Note, that **window background color** will be used for all comments, except for those imported from PowerPoint where background color is explicitly specified in PowerPoint source.

If **Use default comments tab** marker is unchecked, then you can use custom images for displaying tabs, change comments window size, change object's border color.

If there is no comment to current slide, then **No comments** text will be displayed.

Slide Comments		×
Display Sound		
Use sound effects		
Events with sound:	Mouseover and click	
Mouseover sound:	Standard 1	
Sound file:		
Click sound:	Standard 1	
Sound file:		
UK	Cancel Apply Help	<u> </u>

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.11 Agents

5.3.11.1 Agent

An **"Agent"** is an animated character with a set of basic Actions which can be launched using this Object's Methods.

IMPORTANT! This object is created using Adobe Flash technology so make sure to turn on this feature which checks whether or not Flash Player has been installed on the target machine before loading the learning Module.

Example of Object:



Object parameters

Agent	
Parameters	
Agent:	Wise Guy 🗸
Display mode:	Transparent layer
Background color:	#FFFFFF
OK Car	ncel <u>Apply</u> Help

You can specify an Agent's appearance and display parameters (similar to Flash-movie display settings, in fact, an Agent is a Flash-movie).

In case "Warn if security settings are too strict" checkbox is set and there is no possibility to setup connection with Agent Flash-movie, warning message will appear.

"Use HTTPS in codebase attribute" is used to check Flash Player version using secure protocol HTTPS. If you do not know if you need it or not - just left it set.

Object control

By default, Object is displayed in "idle" mode for an indefinite period of time. **Object Methods** (functions embedded in the Object, which modify the state of the Agent) are used to control the Agent.

Picture a situation when we have both a question and an Agent character presented in a Slide. The Agent's task is to applaud when the provided answer to the question is correct.

First Slide		
16	Test Course	
3	First Slide	
and the second se	Ques	tion it scored
	Meow is the cry of	
	Select	correct verient
	O Cat	
	O Cow	
6 P P	O Dog	
八	O Sheep	
T	A	Bengta: 1
CLL IN		
5		
100		
1		
PERITOR 1/1	inst Side 💽 🤅	

Here is the sequence of the necessary Actions:

1. Memorize character ID and open "Actions" screen for the "Question" Object.



2. Select "On Success" in the "Event" panel.

3. Select "METHOD" in the "Action" panel.

4. Specify parameters for the selected Action – select character ID; in the "Select Method" screen specify "ACTION" with the following parameters: "Applaud" and "Return upon completion". Confirm your choice. At this point, configuration of the relationship among the Objects is completed.



METHOD			
Object:	OBJ_15		ОК
Method:	PerformAction		Cancel
Action:	Applaud 🗸	•	Help
Retum to idle state:	Automatic 🗸		

In this example, the Event of the "Question" Object has been used for launching the Action. However, any other Events or delayed Actions can be employed for the same purpose.

Object methods

The following Methods can be used when working with Agent Character:

- **ACTION** forces the Agent to execute some of the Actions defined in the Object. It has 2 parameters: Action itself (which needs to be executed) and an option for returning back to the idle state (the Agent can automatically return to the idle state or remain in the current state awaiting the return command).
- **IDLE** takes Agent back to the idle mode.
- **TELEPORT** relocates Agent into a location, specified by coordinates, using effects.

Let us review the "ACTION" Method in greater details. Almost all Actions embedded into the Object have two execution phases: Action execution and return to idle state.

When you select automatic return into the idle mode, the above-mentioned Action phases will be automatically executed one after another. When we select wait for signal to return to idle mode, only the first phase - execution of the Action itself - is launched. The return to idle state is postponed until you use the "IDLE" Method or launch any other Action (in that case, before the new Action can be executed, the Object returns to the idle state automatically).

Things to consider, when working with Actions:

• Actions: **Talk, Walk left/right** cannot automatically return to the idle mode. The Agent will continue talking and walking until ordered to terminate the Action.

• Actions, such as Yawn, Head-nod in agreement, Head-shake in disagreement (so called simple Actions, marked with *), will always return to the idle state upon completion.

Sequence of Actions

If the agent receives a command for a new Action while it is not in the idle mode (meaning it is in the process of completion of a previous Action) this command is stored in the agent's "commands queue" and new Action is postponed until the previous one finishes execution. The "Command queue" of the "Agent" role is based on the FIFO (First In First Out) data handling concept: i.e. each new incoming Action command is added to the end of the **execution line**. Therefore, by employing the "Command queue" you can create any sequence of Actions for the character.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Ready	When Flash-movie is fully loaded and ready to accept commands
on Action End	When any action is ended

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
curState	Current state (action) - one of action token (short names)	\$ <mark>OBJ_ID</mark> .curState
lastState	Last state (action) - one of action token (short names)	\$ <mark>OBJ_ID</mark> .lastState
queue	Action queue (action tokens, comma-delimited)	\$ <mark>OBJ_ID</mark> .queue

5.3.11.2 Talking Head

The Talking Head is an animated character with a set of basic Actions; these Actions can be launched using Object's Methods.

IMPORTANT! This object is created using Adobe Flash technology so make sure to turn on this feature which checks whether or not Flash Player has been installed on the target machine before loading the learning Module.

Example of Object:



Object parameters

Talking Head	
Parameters	
Head:	Grandfather 🗸
Display mode:	Transparent layer 🗸 🗸
Background color:	#FFFFFF
ОКСС	Cancel Apply Help

The Talking Head is actually a Flash movie so its appearance and display parameters can be manipulated in a similar manner.

In case "Warn if security settings are too strict" checkbox is set and there is no possibility to setup connection with Agent Flash-movie, warning message will appear.

"Use HTTPS in codebase attribute" is used to check Flash Player version using secure protocol HTTPS. If you do not know if you need it or not - just left it set.

Object control

By default, Object is displayed in "idle" mode for an indefinite period of time. **Object Methods** (functions embedded in the Object, which modify the state of the Agent) are used to control the Agent.

Picture the situation when we have both a question and a Talking Head character presented in a Slide. The Talking Head's task is to be amazed when the provided response to the question is incorrect.

🖵 First Slide		
16	Test Course	No. Company N. K.
	First Slide	
	0	sestion is acored
	Meow is the cry of	2
	Set	ect correct variant
(00)	Cat	
	O Cow	
	O Dog	
	O Sheep	
1	SUBMIT ANSWER	Attempta: 1
NAL IN COLUMN		
5		
100		
1 C		
MINITURE LT		

Here is the sequence of the necessary Actions:

1. Memorize character ID and open "Actions" screen for the "Question" Object.

				×
		X 🗈 🎦 🔶 🗢 🔹 🚰		
Event	^	Object	Action	^
ondrop ondragin ondragout ondragover beforedisplay afterdisplay On Display Question On Change Choice On Attempt On Success On Failure On Time Out On Attempts Limit On Skip Question On Question Answered		METHOD(Object='OBJ_17',Method='PerformAction')	CALL CHECKHIT DELAY DISPLAY ELSE EXTERNAL URL FOR GOTO IF IF SUCCESS STATUS JAVASCRIPT METHOD MOVE - START MOVE - STOP MSGBOX NAVIGATION RETURN ROTATE - START ROTATE - STOP	
			OK Cancel	

2. Select "On Failure" in the "Event" panel.

3. Select "METHOD" in the "Action" panel.

4. Specify parameters for the selected Action – select character ID; in the "Select Method" screen specify "ACTION" with the following parameters: "Amazement" and "Return upon completion". Confirm your choice. At this point, configuration of the relationship among the Objects is completed.



METHOD			
Object:	OBJ_17		ОК
Method:	PerformAction		Cancel
Action:	Amazement	•	Help
Retum to idle state:	Automatic 🗸	•	

In the above example, the Event of the "Question" Object has been used for launching Action. However, any other Events or delayed Actions can be employed for the same purpose.

Object methods

The following Methods can be used when working with Object:

- **ACTION** forces the Agent to execute some of the Actions defined in the Object. It has 2 parameters: Action itself (which needs to be executed) and an option for returning back to the idle state (the Agent can automatically return to the idle state or remain in the current state awaiting the return command).
- **IDLE** takes Agent back to the idle mode.
- **TELEPORT** relocates Agent into a location, specified by coordinates, using effects.

Let us review the "ACTION" Method in greater details. Almost all Actions embedded into the Object have two execution phases: Action execution and return to idle state. When you select automatic return into the idle mode, the above-mentioned Action phases will be automatically executed one after another. When we select wait for signal to return to idle mode, only the first phase - execution of the Action itself - is launched. The return to idle state is postponed until you use the "IDLE" Method or launch any other Action (in that case, before the new Action can be executed, the Object returns to the idle state automatically).

Sequence of Actions

If the agent receives a command for a new Action while it is not in the idle mode (meaning it is in the process of completion of a previous Action) this command is stored in the agent's "commands queue" and new Action is postponed until the previous one finishes execution. The "Command queue" of the "Agent" role is based on the FIFO (First In First Out) data handling concept: i.e. each new incoming Action command is added to the end of the **execution line**. Therefore, by employing the "Command queue" you can create any sequence of Actions for the character.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Ready	When Flash-movie is fully loaded and ready to accept commands
on Action End	When any action is ended

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
curState	Current state (action) - one of action token (short names)	\$ <mark>OBJ_ID</mark> .curState
lastState	Last state (action) - one of action token (short names)	\$ <mark>OBJ_ID</mark> .lastState
queue	Action queue (action tokens, comma-delimited)	\$ <mark>OBJ_ID</mark> .queue

5.3.11.3 Agent, type 2

An **"Agent"** is an animated character with a set of basic Actions which can be launched using this Object's Methods.

IMPORTANT! This object is created using Adobe Flash technology so make sure to turn on this feature which checks whether or not Flash Player has been installed on the target machine before loading the learning Module.



Example of Object:

Object parameters

Animated agent (type 2, 6 characters)					
Parameters					
Character:	Malcolm 🗸				
Display mode:	Transparent layer 🗸				
Background color:	#FFFFFF				
ОК	Cancel Apply Help				

You can specify an Agent's appearance and display parameters (similar to Flash-movie display settings, in fact, an Agent is a Flash-movie).

In case "Warn if security settings are too strict" checkbox is set and there is no possibility to setup connection with Agent Flash-movie, warning message will appear.

Object control

By default, Object is displayed in "idle" mode for an indefinite period of time. **Object Methods** (functions embedded in the Object, which modify the state of the Agent) are used to control the Agent.

Picture a situation when we have both a question and an Agent character presented in a Slide. The Agent's task is to applaud when the provided answer to the question is correct.

Elirst Slide					1	
11			Test Course			
2			First Slide			
and the second s				Question it score	ed .	
	8		Meow is the cr	y of		
	-			Select correct var	ient	
1100			O Cat			
5		1	O Cow			
The second s			O Dog			
Com			O Sheep			
T	ж			Attempts: 1		
CLUB .						
H						
100						
10						
PUN	000964/1	Fest Side		. a @	(()) ((4.)

Here is the sequence of the necessary Actions:

1. Memorize character ID and open "Actions" screen for the "Question" Object.

				×
		X 🗈 🅦 💠 🔶 🔹 🖓		
Event	^	Object	Action	^
ondrop ondragin ondragout ondragover beforedisplay afterdisplay On Display Question On Change Choice On Attempt On Success On Failure	III	METHOD(Object='OBJ_15',Method='PerformAction')	CALL CHECKHIT DELAY DISPLAY ELSE EXTERNAL URL FOR GOTO IF IF SUCCESS STATUS JAVASCRIPT METHOD MOVE - START	=
On Time Out On Attempts Limit On Skip Question On Question Answered	~		 MOVE - STOP MSGBOX NAVIGATION RETURN ROTATE - START ROTATE - STOP	>
			OK Cancel	

2. Select "On Success" in the "Event" panel.

3. Select "METHOD" in the "Action" panel.

4. Specify parameters for the selected Action – select character ID; in the "Select Method" screen specify "ACTION" with the following parameters: "Applaud" and "Return upon completion". Confirm your choice. At this point, configuration of the relationship among the Objects is completed.

Select Method	X
 ACTION RETURN TO IDLE SHOW HIDE TELEPORT 	OK Cancel

METHOD			
Object:	OBJ_15		ОК
Method:	PerformAction		Cancel
Action:	Applaud 🗸]	Help
Retum to idle state:	Automatic 🗸		

In the above example, the Event of the "Question" Object has been used for launching Action. However, any other Events or delayed Actions can be employed for the same purpose.

Object methods

The following Methods can be used when working with Agent Character:

- **ACTION** forces the Agent to execute some of the Actions defined in the Object. It has 2 parameters: Action itself (which needs to be executed) and an option for returning back to the idle state (the Agent can automatically return to the idle state or remain in the current state awaiting the return command).
- **IDLE** takes Agent back to the idle mode.
- **TELEPORT** relocates Agent into a location, specified by coordinates, using effects.

Let us review the "ACTION" Method in greater details. Almost all Actions embedded into the Object have two execution phases: Action execution and return to idle state.

When you select automatic return into the idle mode, the above-mentioned Action phases will be automatically executed one after another. When we select wait for signal to return to idle mode, only the first phase - execution of the Action itself - is launched. The return to idle state is postponed until you use the "IDLE" Method or launch any other Action (in that case, before the new Action can be executed, the Object returns to the idle state automatically).

Things to consider, when working with Actions:

- Actions: **Talk, Walk left/right** cannot automatically return to the idle mode. The Agent will continue talking and walking until ordered to terminate the Action.
- Actions, such as Yawn, Head-nod in agreement, Head-shake in disagreement (so called simple Actions, marked with *), will always return to the idle state upon completion.

Sequence of Actions

If the agent receives a command for a new Action while it is not in the idle mode (meaning it is in the process of completion of a previous Action) this command is stored in the agent's "commands queue" and new Action is postponed until the previous one finishes execution. The "Command queue" of the "Agent" role is based on the FIFO (First In First Out) data handling concept: i.e. each new incoming Action command is added to the end of the **execution line**. Therefore, by employing the "Command queue" you can create any sequence of Actions for the character.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon	
on Ready	When Flash-movie is fully loaded and ready to accept command	
on Action End	When any action is ended	

Object Specific Properties
Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
curState	Current state (action) - one of action token (short names)	\$ <mark>OBJ_ID</mark> .curState
lastState	Last state (action) - one of action token (short names)	\$ OBJ_ID.lastState
queue	Action queue (action tokens, comma-delimited)	\$ OBJ_ID.queue

5.3.11.4 Talking Head, type 2

The Talking Head is an animated character with a set of basic Actions; these Actions can be launched using Object's Methods.

IMPORTANT! This object is created using Adobe Flash technology so make sure to turn on this feature which checks whether or not Flash Player has been installed on the target machine before loading the learning Module.



Example of Object:

Object parameters

Talking Head (type 2, 6 characters)			
Parameters			
Character			
Character.	James		
Display mode:	Transparent layer 🗸 🗸		
Background color:	#FFFFFF		
OK Cance	el <u>A</u> pply Help		

The Talking Head is actually a Flash movie so its appearance and display parameters can be manipulated in a similar manner.

In case "Warn if security settings are too strict" checkbox is set and there is no possibility to setup connection with Agent Flash-movie, warning message will appear.

"Use HTTPS in codebase attribute" is used to check Flash Player version using secure protocol HTTPS. If you do not know if you need it or not - just left it set.

Object control

By default, Object is displayed in "idle" mode for an indefinite period of time. **Object Methods** (functions embedded in the Object, which modify the state of the Agent) are used to control the Agent.

Picture the situation when we have both a question and a Talking Head character presented in a Slide. The Talking Head's task is to be amazed when the provided response to the question is incorrect.



Here is the sequence of the necessary Actions:

1. Memorize character ID and open "Actions" screen for the "Question" Object.



2. Select "On Failure" in the "Event" panel.

3. Select "METHOD" in the "Action" panel.

4. Specify parameters for the selected Action – select character ID; in the "Select Method" screen specify "ACTION" with the following parameters: "Amazement" and "Return upon completion". Confirm your choice. At this point, configuration of the relationship among the Objects is completed.



METHOD			
Object:	OBJ_17		ОК
Method:	PerformAction		Cancel
Action:	Amazement 🗸]	Help
Retum to idle state:	Automatic 🗸]	

In the above example, the Event of the "Question" Object has been used for launching Action. However, any other Events or delayed Actions can be employed for the same purpose.

Object methods

The following Methods can be used when working with Object:

- **ACTION** forces the Agent to execute some of the Actions defined in the Object. It has 2 parameters: Action itself (which needs to be executed) and an option for returning back to the idle state (the Agent can automatically return to the idle state or remain in the current state awaiting the return command).
- **IDLE** takes Agent back to the idle mode.
- **TELEPORT** relocates Agent into a location, specified by coordinates, using effects.

Let us review the "ACTION" Method in greater details. Almost all Actions embedded into the Object have two execution phases: Action execution and return to idle state. When you select automatic return into the idle mode, the above-mentioned Action phases will be automatically executed one after another. When we select wait for signal to return to idle mode, only the first phase - execution of the Action itself - is launched. The return to idle state is postponed until you use the "IDLE" Method or launch any other Action (in that case, before the new Action can be executed, the Object returns to the idle state automatically).

Sequence of Actions

If the agent receives a command for a new Action while it is not in the idle mode (meaning it is in the process of completion of a previous Action) this command is stored in the agent's "commands queue" and new Action is postponed until the previous one finishes execution. The "Command queue" of the "Agent" role is based on the FIFO (First In First Out) data handling concept: i.e. each new incoming Action command is added to the end of the **execution line**. Therefore, by employing the "Command queue" you can create any sequence of Actions for the character.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Ready	When Flash-movie is fully loaded and ready to accept commands
on Action End	When any action is ended

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
curState	Current state (action) - one of action token (short names)	\$ <mark>OBJ_ID</mark> .curState
lastState	Last state (action) - one of action token (short names)	\$ OBJ_ID.lastState
queue	Action queue (action tokens, comma-delimited)	\$ OBJ_ID .queue

5.3.11.5 Agent (different psychotypes)

An **"Agent"** is an animated character with a set of basic Actions which can be launched using this Object's Methods.

IMPORTANT! This object is created using Adobe Flash technology so make sure to turn on this feature which checks whether or not Flash Player has been installed on the target machine before loading the learning Module.

Example of Object:



Cholerics

Melancholics

Phlegmatics

Sanguines

Object parameters

Animated Agent (different psycho types)				
Parameters				
Character:	Melancholic female			
Display mode:	Transparent layer 🗸 🗸			
Background color:	#FFFFF			
ОК	Cancel <u>Apply</u> Help			

You can specify an Agent's appearance and display parameters (similar to Flash-movie display settings, in fact, an Agent is a Flash-movie).

In case "Warn if security settings are too strict" checkbox is set and there is no possibility to setup connection with Agent Flash-movie, warning message will appear.

"Use HTTPS in codebase attribute" is used to check Flash Player version using secure protocol HTTPS. If you do not know if you need it or not - just left it set.

Object control

By default, Object is displayed in "idle" mode for an indefinite period of time. **Object Methods** (functions embedded in the Object, which modify the state of the Agent) are used to control the Agent.

Picture a situation when we have both a question and an Agent character presented in a Slide. The Agent's task is to applaud when the provided answer to the question is correct.

Eirst Slide		
	Test Course	Salar Salar
-	First Slide	
	0.0	estion is scored
	Meow is the cry of	
	Selec	ct correct variant
No. And	O Cat	
	O Cow	
	O Dog	
	O Sheep	
		Attempts: 1
all the second se		
5		
anto		
44		
-		

Here is the sequence of the necessary Actions:

1. Memorize character ID and open "Actions" screen for the "Question" Object.

				×
		X 🗈 🎦 🔶 🗢 🔹 🚰		
Event	^	Object	Action	^
ondrop ondragin ondragout ondragover beforedisplay afterdisplay On Display Question On Change Choice On Attempt On Success On Failure On Time Out On Attempts Limit On Skip Question On Question Answered		METHOD(Object='OBJ_15',Method='PerformAction')	CALL CHECKHIT DELAY DISPLAY ELSE EXTERNAL URL FOR GOTO IF IF SUCCESS STATUS JAVASCRIPT METHOD MOVE - START MOVE - STOP MSGBOX NAVIGATION RETURN ROTATE - START ROTATE - STOP	
			OK Cancel	

2. Select "On Success" in the "Event" panel.

3. Select "METHOD" in the "Action" panel.

4. Specify parameters for the selected Action – select character ID; in the "Select Method" screen specify "ACTION" with the following parameters: "Applaud" and "Return upon completion". Confirm your choice. At this point, configuration of the relationship among the Objects is completed.

Select Method	X
ACTION RETURN TO IDLE SHOW HIDE TELEPORT	OK Cancel

METHOD		X
Object:	OBJ_15	 ОК
Method:	PerformAction	 Cancel
Action:	Applaud 🗸	Help
Retum to idle state:	Automatic 🗸	

In this example, the Event of the "Question" Object has been used for launching the Action. However, any other Events or delayed Actions can be employed for the same purpose.

Object methods

The following Methods can be used when working with Agent Character:

- **ACTION** forces the Agent to execute some of the Actions defined in the Object. It has 2 parameters: Action itself (which needs to be executed) and an option for returning back to the idle state (the Agent can automatically return to the idle state or remain in the current state awaiting the return command).
- **IDLE** takes Agent back to the idle mode.
- **TELEPORT** relocates Agent into a location, specified by coordinates, using effects.

Let us review the "ACTION" Method in greater details. Almost all Actions embedded into the Object have two execution phases: Action execution and return to idle state.

When you select automatic return into the idle mode, the above-mentioned Action phases will be automatically executed one after another. When we select wait for signal to return to idle mode, only the first phase - execution of the Action itself - is launched. The return to idle state is postponed until you use the "IDLE" Method or launch any other Action (in that case, before the new Action can be executed, the Object returns to the idle state automatically).

Things to consider, when working with Actions:

- Actions: **Talk, Walk left/right** cannot automatically return to the idle mode. The Agent will continue talking and walking until ordered to terminate the Action.
- Actions, such as Yawn, Head-nod in agreement, Head-shake in disagreement (so called simple Actions, marked with *), will always return to the idle state upon completion.

Sequence of Actions

If the agent receives a command for a new Action while it is not in the idle mode (meaning it is in the process of completion of a previous Action) this command is stored in the agent's "commands queue" and new Action is postponed until the previous one finishes execution. The "Command queue" of the "Agent" role is based on the FIFO (First In First Out) data handling concept: i.e. each new incoming Action command is added to the end of the **execution line**. Therefore, by employing the "Command queue" you can create any sequence of Actions for the character.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Ready	When Flash-movie is fully loaded and ready to accept commands
on Action End	When any action is ended

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
curState	Current state (action) - one of action token (short names)	\$ <mark>OBJ_ID</mark> .curState
lastState	Last state (action) - one of action token (short names)	\$ <mark>OBJ_ID</mark> .lastState
queue	Action queue (action tokens, comma-delimited)	\$ <mark>OBJ_ID</mark> .queue

5.3.11.6 Talking Head (different psychotypes)

The Talking Head is an animated character with a set of basic Actions; these Actions can be launched using Object's Methods.

IMPORTANT! This object is created using Adobe Flash technology so make sure to turn on this feature which checks whether or not Flash Player has been installed on the target machine before loading the learning Module.



Example of Object:

Melancholics

Phlegmatics

Object parameters

Cholerics

Talking Head (different psycho types)		
Parameters		
Character:	Melancholic female	~
Display mode:	Transparent layer	*
Background color:	#FFFFFF	
ок с	ancel <u>Apply</u>	Help

The Talking Head is actually a Flash movie so its appearance and display parameters can be manipulated in a similar manner.

In case "Warn if security settings are too strict" checkbox is set and there is no possibility to setup connection with Agent Flash-movie, warning message will appear.

"Use HTTPS in codebase attribute" is used to check Flash Player version using secure protocol HTTPS. If you do not know if you need it or not - just left it set.

Object control

By default, Object is displayed in "idle" mode for an indefinite period of time. **Object Methods** (functions embedded in the Object, which modify the state of the Agent) are used to control the Agent.

Picture the situation when we have both a question and a Talking Head character presented in a Slide. The Talking Head's task is to be amazed when the provided response to the question is incorrect.

Eirst Slide		
11	Test Course	
	First Slide	
ALC: NOT ALC	Questor	it scored
	Meow is the cry of	
	Select co	vect verient
	O Cat	
	O Cow	
	O Dog	
	O Sheep	
	40.00	wite 1
111-11		
AND A DECEMBER OF A DECEMBER O		
Publitition 1/1 Fest Side	2 0	

Here is the sequence of the necessary Actions:

1. Memorize character ID and open "Actions" screen for the "Question" Object.



2. Select "On Failure" in the "Event" panel.

3. Select "METHOD" in the "Action" panel.

4. Specify parameters for the selected Action – select character ID; in the "Select Method" screen specify "ACTION" with the following parameters: "Amazement" and "Return upon completion". Confirm your choice. At this point, configuration of the relationship among the Objects is completed.



METHOD		
Object:	OBJ_17	 ОК
Method:	PerformAction	 Cancel
Action:	Amazement 🗸	Help
Retum to idle state:	Automatic 🗸	

In the above example, the Event of the "Question" Object has been used for launching Action. However, any other Events or delayed Actions can be employed for the same purpose.

Object methods

The following Methods can be used when working with Object:

- **ACTION** forces the Agent to execute some of the Actions defined in the Object. It has 2 parameters: Action itself (which needs to be executed) and an option for returning back to the idle state (the Agent can automatically return to the idle state or remain in the current state awaiting the return command).
- **IDLE** takes Agent back to the idle mode.
- **TELEPORT** relocates Agent into a location, specified by coordinates, using effects.

Let us review the "ACTION" Method in greater details. Almost all Actions embedded into the Object have two execution phases: Action execution and return to idle state. When you select automatic return into the idle mode, the above-mentioned Action phases will be automatically executed one after another. When we select wait for signal to return to idle mode, only the first phase - execution of the Action itself - is launched. The return to idle state is postponed until you use the "IDLE" Method or launch any other Action (in that case, before the new Action can be executed, the Object returns to the idle state automatically).

Sequence of Actions

If the agent receives a command for a new Action while it is not in the idle mode (meaning it is in the process of completion of a previous Action) this command is stored in the agent's "commands queue" and new Action is postponed until the previous one finishes execution. The "Command queue" of the "Agent" role is based on the FIFO (First In First Out) data handling concept: i.e. each new incoming Action command is added to the end of the **execution line**. Therefore, by employing the "Command queue" you can create any sequence of Actions for the character.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Ready	When Flash-movie is fully loaded and ready to accept commands
on Action End	When any action is ended

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
curState	Current state (action) - one of action token (short names)	\$ <mark>OBJ_ID</mark> .curState
lastState	Last state (action) - one of action token (short names)	\$ <mark>OBJ_ID</mark> .lastState
queue	Action queue (action tokens, comma-delimited)	\$ <mark>OBJ_ID</mark> .queue

5.3.11.7 Arabian

An **"Agent"** is an animated character with a set of basic Actions which can be launched using this Object's Methods.

IMPORTANT! This object is created using Adobe Flash technology so make sure to turn on this feature which checks whether or not Flash Player has been installed on the target machine before loading the learning Module.

Example of Object:



Object parameters

Arabian	×
Parameters	
Character:	Man 🔻
Display mode:	Transparent layer 🔹
Background color:	#FFFFFF
Warn if Flash Player security	/ settings are too strict
Vise HTTPS in codebase at	tribute
ОК Са	ncel Apply Help

You can specify an Agent's appearance and display parameters (similar to Flash-movie display settings, in fact, an Agent is a Flash-movie).

In case "Warn if security settings are too strict" checkbox is set and there is no possibility to setup connection with Agent Flash-movie, warning message will appear.

"Use HTTPS in codebase attribute" is used to check Flash Player version using secure protocol HTTPS. If you do not know if you need it or not - just left it set.

Object control

By default, Object is displayed in "idle" mode for an indefinite period of time. **Object Methods** (functions embedded in the Object, which modify the state of the Agent) are used to control the Agent. See detailed description of object control in <u>"Agent"</u> document.

Object methods

The following Methods can be used when working with Agent Character:

- **ACTION** forces the Agent to execute some of the Actions defined in the Object. It has 2 parameters: Action itself (which needs to be executed) and an option for returning back to the idle state (the Agent can automatically return to the idle state or remain in the current state awaiting the return command).
- **IDLE** takes Agent back to the idle mode.
- **TELEPORT** relocates Agent into a location, specified by coordinates, using effects.

Let us review the "ACTION" Method in greater details. Almost all Actions embedded into the Object have two execution phases: Action execution and return to idle state.

When you select automatic return into the idle mode, the above-mentioned Action phases will be automatically executed one after another. When we select wait for signal to return to idle mode, only the first phase - execution of the Action itself - is launched. The return to idle state is postponed until you use the "IDLE" Method or launch any other Action (in that case, before the new Action can be executed, the Object returns to the idle state automatically).

Sequence of Actions

If the agent receives a command for a new Action while it is not in the idle mode (meaning it is in the process of completion of a previous Action) this command is stored in the agent's "commands queue" and new Action is postponed until the previous one finishes execution. The "Command queue" of the "Agent" role is based on the FIFO (First In First Out) data handling concept: i.e. each new incoming Action command is added to the end of the **execution line**. Therefore, by employing the "Command queue" you can create any sequence of Actions for the character.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Ready	When Flash-movie is fully loaded and ready to accept commands
on Action End	When any action is ended

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
curState	Current state (action) - one of action token (short names)	\$ OBJ_ID .curState
lastState	Last state (action) - one of action token (short names)	\$ OBJ_ID .lastState
queue	Action queue (action tokens, comma-delimited)	\$ <mark>OBJ_ID</mark> .queue

5.3.11.8 Animals

An **"Agent"** is an animated character with a set of basic Actions which can be launched using this Object's Methods.

IMPORTANT! This object is created using Adobe Flash technology so make sure to turn on this feature which checks whether or not Flash Player has been installed on the target machine before loading the learning Module.

Example of Object:

In particular configuration and mission, Barrenova, and a line indocessate, incorpora- net spaces, Statistics, 4 United Statistics of the field of approximation (self-of approximation)

Object parameters

F	In parts independ and prints, forcers, not dell far topology, represente interpret, parts, et al. a second prints, et al.
L	

You can specify an Agent's appearance and display parameters (similar to Flash-movie display settings, in fact, an Agent is a Flash-movie).

In case "Warn if security settings are too strict" checkbox is set and there is no possibility to setup connection with Agent Flash-movie, warning message will appear.

"Use HTTPS in codebase attribute" is used to check Flash Player version using secure protocol HTTPS. If you do not know if you need it or not - just left it set.

Object control

By default, Object is displayed in "idle" mode for an indefinite period of time. **Object Methods** (functions embedded in the Object, which modify the state of the Agent) are used to control the Agent. See detailed description of object control in <u>"Agent"</u> document.

Object methods

The following Methods can be used when working with Agent Character:

- **ACTION** forces the Agent to execute some of the Actions defined in the Object. It has 2 parameters: Action itself (which needs to be executed) and an option for returning back to the idle state (the Agent can automatically return to the idle state or remain in the current state awaiting the return command).
- **IDLE** takes Agent back to the idle mode.
- **TELEPORT** relocates Agent into a location, specified by coordinates, using effects.

Let us review the "ACTION" Method in greater details. Almost all Actions embedded into the Object have two execution phases: Action execution and return to idle state.

When you select automatic return into the idle mode, the above-mentioned Action phases will be automatically executed one after another. When we select wait for signal to return to idle mode, only the first phase - execution of the Action itself - is launched. The return to idle state

is postponed until you use the "IDLE" Method or launch any other Action (in that case, before the new Action can be executed, the Object returns to the idle state automatically).

Sequence of Actions

If the agent receives a command for a new Action while it is not in the idle mode (meaning it is in the process of completion of a previous Action) this command is stored in the agent's "commands queue" and new Action is postponed until the previous one finishes execution. The "Command queue" of the "Agent" role is based on the FIFO (First In First Out) data handling concept: i.e. each new incoming Action command is added to the end of the **execution line**. Therefore, by employing the "Command queue" you can create any sequence of Actions for the character.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Ready	When Flash-movie is fully loaded and ready to accept commands
on Action End	When any action is ended

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
curState	Current state (action) - one of action token (short names)	\$ <mark>OBJ_ID</mark> .curState
lastState	Last state (action) - one of action token (short names)	\$ <mark>OBJ_ID</mark> .lastState
queue	Action queue (action tokens, comma-delimited)	\$ <mark>OBJ_ID</mark> .queue

5.3.11.9 Hare

An **"Agent"** is an animated character with a set of basic Actions which can be launched using this Object's Methods.

IMPORTANT! This object is created using Adobe Flash technology so make sure to turn on this feature which checks whether or not Flash Player has been installed on the target machine before loading the learning Module.

The supervise traditionants are query partypes, historyces, are query for regeneration, reconstruction are supervised. When more a science particulation on supervise data a segment patientiations.

Object parameters

F	In particular induces second actions, the decision, and decision had incontacts, incomposition in a provide the second second induces a second second second decision and the second second second decision and the second second second decision and the second

In case "Warn if security settings are too strict" checkbox is set and there is no possibility to setup connection with Agent Flash-movie, warning message will appear.

"Use HTTPS in codebase attribute" is used to check Flash Player version using secure protocol HTTPS. If you do not know if you need it or not - just left it set.

Object control

By default, Object is displayed in "idle" mode for an indefinite period of time. **Object Methods** (functions embedded in the Object, which modify the state of the Agent) are used to control the Agent. See detailed description of object control in <u>"Agent"</u> document.

Object methods

The following Methods can be used when working with Agent Character:

- **ACTION** forces the Agent to execute some of the Actions defined in the Object. It has 2 parameters: Action itself (which needs to be executed) and an option for returning back to the idle state (the Agent can automatically return to the idle state or remain in the current state awaiting the return command).
- **IDLE** takes Agent back to the idle mode.
- **TELEPORT** relocates Agent into a location, specified by coordinates, using effects.

Let us review the "ACTION" Method in greater details. Almost all Actions embedded into the Object have two execution phases: Action execution and return to idle state.

When you select automatic return into the idle mode, the above-mentioned Action phases will be automatically executed one after another. When we select wait for signal to return to idle mode, only the first phase - execution of the Action itself - is launched. The return to idle state is postponed until you use the "IDLE" Method or launch any other Action (in that case, before the new Action can be executed, the Object returns to the idle state automatically).

Sequence of Actions

If the agent receives a command for a new Action while it is not in the idle mode (meaning it is in the process of completion of a previous Action) this command is stored in the agent's "commands queue" and new Action is postponed until the previous one finishes execution. The "Command queue" of the "Agent" role is based on the FIFO (First In First Out) data handling concept: i.e. each new incoming Action command is added to the end of the **execution line**. Therefore, by employing the "Command queue" you can create any sequence of Actions for the character.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Ready	When Flash-movie is fully loaded and ready to accept commands
on Action End	When any action is ended

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
curState	Current state (action) - one of action token (short names)	\$ <mark>OBJ_ID</mark> .curState
lastState	Last state (action) - one of action token (short names)	\$ <mark>OBJ_ID</mark> .lastState
queue	Action queue (action tokens, comma-delimited)	\$ <mark>OBJ_ID</mark> .queue

5.3.12 Lists

5.3.12.1 Bulleted List

Bulleted List object is used for creating sequentially appearing list of statements. It contains the list of items with built-in display manipulation mechanisms.

IMPORTANT! Since this object contains built-in display mechanisms, the actual duration might not be in accordance with the duration specified in the Time panel for the Frame.

Example of object appearance:

~	Item text goes here	
~	Item text goes here	
		Next

Object parameters

Bullet List	×
Parameters Display Effects Sound	
List items: 🛶 🛥 🍲 🍲	
Description	
Item text goes here Item text goes here	
Button "Next" top margin: 6 px	
Divider style: Dotted	
Divider color: #0000CC	
Divider width: 2 px	
Display top and bottom divider lines	
OK Cancel <u>A</u> pply Help	

Fill in the statements list. You can select bullet type and other appearance parameters for each list item. Set button top margin (if you plan to use it) and divider lines between list items.

Depending on selected display mode parameters list on "Display" tab will be different. Default mode is **On user click** (this mode include text link, form and image buttons - all controls that activated with mouse click). Define button or link parameters.

Bullet List
Parameters Display Effects Sound
Display mode: Velayed auto
Item display delay: 2 sec.
OK Cancel Apply Help

In Delayed auto mode the only available parameter is Item display delay (in seconds).

Bullet List
Parameters Display Effects Sound
Display mode: On external call
☑ Display first item from the start
OK Cancel <u>A</u> pply Help

Third mode - **On external call** - means that no list controls will be displayed and items will appear only when object's method NEXT ITEM will be used. The only parameter here is **Display first item automatically.**

In particul induction, instanced interview, however, with doll for systematic, representation and system. Statements, vol. (2014) - Particul Compared, 0001 - Particul Compared.

Select "Effects" tab.

Bullet List	K
Parameters Display Effects Sound	
Use transitions	
Transition: Wipe right	
Duration: 1 sec.	
OK Cancel <u>A</u> pply Help	

In case "Use Transitions" check box is marked on "Effects" tab, you can choose any of the standard **transition effects.** Positive numbers (greater than 0) are used to set **Time of the transition** in seconds.

LIMITATIONS: Due to lack of transition support in some browsers, transition effects might be substituted to closest available in browsers other than Internet Explorer.

Bullet List	
Parameters Display Effects	Sound
Use sound effects	
Item display sound:	Standard 1
Sound file:	
OK Cance	el <u>A</u> pply Help

On the "Sound" tab you can switch item display sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Item Displayed	At the moment when Item begins to display

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
DISPLAY NEXT ITEM	Start displaying of next item in queue.

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
lastItem	Returns number of last displayed item (starting from 1).	\$ <mark>OBJ_ID</mark> .lastItem
nextItem	Returns number of next displayed item (if exists).	\$ <mark>OBJ_ID</mark> .nextItem
totalItems	Returns total number of items.	\$OBJ_ID.totalItems

5.3.12.2 Simple List

Simple List object is used for creating sequentially appearing list of statements. It contains the list of items with built-in display manipulation mechanisms.

IMPORTANT! Since this object contains built-in display mechanisms, the actual duration might not be in accordance with the duration specified in the Time panel for the Frame.

Example of object appearance:

Item text goes here	
Item text goes here	
	Next

Object parameters

Simple List	×
Parameters Display Effects Sound	
tem list	
Item description goes here Item description goes here	
Space between items: 6 px	
OK Cancel Apply Help	

Fill in the statements list. You can select item appearance parameters for each list item.

Depending on selected display mode parameters list on this tab will be different. Default mode is **On user click** (this mode include text link, form and image buttons - all controls that activated with mouse click). Define button or link parameters.

Simple List
Parameters Display Effects Sound
Display mode: Delayed auto
Item display delay: 2 sec.
OK Cancel Apply Help

In **Delayed auto** mode the only available parameter is **Item display delay** (in seconds).

Simple List
Parameters Display Effects Sound
Display mode: On external call
✓ Display first item from the start
OK Cancel Apply Help

Third mode - **On external call** - means that no list controls will be displayed and items will appear only when object's method NEXT ITEM will be used. The only parameter here is **Display first item automatically.**

Programming and provide the second second

In case "Use Transitions" check box is marked on "Effects" tab, you can choose any of the standard transition effects. Positive numbers (greater than 0) are used to set Time of the transition in seconds.

Simple List	×
Parameters Display Effects Sound	_
Use transitions	
Transition: Wipe right	
Duration: 1 sec.	
OK Cancel Apply Help	

LIMITATIONS: Due to lack of transition support in some browsers, transition effects might be substituted to closest available in browsers other than Internet Explorer.

Simple List	
Parameters Display Effects	Sound
✓ Use sound effects	
Display item sound:	Standard 1
Sound file:	
OK Cance	

On the "Sound" tab you can switch item display sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Item Displayed	At the moment when Item begins to display

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result	
DISPLAY NEXT ITEM	Start displaying of next item in queue.	

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
lastItem	Returns number of last displayed item (starting from 1).	\$ <mark>OBJ_ID</mark> .lastItem
nextItem	Returns number of next displayed item (if exists).	\$ <mark>OBJ_ID</mark> .nextItem
totalltems	Returns total number of items.	\$OBJ_ID.totalItems

5.3.12.3 Standard List

Standard List object is used for creating sequentially appearing list of statements. Object consists of Standard list items. It contains the list of items with built-in display manipulation mechanisms.

IMPORTANT! Since this object contains built-in display mechanisms, the actual duration might not be in accordance with the duration specified in the Time panel for the Frame.

Example of object appearance:



Object parameters

Standard List		×
Parameters Display Effects	Sound	
Items border color:	Lightblue 🗸	
Items mark:	Checkmark 🗸	
Item list:	+ - + + 😭	
Description		
First item text Second item text		
Inner margin:	5 px	
Space between items:	5 px	
OK Cancel	Apply Help	

Select **border color** for the list items with respect to the overall design. Select **items mark** for the list Item. Input text for the list items. Specify value for **text margin** and **space between items**. Text margin defines the space between border of the window and text block.

Standard List		
Parameters Display Effects	Sound	
C External call	✓ Display first item	
 Delayed auto 	2000 msec.	
 Text link click 	Next Item TE	
Button click		
O Button image:		
 Standard button: 		
Button/link align:	Right 🗸	
Button text:	Next Item	
Border style:	Solid 🗸 2 px	
Border color:	#666666	
Background color:	#F0F0F0 px	
Font:	Arial 🖌 12	
Font style:	Nomal	
Font color:	#000000	
Text align:	Center 🖌	
OK Cancel Apply Help		

Object enables displaying the list of items either consecutively, in **automatic mode** with user defined time delays or by accepting user input in a form of pressed **button** or clicked **text link**. **On external call** mode means that no list controls will be displayed and items will appear only when object's method NEXT ITEM will be used. The only parameter here is **Display first item automatically**.

Standard List	×
Parameters Display Effects Sound	
Use transitions	
Transition: Wipe right	
Duration: 1 sec.	
OK Cancel Apply Help	5

In case "Use Transitions" check box is marked, you can choose any of the standard **transition effects.** Positive numbers (greater than 0) are used to set **Time of the transition** in seconds.

LIMITATIONS: Due to lack of transition support in some browsers, transition effects might be substituted to closest available in browsers other than Internet Explorer.

Standard List		
Parameters Display Effects	Sound	
✓ Use sound effects		
Display item sound:	Standard 1 🗸	
Sound file:		
OK Cance	l <u>A</u> pply Help	

On the "Sound" tab you can switch item display sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Item Displayed	At the moment when Item begins to display

Object Methods

The state of the Object can be modified using methods.
Method name	Execution Result
DISPLAY NEXT ITEM	Start displaying of next item in queue.

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
lastItem	Returns number of last displayed item (starting from 1).	\$ <mark>OBJ_ID</mark> .lastItem
nextItem	Returns number of next displayed item (if exists).	\$ <mark>OBJ_ID</mark> .nextItem
totalItems	Returns total number of items.	\$OBJ_ID.totalItems

5.3.12.4 Standard Block-List

Standard Block-List object is used for creating lists of semantically related block statements, which will be displayed simultaneously.

Example of object appearance:



Standard Block-List	
Parameters	
Border color: Item mark:	
Items text:	4 - A 4 2
Item text First Item text Second Item text Third Item text	
Inner margin:	5 pixels
OK Cancel	Apply Help

Select **border color** for the list items with respect to the overall design. Select **items mark** for the list Item. Input text for the list items. Specify value for **text margin**. Text margin defines the space between border of the window and text block.

5.3.12.5 Standard List Item

Standard List Item object is used for creating Lists, which contain clearly highlighted statements.

Example of object appearance:



Object parameters

Standard List Item	
Parameters	
Border color:	Lightblue 🗸
Item mark:	Checkmark 🗸
Item text:	
First Item text	TE
Inner margin:	5 pixels
OK Cancel	Apply Help

Select **border color of item** with respect to the overall design. Select **marker type for the list Item.** Input **text for the list item**. Specify value for **text margin.** Text margin defines the space between border of the window and text block.

5.3.12.6 Simple List Item

Simple List Item object is used for creating Lists, which contain clearly highlighted statements.

Example of object appearance:



Simple List Item	×
Parameters	
Background color:	#D9F2FF
Border color:	#B7E8FF
ltem mark:	Checkmark 🖌
Item text:	
First Item text	TE
Inner margin:	5 pixels
Vertical align:	◯ top
OK Cancel	Apply Help

Select **item background color** and **border color of item** with respect to the overall design. Select **marker type** for the list Item. Input **text for the list item**. Specify value for **text margin**. Text margin defines the space between border of the window and text block.

5.3.12.7 Animated List

Animated Listиспользуется обычно для создания списков утверждений, появляющихся по очереди. Содержит встроенные механизмы управлением показа элементов.

IMPORTANT! Since this object contains built-in display mechanisms, the actual duration might not be in accordance with the duration specified in the Time panel for the Frame.

Example of object appearance:



Animated List	×
Parameters	
Fill color:	Grey
Symbol color:	Green
Elements list:	4 - 4 4 😭
Text	
Default text	Checkmark
Default text	Checkmark
Default text	Checkmark
Transition:	Fly in 👻
Duration:	1 sec.
Direction:	Left
Delay time:	3 sec.
✓ Display shadow	
OK Car	ncel <u>A</u> pply Help

Select **main element color and marker color**, according to your design requirements. Select **transition effects**. This Object can use additional Zoom in and Fly in effects.

	—
Text: Symbol:	Default text TE Checkmark
	OK Cancel

Select marker type. Fill elements text.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon	
on Item Displayed	At the moment when Item begins to display	

on First Item Displayed	Immediately after first list item is displayed
on Last Item Displayed	Immediately after last list item is displayed

5.3.13 Textboxes

5.3.13.1 Shaded Text Box

Shaded Text Box object enables placing desired text box with modified display settings (including shadow effects). Compared to embedded regular text box, this one enables using special effects for text appearance.

IMPORTANT! Internet Explorer 5.5 and above should be used for correct shading display, however, text box will be visible in older versions of browser.

Note, that this object is capable to make text substitution in Rich Text. Text substitutions can be variable values and object properties. Because Rich Text format is quite complex, additional markers for substitution area are used - double curle brackets. Text substitutions will be applied only for double curle brackets areas. For example {{\$oBJ_19.x}} will be substituted by value of X coordinate of OBJ_19 object's top-left corner, and {{#att_left}} will be substituted by value of courseLab variable named att_left. If no substitution is found, all double curle brackets area will remain intact.

Quick brown fox jumps over lazy dog. Quick brown fox jumps over lazy dog. Quick brown fox jumps over lazy dog. Quick brown fox jumps over lazy dog.

Shadow Text Box	
Main box Shadow Effects	
Text:	
Quick brown fox jumps over la	zy dog. Quick brown fo
Inner margin:	20 pixels
Background color:	#FEFFFF
Border style:	Double
Border color:	#CCCCCC
Border width:	3 pixels
Box opacity:	100 %
OK Cancel	Apply Help

To input text into the **text box**, press "TE" button of the corresponding field. The format of input area of the Text box is Rich Text, therefore all font settings (size, color, and style) will be saved as you type the text in.

If desired, modify value for **text margin**. Text margin defines the space between border of the box and text.

You can change text box **fill color**. You can modify style, color, and width for the text box border. Заметьте, что граница бокса также подчиняется этому параметру.

Finally, you can modify **opacity** of the main box. Please be advised that any changes applied to the opacity, affects the border of the text box as well. In case text box Shading is On, it is **not recommended** to use opacity less than 100%.

Shadow Text Box
Main box Shadow Effects
Display box shadow
Shadow shift hor.: 5 vert.: 5 pixels
Shadow intensity: 40 %
Shadow copies main box
Shadow background color: #CCCCCC
Shadow border style: Solid
Shadow border color: #CCCCCC
Shadow border width: 3 pixels
OK Cancel Apply Help

Use "Shadow" tab to specify display settings for shading effect. The key control is **Display Box Shadow** check box. In case this check box is not marked then all other settings are disabled for editing.

In case text box Shading is On, you can specify vertical and horizontal **Shadow Shift with relation to the main box** as well as **opacity**. We recommend using opacity of 40%, which is a default opacity value.

The next check box is **Shadow copies main box**. In case this check box is marked, such shading box settings as background color, style, color, and width of the box border will be copied from the main box settings (it will look more natural when combined with 40% opacity). However, if you need to change shading display with regards to main block, you can uncheck the **Shadow copies main box** check box, then shading box settings become available for editing.

Shadow Text Box	×
Main box Shadow Effects	
Typewriter speed: 8 chars/sec	

On the "Effects" tab you can enable character iteration display mode for the text in the main box. In this case you can specify text occurrence frequency rate.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon	
on Text Refreshed	After text is refreshed	
on Text Added	After text is added	
on Typewriter End	After the moment when typewriter effect types last text character.	

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
CLOSE	Closes the object.
REFRESH TEXT	Refreshes the text in the object, Can be useful if the text contains dynamically changed substitutes.
ADD TEXT	Adds the text to the current text. Note, that the style of closest paragraph will be used for new text.

5.3.13.2 Relief Text Box

Relief Text Box enables placing the desired text into the box with convex border. Compared to embedded regular text box, this Text Box enables using special effects and scrolling for text occurrence.

Note, that this object is capable to make text substitution in Rich Text. Text substitutions can be variable values and object properties. Because Rich Text format is quite complex, additional markers for substitution area are used - double curle brackets. Text substitutions will be applied only for double curle brackets areas. For example {{\$0BJ_19.x}} will be substituted by value of X coordinate of OBJ_19 object's top-left corner, and {{#att_left}} will be substituted by value of courseLab variable named att_left. If no substitution is found, all double curle brackets area will remain intact.

Example of object appearance:

Quick brown fox jumps over lazy dog. Quick brown fox jumps over lazy dog. Quick brown fox jumps over lazy dog. Quick brown fox jumps over lazy dog.

Object parameters

Relief Text Box		
Parameters Effects		
Border color:	Blue	
Text:	Box text goes here	
Inner margin:	5 pixels	
Overflow style:	Auto scroll	
Close box on mouse click		
OK Cancel Apply Help		

Select **color of the box border** with respect to the overall design. To input text into the **text box**, press "TE" button of the corresponding field. The format of input area of the Text box is Rich Text, therefore all font settings (size, color, and style) will be saved as you type the text in. If needed, modify value for **inner margin**. Inner margin defines the space between box border and text. By default, text margin is equal to 5 pixels. Set **Overflow style** if needed - default value **Autoscroll** is suitable for most cases.

If appropriate checkbox is marked, text box can be **closed on mouse click** anywhere within a box.

Relief Text Box	×
Parameters Effects	
Typewriter effect	
Typewriter speed: 8 chars/sec	
OK Cancel Apply Help	

On the "Effects" tab you can enable character iteration display mode for the text in the main box. In this case you can specify text occurrence frequency rate.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon	
on Text Refreshed	After text is refreshed	
on Text Added	After text is added	
on Typewriter End	After the moment when typewriter effect types last text character.	

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
CLOSE	Closes the object.
RESIZE	Changes the size of the object. Note, that top-left corner position of the object is fixed.
REFRESH TEXT	Refreshes the text in the object, Can be useful if the text contains dynamically changed substitutes.
ADD TEXT	Adds the text to the current text. Note, that the style of closest paragraph will be used for new text.

5.3.13.3 Simple Text Box

Simple Text Box enables placing the desired text into the box with optional border and different scrolling settings. Compared to embedded regular text box, this Text Box enables using scrolling and special effects for text occurrence.

Note, that this object is capable to make text substitution in Rich Text. Text substitutions can be variable values and object properties. Because Rich Text format is quite complex, additional markers for substitution area are used - double curle brackets. Text substitutions will be applied only for double curle brackets areas. For example {{\$oBJ_19.x}} will be substituted by value of X coordinate of OBJ_19 object's top-left corner, and {{#att_left}} will be substituted by value of courseLab variable named att_left. If no substitution is found, all double curle brackets area will remain intact.

Example of object appearance:

The MCE made a regulation under the National Electricity Law that extends the time to make Rules governing the regulation of electricity transmission revenue and prices to 1 January 2007. This extension to the deadline enabled the Commission to consider the

Object parameters

Simple Text Box		
Parameters Effects		
Text: The MCE made	le a regulation u	
Background color: #FFFFFF		
Border color: #80ffff		
Border width: 6 pixels		
Border style: Ridge	~	
Inner margin: 5 pixels		
Overflow style: Vertical scroll	~	
Close box on mouse click		
OK Cancel Apply Help		

To **input text** into the text box, press "TE" button of the corresponding field. The format of input area of the Text box is Rich Text, therefore all font settings (size, color, and style) will be saved as you type the text in.

If needed, modify value for **inner margin.** Inner margin defines the space between box border and text. By default, text margin is equal to 5 pixels. Set **Overflow style** if needed - default value **Autoscroll** is suitable for most cases.

If appropriate checkbox is marked, text box can be **closed on mouse click** anywhere within a box.

Simple Text Box
Parameters Effects
Typewriter speed: 8 chars/sec
OK Cancel Apply Help

On the "Effects" tab you can enable character iteration display mode for the text in the main box. In this case you can specify text occurrence frequency rate.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon	
on Text Refreshed	After text is refreshed	
on Text Added	After text is added	
on Typewriter End	After the moment when typewriter effect types last text character.	

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result	
CLOSE	Closes the object.	
RESIZE	Changes the size of the object. Note, that top-left corner position of the object is fixed.	
REFRESH TEXT	Refreshes the text in the object, Can be useful if the text contains dynamically changed substitutes.	
ADD TEXT	Adds the text to the current text. Note, that the style of closest paragraph will be used for new text.	

5.3.13.4 Gradient Box

Gradient Box enables placing the desired text into the box with optional border and different scrolling settings. Compared to embedded regular text box, this Text Box enables using scrolling and special effects for text occurrence.

Note, that this object is capable to make text substitution in Rich Text. Text substitutions can be variable values and object properties. Because Rich Text format is quite complex, additional markers for substitution area are used - double curle brackets. Text substitutions will be applied only for double curle brackets areas. For example {{\$oBJ_19.x}} will be substituted by value of X coordinate of OBJ_19 object's top-left corner, and {{#att_left}} will be substituted by value of courseLab variable named att_left. If no substitution is found, all double curle brackets area will remain intact.

Example of object appearance:



Gradient box		
Parameters Effects		
Text:	Controversial radio DJ Howard 🕄 TE	
Inner margin:	6 px	
Vert. alignment:	Middle	
Color scheme:	Blue	
Custom color:	#6080b0	
Gradient type:	Simple 🔹	
Gradient angle:	0 deg.	
Border width:	1 px	
Close box on mouse click		
OK Car	ncel <u>A</u> pply Help	

To **input text** into the text box, press "TE" button of the corresponding field. The format of input area of the Text box is Rich Text, therefore all font settings (size, color, and style) will be saved as you type the text in.Установите параметры внешнего вида. Select color scheme of the box with respect to the overall design. If needed, modify value for **inner margin**. Inner margin defines the space between box border and text.

This Object always has size of its placeholder, scroll bar will be added automatically, when text size will exceed Object size. **Vertical alignment** is applicable only if text size is less than Object size.

If appropriate checkbox is marked, text box can be **closed on mouse click** anywhere within a box.

Gradient box		
Parameters Effects		
 Display shadow always Display shadow on mouse over 		
Shadow strength:	Normal	
🔲 Use fly in		
Direction:	Right 👻	
Fly in speed:	Normal	
✓ Use zoom in		
Zoom in direction:	Center	
Zoom in speed:	Normal	
OK Car	ncel <u>A</u> pply Help	

You can use transition effects for this Object.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Text Refreshed	After text is refreshed
on Text Added	After text is added

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
REFRESH TEXT	Refreshes the text in the object, Can be useful if the text contains dynamically changed substitutes.
ADD TEXT	Adds the text to the current text. Note, that the style of closest paragraph will be used for new text.

5.3.14 Test

5.3.14.1 Test

Test object presents the set of questions of different types.

"Test" object supports these types of the questions used in CourseLab:

- single choice
- multiple select
- ordered items
- numeric fill-in-blank
- text fill-in-blank
- matching pairs.

LIMITATION: No more than one Test on the Slide is recommended.

st	
Messages	Texts Buttons Spots
Questions	Limitations and scoring Feedback Display
Questions:	+ - + 4
Question type	Question
choice	Meow is the cry of
select	Which states are in North America?

Use "Questions" tab to add any number of questions to the list of the questions by pressing "+" button. The opened edit screen practically duplicates the object "Question" edit window of the corresponding type, the only difference is that some common test parameters are missing. Please see the question object descriptions for more details.

By default all question in the list are displayed to yser, but you can also define random selection from list of question to be displayed.

WARNING! Be aware that you will need to calculate maximal score for the test manually (to use it in maximal score for objective). Also note that if you plan to use this module within an LMS, limits on amount of stored data may apply depending on e-learning standard used and LMS properties. Every test question stores its data (and length of data depends on complexity of question), therefore it is recommended not to exceed 20-40 questions in test. The only standard that allows large amount of data to be stored is SCORM 2004.

Test			
Messages	Texts	Buttons	Spots
Questions	Limitations and scoring	Feedback	Display
 Scored test Enable time limit Limit test duration Test time limit: Allow recurring a Display question 	ation for test n 2 min approaches n images	sec	
ĺ	OK Cancel		Help

You can set the test as "not credited", if needed (for example when the test is a part of the learning process or an additional exercise rather than knowledge testing) by removing **Scored Test** mark on the "Limitations and scoring" tab.

You can permit or restrict **timing** in questions (Use "Enable time limitation for test" check box) if timing is defined. In addition, you can specify time limit for the whole test (use "Limit test duration" check box and corresponding field).

You can permit the option of skipping the question by marking corresponding check box, however, question will be classified as **skipped** (with opportunity to provide the answer later). Besides that, you can allow the second run for the test. If this option is unchecked, the user will be prompted with message stating that test had already been taken and only test results can be viewed. In case this option is marked, the student will be prompted with the same as above warning message, but with the two options available to choose from: one is to take test again and second is to see test results. If test is taken again, all previous test results are discarded. Also you can permit or restrict display of pictures related to the questions for the entire Test.

IMPORTANT! You can not set up Objective for storing results of the entire test, instead, when editing each question specify parameters settings for required

Objective(s). Such approach allows maximum flexibility when evaluating test results.

Test		
Messages 1 Questions Limitation	Texts Buttons Spo ns and scoring Feedback Dis	ts play
 Display right answer Display feedback message Correct answer: Incorrect answer: No more attempts: Timeout: Offset horizontal: Offset vertical: Index messages automatication 	ges Correct Incorrect Incorrect. No more attempts. Time is out. 100 pixels 50 pixels attically 3 sec	
ОК	Cancel Apply	Help

You may permit the **display of correct answer** upon question completion by marking corresponding check box. If student has used off all the attempts for response, or if the time has expired then the correct answer will be displayed; user will not be credited for this answer. This option may be used when the main objective of the question is educating rather than testing.

st			
Messages	Texts	Buttons	Spots
Questions	Limitations and scoring	Feedback	Display
Skin:	Basic		*
Basic color:	Lightblue		*
Numeri	c/text input field parameters		
Border style:	Solid	•	*
Border width:	2 pixels		
Background color	#FFFFFF		
Font:	Arial	*	
Font size:	12 pixels		
Font color:	#000000		
Mat	ching pairs parameters		
Base width:	250 pixels		
Match width:	350 pixels		

On the "Display" tab you can select basic appearance settings for the object.

Test			D
Questions Limitat Messages	ions and scoring Texts	Feedback Buttons	Display Spots
	nformation messages		· · · · · · · · · · · · · · · · · · ·
Last question state:	LAST QUESTION	ER STATE	
Skipped:	QUESTION IS SKI	PPED	
Skipped and failed:	QUESTION IS SKI	PPED AND FAILED	
Continued:	Continued approact	h. Starting from first	unanswered
Already answered: Test is already answered. Recurring approach is not		proach is not	
Recurring approach: This test is already answered. Press OK to clear stor		(to clear stor	
Skip and fail confirmation: Skipped question will be evaluated as failed. Are you		ailed. Are you	
Still unanswered: There are unanswered questions. Continue?			
Numeric only:	Numeric only: Please enter only numbers and signs		
OK Cancel Apply Help			

Test	2
Questions Limita	tions and scoring Feedback Display
Messages	Buttons Spots
Single choice:	Select correct variant
Multiple select:	Select all correct variants
Ordering:	Place variants in correct order
Numeric fill-in-blank:	Enter numeric value
Text fill-in-blank:	Enter text string
Pair match:	Connect pairs to match correctly
Attempts text:	Attempts:
Scored test text:	Credited:
Not scored test text:	Not credited:
Question number text:	question
From text:	from
Question timer text:	Question time limit:
Test timer text:	Test time limit:
Stopped test text:	Test is stopped
All Answered text:	All questions are answered
No More Answered text:	No more answered questions
	K Cancel <u>A</u> pply Help

On the "Messages" and "Texts" tabs you can edit the information and warning messages of the test.

est			
Questions Messages	Limitations and scoring	Feedback Buttons	Display
Submit answer: Submit answer over Skip question: Skip question over: Next question: Next question over:			
Submit button tooltip: Skip button tooltip:	Submit an Skip ques	nswer	
Next question button	tooltip: Next ques	stion	
[OK Can	cel <u>A</u> pply	Help

Questions	Limitations and scoring	Feedback	Display
Messages	Texts	Buttons	Spots
Use default a	tive spots		
Single choice und	hecked:		
Single choice che	ecked:		
Multiple select un	checked:		
Multiple select ch	ecked:		
Ordering up active	e:		
Ordering up inacti	ve:		
Ordering down ac	tive:		
Ordering down ina	active:		

On the "Buttons" and "Spots" tabs you can define custom question and test buttons and active spots for single choice, multiple select and order type of questions.

On the "Sound" tab you can switch click and mouseover sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Question Start	The question is fully loaded and all elements of the question are displayed
on Choice Change	Item configuration changed in single choice question

on Select Change	Item configuration changed in multiple select question
on Item Order Changed	Item configuration changed in order question
on Numeric Value Changed	Value changed in numeric question
on Text Value Changed	Value changed in text question
on Match Changed	Item configuration changed in matching pairs question
on Attempt	At the moment of answer acceptance, but before answer evaluation
on Success	At the moment of answer evaluation, in case the answer is correct.
on Failure	At the moment of answer evaluation, in case the answer is incorrect.
on Time Out	At the moment of time expiration for the answer (if defined)
on Attempts Limit	After answer evaluated, in case the number of attempts decreased to zero.
on Question Skipped	After "Skip Question" button is pressed
on Question End	After answer is evaluated and no more attempts left (on timeout or on attempts limit)
on Test Timer Tick	Every second while test timer is active
on Test Timeout	At the moment of time expiration for the whole test (if defined)
on Test End	After all questions are answered or test timeout

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
testMode	Returns current test mode (tokens: "normal", "review").	\$ <mark>OBJ_ID</mark> .testMode
questionNumber	Returns current question number (starting from 0, first question has 0 number).	\$ <mark>OBJ_ID</mark> .questionNumber
totalQuestionQuantity	Returns total questions quantity in current test.	\$ OBJ_ID.totalQuestionQuantity
testDuration	Returns allowed test duration in seconds (if exists).	\$ <mark>OBJ_ID</mark> .testDuration
testTimer	Returns current test timer value in seconds (if exists).	\$ <mark>OBJ_ID</mark> .testTimer
questionType	Returns current question type (tokens: "choice", "select", "range", "numeric", "text", "oto").	\$ <mark>OBJ_ID</mark> .questionType
questionDuration	Returns allowed question duration in seconds (if exists).	\$ <mark>OBJ_ID</mark> .questionDuration
questionTimer	Returns current question timer value in seconds (if exists).	\$ <mark>OBJ_ID</mark> .questionTimer
itemQuantity	Returns total variants quantity.	\$ <mark>OBJ_ID</mark> .itemQuantity
questionValue	Returns current question answer value (format corresponds to question type).	\$ <mark>OBJ_ID</mark> .questionValue
attemptsLast	Returns current number of attempts.	\$ <mark>OBJ_ID</mark> .attemptsLast
attemptsTotal	Returns allowed number of attempts.	\$ <mark>OBJ_ID</mark> .attemptsTotal

5.3.14.2 QTI Test

QTI TestObject allows to display questions from the external QTI file.

IMPORTANT! This Object can support only QTI 1.2 files (full support of QTI standard is not guarantied).

QTI file cannot be used in edit mode, therefore only placeholder of the QTI Test is visible:

	Пример текста инструкции к вопросу
۲	Пример текста варианта единственный выбор
	Пример текста варианта множественный выбор
4	Пример текста варианта упорядочивание
6	Пример текста базы соответвия
	Пример текста пояснения к полю ввода

The same Object in real Course looks different - in sequential mode (by Question):

Coe,	дините пары правильно, перетаскивая правые ч	насти
Великобритания	→ Лондон	
🔒 Украина	→ Киев	
🔒 Польша	🗧 🗧 Варшава	
🔒 Китай	🗧 Пекин	

or in List mode:

Соединити	е пары правильно, перетаскивая правые части	
Великобритания	← Kires	
🔓 Украина	екин	
🔒 Польша	🔶 Лондон	
🔓 Китай	🔶 Варшава	

This Object object supports these types of the questions used in CourseLab:

- single choice
- multiple select
- ordered items
- numeric fill-in-blank
- text fill-in-blank
- matching pairs.

LIMITATION: This Object does not support Images and other media objects - only text parameters from QTI file are used.

ест QTI					×
Управление	Подло	жка	Тексты	Инстр	укции
вопросы	Параметр	ы	Обратная свя	ЗЬ	Вид
Источник вопро	COB:	Файл (ITC		•
Файл с вопроса	ами:	C:\Cour	ses\PG\3\imag	es\qti_utf	B
URL источника:		http://			
Показ вопросов	B:	Списко	м весь тест		•
— Выбирать в	зопросы дл	пя показ	а случайно —		
Число вопрос	:0B:	1			

On the "Questions" tab define source of questions - QTI file or URL. If local file is selected - it will be automatically copied into Module's images folder. In case you select URL of the file - file will not be copied. Select questions display mode: sequentially (by question) or full list (in this case answer is submitted for all questions simultaneously).

IMPORTANT! Be aware, that loading file from external URL may be the subject of browser security settings (cross-domain security).

"Select questions randomly" checkbox allows random selection of questions from all questions in file.

WARNING! Be aware that you will need to calculate maximal score for the test manually (to use it in maximal score for objective). Also note that if you plan to use this module within an LMS, limits on amount of stored data may apply depending on e-learning standard used and LMS properties. Every test question stores its data (and length of data depends on complexity of question), therefore it is recommended not to exceed 20-40 questions in test. The only standard that allows large amount of data to be stored is SCORM 2004.

Most of test and questions parameters are defined in QTI file, but you can change or override some of them.

				_
Управление	Подложка	Тексты	Ин	струкции
Вопросы	Параметры	Обратная свя	зь	Вид
Цели теста:		÷ -	•	₽ 😭
Цель				
total				
Разрешить	о повторный прох	од		
При повторно	м входе: Пред	доставить выбор		-

On "Parameters" tab you can define Objectives for all questions of the QTI Test. Unlike usual <u>Test</u>, there is no possibility to bind Objectives to distinct questions.

You can permit the option of skipping the question by marking corresponding check box, however, question will be classified as **skipped** (with opportunity to provide the answer later). Besides that, you can allow the second run for the test. If this option is unchecked, the user will be prompted with message stating that test had already been taken and only test results can be viewed. In case this option is marked, the student will be prompted with the same as above warning message, but with the two options available to choose from: one is to take test again and second is to see test results. If test is taken again, all previous test results are discarded. Also you can permit or restrict display of pictures related to the questions for the entire Test.

Управление	Подлож	ka 🔤	Тексты	Ин	струкции
Вопросы	Параметры		Обратная св	язь	Вид
🗸 Разрешить г	юказ обратн	ой свя	зи		
Цвет правильн	o: [3	велень	ій		•
Цвет по выбор;	J: #	¹⁹⁸⁰⁰⁰	7		
Цвет неправил	ьно:)ранже	евый		•
Цвет по выбор	J: #	98000	7		
Ширина блока:	3	00 пи	KC.		
— Прятать (сообщения а	втомат	пически —		
через	3		сек.		
Текст время во	onpoca: E	ремя,	отведенное н	а вопро	с, закон
Текст время те	ста: Е	ремя,	отведенное н	а тест,	закончил

You can enable or disable **feedback messages**. Feedback messages are defined in QTI file. When enabled, feedback messages will be displayed in special text block - you can change its **width**.

Управление	Подло	жка	Тексты	Инстру	кции
Вопросы	Параметр	ы	Обратная свя	зь В	Вид
Цветовая схем	ıa:	Стальн	ой синий		•
Цвет по выбор)y:	#98000	7		
Шрифт вопрос	a:	Tahoma	• •		
Размер и стил	ь:	14 🔻	Жирный		•
Цвет шрифта:		#00000	0		
Шрифт вариан	та:	Tahoma	•		
Размер и стил	ь:	12 🔻	Обычный		•
Шрифт служеб	ный:	Tahoma	•		
Размер и стил	ь:	11 🔻	Обычный		•

On the "Display" tab you can select basic appearance settings for the object.

Вопросы	Тараметры	Обратная св	язь Вид
Управление	Подложка	Тексты	Инструкции
Цвет неотвеченн	ого: Сер	ый	•
Цвет по выбору:	#CC]	
Цвет отвеченного	р: Син	ий	•
Цвет по выбору:	#98	0007	
Цвет прав.отвеч.	Зел	еный	•
Цвет по выбору:	#98	0007	
Цвет неправ. отв	еч.: Кра	сный	•
Цвет по выбору:	#98	0007	
Цвет текущего:	Opa	нжевый	•
Цвет по выбору:	#98	0007	
Кнопка След.:	Зел	еный	•
Цвет по выбору:	#98	0007	

On the **Controls** tab you can change display parameters for Control elements: progress-indicators and buttons.

Вопросы	Параметры	Обратная св	язь Вид
Управление	Подложка	Тексты	Инструкции
🗸 Показывать	подложку		
Цветовая схема	a: (серый	•
Цвет заливки:	ŧ.	332223	
Цвет градиента	a: 🗍	EEEEEE	
Цвет границы:	Ţ.	FFFFFF	
Яркость заливн	ки:	ветлее	-
Толщина грани	цы: 3	пикс.	
Угол градиента	i: 0	град.	
Радиус скругле	ния: 8	пикс.	
Внутренняя отб	ивка: 1	2 пикс.	
Показывать те	нь: [Чормальная	-

On the "Background" tab you can switch displaying of background on and off and define its display parameters:

- **color scheme** (one of predefined or custom),
- border width (in pixels),
- fill gradient angle from 0 (north direction) to 360 degrees counterclockwise,
- corner radius,
- inner margin.

Вопросы	Параметры	ы Обратная связь Вид		Вид	
Управление	Подложи	ka	Тексты	Ин	струкции
Вопрос:	E	опрос	;		
из:	и	3			
Осталось попь	ыток: С)стало	сь попыток:		
Введите ответ	ы: С)тветь	те на все вопр	оосы дл	ія появле
Время на вопр	oc: E	Время на вопрос			
Время на тест	: E	Время на тест			
Минут:	Μ	мин.			
Секунд:	c	ек.			
Отвечено вопр	осов: С	Отвечено вопросов:			
Введено ответ	ов: В	Вопросов с введенным ответом:			
Тест закончен	: T	Тест закончен			
Повторный про	оход: В	Вы хотите пройти этот тест заново?			заново?
След.вопрос:	C	Следующий вопрос			
Принять ответ	: Г	Іринят	љ ответ		

On "Instruction" and "Texts" tabs you can change text constants that are used in the Object.

ст QTI					×
Вопросы	Параметр	ы	Обратная свя	зь	Вид
Управление	Подло:	жка	Тексты	Ин	струкции
Ед.выбор:		Выбер	ите один вариа	нт отв	ета
Множ.выбор:		Выбер	ите один или не	есколь	ко вариан
Упорядочиван	ие:	Расста	вьте варианты	і в пра	вильном і
Числ.ввод:		Введит	ге числовое зна	ачение	
Текст.ввод:		Введит	ге строку		
Парное соотв.	:	Соедините пары правильно, перетас;			
Режим просмо	тра:	РЕЖИМ ПРОСМОТРА			
OK)тмена	Примени	њ	Справка

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Test Displayed	Test is fully loaded and ready
on Timeout	At the moment of time expiration for current question (if defined)
on Test Timeout	At the moment of time expiration for the whole test (if defined)
on Test End	After all questions are answered or test timeout

5.3.14.3 Current Results

Current Results object allows to display current score in one objective (usually for main module objective).

Example of Object appearance:
Current score	0
Maximal score	100

Object parameters

Current Results	
Parameters Display	
Objective:	total
Explanation:	Current score TE
Display maximal score	
Explanation:	Maximal score TE
Normalize to 100%	
ОК	Cancel Apply Help

On the Parameters tab you can select **objective**, which score will be displayed and parameters, that will be displayed.

You can edit descriptions for current and maximal scores.

Use Normalize to 100% checkbox to display percent values (display only, that it has no impact to real scores).

Current Results	
Parameters Display	
Border color:	#99CCFF
Cell background color:	#FFFFFF
Score font:	Arial
Score font size:	12 pixels
Score font weight:	Normal 🗸
Score font color:	#000000
OK Canc	el Apply Help

On the "Display" tab you can edit the color and font parameters.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
REFRESH TEXT	Refreshes current score values.

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
objectiveID	Returns objective identifier.	\$ <mark>OBJ_ID</mark> .objectiveID
rawScore	Returns raw objective score.	\$ <mark>OBJ_ID</mark> .rawScore
scaledScore	Returns scaled objective score (if can be calculated).	\$ <mark>OBJ_ID</mark> .scaledScore
maxScore	Returns maximal objective score (if defined).	\$ <mark>OBJ_ID</mark> .maxScore

5.3.14.4 Results by Objectives

Results by Objectives object allows to display current score in several objectives simultaneously.

Example of Object appearance:



Object parameters

Resu	ilts By Obje	ctives					X
Sca	ales Display	1					
	Objectives:			÷ -	•	₽ 😭	
	Objective		#009900	#	FOFOF)	
	Scale1 Scale2 Scale 3	Scale 1 Scale 2 Scale 3	#009900 #0080c0 #ff8080	# # #	F0F0F0 F0F0F0 F0F0F0		
	V Nomalize t	o 100%					
		0 100%					
	ОК	Ca	ancel	Apply		Help	

On the Scales tab you can select **objectives list**, which score will be displayed and parameters for each objective.

Use Normalize to 100% checkbox to display percent values (display only, that it has no impact to real scores).

Results By Objectives	
Scales Display	
Background color:	#F0F0F0
Font:	Arial 🗸
Font size:	12 pixels
Font weight:	Nomal
Font color:	#000000
Scale spacing:	2 pixels
OK Canc	el <u>Apply</u> Help

On the "Display" tab you can edit the color and font parameters.

Object Methods

The state of the Object can be modified using methods.



5.3.14.5 Detailed Results

Detailed Results is used for dislaying detailed results on Question objects.

LIMITATION: Object CANNOT display results on QTI Test objects.

Example of Object appearance:

		Not attempted yet		
Matching pairs question (one-	to-one)			1
Connect events with correspon	ding dates			
Statistics				
Attempts left: 0	Time allowed: 10 sec.	Scoring type: Question weigh	nt into all objectives	
Attempts allowed: 1	Time elapsed: 8 sec.	Objectives	Score	
		Main module objective	1	
🗇 Results				
Bases You have attached	Correct			
1492 Discovery of America	Discovery of America			
1903 First airplane	First airplane			
[manual] [manual manual manual manual manual]				
1945 The end of World War II	The end of World War II			

Object parameters

Detailed results					×
Objects Text constants					
Questions:	÷	_	ŵ		*
Object	Header text				
OBJ_28 OBJ_32					
 Display question text Display correct answers Display question score Display question timing Display statistics Display with answers 					
OK Can	cel App	ly		H	elp

On the "Objects" tab you can define the list of Objects to display statistics, and details to be displayed.

Detailed results		×
Objects Text con	stants	
Object types:	Unknown	
Unknown obje	ct type	
		-
Scoring types:	Weight into all objectives	
Question weigh	t into all objectives	
Miscellaneous:	Question text is not defined	
Question text is	not defined	
		-
OK	Cancel Apply Help	

On the "Text Constants" tab you can edit all object text constants.

5.3.15 Form

5.3.15.1 Text Field

Text Field enables user to input text using keyboard. Inserted values are accessible in a form of variables within CourseLab and may be employed in different actions.

IMPORTANT! The value entered is recorded in associated variable when user leaves field only.

Example of Object appearance:

Insert text here

Object parameters

Text Input	
Input Display Sound	
Run-time variable name:	input_var
Variable scope:	Current slide only
Default value:	Insert text here
Maximal value length:	100 symbols
OK Cancel	Apply Help

Specify variable name, which will be used for storing user input.

LIMITATION: Variable names must contain only Latin alphabet letters, and numbers, and must not start with a digit. Variable names must be unique within a Slide or Module (depending on selected variable scope).

If necessary, specify **default text**, which will be displayed in the field once the Object loads up. If necessary, you may set restrictions on user-input length of value in characters.

Text Input	×
Input Display Sound	
Border style:	Solid 🗸
Border width:	2 px
Border color:	#6666666
Background color:	#FFFFFF
Font:	Arial 🗸
Font size:	12 px
Font weight:	Normal 💌
Font style:	Normal 💌
Font color:	#000000
Text align:	Left 🖌
OK Cancel	Apply Help

Use "Display" tab to specify the field appearance.

Text Input		×
Input Display Sound		
Use sound effects		
Keypress sound:	Standard 1	
Sound file:		
OK Canc	el <u>A</u> pply Help	

On the "Sound" tab you can switch item display sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Field Focus Lost	At the moment when text is inserted and cursor leaves field

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result	
DISABLE INPUT	Restrict access to input field.	
ENABLE INPUT	Permit access to input field.	
SET VALUE	Set input field value	

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled
value	Returns current input field value.	\$ <mark>OBJ_ID</mark> .value

5.3.15.2 Hidden Text Field

Hidden Text Field enables user to input text or numbers using keyboard. At display input text is replaced with bullets. Moving forward, inserted values are accessible in a form of variables within CourseLab and may be employed in different actions.

IMPORTANT! The value entered is recorded in associated variable when user leaves field only.

Example of Object appearance:

•••••

Object parameters

Hidden Input Field	\mathbf{X}
Input Display Sound	
Run-time variable name: Variable scope: Default value: Maximal value length:	password_v Current slide
	Apply

Specify variable name, which will be used for storing user input.

LIMITATION: Variable names must contain only Latin alphabet letters, and numbers, and must not start with a digit. Variable names must be unique within a Slide or Module (depending on selected variable scope).

If necessary, specify **default text**, which will be displayed in the field once the Object loads up. If necessary, you may set restrictions on user-input length of value in characters.

Its parents indigates, analysis internet, forecases, my definit has independent, independent internet, Statistics, etc. (2016), Statistics, etc. (2016), and analysis of the statistics definit a segment parentspore.	
--	--

Use "Display" tab to specify the field appearance.

Hidden Input Field		×
Input Display Sound		
Keypress sound:	Chandred 1	
Sound file:		
Journa nie.		
OK Cance	Help	

On the "Sound" tab you can switch item display sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Field Focus Lost	At the moment when text is inserted and cursor leaves field

Object Methods

The state of the Object can be modified using methods.

Method name Execution Result	
DISABLE INPUT	Restrict access to input field.
ENABLE INPUT	Permit access to input field.
SET VALUE	Set input field value

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled
value	Returns current input field value.	\$ <mark>OBJ_ID</mark> .value

5.3.15.3 Text Area

Text Area enables user to enter large amount of text using keyboard. Moving forward, inserted values are accessible in a form of variables within CourseLab and may be employed in different actions.

IMPORTANT! The value entered is recorded in associated variable when user leaves field only.

Example of Object appearance:

~
~

Object parameters

Text Input Area		×
Input Display Sound		
Run-time variable name:	textarea_var	
Variable scope:	Current slide	
Default value:		
Text wrapping:		
Automatic soft wrap (no CRLF)	~	
OK Cancel	Apply Help	

Specify variable name, which will be used for storing user input.

LIMITATION: Variable names must contain only Latin alphabet letters, and numbers, and must not start with a digit. Variable names must be unique within a Slide or Module (depending on selected variable scope).

If necessary, specify **default text**, which will be displayed in the field once the Object loads up.

If necessary, specify **text wrapping** rules. The default behavior for Text Area is to automatically move to a new line, once the length of text line exceeds the right margin (**Automatic soft wrap**). This is rather "Virtual" text wrapping, in fact, if you enlarge Text Area text will wrap at the different position. Other wrapping rules:

- Automatically move to a new line and insert CRLF (carriage return /line feed) character, once the length of text line exceeds the right margin (**Automatic hard wrap**). If Text Area is enlarged, wrap point will remain at the same position.
- Move to a new line only when "Enter" button is pressed, otherwise, horizontal scroll bar will be displayed, once the length of text line exceeds the right margin (**Manual wrap**).

Note: By pressing the "Enter" key, CRLF is inserted in either one of the above mentioned cases.

Text Input Area	\mathbf{X}
Input Display Sound	
Border style:	Solid 🗸
Border width:	2 px
Border color:	#666666
Background color:	#FFFFFF
Font:	Arial
Font size:	12 px
Font weight:	Normal 🖌
Font style:	Normal 🖌
Font color:	#000000
Text align:	Left 💌
OK Cancel	Apply Help

Use "Display" tab to specify the field appearance.

Text Input Area		×
Input Display Sound		
VI lies sound affects		
Keypress sound:	Orandard 1	
Sound file:		
o dunu nie.		
OK Cance	el <u>A</u> pply Help	

On the "Sound" tab you can switch item display sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Field Focus Lost	At the moment when text is inserted and cursor leaves field

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result
DISABLE INPUT	Restrict access to input field.
ENABLE INPUT	Permit access to input field.
SET VALUE	Set input field value

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled
value	Returns current input field value.	\$ <mark>OBJ_ID</mark> .value

5.3.15.4 CheckBox

CheckBox enables user making Yes/No selections. Inserted values are accessible in a form of variables within CourseLab and may be employed in different actions.

IMPORTANT! The value entered is recorded in associated variable when user leaves field only.

Example of Object appearance:

CheckBox Description

Object parameters

Checkbox	
Input Display Sound	
Run-time variable name: Value checked:	checkbox_v
Value unchecked:	0
Default state:	Checked
	Unchecked
Variable scope:	Current slide 💌
ОК	Cancel <u>A</u> pply Help

Specify variable name, which will be used for storing user input.

LIMITATION: Variable names must contain only Latin alphabet letters, and numbers, and must not start with a digit. Variable names must be unique within a Slide or Module (depending on selected variable scope).

Specify **value** for the variable, in case user marks CheckBox and when CheckBox is unchecked. Default values are *true/false*.

Specify **initial state**, which is whether or not CheckBox is marked after Object loads up.

Input Display Sound	$\mathbf{\Sigma}$
✓ Display description Description text: Description text Description margin: 3 px Description location: Right Left 	

Use "Display" tab to specify the field appearance.

The essential CheckBox is "**Show description**". In case it is not marked, all other tab parameters are disabled for editing, therefore only CheckBox will be displayed on the Slide.

In case "Show description" CheckBox is selected, you can input description text into the field, which is in Rich Text Format mode. If needed, modify value for text margin. Text margin defines the space between CheckBox border and text. Additionally, you can specify position (right or left) of the text description with regards to the CheckBox.

Radio Button Group		×
Input Display Sound		
✓ Use sound effects		
Click sound:	Standard 1 🗸	
Sound file:		
ОК	Cancel Apply Help	5

On the "Sound" tab you can switch item display sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Check	User sets checkmark
on Uncheck	User removes checkmark
on State Changed	User sets or removes checkmark. This event is triggered right before events mentioned above.

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result			
DISABLE INPUT	Restrict access to input field.			
ENABLE INPUT	Permit access to input field.			
SET STATE	Set checkbox state			

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled
value	Returns 1 if object is currently checked, 0 otherwise.	\$ <mark>OBJ_ID</mark> .value

5.3.15.5 Group of Radio Buttons

Group of Radio Buttons enables user making single Yes/No selection for one out of several values. Inserted values are accessible in a form of variables within CourseLab and may be employed in different actions.

IMPORTANT! The value entered is recorded in associated variable when user leaves field only.

Example of Object appearance:

- O Variant 1
- Variant 2

Object parameters

Radio Button Group								×
Input Display Soun	d							
Run-time variable nam	ie:	radio_var						
Value list:			٠	-	٠		P	
Description	Value		Chec	ked				
Variant 1	v1		Non					
Variant 2	v2		Non					
Variable scope:		Current	alida]		
		Current	silue		•			
ОК	Ca	ncel	Appl	у		ŀ	Help	

Specify variable name, which will be used for storing user input.

LIMITATION: Variable names must contain only Latin alphabet letters, and numbers, and must not start with a digit. Variable names must be unique within a Slide or Module (depending on selected variable scope).

Fill in the **list of possible variable values**. Open Input screen by clicking on the "+" icon. Enter the **text description** for the selected value into the field, which is in Rich Text Format mode. Specify value for the variable, in case user marks Radio Button. Specify **initial condition**, which is whether or not Radio Button is checked after Module loads up.

LIMITATION: No more than one value should be initially selected for this type of object.

Radio Button Group	×
Input Display Sound	
OK Cancel Apply Help	

Use "Display" tab to specify the field appearance.

The essential CheckBox is "**Show description**". In case it is not marked, all other tab parameters are disabled for editing, therefore only CheckBox will be displayed on the Slide.

In case "Show description" CheckBox is selected, you can input description text into the field, which is in Rich Text Format mode. If needed, modify value for text margin. Text margin defines the space between CheckBox border and text. Additionally, you can specify position (right or left) of the text description with regards to the CheckBox.

Radio Button Group	X
Input Display Sound	
Use sound effects	
Click sound:	Standard 1
Sound file:	
ОК	Cancel <u>Apply</u> Help

On the "Sound" tab you can switch item display sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon	
on State Changed	User sets checkmark on Radio Button.	

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result	
DISABLE INPUT	Restrict access to input field.	
ENABLE INPUT	Permit access to input field.	

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled
value	Returns value of currently checked radio button.	\$ <mark>OBJ_ID</mark> .value

5.3.15.6 Drop-down Menu

Drop-down Menu enables user making single choice selections out of a multiple values. Inserted values are accessible in a form of variables within CourseLab and may be employed in different actions.

IMPORTANT! The value entered is recorded in associated variable when user leaves field only.

Example of Object appearance:

Variant 1	Ŧ
-----------	---

Object parameters

Dropdown menu		×
Input Display Sound		
Run-time variable name:	select_var	
Value list:	+ - + + 😭	
Description Value	Selected	
Variant 1 1 Variant 2 2 Variant 3 3	Non Non Non	
Variable scope:	Current slide	
ОК Са	ancel <u>A</u> pply Help	

Specify variable name, which will be used for storing user input.

LIMITATION: Variable names must contain only Latin alphabet letters, and numbers, and must not start with a digit. Variable names must be unique within a Slide or Module (depending on selected variable scope). Fill in the **list of possible variable values**. Open Input screen by clicking on the "+" icon. Enter the **text description** for the selected value and specify value for the variable, in case user selects particular menu item. Specify **initial condition**, which is whether or not Menu-Item is selected after Module loads up.

LIMITATION: No more than one value should be initially selected for this type of object.

Dropdown menu	X
Input Display Sound	
Border style:	Solid
Border width:	2 px
Border color:	#666666
Background color:	#FFFFF
Font:	Arial 🗸
Font size:	12 px
Font weight:	Nomal 🗸
Font style:	Normal 🖌
Font color:	#000000
Text align:	Left 🗸
OK Cance	el <u>A</u> pply Help

Use "Display" tab to specify the Drop-down Menu display. Note: these settings will affect all menu-items.

Dropdown menu		×
Input Display Sound		
V Use sound effects		
Selection sound:	Chandrad 1	
Sound file:		
Journa nie.		
		-
UK L	Cancel Apply Help	

On the "Sound" tab you can switch item display sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

Object Events

Object is capable generating events with regards to the user's actions and interpretation of the actions by the object. When combined with actions events can be employed for building up intellectual behavior models for other objects depending on the current state of the Object. Events are available using CourseLab built-in events manipulation mechanism.

Event	Triggered Upon
on Item Selected	User selects Menu Item

Object Methods

The state of the Object can be modified using methods.

Method name	Execution Result	
DISABLE INPUT	Restrict access to input field.	
ENABLE INPUT	Permit access to input field.	

Object Specific Properties

Along with common object properties, this object has some specific properties, that can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
disabled	Returns 1 if object is currently disabled, 0 otherwise.	\$ <mark>OBJ_ID</mark> .disabled
value	Returns current input field value.	\$ <mark>OBJ_ID</mark> .value
selectedName	Returns currently selected item description.	\$ <mark>OBJ_ID</mark> .selectedName

5.3.15.7 Button

Pressed **Button** enables triggering of the previously created actions.

Example of Object appearance:

Click me

Object parameters

Button		×
Parameters Display Sou	und	
Button text:	Button	
ОК Са	ncel <u>A</u> pply Help	

The only parameter on the first tab to fill is the button text.

Button	×	
Parameters Display Sound		
Border style:	Solid 🗸	
Border width:	2 px	
Border color:	#666666	
Background color:	#F0F0F0	
Font:	Arial 🗸	
Font size:	12 px	
Font weight:	Nomal 🖌	
Font style:	Nomal 🖌	
Font color:	#000000	
Text align:	Center 🖌	
OK Cancel Apply Help		

Use "Display" tab to specify the Button display.

Button		×
Parameters Display Sound		
Use sound effects		
Click sound:	Standard 1	
Sound file:		
OK Cano	el <u>A</u> pply Help	

On the "Sound" tab you can switch item display sounds on and off, or change it to custom sounds

IMPORTANT! Sounds must be short and have no starting lag. Otherwise it may lead to undesirable delays in course playing.

5.3.16 Creating customized copies of Objects

Starting from CourseLab version 2.5, you can add to CourseLab Objects Library customized copies of standard objects.

DISCLAIMER: You cannot edit or change CourseLab standard Objects in any way. WebSoft Ltd. shall not be liable for correct work of modified copies of Objects and no support will be provided for these modified Objects.

For example, lets make the copy of Single Choice Question Object:

1. Insert basic Single Choice Question Object on any Slide.

2. Customize the Object's parameters, i.e. view, color schemes, standard messages and warnings, feedback and scoring etc. according to your design requirements.

3. Make sure that Object is displayed correctly when previewing Slide.

Credited question		
Question text		
Select one correct variant		
Variant text		
SUBMIT ANSWER Attempts: 1		

4. Keeping this Object selected click "Customize" link at the bottom of Objects Panel.



5. Dialog window with Objects Library structure will be displayed. Note, that it is open exactly on the section, which contains selected Object. You may create new Object's copy in the same section or in any other section (or even create your own section - right-click on the sections panel).

Dbjects		$\overline{\mathbf{X}}$
Agents Balloons Data Visualisation Design External Form Lists Media Navigation Popups Questions Rapid Development Tests Textboxes Title Slide	Yes No True-False Image: Choice Image: Choice <	12 34 Numeric ab cd Text
		Close

6. Right-click on right panel of Dialog window and select "Create Object" option.

Objects		×
Agents Balloons Data Visualisation Design External Form Lists Media Navigation Popups Questions Rapid Development Tests Textboxes Title Slide	Yes No True-False Imple Choice Import Import New Object	
	Close	

7. Specify identifier for new Object copy. It must be unique and consist of latin characters and numbers (no spaces and special characters).

New Object		×
Identifier:	MyQuestion_1	
		_
	OK Cancel	

8. Click OK - new Object's copy is created. It still has empty green icon.

Dbjects	
Agents Balloons Data Visualisation Design External Form Lists Media Navigation Popups Questions Rapid Development Tests Textboxes Title Slide	Yes True-FalseI I C Single ChoiceI
	Close

9. Create desired graphic file for icon (GIF or PNG, 64x48 pixels) in your favourite graphic editor. Double-click on the empty green icon to open Object editor window. Select "Picture" tab. Right-click on the green icon and select "Load" option.

MyQuestion_1	
Dialog Xml Xsl #Xsl Picture	Load Save
	OK Cancel

10. Confirm all your changes clicking OK button. Your customized copy of standard Object is ready and will be displayed in Objects Library.

5.4 Cursors

The learning Courses designed for training on using software programs can contain software simulations. Usually, simulation is the sequence of the frames, where mouse cursor moves to the predefined menu item, then mouse click is imitated, and after that the next frame displays the results of pressing on the specified menu item. For mouse movement illustration the special object "Cursor" is employed.

5.4.1 Using Cursors

If during recording of simulation the marker "Capture Cursor" is checked, cursor object will be inserted into the frames automatically. However, cursor object can be added to the existing frames as well. To do so, select **Cursor** item from the **Insert** menu.



Cursor will be placed on the current Frame.



Cursor movement path

The blue line that comes toward cursor represents cursor movement path.



To change **starting point** of the cursor movement, hold down Ctrl key and double-click into the wanted point within a frame. In such a way you can modify the starting point of the cursor **only on the first Frame within a Slide**. For all subsequent frames the starting point of the cursor movement will be the cursor's end point on the previous Frame.

In order to modify cursor's **end point**, simply drag the cursor icon using mouse into the desired point within a Slide.

Select "**Previous Frame**" menu item from the cursor context menu to merge the final position of the cursor with the cursor's end position on the previous Frame.

Select "**Next Frame**" menu item from the cursor context menu to merge the final position of the cursor with the cursor's end position on the next Frame.

5.4.2 Cursors Movement Time

It is possible to specify cursor movement starting time and duration of the cursor's movement. Select "Format Cursor" menu item from the cursor context menu... "Format" dialog screen opens up.

Format	
Cursor	
General	
Picture:	
<u>D</u> isplay:	1.0 seconds
App <u>e</u> ar after:	0.0 Seconds
Click	
Display mouse click	
Picture:	<u></u>
Apply to	
Apply to:	Selected coursors
	OK Cancel Apply

The "Display" field contains information regarding duration of the cursor movement.

The "Appear after" field contains information regarding cursor movement starting time.

Within the same Frame it is possible to create complex multiple cursors movement paths by adding several cursors. It is obvious, that for each subsequent cursor the movement start time must be later than the movement end time of previous cursor.

For all cursors with the "Display click" setting turned on, the duration of the click is 0.7 second. This time period needs to be considered when defining display time for the Frame, and when specifying setting "Appear After" for the next cursor in the frame.

5.5 Scenarios

Scenario presents itself as a template for building interactions between multiple objects. Scenarios enable author of the course to define necessary parameters and get a filling for the slide right away.

Even though the same task can be accomplished by placing text, pictures, and by specifying interactions between them, the usage of scenarios significantly speeds up the process.

Sample of Scenario - Product Catalog.

5.5.1 Product Catalog

To insert Scenario on the Frame open Scenario Library on the task pane, select Scenario and doouble click on its icon.

To change parameters of the scenario, open "Frame structure" section on the task pane. Select "Edit scenario..." item from the context menu on the scenario identifier. Dialog window opens up, where you can specify parameters for scenario.

For each product the following is defined:

- Name of the product.
- File containing the picture of the product.
- Formatted text describing the product.

Upon completion of all parameters, there will be list of the product's names displayed on the Slide. Once, one of the product's name from the list is selected, the card for corresponding product opens up.

6. Handling Objects

6.1 Object position within a Frame

6.1.1 Object Selection

In order to execute command against the object, this object has to be selected.

Selected objects are outlined by markers, which are also used for object's resizing.

The processing information regarding selected object is displayed in the status field within CourseLab.

In case multiple objects are selected, status field contains only information pertaining to the last selected object.

Selecting objects in the workspace

- To select object, click on it using left mouse button.
- In order to select multiple objects, left click on the desired object while holding down Shift or Ctrl key.
- To undo selection selectively, left click on the object while holding down Shift or Ctrl key.
- Click anywhere within a Slide to undo selection of all objects.
- Use Ctrl+A combination to select all object in the Slide.

Regardless the fact that objects placed on the Master-Slide are visible on the standard Slides as well, to select such objects they need to be opened within Master-Slide.

Sequential objects Selection within workspace

When object is selected, you can also select the subsequent object by pressing Tab key.

• In order to select previous object from the sequence, use Tab key while holding down Shift key.

Object's selection in the task panel

- 1. Use View -> Tasks Pane -> Frame Structure to open Frame Structure section within Tasks Panel.
- 2. To select the object in the Frame Structure, left click on the object's identifier. To select all the objects within the group in the Frame Structure, left click on the group's identifier.

6.1.2 Border and fill colors. Opacity

When you insert any Object into a Frame, it is placed into the rectangular placeholder. Use "Color" tab on the "Format" screen to specify placeholder's background color. Note that these parameters pertain only to the Object's placeholder, rather than the Object itself. If the Objects fit the entire rectangular placeholder (for example pictures), it is appropriate to specify the placeholder's background color only when the pictures contain transparent areas.

Exceptions: AutoShapes Objects, where changes to placeholder's background and border color apply to the AutoShapes directly.

Format	×
Colors and Lines Size Position Display Sound	
Fill	-
No fill	
Color: Choose	
Transparency:	
Lines	-
No lines	
Color: Choose Style: solid 🗸	
Weight: 1	
Arrows	-
Begin: The End:]
OK Cancel Apply	

On the same "Color" tab, move the "Transparency" Slider to modify the opacity of the Object's placeholder as well as the opacity of the Object itself.

6.1.3 Resizing Objects

Resizing objects using mouse

- 1. Select object.
- 2. Position the cursor over one of the object's handles.
- 3. Press left mouse button.
- 4. Hold the mouse button down, and then drag the cursor to the desired location in the Slide. Dotted frame, which is moving along with cursor, indicates new size of the object's placeholder.
- 5. Release the mouse button.

To interrupt resizing of the object, press Esc key.

Resizing objects using keyboard

- 1. Select desired object.
- 2. Hold down Shift key. Press the arrow keys to move right and bottom part of the object's border.

The above mentioned methods can be also employed for resizing multiple objects.

Precise resizing of the object

- 1. Select desired object.
- 2. Open "Format" dialog window by specifying "Format Object" command, which is available either by selecting **Format** menu item from the context menu, or by pressing button in the toolbar.
- 3. Select the Size page on the dialog window.
- 4. Specify new values for the Width and the Height of the object.

Format		
Colors and Lines Size P	osition Display S	ound
Size and rotate		
Wi <u>d</u> th: 300	H <u>e</u> ight:	50
Rotation: 0°	}	
	-	
Scale		
<u>W</u> idth:	Height:	
Lock <u>a</u> spect ratio		
Original size		
Width:	Heiaht:	Reset
Hile;		
	ОК	Cancel Apply

You can also use Format window for resizing several selected objects. When Format dialog window is opened, the Width and the Height fields will be populated with the sizing values, only if these values are identical for all the selected objects. If you leave the field empty, corresponding size will remain unchanged for each object.

"Format Object" command is also available from the object's context menu in the "Frame Structure" section of the Tasks Panel.

When you insert the Object of any shape into the Frame it is placed into the Rectangular Placeholder. There are 3 types of Objects allocation within the Rectangular Placeholder:
- Object that can automatically adjust it's size to the size of Rectangular Placeholder (For example, pictures, and AutoShapes are always resizing it's height and width to fit the Rectangular Placeholder),
- Object that can resize by itself (autofit to contents depending, for example, on the amount of the text)
- fixed-size Object

6.1.4 Moving Objects

Moving objects using mouse

- 1. Move mouse cursor over the object.
- 2. Press left mouse button.
- 3. Hold the mouse button down, and then drag the cursor to the desired location in the Slide. Dotted frame, which is moving along with cursor, indicates new location of the object's placeholder.
- 4. Release the mouse button.

To interrupt relocation of the object, press Esc key.

Moving objects using keyboard

- 1. Select desired object.
- 2. Now, you can control the object motion with the keyboard strokes by pressing direction keys.

Moving objects using buttons in the toolbar panel

- Move Up. Selected object will be moved one position up. Command is available by pressing button from the toolbar panel.
- Move Down. Selected object will be moved one position down. Command is available by pressing button from the toolbar panel.
- Here Move Left. Selected object will be moved one position to the left. Command is available by pressing button from the toolbar panel.
- Move Right. Selected object will be moved one position to the right. Command is available by pressing button from the toolbar panel.

The above mentioned methods can be also employed for moving multiple objects. Allocation of selected objects in relationship to each other will remain unchanged.

Precise positioning of the object

1. Select desired object.

- 2. Open Format dialog window by specifying Format Object command, which is available either by selecting Format menu item from the context menu, or by pressing button in the toolbar.
- 3. Transfer to the Position page on the dialog window.
- 4. Specify new object's Horizontal and Vertical coordinates.

Format	×
Colors and Lines Size Position Display Sound	
Position on slide	-
Horizontal: 196	
Vertical: 184	
Can be dragged by mouse	
OK Cancel <u>Apply</u>	

You can also use Format window for resizing multiple selected objects simultaneously. When Format dialog window is opened, the Width and the Height fields will be populated with the sizing values, only if these values are identical for all selected objects. If you leave the field empty, corresponding size will remain unchanged for each object.

Format Object command is also available from the object's context menu in the Frame Structure section of the Tasks Panel.

You can cause the Object to be dragged by the mouse when the checkbox "Can be dragged by mouse" is on the same tab – in this case, learner can drag the specified Object within a frame.

6.1.5 Aligning Objects

The objects on the Slide can be aligned relative to each other.

For two or more selected objects:

Horizontal Alignment

- Align Left. Align the selected objects horizontally, relative to the border of the left most object from the selection. Command is available by pressing button on the toolbar.
- Align Center. Selected objects are centered horizontally relative to the centerline of the

widest object from the selection. Command is available by pressing button on the toolbar.

Align Right. Align the selected objects horizontally, relative to the border of the right most object from the selection. Command is available by pressing button on the toolbar.

Vertical Alignment

- Align Top. Align the selected objects vertically, relative to the border of the top most object from the selection. Command is available by pressing button on the toolbar.
- Align Middle. Selected objects are centered vertically relative to the centerline of the highest object from the selection. Command is available by pressing button on the toolbar.
- Align Bottom. Selected objects are vertically aligned relative to the border of the lowest object from the selection. Command is available by pressing button on the toolbar.

Commands available for three or more selected objects:

Horizontal distribution of the objects

Distribute Horizontally. Selected objects are horizontally equally distributed between the outermost objects from the selection. Command is available by pressing button on the toolbar.

Distribute Vertically

Distribute Vertically. Selected objects are vertically equally distributed between the outermost objects from the selection. Command is available by pressing button on the toolbar.

6.1.6 Rotating Objects

Rotating objects using mouse

- 1. Place cursor over rotation marker.
- 2. Press left mouse button.
- 3. Hold the mouse button down, and then drag the cursor to the desired location in the Slide. Dotted frame, which is moving along with cursor, indicates new location of the object's placeholder.
- 4. Release the mouse button.

To interrupt rotation of the object, press Esc key.

It is also possible to rotate several objects at once. Allocation of selected objects in relationship to each other will remain unchanged.

To specify precise value for the angle of object's rotation

1. Select desired object.

- 2. Open Format dialog window by specifying Format Object command, which is available either by selecting Format menu item from the context menu, or by pressing button in the toolbar.
- 3. Transfer to the Size page on the dialog window.
- 4. Specify desired object's angle of rotation by supplying new value for the Rotation field.

Format		
Colors and Lines Size Posi	tion Display	Sound
Size and rotate		
Wi <u>d</u> th: 300	Height:	50 🗘
Rotation: 0°		
Scale		
<u>W</u> idth:	Height:	
Lock <u>a</u> spect ratio		
Original size		
Width:	Height:	Reset
Filer		
	ОК	Cancel Apply

You can also use Format window to specify angle of rotation for several selected objects. When Format dialog window is opened, the Rotation field will be populated with the value, only if this value is identical for all selected objects. If you leave the field empty, angle of rotation will remain unchanged for each object. By doing so, you can specify value for the angle of rotation for several objects.

IMPORTANT! The Browser's capabilities are used for Object rotating when displaying the learning Module. Due to some Browser limitations, the quality of the rotated Object can be affected.

LIMITATION: An Objects rotation is supported only by Internet Explorer Browsers, rotation is not supported by other Browsers.

6.1.7 Changing Objects Z-Order

Objects within a Slide appear sequentially. It is very illustrative in case objects are positioned using cascading (see picture below). The newly created objects displayed first, therefore they are covered by objects, which have been created later.



To modify the sequence of the objects (Z-Order), use the following commands:

- Bring to Front command is available from the context menu **Order -> Bring to Front** or by pressing corresponding button in the toolbar.
- Send to Back command is available from the context menu **Order -> Send to Back** or by pressing corresponding button in the toolbar.
- Bring Forward command is available from the context menu **Order -> Bring Forward** or by pressing corresponding button in the toolbar.
- Send Backward command is available from the context menu Order -> Send Backward or by pressing corresponding button in the toolbar.

6.2 Controlling Display Time

6.2.1 Effects

By default objects are entirely displayed on the frame. However, to make the learning process even more interactive, specify transitions at display.

LIMITATION: The full set of effects/transitions displays correctly only in Internet Explorer browser, in all other browsers the set of transitions is limited. In case selected transition is not supported by particular browser CourseLab player will automatically replace such transition with the one supported by current browser.

Use "Display" tab on the "Format" screen to specify object entry transition. The CourseLab (and consequently the CourseLab player) contains 24 options of built-in entry transitions. For each transition out of all (entry or exit) specify duration in seconds.

Format	
Colors and Lines	Size Position Display Sound
Display	
<u>D</u> isplay:	Rest of frame 💟 0.0 🛟 seconds
Appear after:	0.0 🗢 seconds
Entrance	
Effect:	Wipe down
D <u>u</u> ration:	1.0 🗢 seconds
Exit	
Effect:	Random dissolve
Du <u>r</u> ation:	1.0 🗢 seconds
	OK Cancel Apply

Remarks

- Unlike the time of entry transition execution, which is included into the time of object execution, the time of exit transition is not included into the time of object execution, thus such transition will be carried out in "overtime".
- Transitions as well as other common settings are applicable to the object's placeholder. Therefore, if placeholder's size is much bigger than size of actual object, then transition execution against an empty placeholder space might take some extra time.
- Transitions can be used not only at the time of object appearance, but also, at object display (or closing) initiated by some action.

6.2.2 Objects Display Time

For the objects on the Slide it is possible to define the start time for displaying the object and also, the duration of the objects display. Moreover, it is possible to specify that object should be displayed only when initiated by certain event.

To modify object display start time and duration of the object display select **Format...** item from the object context menu. "Format" dialog screen opens up.

Format		×
Colors and Lines	Size Position Display Sound	
Display		_
<u>D</u> isplay:	Specified time 💙 2.0 🗘 seconds	
Appear after:	5.0 seconds	
Entrance		-
Effect:	Wipe down	
Duration:	1.0 seconds	
Exit		-
Effect:	Random dissolve	
Du <u>r</u> ation:	1.0 Seconds	
	OK Cancel Apply	

- Object display mode You can choose one out of four options:
 - **None** object will not be displayed at all. This mode is used when object needs to be displayed only upon certain action from the user.
 - **Rest of Frame** object will be shown from the moment display was turned on, up until transition to the next Frame within the same Slide (or to another Slide, in case current Frame is the last one or the only one on the Slide).
 - **Rest of the Slide** object will be shown from the moment display was turned on, up until transition to the next Slide
 - **Specified time** object will be shown from the moment display was turned on until specified time.
- **Appear after.**Defines delay of the object display start time relative to the Frame display start time.

6.2.3 Timeline Pane

Besides explicitly specifying object's display time, there is also an option/possibility to use visual controls on the **"Timeline"** pane.

Select **View -> Timeline** to open "Timeline" panel. On the top portion of the module's window "Timeline" panel opens up.



On the panel there is a timetable containing all objects of the current Frame.



The thin grey colored vertical line represents time limit for the Frame display end time. In case Slide consists of several Frames, at this particular time transition to the next Frame occurs. Frame display time can be modified by dragging grey colored vertical line to the left or to the right along the time scale.

Stripe lines with object's identifiers in the "Frame timing" panel represent the time duration of the object display. Left boundary of the stripe line represents object display start time. Right boundary of the stripe line represents the time when object will disappear. You can change object display start time and duration of the object display by dragging (using mouse) the borders of the stripe lines or the stripe line itself.

Stripe lines with mouse cursors on it represent the time duration of the cursors movement. The empty spots on the stripe lines represent time during which the cursor remains still.

IMPORTANT! In case "Display Click" setting is specified in the cursor's properties, you should define the pause before the next cursor move or before Frame display end time is not less than 0.7 seconds.

6.3 Object Properties

Object Properties are parameters of object, which can be used in actions and text substitution.

6.3.1 Common Object Properties

Common Object Properties are properties, that belongs to every CourseLab object, and can be used in actions and in text substitutions (OBJ_ID below means current object ID):

Property	Returns	Syntax
x	Returns current X coordinate of top-left corner of object's position on the Frame.	\$ <mark>овј_id</mark> .x
У	Returns current Y coordinate of top-left corner of object's position on the Frame.	\$ <mark>овј_ір</mark> .у
w	Returns current width of the object in pixels.	\$ <mark>obj_id</mark> .w
h	Returns current height of the object in pixels.	\$ <mark>овј_iD</mark> .h
startx	Returns initial X coordinate of top-left corner of object's position on the Frame, that was defined in Edit mode.	\$ <mark>овј_ID</mark> .startx
starty	Returns initial Y coordinate of top-left corner of object's position on the Frame, that was defined in Edit mode.	\$ <mark>овј_ID</mark> .starty
startw	Returns initial width of object.	\$ <mark>0BJ_ID</mark> .startw
starth	Returns initial width of the object in pixels.	\$ <mark>овј_iD</mark> .starth

Note, that initial and current values are exactly the same until any position- or size-changing action is applied to the object.

6.3.2 Specific Object Properties

Specific Object Properties are parameters of object, which can be used for actions and text substitutions. Depending on the type of the object there could be different set of specific properties (or none). Read corresponding object's topic to find which properties are available.

6.4 Binding sounds to Objects

In the learning Module created by CourseLab you can bind audio files to any Object. Use the "Sound" tab on the "Format" dialog screen, select the audio file to be bound with the Object (the file will be automatically copied into the "Images" folder of the current learning Module).

Format 💽	
Colors and Lines Size Position Display Sound	
Sound	
File: C:\Courses\27_T5\3\images\failure4.swf	
Do not start playback automatically	
OK Cancel Apply]

By default, the sound will start playing right after the Object appears on the frame. This feature can be turned off by checking the "Disallow autoplay" check box. In this case the audio file will be bound to the Object, however for playing the sound, the special Action "SOUND" should be used. The following audio formats can be used: Adobe Flash (*.swf), or any format supported by the Windows Media Player (*.wav, *.wma, *.mp3 and so on).

IMPORTANT! When using audio files, make sure to turn ON the feature under ("Module menu – Runtime Settings"), which checks whether or not the system has the required component for playing specific audio formats.

7. Animation

At first, the Slide contains only the single Frame. It is possible to achieve animation effect by creating the sequence of the Frames with predefined duration of playback assigned to each Frame.

7.1 Using Frames

Use "Frames" panel for managing the Frames on the Slide. To open "Frames" panel, select **View** -> **Frames.**

<u>V</u> iew		<u>I</u> nsert	F <u>o</u> rmat
	S	p <u>l</u> ash	
6	Ν	<u>1</u> aster	
8	Ν	<u>I</u> ormal	
	5	lides	Alt+1
	I	imeline	Alt+2
	E	rames	Alt+3
	<u>c</u>	ourse	Alt+0
	Т	as <u>k</u> Pane	e ▶

In the bottom part of the Module window the "Frames" panel opens up.



Add as many frames as necessary using menu **Insert -> Frame**. Make appropriate changes to each of them to reflect animation sequence.

7.2 Frame Display Time

Each individual Frame has its own display time.

To modify display time in the "Frames" panel select **Advance...** item from the frame's context menu.

Advance	
<u>D</u> isplay:	6.0 📚 seconds
<u>A</u> dvance:	Immediate 💌
	OK Cancel

Specify display time in seconds.

IMPORTANT! Specified Frame's display time has a higher priority over the display time of the objects within the same Frame – in case this time is less than the display time of some objects, then such objects will not be displayed at all.

Specify method of transition to the next Frame – Advance setting. By default, transition to the next Frame takes place upon expiration of the frame's display time (setting "Immediate") Alternative setting is "Wait for Action" – it means stopping upon finishing frame's display. In this case, creation of action, which will trigger transition to the next Frame, will be of your responsibility.

8. Events and Actions

All interactions between Objects in CourseLab learning modules are based on the "Event – Action" mechanism.

An <u>Event</u> is a signal originated either by the Object or during the course by the user. Generally, Events are generated when the state of an Object changes (for example, at the moment of Object appearance) otherwise Events are generated externally (for example, by mouse click on the Object). Events are used for triggering Actions when creating relationships inside a Module.

<u>Actions</u> are predefined changes of an Object state and/or Module variables which are used for creating complex Object behavior.

The Events are used to trigger execution of Actions.

The Event source could be :

- 1. a Frame or a Slide,
- 2. one of the Objects on the Frame.

In the first case, All Events are generated by the CourseLab player; in the second case, the common Events for all Objects are generated by the CourseLab player and all Object-specific Events are generated directly in the Object's code.

For illustration purposes, and to better understand the "Event – Action" mechanism, let us review the following example: Picture a street with a pedestrian crosswalk equipped with two traffic lights - one for pedestrians, and another one for vehicles. At the red signal of the vehicle traffic light the traffic stops, and starts again when red signal switches its color to green. Respectively, the pedestrians start crossing the crosswalk on the green signal and stop at red. In the example described above in the Event of "red signal of the traffic light for vehicles", the "Car" type of Objects performed the Action "Stop". In the Event of "green signal of the traffic light for vehicles", the of Objects performs similar Actions but using Events of its own traffic light. The source for the Events in both cases is the two traffic lights.

8.1 Events

An **Event** is a signal originated either by the Object or during the course by the user. Generally, Events are generated when the state of an Object changes (for example, at the moment of Object appearance) otherwise Events are generated externally (for example, by mouse click on the Object).

Events are classified by Event Source: Slide, Frame, Object or Keyboard.

8.1.1 Slide and Frame Events

		×
	🌡 🗈 隆 🍦 🔹 🗣	
Event	Object	Action
dforedisplay afterdisplay	4	CALL CHECKHIT DELAY DISPLAY ELSE EXTERNAL URL FOR GOTO IF IF COMPLETION STATUS IF SCORF Cancel

Each Slide and Frame of the Learning Module is generating the following two events:

The **"beforedisplay"** Event arises at the moment when all Objects of the current Frame are fully loaded, right before displaying the first Object from the list (remember, that even if all Objects are to be displayed simultaneously, in practice the first Object to be displayed is the one which is located underneath all other Objects). Even though both the Slide's "beforedisplay" Events and the Slide's first Frame "beforedisplay" Events occur virtually simultaneously, the order of triggering is as follows: The Slide's "beforedisplay" Event will occur first, and next, the Frame's "beforedisplay" Event will follow.

This Event is useful for some actions that should be performed prior to any Slide/Frame object creation: for example, setting variable value, which will be accessed when Objects are created.

The **"afterdisplay"** Event occurs at the moment the last Object from the list on the current Frame is displayed. Please note, that the "afterdisplay" Event indicates that all Objects intended for automatic display have been displayed and this Event has no relationship with the transition to the next Frame or Slide. Even though "afterdisplay" Events for the last Frame and Slide occur virtually simultaneously, the order of triggering is as follows: The Frame's "afterdisplay" Event will occur first, and next, the Slide's "DISPLAY END" Event will follow.

This Event is useful for actions, which invokes already created Objects, since you can be sure that Objects are already exist.

8.1.2 Events common to all Objects

		X
	X 🗈 隆 🔶 🗣	
Event	Object	Action
onclick ondblclick onlmousedown onlmouseup onmouseover onmouseout ondrop beforedisplay afterdisplay		CALL CHECKHIT DELAY DISPLAY ELSE EXTERNAL URL FOR GOTO IF IF COMPLETION STATUS IF SCORE IF SUCCESS STATUS JAVASCRIPT

Any Object located on the Frame can be the source for the following events:

- the "beforedisplay" Event is generated right before start of creation of the selected Object;
- the "afterdisplay" Event is generated at the moment of finishing Object creation (at the end of an effect execution, if the transition effect has been used at display);
- the "onclick" Event is generated by the user by left mouse click directly within an Object;
- the "ondblclick" Event is generated by a mouse double-click directly within an Object. The pause between the clicks, which indicates whether this is double-click rather than two single clicks, corresponds to the mouse properties defined under the operating system settings on the user's computer;
- the "onlmousedown" Event is generated when the left mouse button is pressed down within an Object;
- the "onlmouseup" Event is generated when the pressed left mouse button is released within an Object;
- the "onrmousedown" Event is generated when the right mouse button is pressed down within an Object;
- the "onrmouseup" Event is generated when the pressed right mouse button is released within an Object;
- the "onmouseover" Event is generated when the mouse cursor reaches the outside border of the Object, i.e. at the Object's "Entry" point;
- the "onmouseout" Event is generated when the mouse cursor reaches the inside border of the Object, i.e. at the Object's "Exit" point;

 the "ondrop" Event is generated when the dragged Object is dropped. It is important to understand, that if one Object is dragged and dropped over another Object, the second i.e. target - Object would be the source of the generated event.

8.1.3 Custom Object Events

Besides general events, which are common to all Objects, there is a set of Objects (usually these are complex Objects, for example, questions), which can generate custom Events (specific to each Object).

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Event	Object	Action	-
onclick ondblclick onlmousedown onlmouseup onmousedown onmouseover onmouseout ondrop beforedisplay afterdisplay on Question Start on Change Selection on Attempt on Success on Failure on Time Out on Attempts Limit on Question Skipped on Question End		CALL CHECKHIT DELAY DISPLAY ELSE EXTERNAL URL FOR GOTO IF IF COMPLETION STATUS IF SCORE IF SUCCESS STATUS JAVASCRIPT METHOD MOVE - START MOVE - STOP MSGBOX NAVIGATION PRINT RETURN	5
		OK Cancel	

For example, "Question" types of Objects can generate Events such as "on Success", "on Failure", "on Attempts Limit", and other Events specific to the test questions. However, when it comes to managing these Events they are treated the same as any other Event. Custom Objects Events are described in the corresponding sections under the "Object".

These Events are described in Help documents of corresponding Objects.

8.1.4 Using Keyboard events

You can use **keyboard events** (i.e. pressing the keys) to launch action sequences. For every slide you can define *onkeydown* events (as many, as you wish - depending on key combinations number needed).

Note, that keyboard events can be defined **on the Slide and Frame only** (i.e. specific objects cannot have it's own onkeydown events).

To define such event open action editor using Slide context menu and right click on free white space in Events pane.

			×
	ል 🗈 🖺 🗢 🗢 🔹 🗃		
Event	Object	Action	^
beforedisplay afterdisplay	Event	CALL CHECKHIT DELAY DISPLAY ELSE EXTERNAL URL FOR GOTO IF IF COMPLETION STATU IF SCORE IF SUCCESS STATUS JAVASCRIPT METHOD MOVE - START MOVE - STOP MSGBOX NAVIGATION PRINT	S
		OK Cancel	

New Keyboard event window appears. Press the key (or key combination) - it will be recorded in the Key field.

Keyboard	Event	×
<u>K</u> ey:	Ctrl+Shift+F	
	OK Cancel	

Create as many onkeydown events as you need.

			×
	X 🗈 🅦 💠 🔶 🔹 🥵		
Event	Object	Action	^
beforedisplay afterdisplay i onkeydown Ctrl+Shift+F i onkeydown Space	GOTO(Frame='FRAME_5',Option='Specified Frame')	CALL CHECKHIT DELAY DISPLAY ELSE EXTERNAL URL FOR GOTO IF IF COMPLETION STATU IF SCORE IF SUCCESS STATUS JAVASCRIPT METHOD MOVE - START MOVE - STOP MSGBOX NAVIGATION PRINT	S
		OK Cancel	

8.2 Actions

Actions are predefined changes of the object state and/or module variables, which are used for composing complex object behavior.

To create actions you can either employ **built-in actions** (which are listed in the Action Panel), or use JavaScript if you are familiar with this language.

Built-in actions

- <u>EXTERNAL URL</u> enables opening resource external to the Learning Module in the new Browser Window
- <u>RETURN</u> performs transition to the Slide where action **CALL** was previously executed
- <u>ROTATE START</u> initiates object rotating
- <u>ROTATE STOP</u> discontinues object rotating
- <u>CALL</u> enables transition to the specified Slide
- MOVE START initiates moving of the object within a frame
- MOVE STOP interrupts movement of the selected object or all currently moving objects
- IF conditional action, executes set of subordinate actions if condition expression is evaluated to true
- IF COMPLETION STATUS Branches actions depending on completion status.
- IF SCORE Branches actions depending on score.
- <u>IF SUCCESS STATUS</u> conditional action, executes set of subordinate actions depending on the Success Status of the specified objective
- <u>IF COMPLETION STATUS</u> conditional action, executes set of subordinate actions depending on the Completion Status of the specified objective
- <u>SOUND</u> either initiates or stops playback of the audio file
- <u>ELSE</u> alternative branch for conditional actions: CHECKHIT, IF, IF COMPLETION STATUS, IF SCORE, IF SUCCESS STATUS
- <u>METHOD</u> enables launching execution of object's methods
- <u>NAVIGATION</u> enables turning ON/OFF capability for transition to another Slides of the Module
- <u>PARALLEL</u> enables launching of dependant actions in parallel threads
- <u>SET SCORE</u>. Changes score for specified objective.
- <u>DELAY</u> inserted into the sequence of actions will interrupt sequence
- VARIABLE defines variable and it's value for CourseLab Player
- <u>GOTO</u> enables transition to another Slide or Frame
- <u>PRINT</u> calls standard browser's Print dialog window

- <u>DISPLAY</u> enables turning ON/OFF object display
- SEQUENTIALLY enables launching of dependant actions in strict sequential order
- MSGBOX enables display of the message warning window
- <u>CHECKHIT</u> conditional action, is used for verifying the particular object that was dropped onto the selected ones
- <u>SIZE START</u> initiates resizing of the object within a frame
- <u>SIZE STOP</u> interrupts resizing of the selected object or all currently resized objects
- TIMER is used for delayed launching of dependant actions
- <u>SET SUCCESS STATUS</u> changes Success Status for the specified objective
- FOR is used for executing dependant actions specified number of times
- JAVASCRIPT enables execution of custom JavaScript code
- <u>Z-INDEX</u> defines absolute or relative z-index of the object
- Using Expressions in Actions
- Using Keyboard events

8.2.1 EXTERNAL URL

EXTERNAL URL action enables opening resource external to the Learning Module in the new Browser Window.

EXTERNAL_URL (edit URL)

Parameters

URL

String or <u>expression</u> (must have string value). URL for opening in the new Window. *URL* should be specified with respect to the Internet addressing rules, specifying the protocol, for example: http://www.courselab.com/.

8.2.2 **RETURN**

RETURN action performs transition to the Slide where action <u>CALL</u> was previously executed..

RETURN

Parameters

No parameters.

8.2.3 ROTATE - START

ROTATE - START action initiates object rotating.

LIMITATION: Objects rotation is supported only by Microsoft Internet Explorer.

LIMITATION: The object, which can be dragged by mouse (i.e. corresponding checkbox in Object properties is checked), can not be turned or moved. For this type of objects "MOVE - START" action will be ignored.

ROTATE - START (objectid Object edit Angle select Additive time Duration)

Parameters

Object

String. The identifier of the object which will be rotated.

Angle

Number or <u>expression</u> (must have numeric value). Indicates the angle in degrees and direction of rotation. Positive value refers to rotating clockwise; negative value refers to rotating counter-clockwise.

Additive

Token. Possible values :

Value	Description
Replace	Defines absolute angle, i.e. rotating angle will be counted from initial object's state.
Add	Defines relative angle, i.e. rotating angle will be counted from current object's state.

Duration

Number. Defines time of rotation in seconds. Zero value corresponds to the instant rotation of the object.

Remarks

You can rotate the object more than one full turn, specifying Angle parameter of more than 360 degrees.

8.2.4 ROTATE - STOP

ROTATE - STOP action cancels object rotating.

ROTATE - STOP (objectid *Object* **select** *All_Objects* **)**

Parameters

Object

String. The identifier of the object, which rotation needs to be cancelled. In case rotation of all objects need to be cancelled this parameter is ignored (and it may be left blank).

All_Objects

Token. Possible values:

Value	Description
Yes	Rotation of all currently rotating objects will be cancelled; input value for <i>Object</i> parameter will be ignored.
No	Rotation of the Object specified in the <i>Object</i> parameter will be cancelled.

8.2.5 CALL

CALL action enables transition to the specified Frame of the Slide. The first parameter for this action is the target Frame identifier where transition will be performed to. The second parameter allows predefined shortcuts to common values.

Action **CALL** is similar to <u>GOTO</u> action, the only difference is that during execution of this action, identifier of the current Slide remains in memory as a parameter for the <u>RETURN</u> action.

CALL (frameid Frame select Option)

Parameters

Frame

String. Target Frame identifier where transition will be performed to. Value of this control will be ignored in case *Option* parameter is set to any value except for "Specified Frame".

Option

Token. Defines target of transition. Possible values:

Value	Description
Specified Frame	Transition will be performed to the Frame that is selected in <i>Frame</i> control
Next Frame	Transition will be performed to the Frame which is next to current Frame (if exists). Value of <i>Frame</i> control is ignored.
Previous Frame	Transition will be performed to the Frame which is previous to current Frame (if exists). Value of <i>Frame</i> control is ignored.
Next Slide	Transition will be performed to the first Frame of the Slide which is next to current Slide (if exists). Value of <i>Frame</i> control is ignored.
Previous Slide	Transition will be performed to the first Frame of

the Slide which is previous to current Slide (if
exists). Value of <i>Frame</i> control is ignored.

Remarks

<u>RETURN</u> action performs transition to the Slide where action **CALL** was previously executed.

8.2.6 MOVE - START

MOVE - START action initiates moving of the object within a frame.

LIMITATION: The object, which can be dragged by mouse (i.e. corresponding checkbox in Object properties is checked), can not be turned or moved. For this type of objects "MOVE - START" action will be ignored.

MOVE - START (objectid *Object* **edit** *X* **edit** *Y* **select** *Additive* **time** *Duration* **)**

Parameters

Object

String. Identifier of the object, which will be moved.

Χ

Number or <u>expression</u> (must have numeric value). Defines horizontal coordinate in pixels of the point where the object will finish its move, depending on the *Additive* parameter this value can be either absolute (i.e. counted off frame's top left corner), or relative to the current value.

γ

Number or <u>expression</u> (must have numeric value). Defines vertical coordinate in pixels of the point where the object will finish its move, depending on the *Additive* parameter this value can be either absolute (i.e. counted off frame's top left corner), or relative to the current value.

Additive

Token. Possible values :

Value	Description
Replace	Specified x and y coordinates define the absolute coordinates of the point where the object will be moved.
Add	Specified x and y coordinates will be added to the current ones (i.e. the object will be moved with regards to added coordinates relative to the object's current position).

Duration

Number. Defines time in seconds of object relocation. Zero value corresponds to instant object relocation.

8.2.7 MOVE - STOP

MOVE - **STOP** action interrupts movement of the selected object or all currently moving objects.

MOVE - STOP (objectid Object select All_Objects)

Parameters

Object

String. The identifier of the object, which movement needs to be cancelled. In case movement of all objects need to be cancelled this parameter is ignored (and it may be left blank).

All_Objects

Token. Possible values:

Value	Description
Yes	Movements of all currently moving objects will be cancelled; input value for <i>Object</i> parameter will be ignored.
No	Movement of the Object specified in the <i>Object</i> parameter will be cancelled.

8.2.8 IF

IF - conditional action. Conditional action does not perform any noticeable changes to the Frame, it is rather intended for managing the execution of other actions. Enables launching of different dependant actions (or sequences of actions) with regards to the condition being evaluated.

You can use **ELSE** action to form alternative action sequence (i.e. when condition is not met).

IF (edit Condition)

Parameters

Condition

Boolean <u>expression</u>. Condition can contain CourseLab variable value (as <u>#var_name</u>, where var_name is variable name - please refer to <u>VARIABLE</u> section for additional information) or object's property value (as <u>\$OBJ_ID.property</u>, where OBJ_ID is actual object ID and property is existing object's property name - please refer to <u>Object</u> <u>Properties</u> section for additional information) or <u>expressions</u>.

Remarks

Action sequence, which is to be managed by **IF** action, must be indented at one position from **IF**.

See also Using Expressions in Actions for more details.

8.2.9 IF COMPLETION STATUS

IF COMPLETION STATUS action executes set of dependant actions depending on the Completion Status of the specified objective. You can use <u>ELSE</u> action to form alternative action sequence (i.e. when condition is not met).

IF_COMPLETION_STATUS (objectiveid Objective select Status)

Parameters

Objective

String. Identifier of the objective, Completion Status of which must be verified.

Status

Token. Can have one of the following values:

Value	Description
Unknown	Completion Status is unknown
Not Attempted	Completion Status of selected objective has value "Not Attempted"
Incomplete	Completion Status of selected objective has value "Incomplete"
Completed	Completion Status of selected objective has value "Completed"

Remarks

Set of actions dependant to **IF COMPLETION STATUS** action must be indented on one position to **IF COMPLETION STATUS** action.

8.2.10 IF SCORE

IF SCORE action executes set of dependant actions depending on the Score (or subset of Score) of the specified objective. You can use **ELSE** action to form alternative action sequence (i.e. when condition is not met).

IF SCORE (objectiveid Objective edit Source select Condition edit Score)

Parameters

Objective

String. The identifier of the objective, the score of which will be verified.

Source

String or <u>expression</u> (must have string value). Specifies the source of the current score verification, i.e. objective's score subset identifier. If this parameter is omitted, then objective's total score will be verified. If this score subset does not exist in this objective, then its score will be treated as 0. *Source* parameter can be some task identifier (not

necessarily object ID - you can assign it as you wish, but with respect to usual limitation on special symbols). It is used to differ scores from different task in objective's score "heap". In other words, this parameter defines subset of this objective's score. Note, that objects that can add score to objectives automatically (i.e. Question and Test objects) always use their Object ID as *Source*, therefore you can easily verify score from any of such objects using its Object ID as *Source* parameter (and do not forget to define *Objective* parameter).

Condition

Token. Defines the rule of verification:

Value	Description
<	Verified score is less than <i>score</i> parameter
>	Verified score is greater than score parameter
=	Verified score is exactly equal to score parameter
<=	Verified score is less than or equal to <i>score</i> parameter
>=	Verified score is greater than or equal to <i>score</i> parameter
<	Verified score is not equal to score parameter

Score

Number or expression (must have numeric value).

Remarks

Action sequence, which is to be managed by **IF SCORE** action, must be indented at one position from **IF SCORE**.

8.2.11 IF SUCCESS STATUS

IF SUCCESS STATUS action executes set of dependant actions depending on the Success Status of the specified objective. You can use **ELSE** action to form alternative action sequence (i.e. when condition is not met).

IF_SUCCESS_STATUS (objectiveid Objective select Status)

Parameters

Objective

String. Identifier of the objective, Success Status of which must be verified.

Status

Token. Can have one of the following values:

Value	Description
Unknown	Success Status is unknown
Failed	Success Status of selected objective has value "Failed"
Succeeded	Success Status of selected objective has value "Passed"

Remarks

Set of actions dependant to **IF SUCCESS STATUS** action must be located down below to the right relatively to **IF SUCCESS STATUS** action.

8.2.12 SET COMPLETION STATUS

SET COMPLETION STATUS action changes Completion Status for the specified objective.

SET COMPLETION STATUS (objectiveid Objective select Status)

Parameters

Objective

String. The identifier of the objective, Completion State of which will be changed *Status*

Token. Represents the value of the selected objective's Completion Status to be assigned:

Value	Description
Unknown	No information on objective's completion status.
Not Attempted	Completion of the objective is not started yet.
Incomplete	Completion of the objective is started, but it is not finished yet.
Complete	Completion of the objective is finished.

8.2.13 SOUND

SOUND action either initiates or stops playback of the audio file.

SOUND (objectid Object edit File select Action)

Parameters

Object

String. The identifier of the object with associated audio file, which playback needs to be either started, or stopped.

File

String. Path to the audio file, which playback needs to be either started or stopped. In case *File* parameter is not empty, input value for this field will have higher priority than value of the *Object* parameter, thus action will be performed against the file specified in the *File* parameter instead of the Object (the value of the *Object* parameter will be ignored and may be left blank).

Action

Token. Defines whether playback should be started or stopped:

Value	Description
Start	Selected audio source will start playing.
Stop	Selected audio source will stop playing.

Remarks

Audio file can be in Adobe Flash Player (*.swf) format or in any other format supported by Windows Media Player (*.mp3, *.wav, *.wma, and others).

8.2.14 ELSE

In case alternatives should be used when <u>IF</u> conditional expression (or other conditional action) is not satisfied (value is false), **ELSE** action can be added as a dependant action to the IF action to define alternative sequence of actions.

ELSE

Parameters

No parameters.

Remarks

ELSE must be indented at one position from its parent conditional action.

Action sequence, which is to be managed by **ELSE** action, must be indented at one position from **ELSE**.

8.2.15 METHOD

METHOD action enables launching execution of **methods** – **actions built into the Object**. However, it should be taken into consideration that not all types of objects have built-in Methods.

METHOD (objectid Object methodid Method)

Parameters

Object

String. Identifier of the object, which method should be launched.

Method

Selector. Method that should be launched.

Remarks

Please note that in case the selected method has associated input parameters additional entry fields will appear for inserting method's parameters. Look at object's description to get more information on its specific method.

8.2.16 NAVIGATION

NAVIGATION enables turning ON/OFF capability for transition to another Slides of the Module.

NAVIGATION (select Navigation_Objects select Action)

Parameters

Navigation_Objects

Token. Determines the set of navigation objects that may be used for transition to another Slide, which need to be enabled/disabled:

Value	Description
All Navigation Objects	All Navigation Objects will be turned enabled/disabled
Prev and Next Buttons	Previous and Next Slide Buttons will be turned enabled/disabled
Prev Button	Previous Slide Buttons will be turned enabled/disabled
Next Button	Next Slide Buttons will be turned enabled/disabled
Replay Button	Replay Slide Buttons will be turned enabled/disabled
Navigation Menu	Navigation Menu will be turned enabled/disabled
Contents	Access to Contents Tab (or Window) will be enabled/disabled

Action

Token. Possible values:

Value	Description
Enable	Selected objects will be enabled
Disable	Selected objects will be disabled

8.2.17 PARALLEL

PARALLEL action enables launching of dependant actions concurrently, i.e. each next action will be launched virtually simultaneously with previous one, using parallel thread.

PARALLEL

Parameters

No parameters.

Remarks

Action sequence, which is to be managed by **PARALLEL** action, must be indented at one position from **PARALLEL**.

See also **SEQUENTIALLY** action to launch action in sequence (this is default behavior).

8.2.18 SET SCORE

SET SCORE action changes score for specified objective.

SET SCORE (objectiveid Objective edit Source select Additive edit Score)

Parameters

Objective

String. The identifier of the objective, the score of which will be changed.

Source

String or string <u>expression</u>. Specifies the source of the current score modification, i.e. some task identifier (not necessarily object ID - you can assign it as you wish, but with respect to usual limitation on special symbols). It is used to differ scores from different task in objective's score "heap". In other words, this parameter defines subset of this objective's score.

Additive

Token. Defines the rule of changing:

Value	Description
Replace	Score will replace already existing in the given objective score from specified source
Add	Score will be added to already existing in the given objective score from specified source

Score

Number or expression (must have numeric value).

8.2.19 DELAY

DELAY action that is inserted into the sequence of actions will interrupt actions execution for specified time.

Parameters

Duration

Number. Defines delay time in seconds for interrupting the sequence of actions. If parameter *Infinite* is set to "Yes", then *Duration* parameter will be ignored.

Infinite

Token. Defines delay mode.

Value	Description
Yes	The sequence of actions will be interrupted indefinitely, until some action from the user is performed. <i>Duration</i> parameter will be ignored.
No	The sequence of actions will be interrupted for the time specified.

8.2.20 VARIABLE

VARIABLE action defines runtime variable and it's value, or, in case variable with specified name already exists, variable's value will be changed.

```
VARIABLE ( edit Name edit Value select Scope )
```

Parameters

Name

String. Name of the variable.

Value

Boolean, number, string or expression. Value of variable

Scope

Token. Defines scope where this variable is variable. Possible values:

Value	Description
Current Slide	Variable will exist only on current Slide.
Entire Module	Variable will be accessible for all the Slides within a Module.

Using variables in expressions

To insert variable value into expression use "#" prefix symbol in front of the variable name (i.e. if variable name is var_name, then #var_name should be used for inserting variable value into the expression). See Using Expressions in Actions for more details.

Remarks

To modify existing variable's value, use the same **VARIABLE** action, in this case in the "Name" field specify name and scope of existing variable.

8.2.21 GOTO

GOTO action enables transition to the specified Frame of the Slide.

This action is similar to <u>CALL</u> action, the only difference is that no visit history information is stored.

GOTO (frameid Frame select Option)

Parameters

Frame

String. Target Frame identifier where transition will be performed to. Value of this control will be ignored in case *Option* parameter is set to any value except for "Specified Frame".

Option

Token. Defines target of transition. Possible values:

Value	Description
Specified Frame	Transition will be performed to the Frame that is selected in <i>Frame</i> control
Next Frame	Transition will be performed to the Frame which is next to current Frame (if exists). Value of <i>Frame</i> control is ignored.
Previous Frame	Transition will be performed to the Frame which is previous to current Frame (if exists). Value of <i>Frame</i> control is ignored.
Next Slide	Transition will be performed to the first Frame of the Slide which is next to current Slide (if exists). Value of <i>Frame</i> control is ignored.
Previous Slide	Transition will be performed to the first Frame of the Slide which is previous to current Slide (if exists). Value of <i>Frame</i> control is ignored.

8.2.22 PRINT

PRINT action calls standard browser's Print dialog window.

PRINT

Parameters

No parameters.

8.2.23 DISPLAY

DISPLAY action enables turning ON/OFF object display. This is the most frequently used action.

DISPLAY (objectid Object select Display select Effect time Duration)

Parameters

Object

String. The identifier of the object, which must be either displayed, or hidden.

Display

Token. Hide or Show selected object

Value	Description
Show	Object will be displayed
Hide	Object will be hidden

Effect

Token. Enables using of transition on this action:

Value	Description
Object	Use transition defined in selected object's properties
None	Disable transition
Any other value	Selects transition type for this action

Duration

Number. Duration of selected transition in seconds (will be ignored if None selected in parameter *Effect*).

8.2.24 SEQUENTIALLY

SEQUENTIALLY action enables launching of dependant actions in strict sequential order, i.e. each next action will be launched only upon completion of the previous one, unlike the usual routine, where actions are launched in predefined order, even the previous action is not even finished.

SEQUENTIALLY

Parameters

No parameters.

Remarks

Action sequence, which is to be managed by **SEQUENTIALLY** action, must be indented at one position from **SEQUENTIALLY**.

See also **PARALLEL** action if you need to launch actions concurrently.

8.2.25 MSGBOX

MSGBOX action enables display of the message warning window for the user with text specified.

MSGBOX(edit Text)

Parameters

Text

String (delimited with ") or <u>expression</u> of any available type. Message text.

Remarks

Parameter can contain CourseLab variable value (as **#var_name**, where var_name is variable name - please refer to **VARIABLE** section for additional information) or object's property value (as **\$OBJ_ID.property**, where OBJ_ID is actual object ID and property is existing object's property name - please refer to <u>Object Properties</u> section for additional information) or expression.

8.2.26 CHECKHIT

CHECKHIT action is used for verifying the particular object that was dropped onto the selected ones. The only parameter for this action is the identifier of the object being dragged, which is to be verified with regards to compliance.

Typically, this action is triggered by *ondrop* event generated by object-target. In case identifier of the object being dragged is identical to the specified one, sequence of dependant actions will be executed.

CHECKHIT (objectid Object)

Parameters

Object

String. The identifier of the object being dragged, which is to be verified with regards to compliance.

Remarks

You can use **<u>ELSE</u>** action to form alternative action sequence (i.e. when condition is not met).

Action sequence, which is to be managed by **CHECKHIT** action, must be indented at one position from **CHECKHIT**.

8.2.27 SIZE - START

SIZE - START action initiates resizing of the object within a frame.

LIMITATION: Some objects (usually those, that automatically adjust their size depending on content,- for example, text boxes, balloons etc.) may resize correctly by X coordinate, but automatically adjust the size by Y coordinate (ignoring H parameter of this action).

SIZE - START (objectid Object edit W edit H select Additive time Duration)

Parameters

Object

String. Identifier of the object, which will be resized.

W

Number or <u>expression</u> (must have numeric value). Defines width change of the object, depending on the *Additive* parameter this value can be either absolute (i.e. define new width of the object), or relative to the current width.

Н

Number or <u>expression</u> (must have numeric value). Defines height change of the object, depending on the *Additive* parameter this value can be either absolute (i.e. define new height of the object), or relative to the current height.

Additive

Token. Possible values :

Value	Description
Replace	Specified w and H parameters define new width of the object (absolute values).
Add	Specified <i>w</i> and <i>H</i> parameters will be added to the current width and height of the object (i.e. the object will be resized with regards to added coordinates relative to the object's current size).

Duration

Number. Defines time in seconds of object resize. Zero value corresponds to instant object relocation.

8.2.28 SIZE - STOP

SIZE - STOP action interrupts resizing of the selected object or all currently resized objects.

SIZE - STOP (objectid Object select All_Objects)

Parameters

Object

String. The identifier of the object, which resize needs to be cancelled. In case resize of all objects need to be cancelled, this parameter is ignored (and it may be left blank).

All_Objects

Token. Possible values:

Value	Description
Yes	Resize of all currently resized objects will be cancelled; input value for <i>object</i> parameter will be ignored.
No	Resize of the Object specified in the <i>Object</i> parameter will be cancelled.

8.2.29 TIMER

TIMER action is used for delayed launching of dependant actions.

TIMER (edit Duration)

Parameters

Duration

Number. Value of timer delay in seconds.

Remarks

Action sequence, which is to be managed by **TIMER** action, must be indented at one position from **TIMER**.

8.2.30 SET SUCCESS STATUS

SET SUCCESS STATUS action changes Success Status for the specified objective.

SET SUCCESS STATUS (objectiveid Objective select Status)

Parameters

Objective

String. The identifier of the objective, Success Status of which will be changed .

Status

Token. Represents the value to be assigned to selected objective's Success Status:

Value	Description
Unknown	No information on status.
Failed	Success Status of selected objective has value "Failed"

Succeeded	Success Status of selected objective has value "Passed"

8.2.31 FOR

FOR action is used for executing dependant actions specified number of times.

```
FOR ( edit Name edit From edit To edit Step select Scope )
```

Parameters

Name

String. Cycle counter variable name.

From

Number or expression (must have numeric value). Starting value for the cycle counter.

То

Number or expression (must have numeric value). Stopping value for the cycle counter.

Step

Number or <u>expression</u> (must have numeric value). Iteration step for the cycle counter.

Scope

Token. Defines scope of the cycle counter variable. Possible values:

Value	Description
Current Slide	Variable will exist only on current Slide.
Entire Module	Variable will be accessible for all the Slides within a Module.

Remarks

Action sequence, which is to be managed by **FOR** action, must be indented at one position from **FOR**.

8.2.32 JAVASCRIPT

JAVASCRIPT action enables execution of any custom JavaScript code.

JAVASCRIPT (textedit Text)

Parameters

Text

Javascript code.

8.2.33 Z - INDEX

Z - **INDEX** action changes Z coordinate of the object (i.e. brings the layer, where the object is located, forward or backward). Z - INDEX is not measured in pixels, its value is always relative, i.e. layers with greater Z - INDEX will be located in front of layer with smaller Z - INDEX.
Parameters

Object

String. Identifier of the object, Z - INDEX of which will be changed.

Ζ

Number or <u>expression</u> (must have numeric value). Specifies change of Z - INDEX of the selected object.

Additive

Token. Defines the rule of changing:

Value	Description
Replace	<i>z</i> parameter value will replace current object's Z - INDEX
Add	<i>z</i> parameter value will be added to current object's Z - INDEX

8.2.34 Using Expressions in Actions

Expressions can be used in action parameters to calculate parameter values. CourseLab <u>variables</u> and <u>object properties</u> can be used as expression arguments along with numbers and strings. When action is launched, every expression in action parameters is evaluated and replaced with expression value.

Boolean expression is the type of expressions that has boolean *true* or *false* as a result of evaluation. This type of expression is generally used in <u>IF</u> action to define condition statement. Example of boolean expression is:

#var1==#var2+10

Note, that if you define incorrect expression, it may cause the error in module. Please double check expression syntax to avoid problems.

Operators allowed for building expressions:

Operator	Description
	Arithmetic/String
+	Addition of numbers or concatenation of strings
-	Subtraction or negation (numbers only)
*	Multiplication (numbers only)

/	Division (numbers only)				
Boolean					
ļ	NOT - unary Boolean negation - if operand evaluates to <i>true</i> then the result evaluates to <i>false</i> and vice versa.				
&&	AND - if both operands evaluate to <i>true</i> then the result evaluates to <i>true</i> , otherwise - <i>false</i>				
П	OR - if either or both operands evaluate to <i>true</i> then the result evaluates to <i>true</i> , otherwise - <i>false</i>				
	Comparison				
!=	Not equal (usually works fine, but may depend on automatic data type conversion *)				
==	Equal (usually works fine, but may depend on automatic data type conversion *)				
>	Greater than				
>=	Greater than or equal				
<	Less than				
<=	Less than or equal				

* Data type conversion: numbers and symbols of numbers are different types of data, i.e. in general, for example, 34 should not be equal to "34" (first is number, second is string). But JavaScript programming language (which is used in CourseLab runtime) has automatic data type conversion feature, i.e. 34 may be equal to "34" in conditional statement. Please be aware of this feature.

Data types allowed for building expressions:

Data type	Description
NUMBER	[09] - any sequence of these characters
BOOLEAN	true false - predefined dictionary values
STRING	Any character sequence enclosed in quotes ("" or "). Using of " and ' inside the string is forbidden - if you need these characters to be included in string - use backslash to mask them (i.e. \" will mean single " inside the string)
VARIABLE	CourseLab run-time variable value (i.e. # sign followed by variable name). Characters, that can be used in variable name include 0-9, a-z, A-Z, _ Note, that no whitespaces are allowed in variable

	names.
IDENTIFIER	Used for inserting object properties in expression. Syntax for object
	property is \$object_identifier.object_property, where object_identifier and object_property
	are of IDENTIFIER data type. Characters, that can be used in IDENTIFIER
	include 0-9, a-z, A-Z, _ Note, that no whitespaces are allowed.

Math functions allowed for building expressions:

Function	Description
Math.random()	returns random number greater than 0 and less than 1
Math.PI	returns PI value
Math.sin(x)	returns sine of x
Math.cos(x)	returns cosine of x

Examples of expressions:

Expression	Description
#var1<=#var2+10	Simple boolean expression for IF action
((#var1>5) && (#var2>10)) #var3=='cancel'	Complex boolean expression for IF action
#var1*#var2/100	Numeric expression for defining action parameter numeric value (arythmentic)
#var1+" is correct"	String expression for defining action parameter string value (concatenating strings)

9. Scoring

Scores and statuses in Learning Modules created with CourseLab are based on using objectives and rules.

9.1 Objectives

Objective is a special parameter for evaluating of Learning Module completion and success.

There might be one or several objectives in the single Module. Technically, there is no limitation on number of learning objectives; however, such limitations can be introduced when using certain International standards of data transfer protocols (for example, in SCORM the number of objectives cannot exceed 100).

Each objective has a Score, Success Status and Completion Status.

Success Status can have one of the following values:

- Unknown
- Failed (objective is not accomplished)
- Passed (objective is accomplished)

Competion Status can have one of the following values:

- Unknown
- Not Attempted (completion of the objective is not started yet).
- Incomplete (completion of the objective is started, but it is not finished yet)
- Complete (completion of the objective is finished).

One of the objectives for the Module must have defined setting "Module objective". Module translates results of completion of this objective to the Learning Management Systems as a result of completion for the entire Module. By default, it is named "total" and has predefined initial completion status "incomplete" (it means that entire module will have completion status "incomplete" immediately after initial launch).

During Module execution the properties of the objectives change either by employing special actions, or by employing actions built-in into the complex objects (for example, "Question" objects record score into the defined objective by itself).

To add new objective:

1. Select Module -> Runtime Settings...

ib - [Test Module *]							
t <u>T</u> ools	<u>M</u> od	dule <u>W</u> indow <u>H</u>	<u>I</u> elp				
	¥	<u>V</u> iew Module	F5				
6 4 G		View S <u>l</u> ide	Shift+F5				
×		<u>U</u> pdate Objects					
		Delete Unused Fi	les				
		D <u>e</u> sign Settings Alt+F7					
	Ru <u>n</u> time Settings						
	Z	11					

- 2. In the opened "Runtime Settings" dialog screen go to the "Objectives" tab.
- 3. On the "Objectives" tab press "Add" button.

Module Properties				×
General Objectives	Rules Checks	Runtime		
Objectives				
Identifier	Max Score	Min Score	Module	
total 0)	100	Yes	
	<u>A</u> dd	<u>D</u> elete	Properties	
			OK Cancel	
		<u>L</u>		

4. Use "Objective" dialog screen to specify objective's settings. Specify objective's identifier (please, use latin charachters and numbers only), objective's description (plain text, if needed), initial completion and success statuses and scores. There must be always only one objective marked as Module Objective - score and statuses of this objective will be sent to LMS as whole module score and statuses. Initial statuses are set by default to: Completion status to "Incomplete", Success status to "Unknown". It means that, once learner has enered the module, its completion status immediately becomes "Incomplete". This is most common behaviour. Minimal and maximal scores are set by default to 0 an 100 correspondingly. Minimal score is the initial score value (in most cases 0). Maximal score must be changed to sum of all scores that can be achieved bu learner - i.e. maximal possible score for this objective. This value is used by LMS (and result displaying objects) to calculate percent values.

Objective	
I <u>d</u> entifier:	total
Description:	This is automatically created module ob
	Module Objective
Initial State	
Completion:	Incomplete 🗸
Success:	Unknown 💌
Score	
M <u>a</u> ximal:	100
Minimal:	0
	OK Cancel

Actions to change objectives

Actions with scores and statuses include:

- <u>SET SCORE</u>. Changes score for specified objective.
- <u>SET COMPLETION STATUS</u>. Changes objective's completion status.
- <u>SET SUCCESS STATUS</u> Changes objective's success status.
- IF SUCCESS STATUS Branches actions depending on success status.
- IF COMPLETION STATUS Branches actions depending on completion status.
- IF SCORE Branches actions depending on score.

9.2 Rules

The Rule presents the set of conditions. If conditions are satisfied the status of indicated objective will change. Using Rules allows transferring control on both Success and Completion Statuses to the CourseLab player, i.e. statuses will be changed automatically.

To add Rule:

1. Select Module -> Runtime Settings...

ib - [Test Module *]							
t <u>T</u> ools	<u>M</u> oc	dule	<u>W</u> indow	<u>H</u> el	p		
A 8	¥	<u>V</u> ie	<u>V</u> iew Module		F5	Ľ	
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×		<u>U</u> pdate Objects					
		<u>D</u> elete Unused Files				I	
		D <u>e</u> s	ign Setting:	s	Alt+F7	l	
	Ru <u>n</u> time Settings						
	K	11	1				

- 2. In the opened "Runtime Settings" dialog screen go to the "Rules" page.
- 3. On the "Rules" tab press "Add" button.

Module P	roperties						×
General	Objectives	Rules	Checks	Runtime			
Rules —							
"total": "total":	: Success "U : Success "U	nknown" nknown"	, Success , Success	"Incomple "Complete	te" ed"]
	Jp		<u>A</u> dd		<u>)</u> elete	Properties	
	own						
							4
					UK		

For each Rule specify the following:

Rule		
Objective:	total	~
<u>S</u> uccess Status:	Unknown	
Completion Status:	Completed 🗸	
Conditions:		
Slides Visited From	SLIDE_1" To "SLIDE_6"	<u>A</u> dd
AND BIDES VISICE		
		Properties
		Group
		Operation
	OK	Cancel

- Identifier of the objective, which state will be changed due to the Rule execution.
- Success Status for specified objective, in case Rule must change it.
- Completion Status for specified objective, in case Rule must change it.
- The logical expression among the conditions. If conditions are satisfied, Rule will "work". The different logical conditions are connected to each other by following logical operators: AND, OR, XOR, and NOT. To change logical operation, select desired operation from the list and press "Operation" button. The logical operators can be grouped by using round parentheses. Select conditions from the list and press "Group" button to add parentheses. Select conditions inside of parentheses and press "Ungroup" button to remove parentheses.

Conditions

Each condition defines one of the following checks:

1. **Slides Visited**. Condition is satisfied if during Module execution all the Slides in sequence, including the ones with defined identifiers were viewed by the student.

Condition			
Slides Visited Objective Score Objective Success Objective Completion	From: To:	SLIDE_6]
		ОК	Cancel

2. **Objective Score**. Condition is satisfied if value of the actual objective's score for the defined condition is for example greater or equal to the specified value. For comparison of specified score with actual score, the following operators are employed: <, >, =, <=, >=, and <>.

Condition		
Slides Visited Objective Score Objective Success Objective Completion	Objective: Score:	objective1
		OK Cancel

3. **Objective Success**. Condition is satisfied if actual value of the Objective Success Status corresponds to the specified one.

Condition			
Slides Visited Objective Score Objective Success Objective Completion	Objective: Success:	objective 1 Passed	
		ОК	Cancel

4. **Objective Completion**. Condition is satisfied if actual value of the Objective Completion Status corresponds to the specified one.

Condition		×
Slides Visited Objective Score Objective Success Objective Completion	Objective: objective 1	
	OK Cancel	

Using of the last three above mentioned checks for creating Rules allow building cascading Rules – when status of the single objective depends on the statuses of other objectives.

10. Screen Capture

Learning courses are created for many purposes. One of the most common objectives is instructing on how to use various software. To facilitate the creation of software simulations CourseLab contains built-in screen capture mechanism, therefore no additional software needs to be installed. Simulations are recorded directly into the internal format of the editor and can be edited later as usual frames. Internet Browser's capabilities allow replaying of such animated simulations. No additional components (Flash Player, Shockwave Player, Media Player, etc.) are required.

LIMITATION: Screen Capture may not capture some menus on computers with "Aero" themes enabled (Windows Vista, Windows 7). It is recommended to switch into any "non-transparent" theme (for example, Classic) to capture screens with open menus.

10.1 What needs to be done prior to recording the simulation?

Create a learning Module (or select an already created one) to insert the simulation into. Select (or create a new) Slide for placing the simulation. The Editor allocates each simulation session into a single Slide and automatically adds necessary frames; there is no need to add frames manually. Define the size of the free space on the Frame within the Slide where the simulation will be fitted - this is the requirement for setting up simulation recording.

IMPORTANT! CourseLab does not support auto scaling for captured screens. Screen captures will be performed only within user defined area in scale of 1:1. Therefore, make sure that defined size of the captured screen enables recording all required information from the target software. If of size insufficiency, you might need to change template of the current Slide to increase size of recording area.

Specify a graphic format for storing screen captures. Select the "Settings" item from the "Service" menu, on the "Screen Capture" tab specify the desired file format. As long as you do not have any specific restrictions, we recommend using PNG format for screen capturing, since this format performs best in terms of quality and size of the saved files.

Even though you can correct results later on, you should determine the screen capturing scenario beforehand, in order to avoid mistakes.

10.2 Screen Capture Wizard

While on the slide, which is to be used for recording the simulation, select "Capture Screens" item from the "Tools" menu.



Screen Capture Wizard opens up.

Screen Capture	X
CourseLab	Welcome to the Screen Capture Wizard. With a help of this Wizard you can create new frames from captured screens. To continue, click Next.
version 2.4	
	< <u>B</u> ack Next > Cancel

From the drop-down menu select program to record the simulation from. Mark "Capture Cursor" check box if you need to record mouse's clicks and movements. Clicks and movements will be captured automatically, once the recording starts.

Screen Captur	re 🔀
Screen Capt Select app	ture plication window for screen capture.
<u>W</u> indow: ☑ <u>C</u> apture m	ITunes vouse pointer
	< <u>B</u> ack <u>N</u> ext > Cancel

Specify position for the top left corner of the area for recording simulations within a frame. By default, position of top left corner of the area for recording simulations within a frame is equal to top left corner of the frame (position 0,0), however there are instances where it is not acceptable. For example, if there is a title located at the top of the frame, then top left corner of the area for recording should be placed underneath, by adding frame title's height in pixels into the "Vertical Position" field.

Screen Capture				
Screen Capture Position and siz	e on desktop.			*
<u>H</u> orizontal: ⊻ertical:	100	Wi <u>d</u> th: H <u>e</u> ight:	723 468	
			< <u>B</u> ack <u>N</u> ext >	Cancel

Define location and size of the area on the monitor to be captured. The editor will try to adjust captured application window to the specified size automatically, if possible.

Screen Capture	×
Screen Capture Click Next to start screen capture.	<
After you press the Next button CourseLab will be minimized to an icon at Windows tray. The red border on screen designates a screen capture mode . At screen capture mode: Press PrintScrn to create a new frame with a contents of red border. By combination Shift-PrintScrn you can activate a partiall screen capture mode. At this mode the application window will become frosen, and by PrintScrn on current frame will be stored contents of blue border. To leave partial screen capture mode press Shift-PrintScrn again. To leave screen capture mode click the CourseLab icon at Windows tray.	
< <u>B</u> ack <u>N</u> ext > Cancel	

10.3 Capture Frames

After switching to the capture mode, editor minimizes into the icon on the windows taskbar.



Red rectangular enclose appears, which limits the area or capturing. Make sure that all desired information is well fitted inside of the screen capture area.

Die Pos Coupos Serverse	r Advanced Help Telupat/The Ros	iTunes ers Of Belef) Back To T	e River	6		
	E 27 CE	Enigna	8005	q	Search	Branse
Source	Gerne		Arbst:		Abim	
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Videos	Audiobook.	Engelbert Hum	perdirk	0	The Cross Of Changes	1
Music Store	Blues	Enigna				
	Celto	Ennio Morricon	e .			
	Chanson	Envique Iglesia	•	- 11		
	Cassical	Drive	_			
	Dance	T Enc Burdon &	The Animais	- (¥)		
Now Playing	None .		Time	deter.	A Tear	Abut
INCOME.	I The Voice Of Enion	If The Voice Of Enioma		Enioma	1990	MCHO
	The Principles Of La	at (Sadeness/Find Lo	12:45	Eniona	1990	MCMO
	Calac Went Away		4:29	Enigna	1990	MCMO
	Mea Culpa		5:05	Enigna	1990	MCHO
	If the Voice & The Sh	ake	1:41	Enigma	1990	MCHO
	M Knocking On Farbid	den Doors	433	Enigma	1990	MCMO
Land a	4) M Back To The Rivers	Of Belef (Way To Et	10:32	Erigna	1990	MCHN
	A CONTRACTOR OF A CONTRACTOR					
REPORT OF	110-5					
	1					2.
					and the second s	

Press PrintScrn, the first frame is captured. Go to the next step in target program, and press PrintScrn one more time. Using PrintScrn continue capturing all the changes that you apply to the target program, until you complete recording based on the desired scenario.

IMPORTANT! If you marked "Capture Cursor" check box before entering the capture mode all mouse's clicks and movements will be recorded automatically. However, remember that mouse click does not automatically capture the screen, do not forget pressing PrintScrn where appropriate.

Upon capture scenario is completed, double click CourseLab icon from the taskbar. CourseLab Editor window will be restored and all captured frames will be available for editing.

10.4 Modifying capture settings while in capture mode

After switching to the capture mode, editor minimizes into the icon on the windows taskbar and red rectangular enclose appears, which limits the area or capturing.

р	O	🧼 Internet		
A	(민준	🕎 C 🔇 🔀 🎭 🛃 🔔 15:38	🔮 c	

CourseLab will try to adjust captured application window to the specified area size.

Ele Edit Controls Youakze	r Advanced Help Tekyah/The Rive	iTunes rs Of Belef) Back To T	e River	6		000
	E27 C.B.	Enigna	1005	6	Searth	Browne
Source	Gerre	and the second	Arbst:		Abum	
Library.	All (25 Gennes)	+ Enirem		4	All (2 Abums)	
Podcasts	Atenative	Emma Shappen			The Course Of Changes	
Videos	Russoook.	Engroent Hum	perank		The Cross of Changes	
W Hust state	Celto	Ennis Morrican				
	Chanson	Ervique Idesia				
	Classical	Dryn				
	Dance	Dance 🖉 Eric Burdon &		1.12		
O New Players	P+++	1 August		1.4		
	Nane		Time	Arter -	All Year	Abun
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	The Principles Of Lu	st (Saderess/Find Lo	11:45	Enigna	1990	MCHO
	Calas Went Away		4:29	Enigma	1990	MCHO
	Mea Culpa	200	5:05	Enigna	1990	MON
	The voice is the Sh	RE .	1:41	Enigna	1990	MCHO
1 Acres 1	d Mark To The Russ	Of Relief Allies To Ft	4.33	Engna	1990	MCMO MCMO
ALC: NO	the management of the scores	on person funda 10 c.c.	20.36	- Andrea	1990	
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			-		Contraction of the	11.4
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However, some programs will not allow doing so. In this case, you can manually adjust screen capture area to fit the target window, or opposite, target window to fit screen capture area. You can modify screen capture area by dragging red border or by using context menu of the capture area.

		_			
<u>File</u> Ed	Resize <u>F</u> rame	<u>A</u> dvanced	<u>H</u> elp	iTun	ies
	Size		Rivers Of Belief) Back To MCMXC	The Rive a.D.
	_		4:53		
	Source		Genre		_
🚺 🚺 Libi	ary	All (35	Genres)	A A	Eminem
👘 Pod	asts	Altern	ative	n	Emma Sh
🔲 Vide	os	Audiob	book	0	Engelbert
🕞 Mus	c Store	Blues			Enigma
		Celtic			Ennio Mo
		Chans	on		Enrique I
		Classic	cal		Enya
		Dance		4	Eric Burde
0	New Playing	Dises		Y	C

Adjust screen capture area to fit the target window.

Select "Resize Frame" item from the context menu. Screen capture area will automatically adjust its size to the current window size of the target application.

Adjust target window to fit the screen capture area.

Select "Resize Window" item from the context menu. Editor will automatically attempt adjusting size of target window to the size of screen capture area. If target program did not allow such change, adjust size manually.

Precise sizing of the screen capture area and recording position.

Select "Size..." item from the context menu. In the opened window you can modify numerical values for size and position of the screen capture area.

Screen C	apture				×
Capture	Slide				_
Position	and size —				-
<u>H</u> orizor	ntal:	333	Wi <u>d</u> th:	723	
<u>V</u> ertica	d:	117	H <u>e</u> ight:	468	
		e	······		
			ок с	Cancel Apply	

Use another tab of the "Size..." screen to modify position of the top left corner of the area within a frame, where capture recording will be inserted.

Screen Capture		×
Screen Capture Capture Slide Position on slide — Horizontal: Vertical:	28	
	OK Cancel Apply	

10.5 Partial Screen Capture

In addition to capturing the entire window of the target program, you can also record part of the screen capture area to the frame as a separate picture without interrupting capturing flow. It can be useful for example, for drop-down menu imitation (you can save the menu as a separate picture and further use editor's capabilities for manipulating this picture).

Press Shift-PrintScrn combination to enter the special capture mode. The target program freezes up and in addition to the red you will see the blue enclose frame indicating special capture mode.

-	Bause	Space	The Cross C The Cross C	of Changes of Changes	0	Q			0
	Next Song Previous Song	Ctrl+Right Ctrl+Left	41	• •	44		Search	-	Browne
Podcas	Next Quapter Previous Quapte	Col+Shit+Righ r Col+Shit+Left	in the second se	Eminem Emma Shapplin	röst	ŕ	All (2 Albums) MCMKC a.D.	Album	
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✓ Music S ✓ Bepeat O Repeat §	 Bepeat Off Repeat <u>A</u> Repeat <u>One</u> 			Ennio Morricone Enrique Iglesias Enva					
	Volume yp	Ctrl+Up		Eric Burdon & Th	e Animals	Ť			
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	Choire	Carriertoonn	lopter -		2:16	Enigma		1994	The Ore
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	Mark to		It Warrier		6:00	Enigna		1994	The Cro
T		1 The	Dream Of The Dolphin		2:45	Enigma		1994	The Cro
N.	And I	M Age	Of Loneliness (Carly's Si	(pric	5:21	Enigma		1994	The Cro
	2 N 2	e Out	From The Deep		+:53	Enigma		1994	The Cro
and the second se		4) 🛃 The	Cross Of Changes		2:25	Enigma		1994	The Cro
at charges	ENIGMA	2)+(
	200		9 sonos, 44:0	7 total time, 40.9	MB		111	1 445	

Modify size of the special capture area by dragging border and press PrintScrn.

-	Bause	Space	The Oron The Oron	is Of Changes		G		
	Next Song Preylous Song	Ctrl+Right Ctrl+Left	11		0:44		Search	Browne
Podca	Next Quapter Previous Quapter	Col+Shift+Rij r Col+Shift+Le	phi ft	Eminem	Arost	ŕ	Alb All (2 Albums) MCMXC a.D.	<i>m</i>
Videot Shuf	Shuffle			Engebert Hum	perdink	0	The Cross Of Char	nges
	 Bepeat Off Repeat Al Repeat One 			Enrique Iglesia Enrique Iglesia	e 5	٦		
	Volume Up	Ctrl+Up		Fric Burdon & 1	The Animals	Ť		
0	Volume Down Mute	Ctrl+Down Ctrl+Alt+Dow	n anter		Time 2-16	Artist	A Yes	e Abum
	Eject Disc	Ctrl+E	of Truth		7:12	Enigna	195	4 The Cro
1	1	And I Have been seen as	Summer Innocence		4:16	Enigma	199	H The Cro
1	hand	S IL	ove You I'll Kill You		8:50	Enigna	195	H The Cro
14.	1.1	😸 Så	ent Warrior		6:09	Enigma	195	14 The Cro
X	Chill	S Th	e Dream Of The Dolphi	n	2:45	Enigma	195	14 The Cro
100		M As	ge Of Loneliness (Carly	s Song)	5:21	Enigna	199	14 The Cro
	A	1 OL	ut From The Deep		4:53	Enigma	195	14 The Cro
100.00	STATE STATE	47 8 11	e cross of changes		2.0	Enigna	130	ra The Cro
at sharpes	I LINA VITA						C	
+	XOV		9 songs, 4	4:07 total time, 40.3	9.748		111	湪 ▲

The content within blue area will be captured on the current frame as a separate picture. You can enter or modify identifier name to make it more self-explanatory before saving the picture (remember, that identifier names should contain only Latin alphabet letters, numbers, and underscore character).

Identifier	X
Identifier:	IMG_16
	OK Cancel

Use the same technique for "cutting" any number of the pictures from the current captured screen, by sequentially changing size and location of the blue screen capture area and by pressing the PrintScrn.

After you finish "cutting", you can go back to the main capture repository by pressing Shift-PrintScrn. The blue enclose frame will disappear and captured program will "unfreeze"; also PrintScrn button will continue capturing the entire area.

10.6 Editing captured frames

Review all the captured screens. Make sure that all the necessary screens are captured. Repeat capturing if any screens are missing.

Sometimes, if the "Capture Cursor" mode is "On", the very first Frame will be empty, it means that capturing mouse movements took place prior to the first screen capture. You may simply remove this frame.



The blue tracing lines on the Frame are reflections of the mouse movements (they will not be visible when replaying). When required, you can modify the location of the mouse clicks (you can drag them) and/or remove unwanted clicks completely, in this case the trace of the mouse path will be automatically adjusted. Note that you can also modify the cursor shape, speed of movements, and time duration for holding down the mouse button. To accomplish these modifications, right-click on the cursor image and select "Format Cursor" from the context menu.

However, the captured set of frames is not quite finished and should be considered "groundwork" for future editing. Most likely you are going to need to provide additional supporting explanations in a form of balloons or popup windows.

From the editor's point of view, each captured Frame can be treated as a typical Frame (the only difference is the recorded mouse movements). On any of the captured frames you can insert additional Objects from the Objects library (balloons, popup, pictures, etc.) On all captured frames you can use Actions, change timeouts and so on, just like with any other frames.

By default, the replay time for a particular Frame is defined by the time spent on mouse movements.

However, you can manually change a Frame display time, if necessary. Right-click on the necessary Frame and use the "Transition" item from the context menu. Specify the required timeout for the frame.

11. Import from PowerPoint

CourseLab allows importing content of the Microsoft PowerPoint presentations into the Learning Module.

11.1 Import from PowerPoint Wizard

CourseLab allows importing content of the Microsoft PowerPoint presentations into the Learning Module.

Note that Microsoft PowerPoint must be installed on the same computer to provide correct presentation import.

To start import, select **Tools -> Import from PowerPoint** menu option.



Import screen wizard opens up. Press Next to continue.

Import from PowerPoint		×
*	Welcome to the Import from PowerPoint Wizard. With a help of this Wizard you can create new slides from slides of PowerPoint presentation.	
CourseLab	To continue, dick Next.	
Version 2.4		
	< <u>B</u> ack <u>N</u> ext > Cance	

Specify the path to the MS PowerPoint presentation to be imported.

Import from PowerPoint	
Presentation file Provide location of PowerPoint presentation file.	$\mathbf{x}_{\mathbf{i}}^{\mathbf{i}}$
PowerPoint Presentation File:	
C:\Presentation1.ppt	
< <u>B</u> ack <u>N</u> ext >	Cancel

Specify the Master-Slide (press "Master" button to select) which will be the base for the imported presentation. The pink area on the Wizard's screen represents the imported presentation. Press the "Position" button to specify the position of the imported presentation on the Slide and scaling. You can import comments to Slides if necessary and position it on the Slide the same way as the presentation main body (grey area represents comments). Press the "Next" button to proceed.

Import from PowerPoint	
Content area Provide size and position of the content rect.	**
	Master Position
	✓ Import comments
🖉 🤪 Baranasi kulawawa kayyes 🛛 Enconstance 💷 🌔 🔺 🕨	Position
< <u>B</u> ack	Next > Cancel

On the next wizard page you can select the Slides to be imported. Hold down the Ctrl key to select Slides.



Press the "Next" button and start processing.

Import from PowerPoint	
Import from PowerPoint Verify import settings.	*
To start import, click Next. If you want to review or change import settings, click Back. exit from Wizard now, click Cancel.	То
< <u>B</u> ack <u>N</u> ext > Ca	ncel

Depending on the size of presentation, it can take up to several minutes to import presentation. In general, imported Slides reproduce the corresponding PowerPoint Slides. You can further modify these Slides, if desired.

Import from PowerPoint		×
*	Presentation successfully imported and ready to use.	
CourseLab Version 2.4	Compress images	
	< Back Finish Cancel	

12. License management

CourseLab license management uses hardware or software HASP keys based on <u>SafeNet Inc.</u> technology. CourseLab application is the same for both types of keys, i.e. installed CourseLab application will work with any of these keys, that will be found.

12.1 HASP HL key (USB-dongle)

License managing using HASP HL key is very simple: license is present on the computer where key is inserted in USB-port.



If HASP driver is installed without errors, then inserted USB-dongle is lit with red light constantly. If there are problems with driver or USB-dongle itself, then key does not lit at all or blinking.

Current license and key state can be viewed via browser : <u>http://localhost:1947</u>. Functional key will be listed as on the picture below:

► → C 🔘 localhost:1947/_int_/devices.html								\$	4	
								Sei	ntinel HASP Admin Control Cente Sentinel HASP	;
				HASP Ke	ys available on WEB	LIN-PO	:			
Administration Options HASP Keys Products Features Sessions Update/Attach	1	Location Local	Vendor 70968	HASP Key ID 1060240687	Key Type HASP HL Pro		Version 3.25	Sessions -	Actions [Features][Sessions][Blink on]	

Please note, that USB-dongle firmware must have version 3.25 or higher.

12.2 HASP SL key (software key)

License management using HASP SL key involves the exchange of information between the computer on which the software key is installed and the CourseLab Licensing Server. Software key (unlike hardware key) binds to computer, where it is installed. It cannot be transferred to another computer as easy as hardware key, therefore please install it on the computer where you plan to work with CourseLab..

Current license and key state can be viewed via browser: <u>http://localhost:1947</u>. Functional key will be listed as on the picture below:

← → C ③ localhost:1947/_int_/devices.html									ជ	٩		
								Ser	ntinel HA	SP Admin Co Sentine	elHAS	ter P
				HASP Ke	iys available o	n WEBLIN-PO	C					
Administration												
Options	#	Location	Vendor	HASP Key ID	Key Type		Version	Sessions	Actions			
MASD Keys	1	Local	70968	166542907130	HASP SL	* -@	1.50		Products	Features S	essions	
Products									-			·
Features												
Sessions												
Update/Attach												

IMPORTANT! Software key will be listed anyway - even if it is not activated yet. Unlike hardware key (which is activated by supplier), software key is always exists on the computer, but needs to be activated to use it.

12.2.1 License activation

On first launch of installed CourseLab application License Activation Wizard will be displayed.

If you have hardware key (USB-dongle) insert it into free USB port, wait a little while key will be constantly lit with red light, and press Next button to start using CourseLab.

If you have software key (HASP SL), then select Software Key option and press Next button. On the next Wizard screen you will be asked to select activation method: via Internet or E-mail.

Activation via Internet

This method is preferrable, because it is very simple. If your computer has Internet connection - select "Via Internet" checkmark and press "Next" button.

IMPORTANT! While activating HASP driver will try to connect with CourseLab Licensing Server using secure HTTPS protocol (port 443). Server address is https://hasp.courselab.com. If your firewall or other security settings blocks this connection - add this address into exception list.

On the next screen fill in Product Key, that was provided by your CourseLab supplier (Product Key is character sequence (from 19 to 25 symbols) and press "Next" button.

If connection is not blocked and Product Key is correct, then activation will be accomplished in few seconds and you can start using CourseLab. If, for some reason, activation via Internet is not accomplished (you get activation error messages), press "Back" button and select "Via E-mail". E

Activation via E-mail

This activation method needs some manual procedures, therefore it may take from few minutes to few days to accomplish it.

Activation procedure is an exchange of e-mail messages containing files with a digital signature. User sends files with digital signature of the HASP driver - C2V (customer-to-vendor), reply contains digital signature of Licensing server - V2C (vendor-to-customer).

Fill in Product Key, that was provided by your CourseLab supplier (Product Key is character sequence (from 19 to 25 symbols) into correspondinf field, "Location" field becomes active. Select location where C2V file with activation request will be created and press "Create file" button. Create this file and send it as attachment to your CourseLab supplier.

After you receive reply from your supplier with V2C file attached, save this file on local disk, proceed to the same Activation License Wizard screen, select location of the file in corresponding field and press Next. License on this computer will be activated.

12.2.2 Temporary detaching of the license

Software key (HASP SL) allows detaching the license from Host computer and attach it temporarily to another computer (maximal detach period - 9999 days). After you detach license CourseLab application on Host computer stops at the selected detach period automatically.

Terms: Recipient computer is the computer, to which the detached license is (or will be) attached; Host computer is the computer, where CourseLab was installed and activated initially.

IMPORTANT! License can be temporarily detached only on the Host computer. There's no possibility to detach license from Recipient computer and attach it to some third computer (i.e. cascade detach). If you need to attach license to some third computer, return it to Host first and then start usual detach procedure for another computer.

License Detaching process consists of these steps:

Creating ID file on Recipient computer

To create ID file (which is needed to "introduce" Recipient computer to Host) select in the CourseLab application on the Recipient computer menu option **Help -> License -> Create ID file...** ID file creation wizard opens up.

Create the computer ID file	×
Choose location where the computer ID file should be created	
Location:	
	_
OK	el

Create ID file and transfer it to Host computer.

Creating H2R file on Host computer

To create H2R (Host-to-Recipient) file select in the CourseLab application on the Host computer menu option **Help -> License -> Detach...** H2R file creation wizard opens up. Locate ID file, select detach period in days (maximum 9999), select location for creating H2R file and press "Next" button.

Transfer H2R (host-to-recipient) file to Recipient computer.

IMPORTANT! From this moment license on Host computer stops.

Attaching license on Recipient computer

Select in the CourseLab application on the Recipient computer menu option **Help** -> **License** -> **Attach...** Locate H2R file and press "Next" button. From this moment license on Recipient computer starts to work.

12.2.3 Return of the detached license

If the detached license that is used on another computer becomes unusable before its expiration date, then you can initiate early return of detached license back to Host computer.

Terms: Recipient computer is the computer, to which the detached license is (or will be) attached; Host computer is the computer, where CourseLab was installed and activated initially.

IMPORTANT! License can be temporarily detached only on the Host computer. There's no possibility to detach license from Recipient computer and attach it to some third

computer (i.e. cascade detach). If you need to attach license to some third computer, return it to Host first and then start usual detach procedure for another computer.

Creating R2H-file on Recipient computer

To create R2H (Recipient-to-Host) file select in the CourseLab application on the Recipient computer menu option **Help -> License -> Cancel...** R2H file creation wizard opens up.

Transfer created R2H file to Host computer. Note, that Host is the only computer that will accept this file.

IMPORTANT! From the moment of creation R2H file license on the Recipient computer is cancelled.

Reattaching the license on Host computer

In the CourseLab application on the Host computer select menu option **Help -> License -> Attach...** Locate transferred R2H file and press "Next". From this moment license will work on Host computer again.

12.2.4 License deactivation

IMPORTANT! License deactivation means that you refuse from using CourseLab completely. Deactivated license cannot be used anymore on any other computer. Please be aware of this fact.

Deactivation procedure is an exchange of e-mail messages containing files with a digital signature. User sends files with digital signature of the HASP driver - C2V (customer-to-vendor), reply contains digital signature of Licensing server - V2C (vendor-to-customer).

Select menu command **Help** -> License -> Deactivation.... License Deactivation Wizard will display procedure steps on the first screen. Press Next to continue.



On the next Wizard screen select location where C2V file with deactivation request will be created. Create this file and send it as attachment to your CourseLab supplier.

Deactivation 💌
License deactivation Actions to deactivate your license
1. Select a destination folder and generate C2V file with the deactivation request
Location:
Create
2. Send the generated C2V file via e-mail to your CourseLab supplier
 Deactivate CourseLab using the V2C file received from your CourseLab supplier in response to your e-mail
Location:
Deactivate
< Back Next > Cancel

After you receive reply from your supplier with V2C file attached, save this file on local disk, proceed to the same Deactivation License Wizard screen, select location of the file in corresponding field and press Next. License on this computer will be deactivated and another C2V file will be created - send it to your CourseLab supplier to confirm license deactivation.

12.3 CourseLab registration

Registration of your CourseLab is not mandatory, but may help CourseLab support team to speed up your support request processing. Select menu **Help -> Register CourseLab...** - Registration Wizard will open.

CourseLab registration		
Please register your Co	urseLab software.	
* mandatory fields		
* First name:		
*Last name:		
Country:	United States	
Company:		
* E-Mail:		
Phone:		
Product Key:		
	Next > Cancel	

Fill in your registration data and press Next. If Internet connection is present your data will be immediately sent to CourseLab Registration Server.