

Questionmark Perception

Version 5

Authoring Guide

Find out how to author questions and assessments using Questionmark™ Perception™



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Revision # 2.3

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Welcome

This guide describes how authors can create questions and assessments with Questionmark OnDemand (hosted solution) or Questionmark Perception (behind your own firewall installation).

Authoring questions is the first stage in the process of using Questionmark to deploy sophisticated assessments. The three other stages are Scheduling, Delivering, and Reporting.



This guide is intended for authors and managers of authors who want to learn more about the process of authoring assessments in Perception. The guide describes how authors can use the different tools provided with Perception to create the questions that form the basis of assessments, and to create complete assessments ready to be scheduled and delivered.

Please refer to [Finding more information](#) if you would like to learn more about Scheduling, Delivering, and Reporting on assessments with Perception.



Please note, that this guide covers all versions of Perception 5, from 5.1 to 5.4. Because of this, some of the images may appear slightly different to the application you are using.

How is this guide organized?

If you already have some familiarity with the authoring process in Perception, you may choose to skip straight to the area of this guide that is most relevant to you. An overview of every section in the guide is provided below.

Chapter	Description
See "Introduction" on page 9	An introduction to Questionmark Perception, and an overview of the authoring process in general, including how to work with repositories and the different authoring tools available
See "Questions" on page 19	<p>Many different types of question can be created in Perception. Depending on the type, a question is structured into different components that enable authors to specify exactly how the question is presented. The use of resources and content, question outcomes, scoring, and Metatags all determine the characteristics of a question.</p> <p>This chapter provides a detailed overview of each question type, and how questions are constructed.</p>

Chapter	Description
See "Assessments" on page 61	<p>There are four different types of assessment that can be created in Perception. Assessments are composed of different blocks that determine the assessment content and the manner in which it is presented.</p> <p>The presentation of an assessment is also determined by the template associated with the assessment, while the behavior of the assessment, which determines how the participant takes the assessment, is determined by whether the assessment uses time limits, Save As You Go, and Question by Question delivery.</p> <p>This chapter discusses how the different types of assessment are structured, and how the presentation and behavior of an assessment is specified.</p>
See "Browser-Based Authoring" on page 89	<p>The authoring tool Browser-Based Authoring is a web application that enables authors to create questions and assessments without needing to install Authoring Manager. This chapter provides complete instructions on how to use Browser-Based Authoring.</p>
See "Overview" on page 135	<p>A new stand alone Web-Based authoring tool ideal for Subject Matter Experts to use collaboratively on.</p>
See "Importing content" on page 145	<p>Question and assessment data can be quickly and easily imported into Perception in several different ways.</p> <p>This chapter describes the different methods of importing content into Perception.</p>
See "Workflow" on page 159	<p>The way in which questions are created, reviewed and published can be controlled by implementing a workflow that enforces the working practices of your organization.</p> <p>This chapter describes how you can use workflow to make creating questions easier and less-error-prone.</p>
See "Appendix" on page 167	<p>The Appendix contains useful information on:</p> <ul style="list-style-type: none"> • Where to find more information on particular subjects • Answers to frequently asked questions on authoring assessments • How to contact Questionmark

Introduction

This chapter provides an introduction to:

- [Understanding the differences in user interface](#)
- [Repositories and how to work with them](#)
- [The different authoring tools available to create assessments](#)

Understanding the differences in user interface

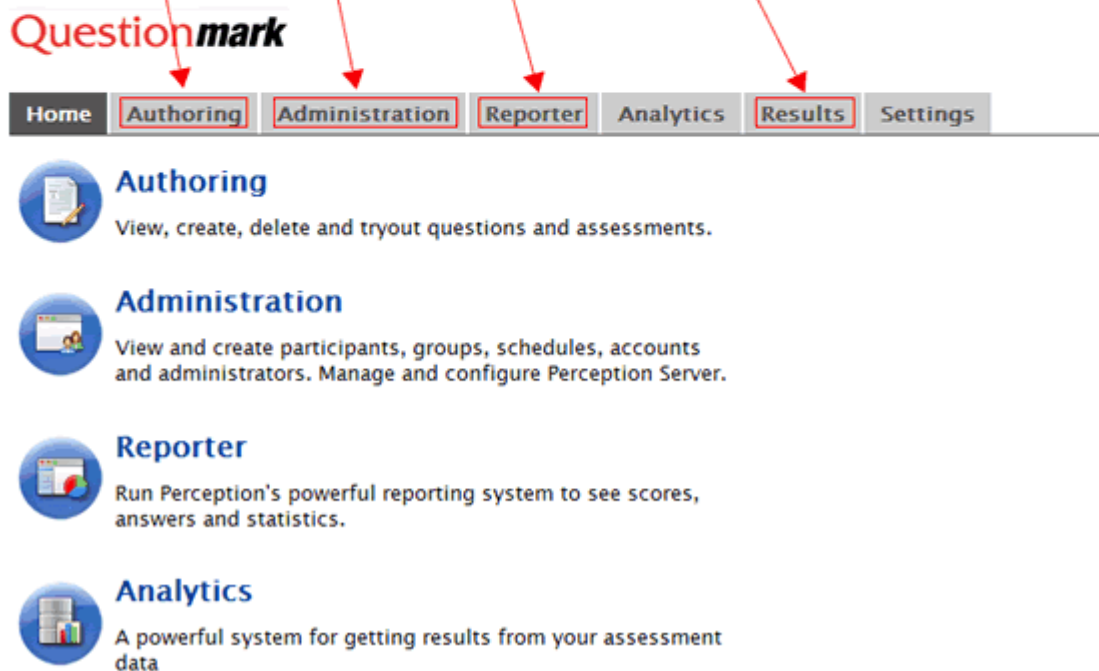
This guide covers all version of Questionmark Perception 5. However, version 5.3 and later looks slightly different than previous versions. This means that some of the screen shots in this guide may appear differently than what you have on the screen in front of you.

The primary changes from 5.3 is the new portal-based user interface. This replaces the menu system previously available. The following image shows how the user interface has changed.

Questionmark Perception 5.1 & 5.2



Questionmark Perception 5.3



In Questionmark Perception 5.3 you can access the various features by clicking on the tab menu item and then selecting the relevant link. While in Version 5.1 and 5.2, you would use the main menu and sub-menu to achieve the same navigation. Once you are in a selected feature you will notice that the functionality remains the same and there are slight updates to the user interface. This is shown in the image below comparing the Resource Manager views from Questionmark Perception 5.3 and 5.2.

Questionmark 398369 | Logout
Repository: 398369

Home Authoring Administration Reporter Analytics Results Settings English

Resource Options
 Upload new resource
 Delete selected resource(s)
 View Resource
 Download Resource

Records Per Page
 Records Per Page 25

Search Resources

Links
 Help

Authoring > Resource Manager > Global Resources

File Name	File Type	Modified Date	File Size
cheq_back.jpg	JPEG-Image	3/18/2010 12:50 PM	5 KB
cheq_continue.gif	GIF-Image	3/18/2010 12:50 PM	0 KB
cheq_home.gif	GIF-Image	3/18/2010 12:50 PM	0 KB
cheq_quit.gif	GIF-Image	3/18/2010 12:50 PM	0 KB
cheq_sep.gif	GIF-Image	3/18/2010 12:50 PM	0 KB
cheq_side.gif	GIF-Image	3/18/2010 12:50 PM	0 KB
cheq_sidebottom.gif	GIF-Image	3/18/2010 12:50 PM	0 KB
cheq_sidetop.gif	GIF-Image	3/18/2010 12:50 PM	1 KB
cheq_submit.gif	GIF-Image	3/18/2010 12:50 PM	1 KB
cheq_top.gif	GIF-Image	3/18/2010 12:50 PM	0 KB
cheq_topside.gif	GIF-Image	3/18/2010 12:50 PM	0 KB
graph_back.gif	GIF-Image	3/18/2010 12:50 PM	1 KB

Perception Enterprise Manager

Home > Authoring > Resource Manager > Global Resources

File Name	File Type	Modified Date	File Size
cheq_back.jpg	JPEG-Image	11/10/2009 1:33 PM	5 KB
cheq_continue.gif	GIF-Image	11/10/2009 1:33 PM	0 KB
cheq_home.gif	GIF-Image	11/10/2009 1:33 PM	0 KB
cheq_quit.gif	GIF-Image	11/10/2009 1:33 PM	0 KB
cheq_sep.gif	GIF-Image	11/10/2009 1:33 PM	0 KB
cheq_side.gif	GIF-Image	11/10/2009 1:33 PM	0 KB
cheq_sidebottom.gif	GIF-Image	11/10/2009 1:33 PM	0 KB
cheq_sidetop.gif	GIF-Image	11/10/2009 1:33 PM	1 KB
cheq_submit.gif	GIF-Image	11/10/2009 1:33 PM	1 KB
cheq_top.gif	GIF-Image	11/10/2009 1:33 PM	0 KB
cheq_topside.gif	GIF-Image	11/10/2009 1:33 PM	0 KB
graph_back.gif	GIF-Image	11/10/2009 1:33 PM	1 KB
graph_continue.gif	GIF-Image	11/10/2009 1:33 PM	2 KB
graph_home.gif	GIF-Image	11/10/2009 1:33 PM	1 KB
graph_quit.gif	GIF-Image	11/10/2009 1:33 PM	1 KB
graph_sep.gif	GIF-Image	11/10/2009 1:33 PM	0 KB
graph_submit.gif	GIF-Image	11/10/2009 1:33 PM	1 KB
graph_topbar.gif	GIF-Image	11/10/2009 1:33 PM	0 KB
qm_bk_dot.gif	GIF-Image	11/10/2009 1:33 PM	0 KB
qm_bi_dot.gif	GIF-Image	11/10/2009 1:33 PM	0 KB
qm_continue.gif	GIF-Image	11/10/2009 1:33 PM	2 KB
qm_home.gif	GIF-Image	11/10/2009 1:33 PM	1 KB
qm_link.gif	GIF-Image	11/10/2009 1:33 PM	0 KB
qm_quit.gif	GIF-Image	11/10/2009 1:33 PM	1 KB
qm_rd_dot.gif	GIF-Image	11/10/2009 1:33 PM	0 KB

Questionmark Perception 5.2 - Resource Manager

Repositories

A repository is a Microsoft Access, Oracle or SQL Server database containing question and assessment data. All the information needed to Author, Schedule, Deliver and report on assessments is contained within a repository.

A repository can be located:

- On an author's computer, in which case the author is said to be working from a **local repository**
- On another computer, in which case the author is said to be working from a **shared repository**. An example of authors using a shared repository is users signed up to the Questionmark [OnDemand](#) service.

Before you can create questions and assessments, an author must first create or open a repository.

Working with local repositories

A local repository is located on the same computer that an author is using to run Authoring Manager, and is not accessed from a network.

Authors can create local repositories in Authoring Manager, and use them to create questions and assessments. If you are unfamiliar with the authoring process in Perception, you can use a local repository to create example questions and assessments.

A local repository is a Microsoft Access database with no security features. Because of this, local repositories should only be used for tryout and demonstration purposes. Local repositories should not be used in production environments, and must never be used to deliver high-stakes assessments. In these situations, a shared repository should be used.



To create a local repository:

1. Open Authoring Manager
2. Select **File > New Repository...** from the File menu
3. This will start the Repository Creation Wizard that enables you to create a local repository

Working with shared repositories

A shared repository is located on a computer that is located on a network and accessed with a TCP or HTTP connection.

A shared repository is a SQL Server or Oracle database that provides secure access to the repository. When authors access a shared repository they must log in with a username and password.

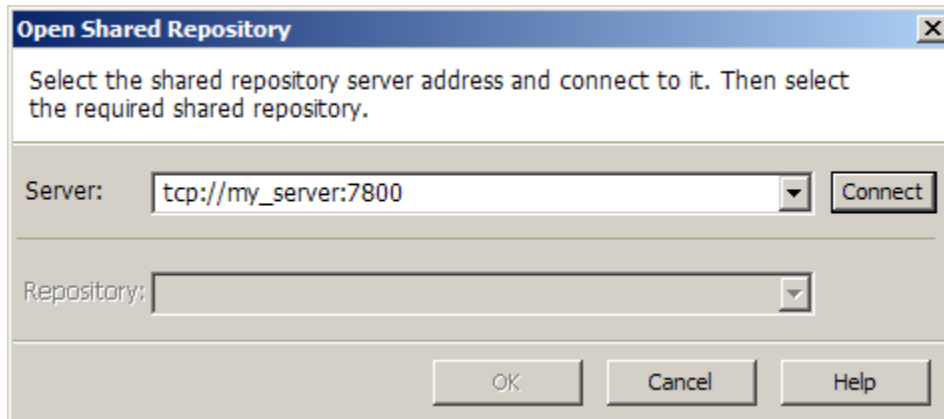
Shared repositories can only be created with the Shared Repository Manager, an application installed on the Perception Server that manages all the shared repositories used by Perception.

For more information on how Perception Administrators can use Shared Repository Manager to create and manage shared repositories, please refer to the Shared Repository Manager Help that can be accessed from within Shared Repository Manager. The Shared Repository Manager Help is also available to members of Questionmark Communities on the Questionmark Technical Support web site:

www.questionmark.com/perception/help

To access a shared repository in Authoring Manager:

1. Select **File > Open > Open Shared Repository...** option from the menu bar
2. Specify a server and click **Connect**



3. Once a connection has been made, select the repository you want to access from the drop-down list and click **OK**

Working with multiple repositories

An installation of Perception Server can only access one repository at any one time. Which repository is currently active is determined by the Shared Repository Manager.

When an author opens Authoring Manager, the author is asked which repository should be connected to. An author can connect to any local repository, or (if they have the correct permissions) a shared repository on the network.

In Authoring Manager, most of the actions (such as Copy and Paste) that an author can perform within a single repository can also be performed between one repository and another. For example, an author can move an assessment or assessment folder from one repository to another.

Authoring Tools

This chapter provides an overview of the different authoring tools available in Perception:

- See "Authoring Manager" on page 14 - A powerful Windows application for creating all types of question and assessment
- See "Browser-Based Authoring" on page 16 - A Web application for creating many types of question and assessment
- [Questionmark Live](#) - A powerful web-based application designed for content harvesting from other systems or Subject Matter Experts

Most questions and assessments in Perception are created with Authoring Manager, the most powerful and feature-rich of the four authoring tools. With Authoring Manager, authors can create every type of question, and can perform every task required to produce sophisticated assessments ready for scheduling and delivery to participants.

Authoring Manager



Authoring Manager is a powerful tool for creating Questionmark Perception assessments.

With Authoring Manager, authors can create every type of question, and can perform every task required to produce sophisticated assessments ready for scheduling and delivery to participants.

This chapter provides the following overview of Authoring Manager:

- [Downloading and installing Authoring Manager](#)
- [Connecting to a repository](#)
- [Creating questions](#)
- [Creating assessments](#)
- [Controlling access rights](#)

For more detailed information on using Authoring Manager, several useful resources are available. For more details, refer to See "Finding more information" on page 167.

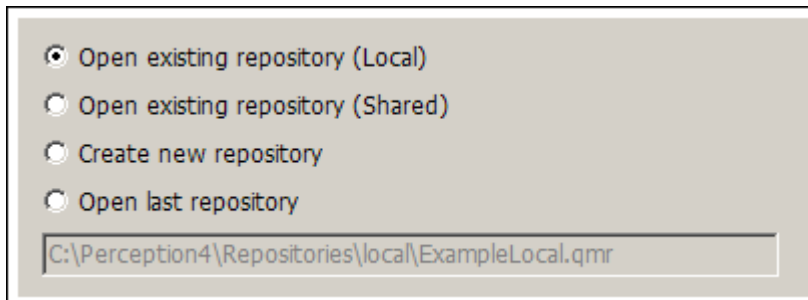
Downloading and installing Authoring Manager

Authoring Manager can be downloaded from the [Downloads](#) area of the Questionmark web site. Once it has been downloaded onto the target machine, the install program can be run by double-clicking the install program icon.

Before you install Authoring Manager, you should ensure that your system meets the minimum requirements. For detailed instructions on installing Authoring Manager, please refer to the [Authoring Manager Install Guide](#).

Connecting to a repository

Once you have installed Authoring Manager, authors can connect to local or shared repositories and begin creating questions and assessments. Authors can also create new local repositories if required.



Refer to See "Working with local repositories" on page 11 for more information on using repositories.

Creating questions



Creating questions with Authoring Manager is easy.

Just select **Add Question...** from the **Manage Items** File menu to open the Question Wizard. Many different types of question can be quickly created. For more information on the types of question that can be created, refer to See "Question types" on page 19.

The Question Wizard takes you through a series of screens that enable you to specify all the details of your question. The screens you see depend on the question type you select, and will typically enable you to provide a stimulus and specify possible responses.

Having created a question with the Question Wizard, you can then use the Question Wizard again for editing the question (or you can use the Question Editor to do this).

Creating assessments



Creating assessments with Authoring Manager is as easy as creating the questions that comprise them.

Just select **Add Assessment...** from the **Assessments** menu to open the Assessment Wizard.

The Assessment Wizard is an easy and quick way to create different types of assessment. For more information on the types of assessment that can be created, refer to See "Assessment types" on page 61.

The Assessment Wizard takes you through a series of screens that enable you to specify all the details of your Assessment. The screens you see depend on the assessment type you select.

Having created a question with the Assessment Wizard, you can then use the Assessment Editor to edit the assessment.

Controlling access rights

This chapter describes how managers of Perception authors can use Authoring Manager to control the access rights given to authors. This can restrict the interactions that authors have with shared repositories. (If you are using a local repository, access rights cannot be controlled.)

An author's access to the following can be controlled:

- Root topics (not sub-topics)
- Top-level assessment folders (not sub-folders)

For example, you may wish to enforce specific access rights that enable some authors to view, edit or delete content in certain root topics and top-level assessment folders, but forbid them from viewing, editing or deleting content in others.

For detailed instructions on how to assign access rights in Authoring Manager, please refer to the Security chapter of the Authoring Manager Help. This can be accessed from within Authoring Manager, or alternatively you view a copy by clicking below.



[Authoring Manager Help](#)

Browser-Based Authoring

Browser-Based Authoring is a web application that enables authors to create questions and assessments without needing to install Authoring Manager. If an author has been given permission to use Browser-Based Authoring, only an Internet connection and a web browser is required.

Once logged in, to access Browser-Based Authoring click Authoring from the menu across the top of the screen. The author will then be given the opportunity to use one of four tools (the number of tools shown depends on the permissions the author has).



Question Manager

View, create, edit and delete questions, which are structured in hierarchical topics. Within browser based authoring, you can view, tryout and delete all questions, but only create and edit simple ones.



Assessment Manager

Organize questions into assessments, tryout and manage assessments. With browser based authoring, you can view, tryout and delete all assessments, but only create and edit simple ones.



Resource Manager

View graphics and multimedia resources used within assessments.



Translation Manager

Choose topic and assessment folders to translate. Then translate questions and assessments into multiple languages, either with Perception or by exporting to XML and re-importing.

Each tool is described below.

Component	Description
Question Manager	Enables authors to create, edit and delete topics and questions. It is also possible to preview questions to see how they will appear to the participant. Authors can also set security permissions for topics.

Component	Description
Assessment Manager	Enables authors to create, edit and delete assessments. It is also possible to preview most types of questions to see how they will appear to the participant. Authors can also set security permissions for assessment folders and set scheduling permissions for assessments.
Resource Manager	Enables authors to add, replace and remove topic resources and global resources in the shared repository. It is also possible to preview resources before using them in questions and assessments.
Translation Manager	Enables authors to create and manage translations of questions and assessments.

For instructions on how to use each of the above tools, please refer to See "Browser-Based Authoring" on page 89.

Perception administrators can use Enterprise Manager to control an author's access to Question Manager, Assessment Manager, Resource Manager and Translation Manager. For instructions on how to control access, please refer to the [Enterprise Manager User Guide](#).

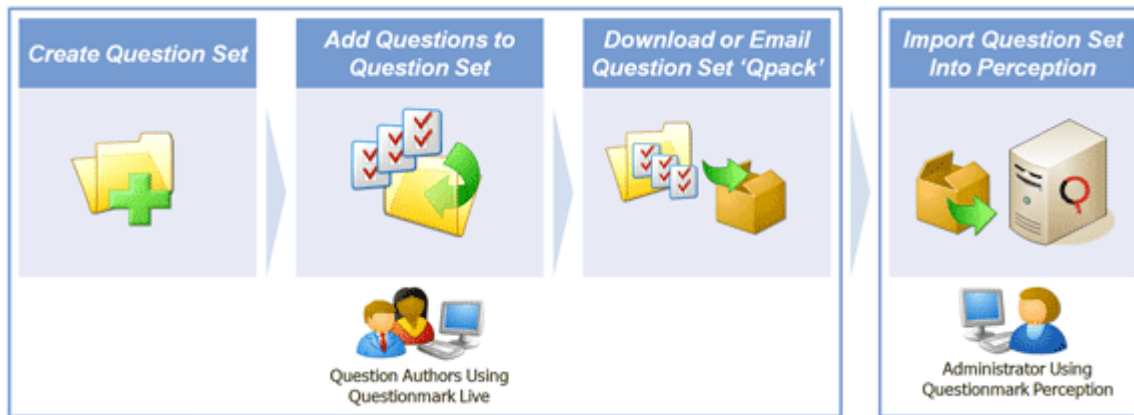
Questionmark Live

Questionmark Live combines ease of use and speed to success to provide a powerful content harvesting tool that allows Subject Matter Experts to:

- Create an unlimited number of questions
- Choose from 10 different commonly-used question types
- Add images, links, feedback and more
- Import items from Questionmark Perception item banks
- Share questions with other authors or SMEs for review or editing
- View a question's full revision history, compare revisions, and roll back to a previous version

Using Questionmark Live, SMEs can:

- Establish question sets focusing on a similar theme, subject or purpose
- Create questions by following simple prompts
- Enter feedback for each question choice
- Add comment boxes to questions
- Share question sets with other authors or SMEs for review or editing
- Review and select final versions of questions
- Export or email questions to a Perception author
- Questions are now ready to be imported to Perception
- Organize questions into complete assessments



For further information, please refer to the [Questionmark Live](#) chapter.

Questions

This chapter describes how questions are organized and constructed. It is divided into:

- See "Question types" on page 19
- See "Question structure" on page 40
- See "Topics" on page 43
- See "Question outcomes" on page 45
- See "Scoring questions" on page 47
- See "Resources and content objects" on page 50
- See "Special Character Palettes" on page 54
- See "Mathematical equations" on page 54
- See "Metatags" on page 55
- See "Participant comments" on page 58

Question types

The following types of question can be included in assessments:

- See "Adobe Captivate" on page 20
- See "Adobe Flash" on page 26
- See "Drag and Drop" on page 27
- See "Essay" on page 28
- See "Explanation" on page 28
- See "File Upload" on page 29
- See "Fill in Blanks" on page 30
- See "Hotspot" on page 30
- See "Knowledge Matrix" on page 31
- See "Likert Scale" on page 32
- See "Matching" on page 33
- See "Multiple Choice" on page 33
- See "Multiple Response" on page 34
- See "Numeric" on page 34
- See "Pull-down List" on page 34
- See "Ranking" on page 35
- See "Select a Blank" on page 35
- [Spoken Response](#)
- See "Survey Matrix" on page 38
- See "Text Match" on page 39
- See "True/False" on page 39
- See "Yes/No" on page 39

This chapter describes each type of question. However, it is important to know that not all question types can be created using the Authoring Tools listed in this guide. The following matrix shows which applications can create which question types.

Question Type	Authoring Manager	Questionmark Live	Browser-Based Authoring
Adobe Captivate	✓	✗	✗
Adobe Flash	✓	✗	✗
Drag and Drop	✓	✗	✗
Essay	✓	✓	✓
Explanation	✓	✓	✗
File Upload	✓	✗	✗
Fill in Blanks	✓	✗	✗
Hotspot	✓	✗	✗
Knowledge Matrix	✓	✗	✗
Likert Scale	✓	✓	✓
Matching	✓	✓	✗
Multiple Choice	✓	✓	✓
Multiple Response	✓	✓**	✓
Numeric	✓	✓	✓
Pull-down List	✓	✓	✗
Ranking	✓	✗	✗
Select a Blank	✓	✗	✗
Spoken Response *	✓	✗	✗
Survey Matrix	✓	✗	✗
Text Match	✓	✓	✓
True/False	✓	✓	✓
Yes/No	✓	✓	✓

* Please note that the WIMBA VOICE connection is no longer being maintained by Wimba Inc. and has been included for backwards compatibility.

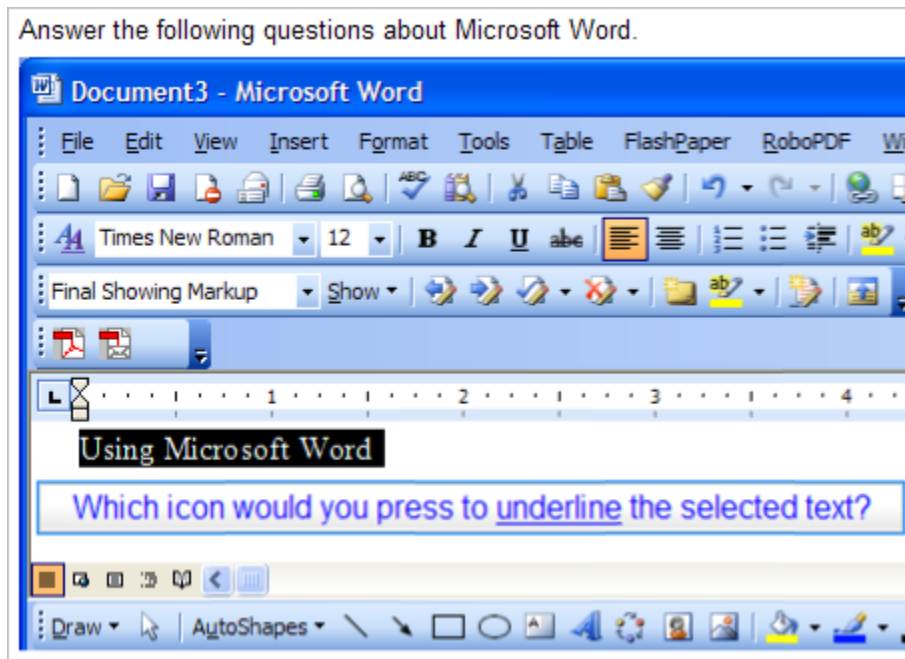
** Please note that Questionmark Live classes Multiple Response (right/wrong) and Multiple Response (score per choice) as two separate question types.

Adobe Captivate



An Adobe Captivate question allows highly interactive simulation-type questions to be answered by the participant.

For example, an Adobe Captivate question might provide a simulation of an application and then test the participant's knowledge of that application. Or it might provide a presentation about safety at work, with a series of screens showing a person operating an industrial machine, with pauses between screens to allow the participant time to respond to questions.



Questionmark has worked closely with Adobe to integrate Captivate content with Perception. This enables Perception to record results in the repository from interactive Captivate content.

This section contains guidance on:

- [Configuring Captivate movies](#)
- [Creating Adobe Captivate questions](#)
- [Scoring Adobe Captivate questions](#)
- [Delivering Captivate movies in assessments](#)

We assume that you are already familiar with using Adobe Captivate to create movies. For detailed information on how to use Adobe Captivate, please refer to the Help that accompanies the product. In addition, the Adobe Captivate 3 User Guide can be found here:

http://help.adobe.com/en_US/Captivate/3.0/captivate_3_help.pdf

Configuring Captivate movies

To publish a Captivate movie that can be used in an Adobe Captivate question, the Captivate application will need to be configured to work with Perception. Once Captivate has been correctly configured, a QML file that can be imported into Perception will be produced when a movie is created.

To configure the Captivate application:

1. Open Adobe Captivate
2. From the **Quiz** menu, expand **Quiz Preferences** and select **Quiz Preferences**

3. Under **Quiz**, select **Reporting**
4. Tick **Enable reporting for this project**
5. Under **Learning Management System (LMS)**, select **Questionmark Perception**
6. Specify the way in which you would like the results passed to Perception
 - Under **Report Pass or Fail**, specify what you would like to be reported in Perception
 - Under **Choose Report Data**, select the data you would like to pass to Perception
 - Under **Report Score to LMS**, set how you would like the score to be passed to Perception
 - Under **Reporting Level**, choose whether you would like all interactions passed to Perception or just the score
7. Under **Quiz**, select **Settings**

If desired, you can update the settings in this tab to customize the way that participants are able to navigate through the movie. You can also choose to show the score at the end of the Captivate movie, and show the progress the participant has made through the movie.

It is recommended that you do not show the score at the end of the quiz because Perception will also do this. If you have questions in an assessment from both a Captivate movie and others created by Perception, then the score shown in the movie will only represent the Captivate movie score.

8. Under **Quiz**, select **Pass or Fail**

If desired, you can update the settings in this tab to customize Pass/Fail options. For example, you can identify the points or percentage required for Captivate to send results as passed or failed to Perception. You can also set what the following slide should be, if for example you are using three or more questions you can choose to skip a question if the participant answered a question incorrectly.

If you choose to skip one or more questions, Captivate will pass on to Perception that the question was not attempted.

9. Under **Quiz**, select **Default Labels**

If desired, you can update the settings in this tab to customize the messages and buttons that Captivate displays to the participant. What you choose to show here will depend on how you intend a participant to navigate through the Captivate questions

The question from the above example has been set to only show a user when they were correct or incorrect. Since the question was only designed for one attempt, the retry message has not been used, likewise, the question has to be answered before the participant can move on so the incomplete message and the timeout message have also been disabled.

Creating Adobe Captivate questions

Captivate movies created for use with Perception include the simulation or questions in an SWF file, along with a QML file. To create an Adobe Captivate question, you will need to import the QML file into Perception. To do so:

1. Open Authoring Manager
2. Select **Add Question...** from the **Manage Items** menu to open the Question Wizard
3. Select **Adobe Captivate** from the list of question types
4. Enter a stimulus for the question
5. This may include a question that the participant needs to answer, or background information for the Captivate simulation
6. Specify the location of the QML file for your Captivate movie and click **Open**

Note that the QML file and SWF file must be located in the same folder

7. Add a description of the question so that you know which Captivate movie the question refers to. This description will also appear in the reports generated for this question

The question containing the Captivate movie will now be available for you to include in an assessment. If you wish, you can edit the question before using it in assessments, but it is important to understand how the scoring works before you do. Refer to the following section for more information on scoring.

Scoring Adobe Captivate questions

The content of the QML file generated by Captivate contains the following question outcomes:

- A C (Correct) question outcome for passing the simulation as a whole, which is not scored and has Evaluate other outcomes enabled
- A W (Wrong) question outcome for failing the simulation as a whole, which is not scored and has Evaluate other outcomes enabled

For each click box, text entry box, button or quiz frame in the Captivate movie, there will be a C (Correct) question outcome for passing the interactive question, which is scored with the score set to 1 and has Evaluate other outcomes enabled.

For each click box, text entry box, button or quiz frame in the simulation, there will be a W (Wrong) question outcome for failing the interactive question, which is scored with the score set to 0 and has Evaluate other outcomes enabled.

Whether a participant passes or fails the simulation as a whole is defined by the settings made in Captivate, and the appropriate result (C or W) is passed to Perception after the participant has worked through the simulation. Similarly, whether a participant passes or fails a particular interactive question in the simulation is defined by the settings made in Captivate, and the appropriate result (C or W) is passed to Perception after the participant has worked through the simulation.

Two question outcomes will be generated by Captivate for each interactive question (more will be generated for questions containing more than one answer or possible answers), even if the slide in which the question is included never appears (i.e. because it is skipped over). Below is an example of a question created by importing a .qml file generated by Captivate.

The contents of an example QML file generated by Captivate is provided below.

```
<?xml version="1.0" standalone="no"?>
<!DOCTYPE QML SYSTEM "QML_V3.dtd">
```



```

<QML>
<QUESTION DESCRIPTION="ExampleQuestions2" TYPE="text/plain" >
<ANSWER QTYPE="FLASH" COMMENT="Y" SHUFFLE="N">
  <CHOICE ID="ExampleQuestions2">
    <CONTENT WIDTH="720" HEIGHT="564" TYPE="NULL">ExampleQuestions2</CONTENT>
  </CHOICE>
  <CHOICE ID="Interaction10188" >
    <OPTION>Interaction10188</OPTION>
    <CONTENT TYPE="NULL">ExampleQuestions2</CONTENT>
  </CHOICE>
</ANSWER>
<OUTCOME ID="Passed" CONTINUE="TRUE">
  <CONDITION >"ExampleQuestions2" MATCHES NOCASE "C"</CONDITION>
  <CONTENT TYPE="text/plain">You passed the simulation as a whole</CONTENT>
</OUTCOME>
<OUTCOME ID="Failed" CONTINUE="TRUE">
  <CONDITION >"ExampleQuestions2" MATCHES NOCASE "W"</CONDITION>
  <CONTENT TYPE="text/plain">You failed the simulation as a whole</CONTENT>
</OUTCOME>
<OUTCOME ID="Interaction10188 correct" ADD="1" CONTINUE="TRUE">
  <CONDITION >"Interaction10188" MATCHES NOCASE "C" </CONDITION>
  <CONTENT TYPE="text/plain">You successfully mastered Interaction10188</CONTENT>
</OUTCOME>
<OUTCOME ID="Interaction10188 wrong" ADD="0" CONTINUE="TRUE">
  <CONDITION >"Interaction10188" MATCHES NOCASE "W"</CONDITION>
  <CONTENT TYPE="text/plain">You did not pass Interaction10188</CONTENT>
</OUTCOME>
</QUESTION>
</QML>

```

Delivering Captivate movies in assessments

Participants taking assessments that contain Adobe Captivate questions MUST have the Adobe Flash Player installed. This can be downloaded free of charge from the Adobe Web site:



Adobe Flash



Adobe® Flash content can be used in Adobe Flash questions to dynamically illustrate a concept, or present, evaluate and score a user interaction, and then pass the information to Perception for collation and reporting.

Complete the following question

Which large planet in our solar system is famous for its rings?



☐ A. Saturn
☐ B. Jupiter

Set Answer Click on a Choice

Flash objects will return a **Correct** or **Wrong** value as the result. Although it's not possible to return more than two states from the object, it is possible to use alternative values rather than **Correct** and **Wrong**. For example, you can return a percentage figure or any text value.

For more information on how Flash objects can be configured to return other results, please refer to the following Knowledge Base article:

[How do I make Adobe Flash questions within Perception that capture more information than correct and wrong?](#)

Requirements

To make it easier to use Flash with Perception, Adobe have provided a Flash Extension for Perception. It provides custom versions of the Flash Learning Interaction SmartClips, a publishing template, samples, and documentation. Which Flash Extension you should use will depend on the version of Flash you are using. These are available to download from the Adobe Web site:

[Flash MX 2004 Perception Interactions](#)

The Flash extensions are designed to be used with Flash MX 2004 and above. If using Flash CS3 ensure that you create your Flash Interaction using ActionScript 2.0 rather than ActionScript 3.0

These extensions must be installed using the Extension Manager. If you do not already have the Extension Manager, you can download it free of charge from the Adobe Web site:

www.adobe.com/exchange/em_download/



Participants taking assessments that contain Adobe Flash questions will need to have the Adobe Flash Player installed. This can be downloaded free of charge from the Adobe Web site:



Creating Adobe Flash questions

To create an Adobe Flash question for Perception, you must first create the Flash object, and then import it into your repository. You can do this with Authoring Manager.

You must have two files of the same file name (excluding the file extension) available in the same folder:

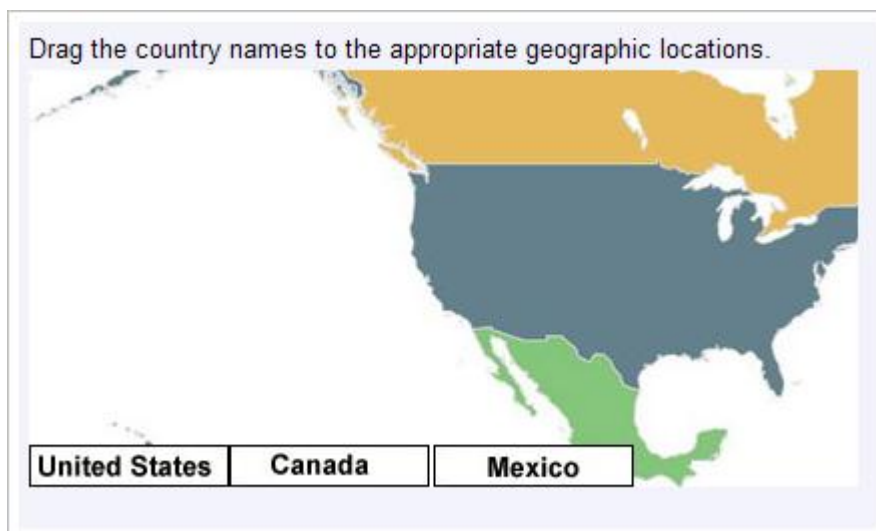
- A Flash Object with the file extension .swf
- A QML file with the file extension .qml published from Adobe® Flash™ using the Flash to QML template

Once the question is in your repository, you can create an Adobe Flash question that uses the Flash content.

Drag and Drop



The Drag and Drop question allows participants to place any number of graphical markers on a background graphic to indicate the answer.



Drag and Drop questions are presented using DHTML.

Drag and Drop questions require the placing of a marker in a defined area known as a hotspot. Drag and Drop questions use multiple hotspot areas and markers. To create a question with only one marker and hotspot, you can create a [Hotspot question](#).



By default, Authoring Manager allows you to insert the coordinates for a rectangular hotspot or define a rectangular area using the mouse. For some questions where the precise placement of a marker is necessary, it is also possible to use other shapes for the hotspot including circles and polygons to better define the area. For more information on how to do so, please refer to the following Knowledge Base article:

[In Drag and Drop or Hotspot questions can the hotspots be made in the shape of circles or polygons?](#)

Essay



The Essay question allows the participant to enter a long, free-range text answer to a question.

The answer can be scored manually by a grader within Perception, or by automatic tools outside Perception. Unscored Essay questions can also be useful when conducting surveys.

Describe the relationship between Hamlet and Laertes from Shakespeare's "Hamlet". Include examples of their differences and similarities in dispositions and modes of behavior.



As well as having the question stimulus displayed to participants, you can also display text inside the Essay question text box, as well as below the text box. For more information, please refer to the following Knowledge Base article:

[How can I include initial text in Essay questions?](#)

Explanation



Explanation questions are used to give general information at the beginning of a topic, or provide information pertaining to following questions. There is no opportunity for data collection.

Welcome to Perception 5.



An explanation question is a screen of text and/or graphics with a button the user presses to continue. Such questions are not marked (that is, they get zero points).

File Upload



File Upload questions allow a participant to upload a file to Perception as a response to a question.

Analyze Milton Friedman's theory of permanent income.
Please upload your answer as a Word file now.

The submitted file can be of any specified format. For example, in an assessment participants could be asked to submit any of these types of document:

- An essay (in the form of a Word DOC file or a TXT file)
- A slideshow presentation that includes diagrams and text (in the form of a PowerPoint PPT file)
- A spreadsheet (in the form of an Excel XLS file)
- A graphic illustration or product brochure (in the form of an Adobe Acrobat PDF file)

File Upload questions are presented to participants with an easy-to-use file navigation, selection and upload interface. Participants can then specify the location of the file on their computer or network.

Once the location is specified, the file is uploaded to the Perception Server, and can be manually evaluated and scored by a grader or instructor using the Scoring Tool in Enterprise Manager. For more information on how Perception Administrators can score File Upload questions with the Scoring Tool, please refer to the [Enterprise Manager User Guide](#).



In some assessment types, the participant might be required to download a file, amend it and then upload it. To achieve this, in the stimulus of the File Upload question, include a reference to the file that provides participants with the initial content. The participant can then upload amended the file.

There are three outcomes for File Upload questions:

- Unscored (0 score). The default feedback is 'This question has not yet been scored'
- Scored (maximum score). No feedback is given
- Error (0 score). The default message is 'It has not been possible to upload your file due to a technical error'



It is not possible to present File Upload questions when delivering assessments using Save As You Go.

Specifying the maximum file size

When a participant attempts to upload a file, the size of the specified file is checked against a setting for the maximum file size allowed. If a participant attempts to upload a file that is larger than the setting allows, then the file will not be uploaded.

By default, the maximum file size allowed for uploaded files in Perception is **5MB (5120KB)**. Perception Administrators can increase or decrease this limit if required. For information on how to modify the maximum file size limit for File Upload questions, please refer to the [Enterprise Manager User Guide](#).

Specifying allowed file types

When a participant attempts to upload a file, the extension of the file is checked against a list of prohibited file extensions. If a participant attempts to upload a file that has an extension present in this list, then the file will not be uploaded, and the following message will be displayed:

"Uploaded file is of a type that is not permitted"

The default list of prohibited file extensions in Perception is:

ade adp app bas bat chm class cmd com cpl crt dll exe fpx hlp hta ins isp jse lnk mda mdb mde mdt mdw mdz msc MSI msp mst ops pcd pif prf prg reg scf scr sct shb shs url vb vbe vbs wsc wsf wsh

Perception Administrators can add or remove file extensions to this list.



If you include archive file-types in the list of allowed file types (for example, zip files), then Perception will allow any files contained within the archive file.

For more information on how Perception Administrators can change the list of prohibited file extensions, please refer to the [Enterprise Manager User Guide](#).

Fill in Blanks



Fill in Blank questions allow authors to set a number of blank spaces for the participant to enter text into, with each space scored separately.

One correct answer for each blank can be defined, and outcomes for these questions can be constructed to add additional answers and identify any number of variations.

Fill in Blank questions are best suited to subject material where the recall of proper nouns is being tested, or where there is little or no ambiguity about the words being asked for.

The is approximately 230,600 miles from the Earth

Hotspot



Hotspot questions allow participants to place a single graphical marker on a single image to indicate the answer.



Hotspot questions are presented using DHTML.

Hotspot questions require the placing of a marker in a defined area known as a hotspot. Drag and Drop questions use a single hotspot area and marker. To create a question with multiple markers and hotspots, you can create a [Drag and Drop question](#).



By default, Authoring Manager allows you to insert the coordinates for a rectangular hotspot or define a rectangular area using the mouse. For some questions where the precise placement of a marker is necessary, it is also possible to use other shapes for the hotspot including circles and polygons to better define the area. For more information on how to do so, please refer to the following Knowledge Base article:

[In Drag and Drop or Hotspot questions can the hotspots be made in the shape of circles or polygons?](#)

Knowledge Matrix



Knowledge Matrix questions present several multiple choice questions together, and the participant selects one choice for each question presented.

Please complete the following short survey

I always take time to follow current affairs using daily newspapers	<input type="radio"/> Always	<input type="radio"/> Sometimes	<input type="radio"/> Never
The articles in daily newspapers influence my day to day decisions	<input type="radio"/> Always	<input type="radio"/> Sometimes	<input type="radio"/> Never
I agree with the opinions of television pundits	<input type="radio"/> Always	<input type="radio"/> Sometimes	<input type="radio"/> Never

Knowledge Matrix questions are similar to [Pull-down List](#) questions, except radio buttons are used instead of pull-down lists.

Likert Scale



A Likert Scale question allows a participant to select a response according to whether they agree or disagree with a statement. Likert Scale questions are typically used in questionnaires to obtain a participant's opinion on a subject.

Most politicians cannot be trusted

☐ Strongly Agree

☐ Agree

☐ Neither Agree nor Disagree

☐ Disagree

☐ Strongly Disagree

Likert Scale questions are a variant of [Multiple Choice](#) questions, where the participant selects one choice from a number of different choices, such as "strongly agree", "agree" and "strongly disagree". Choices are weighted by number to aid analysis of the results, and between three and ten response options can be presented.

Likert Scale questions can be created in Authoring Manager, and can use any existing Likert Scale definition.

To define a new Likert Scale definition to use in your Likert Scale question:

1. Open Authoring Manager
2. Select **Likert Scales Definition...** from the Tools menu

The **Likert Scale Definition** screen is displayed

Name	Weight
Simple	
Very Good	5
Good	4
Satisfactory	3
Bad	2
Very Bad	1
Complex	

3. Enter the name of the new scale in the Add Scale box, and click Add
4. Add the relevant choices into the choices box
5. When you have completed adding your choices, click **OK** to create the new definition

Likert Scale definitions must have: A name, at least 3 choices and no more than 10 choices, and score (or Weight) for each choice.

Matching



A Matching question presents two series of statements/words, and the participant must match items from one list to items within the other list. In other words, Matching question offers the participant a drop-down list of possible responses to a question.


Match each city to the country it is in

Dakar	<input type="text"/>
Lagos	<input type="text"/>
Kathmandu	<input type="text"/>
Helsinki	<input type="text"/>

Multiple Choice



In a Multiple Choice question the participant selects a single choice from a number of choices to answer the question. The participant must select a single choice as the answer from the list of two or more choice options presented.



The above picture is an X-Ray of what?

- ☐ A fractured tibia
- ☐ A stress fracture
- ☐ The paranasal sinuses

[Knowledge Matrix](#) questions are similar to Multiple Choice questions, but can have many individual questions within them, each question on a separate row, in the form of a table.

Multiple Response



A Multiple Response question is similar to a [Multiple Choice](#) question, except that instead of being able to select only one choice, the user is allowed to select one or more than one choice.

Select which cities are in Germany

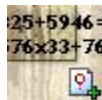
☐ Lyon ☐ Caen ☐ Munich ☐ Bonn ☐ Cologne ☐ Hannover

Multiple Response questions can be used very effectively when presenting complex material. Authors can define any number of correct response options, and can group a number of response options together so that the participant needs to select them all in order to answer the question correctly.



With Multiple Response questions, it is important to limit the number of answer choices a participant can select, otherwise a participant could gain the maximum possible score for the question just by selecting all the choices that are displayed. By limiting the number of answer choices a participant can select, the question becomes a test of the participant's knowledge.

Numeric



In a Numeric Question, the participant answers by typing in either a whole number or a real number. Answers can be defined within a specified range, with scores being assigned for accuracy.

How many players are there in a baseball team?

The format of Numeric questions will not accept any non-numeric characters, so it is not appropriate to use a Numeric question if the correct answer may be given in words.

Numeric questions will ignore the use of significant figures if the answer is the same. For example, the answer 36, 36.0 and 36.00 will be treated as the same figure. If the textual layout of numerical answers is important, then the [Text Match](#) question type should be used. This will match answers letter for letter, and will treat 36 and 36.0 as being different.



Asking for more than one number:

Authors can create Numeric questions that ask for the entry of more than one number. For more information, please refer to the following Knowledge Base article:

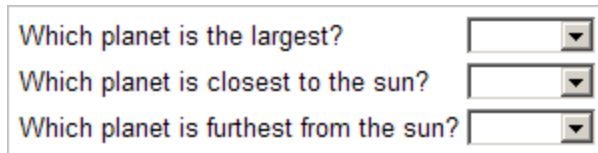
[How can I make a numeric question that asks for the entry of more than one number?](#)

Pull-down List



Pull-down List questions enable authors to present a series of items for a number of choices available in a drop-down menu. The participant can select from the items for each choice.

Pull-down List questions can be used as a multiple statement questions, for "True" or "False" questions or to present several multiple choice questions on the same screen.



Which planet is the largest?

Which planet is closest to the sun?

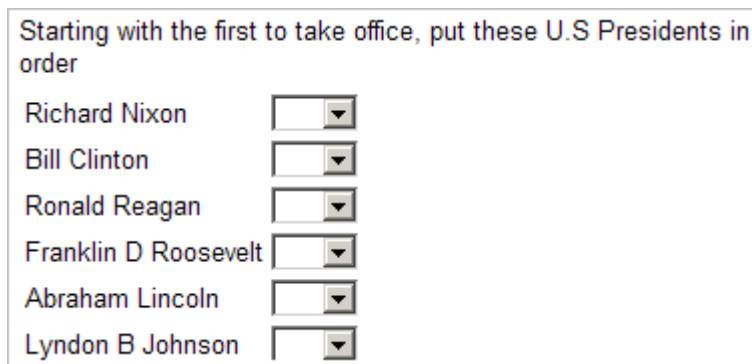
Which planet is furthest from the sun?

Pull-down List questions are similar to [Knowledge Matrix](#) questions. The difference is that options in Knowledge Matrix questions are presented as buttons, whereas Pull-down List questions present the options as drop-down menus.

Ranking



Ranking questions require the participant to arrange a list of options in a particular order.



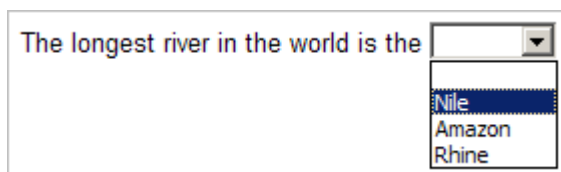
Starting with the first to take office, put these U.S Presidents in order

Richard Nixon	<input type="text"/>
Bill Clinton	<input type="text"/>
Ronald Reagan	<input type="text"/>
Franklin D Roosevelt	<input type="text"/>
Abraham Lincoln	<input type="text"/>
Lyndon B Johnson	<input type="text"/>

Select a Blank



A Select a Blank question invites the participant to choose the correct word or phrase from a drop-down list that corresponds to a blank area of text.



The longest river in the world is the

Nile
Amazon
Rhine

Authors can create Select a Blank questions that ask participants not just for their response, but also how confident they feel in their response. This can be a powerful learning tool, because by asking how confident participants are in submitting responses, participants are encouraged to consider the implications of selecting one particular response over others. For more information on how to add confidence-level dimensions to questions, please refer to the following Knowledge Base article:

[How can I add a confidence-level dimension to a question?](http://www.questionmark.com/perception/help/v4/knowledge_base/question_design/ques424.aspx)

www.questionmark.com/perception/help/v4/knowledge_base/question_design/ques424.aspx

Spoken Response

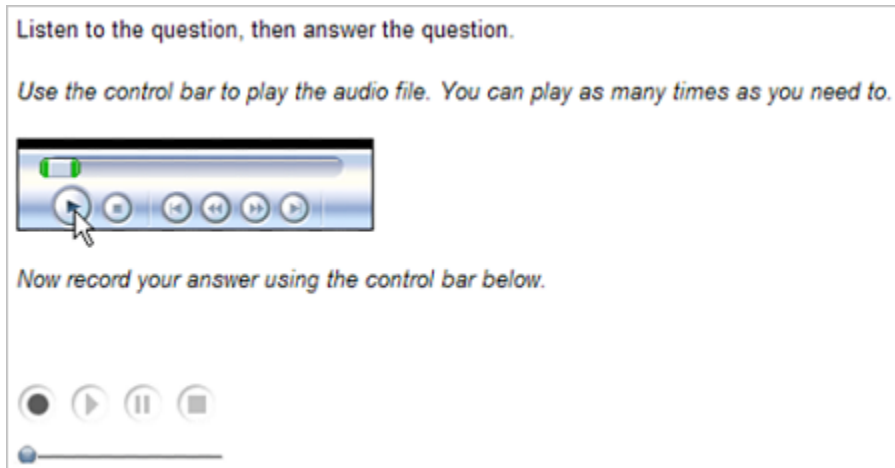


A Spoken Response question lets the participant record their answer to a question using their voice. The answer can be scored manually by a grader within Perception. It's also possible to use this question type to solicit opinions or suggestions on a particular subject.



The Wimba Voice integration used by Spoken Response questions is no longer supported by Wimba. All existing questions will continue to work and any new questions you create will also work provided you continue to use a compatible version of Wimba Voice (6.0 and previous). However, Questionmark cannot guarantee that the spoken response questions will continue to work with future Wimba software releases.

Spoken Response question requires a participant using a microphone to record a response. The response recorded can be in relation to any type of content or resource object added to the question stimulus. The recording of the voice is passed back to an appropriate voice recording server like Wimba Voice 6.0(TM). The recorded responses can then be graded using the Scoring Tool in Perception.



The Spoken Response question has a number of controls buttons that the participant can press to complete specific actions. For example, record, stop and playback buttons are available.

Perception supports the Spoken Response question type which enables you to create a question that participants answer by speaking into a microphone. Spoken Response questions are delivered using the Horizon(R) Wimba(TM) (www.horizonwimba.com) system, and the recorded answers are stored on a Horizon Wimba server.

In order to use Spoken Response questions you need the following:

- Perception Server Version 5.1 or higher, licensed to use Spoken Response questions
- A Horizon Wimba Server running Wimba 4.0.3 or higher. This needs Voice Authoring and Voice Boards enabled. You will need to know the Wimba Server URL and the Wimba Voice Authoring ID for this server

Participants will need:

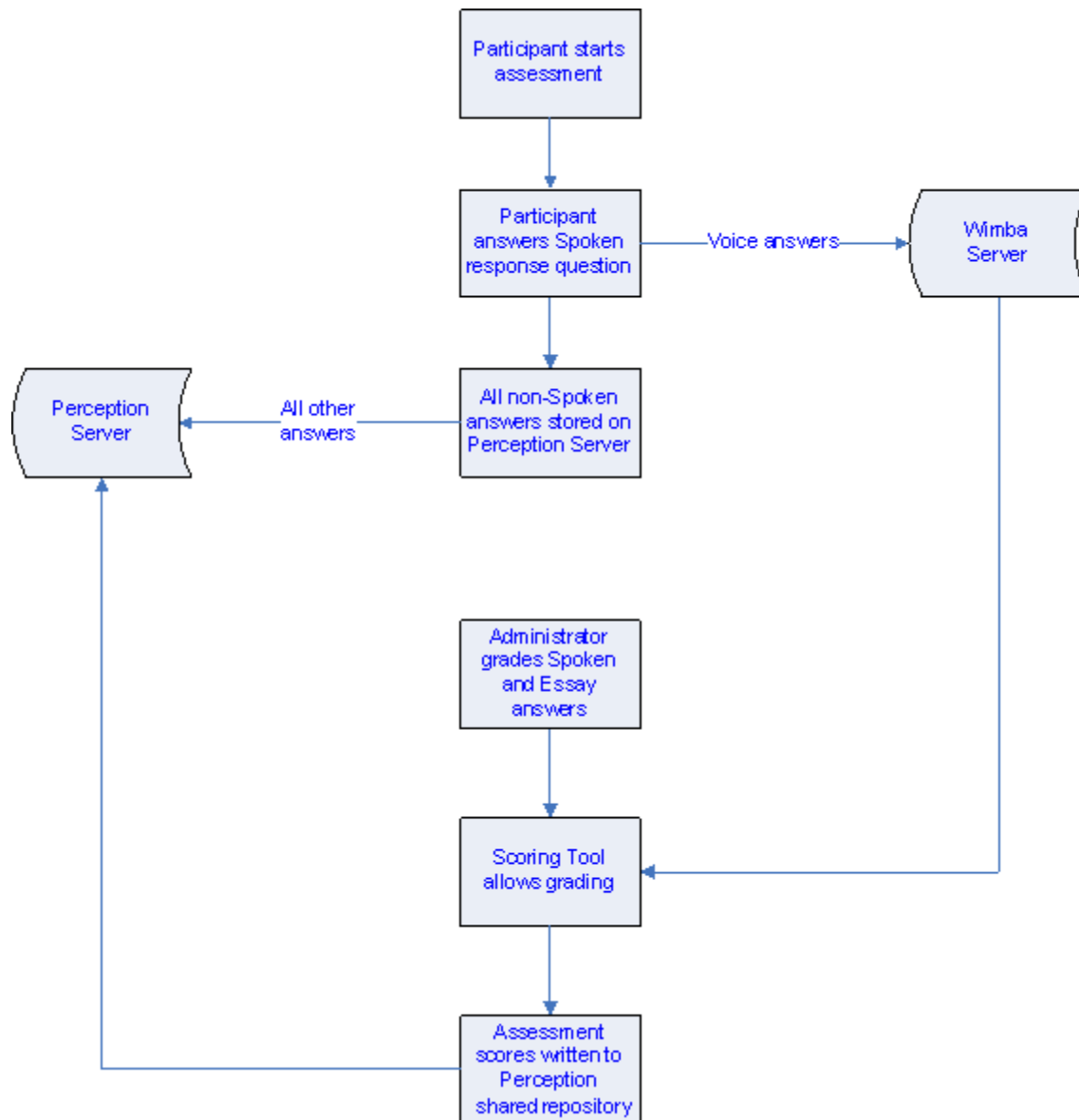
- A suitable microphone, with headset recommended
- A suitable browser and Java Virtual Machine, see www.horizonwimba.com for details

For further information about how to create a Spoken Response question, please refer to the following Knowledge Base article:

[How do I create and use questions that participants can answer by speaking into a microphone?](http://www.questionmark.com/perception/help/v5/knowledge_base/authoring/creating_questions/question526.aspx)

www.questionmark.com/perception/help/v5/knowledge_base/authoring/creating_questions/question526.aspx

The following diagram describes the process of using a Spoken Response question type.



Technical Issues

The participant needs a microphone to answer the question, and *Horizon Wimba* recommend that you consider a headset. The first time the participant answers a **Spoken Response** question, they will download a Java applet from *Horizon Wimba* to record the voice. For full information on browser and

other requirements for *Horizon Wimba*, and a diagnostic tool for checking browser compatibility, please see the Wimba website at www.horizonwimba.com/support.

For higher stakes assessments, it's obviously vital that the participant is able to record correctly and accurately. You will want to ensure that participants get a chance to practice on the same setup as they will be taking the assessment for real to ensure that their voice is recorded correctly.

Some other issues to be aware of:

- **Communication between *Perception* and *Horizon Wimba***

The link between *Perception* and *Horizon Wimba* does not tell *Perception* that the question has been answered. This means that when question by question delivery is used the color of the question bullet is not changed when an answer is made. Also if you use a template setting that forces you to answer every question before you can submit the answers, you will never be able to submit the answers.

- **Save As You Go**

Save As You Go (*SAYG*) does not work for *Spoken Response* questions as the answer is recorded on the *Horizon Wimba* server, not on the *Perception* server. *SAYG* will continue to work for all other questions in the assessment.

- **Loss of connection to *Horizon Wimba* Server**

A connection to the *Horizon Wimba* Server is required, and if this fails the voice will not be recorded.

- **Viewing *Perception* feedback**

Participants cannot play back their recorded sound when viewing *Perception* feedback.

Survey Matrix



A Survey Matrix question type presents a series of Agree/Disagree or other Likert Scale style questions in a table, and are typically used in questionnaires.

Rate the Survey Matrix survey type					
	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Suitable for use in surveys	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Suitable for use in exams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Participants choose one answer in each row, from a matrix of option buttons. Several lines of information can be presented, giving much greater flexibility than a single [Multiple Choice](#) question. For example, several statements referring to the question text can be presented, and the participant asked to identify which ones are true.

Survey Matrix questions are logically similar to [Pull-down List](#) questions in that they allow the participant to choose one option from a list of choices. However, in a Survey Matrix question the choices are presented with option buttons and pull-down list questions use a drop-down menu.

Text Match



Text Match questions allow the participant to type in a single word or a few words to indicate their answer. Authors define right or wrong words or phrases in advance by entering a list of acceptable answers.

The grading logic can also allow scoring based on the presence or absence of keywords or key phrases and check for misspellings. Authors can also use this question type to gather information, without scoring it.

Text Match questions are similar to [Fill in Blank](#) questions.



Authors need to be careful to avoid ambiguity when creating outcome conditions for Text Match questions, as it might be difficult to identify every correct answer if the required answer is an adjective, emotion or general idea.

By setting the score to zero, you could use this question type to collect information. For example, if users login by job description or department, you could use a text question at the beginning of the assessment to ask for the participant's name. Or if you are conducting a survey, you could ask for other details.

True/False



A True/False question is a multiple choice question that asks the participant to give a "True" or "False" answer to a question.

True/False questions are similar to Multiple Choice questions, the difference being that the True and False choices are automatically inserted.

Yes/No



Yes/No questions ask the participant to give a "Yes" or "No" answer to a question.

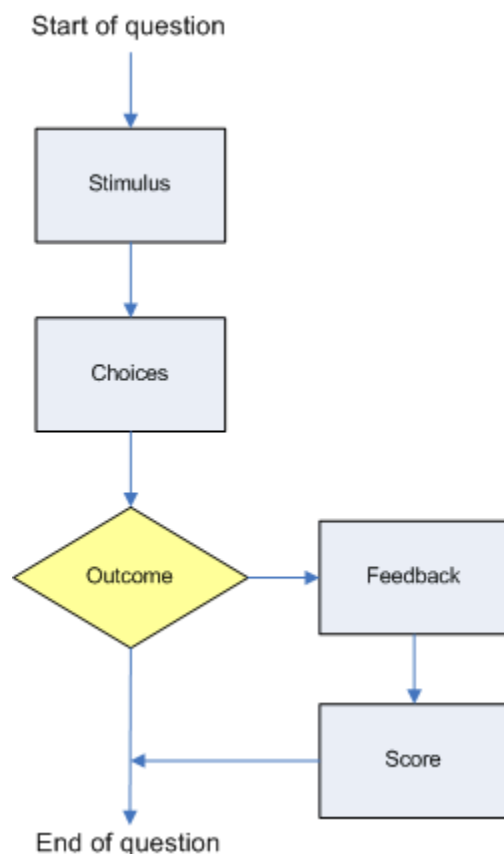
Yes/No questions are similar to Multiple Choice questions, the difference being that the Yes and No choices are automatically inserted.

Question structure

A question has three components:

- **Stimulus** - Matter presented to the participant that requires a response. Usually presented in the form of a question, such as "What is the capital city of Peru?"
- **Choices** - The options a participant can select in response to the stimulus. For example, if the stimulus is "What is the capital city of Peru?", then the choices may be "Buenos Aires", "Rio de Janeiro" and "Lima"
- **Outcomes** - The outcome of the choice made by the participant. For example, if the stimulus is "What is the capital city of Peru?", and the participant selected "Buenos Aires" as the choice, then the outcome might be a feedback message displayed saying "Incorrect - the capital city of Peru is Lima", and the participant receiving a score of zero for that question

The components of a question are presented to participants in the following way.




Choices have an ID and some text. It is also possible to define the height and width of the box in which the choice appears, and to limit the text to a maximum number of characters. (Drag and Drop questions specify the position on a background graphic that a marker graphic must be placed for a correct answer.) A question will generally contain several choices. Every question must have at least one choice.

Each question has a *type* that determines how the choices are offered and what the participant does to make a choice. For example, a Multiple Choice question requires the participant to select one of a number of options, while a Drag and Drop question requires participants to drag marker graphics across a background graphic and drop them at the locations that they believe represents the correct answer. Refer to See "Question types" on page 19 for a complete list of every available question type.

A single outcome can include feedback and scoring, although this is not mandatory. Outcomes relate choices to outcomes using conditions. There may be zero or more outcomes in a question, although one outcome is created by default for every question. (It is possible to delete all outcomes, so there need not be any). Refer to See "Question outcomes" on page 45 for more information.

Control information

Questions contain Control information that relate to the question itself. Control information can include the following values. Refer to [Editing control information](#) for details of how to modify these settings.

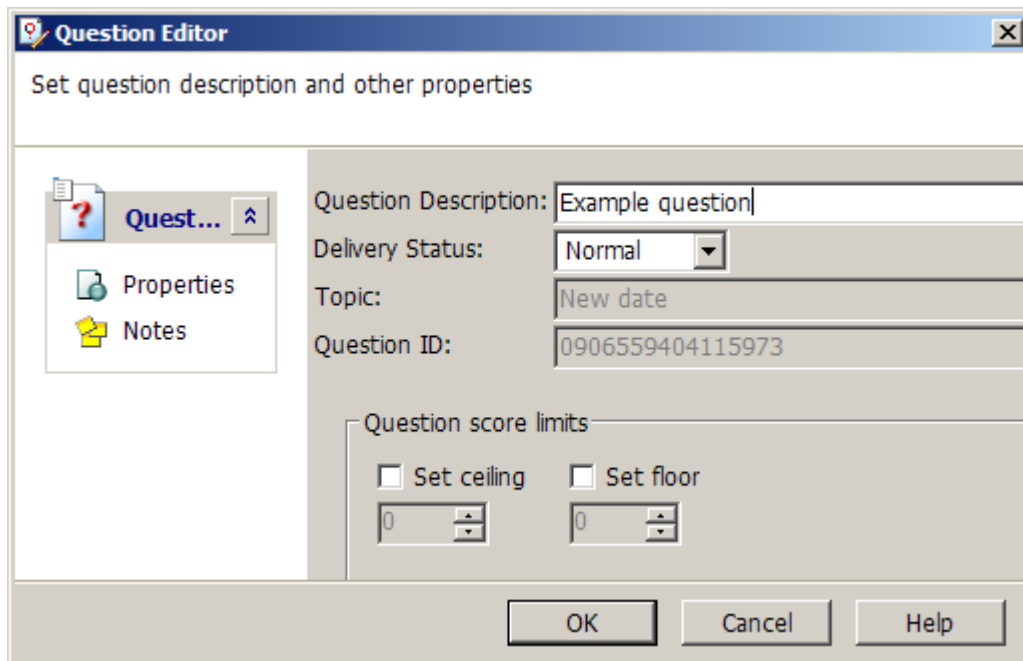
Information	Description
Question description	<p>When questions are authored, it's possible to give them a label or description. This can later be used to identify the question in reports.</p> <p>A default question description will be set if the author does not set one directly, usually taking the first few characters of the question wording. But it can be worth taking the time to add meaningful question descriptions for each question, so that they are meaningful when reporting.</p> <p>The question description may be up to 200 characters in length, but cannot contain any of the following characters: " < > #</p>
Delivery status 	<p>Each question authored in Perception has a Delivery Status that can be modified as the question is developed. The possible status values and their typical uses are:</p> <ul style="list-style-type: none"> • Normal - The question is ready to be made available for inclusion into assessments • Retired - The question is no longer used in assessments and is only retained for historical purposes • Incomplete - The question is still being developed and is not ready for participants to take • Experimental - The question is ready in experimental form. • Beta - The question is ready in beta form. <p>For example, if there are several people authoring a question, a status of Incomplete can be assigned to it until it is formally released. The status can then be changed to Normal.</p> <p>A question always has one of the above status values, and will be set to Normal by default.</p> <p>Note that questions with a Delivery status of Incomplete or Retired cannot be included in assessments.</p>
Question notes	<p>Question notes are used by authors to record useful information and comments about a question as it is developed. A question note can be created, updated or removed by an author.</p> <p>Each question note contains a heading (or Label), the name of the author who created it and the date on which it was created or most recently modified. If a question is subject to a workflow, it will have a workflow history that authors can review. Refer to See "Workflow" on page 159 for more information.</p>

Metatags can also be used to classify questions. Refer to See "Metatags" on page 55 for more information.

Editing control information

Control information for a question can be edited in Authoring Manager. To do so:

1. Open Authoring Manager and connect to your repository
2. Double-click the question to open the Question Editor
3. Select **Annotate** from the Question menu. The following dialog box is displayed




4. Enter a Question description and select a Delivery Status from the drop-down list. Select **Notes** from the **Question** menu to add Question notes
5. Click **OK** to update the control information

Setting the author name

The author name value contained in the Question notes is used to identify the author of a question, and can be up to 100 characters of text.

You can see the current author name on the Windows caption at the top of the Authoring Manager screen, and in the **Created by** and **Edited by** columns for questions in Authoring Manager.

If you are working in a local repository, or in an unsecured shared repository, the author name used can be set from within Authoring Manager. To do so, select **Tools > Options** from the menu bar and enter the name of the default author.



Whatever you entered in the Default Author box will be displayed in the Authoring Manager Title bar, as shown below.



If you are working in a secured, shared repository, the author name is set from the details of the author set up when the administrator name is defined, and is not under the author's direct control (unless the author has the capability to edit administrator details).

Topics

A topic is a group of questions that relate to a particular subject, level of difficulty, or some other common trait. A topic can contain other topics. These are called subtopics, and are used for structuring questions into logical groups.

A topic that appears at the top of a topic structure is called a root topic. There may be one or more structures of topics, each with its own root topic. When a new repository is created, it need not contain any topics, but you must create at least one root topic before you can create any questions.

By using topics and subtopics, the questions in a repository can be structured into item banks that can be used to create assessments. Individual questions in a topics or subtopic may be included in an assessment, or whole topics of questions may be.

This section contains important information on:

- [Naming topics](#)
- [Structuring topics](#)

Naming topics

It is important to consider how to name topics before building structured item banks, especially if several authors are contributing to the topic. Topic names must be unique, and should follow a clear and consistent naming strategy.



Example

You are creating a General Knowledge Quiz. Therefore, you create a root topic called **General Knowledge Quiz**.

In your General Knowledge Quiz, you want to ask questions on three different subjects:

- Current events
- Famous people
- US geography

You create three subtopics with these names.

On the subject of US Geography, you want to ask questions on two different subjects:

- Grand Canyon
- Rocky Mountains

Therefore, you create these subtopics within the US Geography subtopic.

The topic structure you create is as follows:

- General Knowledge Quiz
 - Current events
 - ...
 - Famous people
 - ...
 - US geography
 - Grand Canyon
 - Rocky Mountains

In this way, topics can be used to build up structured item banks.

In an item bank, every topic and subtopic contains either subtopics or questions, and each question relates to a specific learning objective. Although it is possible for a topic or subtopic to contain both subtopics and questions, this can cause confusion and is not recommended.



Because topic names are used in reporting, you should think about how you name them so that the reports are as readable as possible.

Structuring topics

When creating a topic structure it is important to be mindful of two important concepts:

- [Topic outcomes](#)
- [Topic security](#)

Topic outcomes

Topic outcomes allow authors to provide topic-level feedback (as opposed to question-level feedback) to participants based on the percentage score that they have achieved for each of the topics in an assessment. The average score for topics can be reported in some of the reports in Perception.

For example, if a participant's score for a topic is 50% or above, the following message might be displayed:

Well Done! You have passed this topic.

If a participant's score for a topic is below 50%, the following message might be displayed:

Sorry, but you didn't pass this topic.

For more information on using outcomes, refer to See "Question outcomes" on page 45.

Topic security

A sub-topic has the same security settings as the root topic in which it is located. This means that it is not possible to assign different security permissions for topics and sub-topics. Any author given security privileges to a topic will therefore also have the same privileges to the sub-topic. Conversely, any author given security privileges to a sub-topic will be given the same security privileges to the topics it is contained in.

A well defined topic structure is particularly important in a multiple author environment as it can ensure that all authors know where the questions they create should be stored and that the security assigned is

adequate. This makes it easier to review the questions and select them for inclusion within an assessment.

Question outcomes

Question outcomes are determined by the participant's choice, and specify what the consequences of this choice will be. For example, if the stimulus is "What is the capital city of Peru?", and the participant selected "Buenos Aires" as the choice, then the outcome might be a feedback message displayed saying "Incorrect - the capital city of Peru is Lima", and the participant receiving a score of zero for that question.

An outcome can be created at the question level, the topic level, or the assessment level. Topic outcomes and Assessment outcomes function in the same way as question outcomes, except at the topic and assessment (rather than individual question) level. Refer to [Assessment outcomes](#) in See "Assessment blocks" on page 62 for information on this type of outcome.

Question outcomes consist of the following elements:

- Condition - This evaluates participant's answers, and links the choices they make to their score and the feedback that is given to them. Refer to the table below for a list of the conditions normally used for each question type
- Score - This includes the score awarded to participants who make the choice related to this outcome. It contains the Outcome ID. A question will generally contain several outcomes, and a specific choice may be linked to more than one outcome. This element also specifies whether to:
 - Score the outcome
 - Accumulate the scores with those awarded if other outcomes are processed for the same question choice
 - Evaluate other outcomes even if this outcome scored
- Feedback - This is the text of the feedback given for the outcome. It may be in HTML or MathML format, and may also include links to URLs, resources and content.

Question results are identified by which outcomes are associated with the answer. Outcomes are used extensively in reporting to analyze and list answers to questions. These reports become much more meaningful if the outcomes are organized and named well. Therefore, authors should create a question outcome for each different possibility that reporting is required for.

Outcome conditions

The condition normally used when creating an outcome for a choice depend on the type of question being created. Conditions used for each question type are listed in the table below.

Question type	Condition
Drag and Drop	Choice is in the area bounded by
Fill in blanks	Choice matches exactly Choice matches ignoring letter case Choice matches the text misspelled Choice includes the text Choice includes the text ignoring letter case

Question type	Condition
Hotspot	Choice is in the area bounded by
Matching	Choice matches exactly
Matrix	Choice matches exactly Choice matches ignoring letter case Choice matches the text misspelled Choice includes the text Choice includes the text ignoring letter case
Multiple choice	Choice is selected
Multiple response	Choice is selected All choices selected
Numeric	Choice is a number equal to Choice is a number in a range from Choice is a number greater than Choice is a number less than
Pull-down list	Choice matches exactly
Ranking	Choice matches exactly
Select a blank	Choice matches exactly
Text match	Choice matches exactly Choice matches ignoring letter case Choice matches the text misspelled Choice includes the text Choice includes the text ignoring letter case
True/False	Choice is selected
Yes/No	Choice is selected

Some question types do not appear in the table above. This is because:

- Adobe Captivate questions are usually created with the Captivate Wizard which sets up the outcomes automatically
- Explanation questions do not need any outcomes
- Essay questions usually have only basic outcomes such as a "Scored" and an "Unscored" outcome because they are not scored at the time the participant takes them

- Adobe Flash questions are usually created with the Adobe Flash Wizard which sets up the outcomes automatically

The simple outcome conditions shown above may be combined with the logical operators AND, OR and NOT to make a more complex condition. Authors can also create outcomes that are processed when **Anything else** happens apart from answers trapped by the other outcomes. These other outcomes **Always happen** regardless of any other outcomes that are processed, or outcomes that deal with a questions that is **Not answered** by the participant.

Topic outcomes

Topic outcomes function in the same way as question outcomes, except at the topic (rather than individual question) level.

You can apply the method of question outcomes to entire topics or sub-topics. With topic outcomes, different score ranges in a topic can be assigned topic outcome names and different feedback.



Example

The following topic outcomes are created:

- Less than 40% topic score = "Retake" topic outcome
- 40%-70% topic score = "Pass" topic outcome
- More than 70% topic score = "Merit" topic outcome

By using a range of topic score outcomes, authors can ensure an appropriate response is given to the performance of a participant. Authors may decide to have many different topic outcomes, or may not require any. So at the end of an assessment, you can provide appropriate advice in the feedback for each topic.

Scoring questions

Perception can implement an extremely wide range of scoring regimes for your questions. This section will discuss the following mechanisms that support different scoring models:

- [Question score limits](#)
- [Topic scoring](#)
- [Assigning rubrics](#)

Before discussing these methods, we will describe an example scoring scheme for a typical question.

This will illustrate the most important considerations when designing question scoring. Suppose that you create the following [Multiple Response](#) question:

Which of these countries has a coastline?

You provide three choices:

- Holland
- Uganda
- Kuwait

As it is a multiple response question, participants can choose just one option, any pair of options, all three options or none at all.

The correct answers to this question are Holland and Kuwait. A possible scoring scheme for this question that captures every possible response is defined in the following table.

Participant response	Score	Condition
Holland+Kuwait	2	The choice '0 - Holland' is selected AND The choice '1 - Kuwait' is selected AND The choice '2 - Uganda' is NOT selected
Holland Only	1	The choice '0 - Holland' is selected AND The choice '1 - Kuwait' is NOT selected AND The choice '2 - Uganda' is NOT selected
Kuwait Only	1	The choice '0 - Holland' is NOT selected AND The choice '1 - Kuwait' is selected AND The choice '2 - Uganda' is NOT selected
Holland+Uganda	1	The choice '0 - Holland' is selected AND The choice '1 - Kuwait' is NOT selected AND The choice '2 - Uganda' is selected
Kuwait+Uganda	1	The choice '0 - Holland' is NOT selected AND The choice '1 - Kuwait' is selected AND The choice '2 - Uganda' is selected
All	1	The choice '0 - Holland' is selected AND The choice '1 - Kuwait' is selected AND The choice '2 - Uganda' is selected
Uganda Only	0	The choice '0 - Holland' is NOT selected AND The choice '1 - Kuwait' is NOT selected AND The choice '2 - Uganda' is selected
None	0	The choice '0 - Holland' is NOT selected AND The choice '1 - Kuwait' is NOT selected AND The choice '2 - Uganda' is NOT selected

You will need to create outcomes for each of the above conditions.

With the scoring scheme above, a participant will receive a point for each correct choice but will not be penalized for an incorrect one.

Question score limits

Perception enables authors to set question score limits. These define the following for each question:

- **Ceiling** - This is the maximum score that can be awarded to a participant for a specific question. If a greater value is calculated as the outcomes are processed, the "ceiling" score will override it.
- **Floor** - This is the minimum score that can be awarded to a participant for a specific question. If a lower value is calculated as the outcomes are processed, the "floor" score will override it.

A question can have a floor score, a ceiling score, both or neither.

In [Authoring Manager](#), the ceiling and floor figures for question score limits can be set in the Question Wizard or the Question Editor.

The screenshot shows a form for editing a question. The fields are as follows:

Question Description:	a good tool to assess a participant
Delivery Status:	Normal
Topic:	Example Questions
Question ID:	7340735030738597

Below these fields is a section titled "Question score limits". It contains two checkboxes: "Set ceiling" and "Set floor". Both are currently unchecked. Below each checkbox is a numeric input field with a spinner, both containing the value "0".

Topic scoring

Often, as well as awarding a participant an overall score, an author will want to allocate scores for separate topics. This enables the level of knowledge that participants have in specific subject areas to be pinpointed with greater accuracy.

As well as awarding scores for individual questions, Perception will calculate an overall score for all the questions in a given topic that a participant answers. These topic scores can be used for reporting, and give useful information for analyzing how the performance of individual participants or groups of participants varies by topic.



Example

The participants in one class might score well in the Computing topic, moderately well in the Physics topic but less well in the Astronomy topic.

For another class, the students might score very well in the Physics and Astronomy topics but not so well in the Computing topic.

Topic outcomes can be used to define ranges of topic score for which different feedback is given. They can be associated with both topics and subtopics.



Example

You have a sub-topic called Capital Cities, to which you add two topic outcomes:

- **Revise** - This topic outcome applies if participants score 50% or less on the questions they take from the Capital Cities topic. If so, they will see the feedback for the Revise topic outcome, which advises them to revise the subject
- **Progress** - This topic outcome applies if participants score more than 50% on the questions they take from the Capital Cities topic. If so, they will see the feedback for the Progress topic outcome, which tells them that they are ready to move on to other subjects

By using prerequisite scores for topics, you can enforce a Pass score for specific topics, and define what happens when participants either achieve or fall below these scores. This allows authors to ensure that participants do well enough in certain topics before they pass an assessment.

If at least one question is selected from a particular topic, then a prerequisite topic score can be set for that topic. This means that participants must achieve a specified minimum score to reach the assessment outcome. For example, you can require that participants do well enough in certain topics before they pass an assessment. Prerequisite topic scores are set within the [Assessment Outcome](#) block. You can add a prerequisite topic score for any, all or none of the topics whose questions are used in the assessment.

Assigning rubrics

Scoring schemes for questions that require a written response ([Essay questions](#)), or include uploading a file ([File Upload questions](#)), do not have a strict answer key in the same way that questions that require multiple choice or yes/no responses do. In these circumstances, where scoring questions will inevitably involve making some subjective judgments about the quality of participants' responses, an alternative scoring scheme, or rubric, is required.

A rubric is essentially a scoring tool for subjective assessments. It is a set of criteria and standards linked to learning objectives that is used to assess a student's performance on papers, projects, essays, and other assignments. Rubrics allow for standardized evaluation according to specified criteria, making grading simpler and more transparent.



Rubrics can be created and assigned with the Scoring Tool feature of Enterprise Manager. Enterprise Manager is a tool used by Perception administrators to manage Perception deployments.

For more information on Enterprise Manager, please refer to the [Enterprise Manager User Guide](#).

This guide is available to members of Questionmark Communities and is located on the Perception Product Support site:

www.questionmark.com/perception/help/v5/product_guides/

Additionally, comprehensive guidance on how Perception administrators can use Enterprise Manager can be found in the Help that accompanies the product.

Resources and content objects

In Perception, resources and content objects serve different purposes.

Resources

Resources are graphic, video or sound files that are used to provide stimulus to the participant when answering a question. For example, a question may include an audio or video file that is the subject of the question, such as:

True or False: This piece of music was composed by Wolfgang Amadeus Mozart.

Resources can be used in the following places:

- In topic outcomes
- In a question stimulus
- In question choices
- In question feedback
- In an assessment introduction
- In an assessment question block introduction
- In assessment outcomes
- In assessment topic outcomes

By default, the following types of file can be used as resources:

.aiff .au .avi .bmp .gif .jpeg .jpg .mid .midi .mov .mp3 .mpeg .mpg .png .ram .rm .swf .wav .wmv

This list can be amended by Perception administrators. Refer to the [Enterprise Manager User Guide](#) for more information on how Perception administrators can do so.

The following types of file cannot be used as resources:

.class .doc .htm .html .txt .pdf

Content objects

Content objects are files that provide the participant with a learning outcome. These files can be HTML files, Microsoft Office documents or PDF files, or other documents or URLs that link to these or other material. For example, if a participant answers a question incorrectly, then the participant may be provided with feedback that includes a link to a PDF document containing learning material relating to the question. For example:

Incorrect. This piece of music was not composed by Wolfgang Amadeus Mozart, but by Ludwig Van Beethoven. For more information on the early work of Mozart, please refer to the following document...

Content objects can be used in the following places:

- In topic outcomes
- In question outcomes (as part of the question feedback)
- In assessment outcomes (as part of the assessment feedback)

Access to resources and content objects

Resources and content objects are classified within Perception as being either:

- Global - Can be used with any question in any topic
- Topic - Can be used only with questions in the same topic as the resource or content objects

This classification enables greater control of where resources and content objects are used. Care should be taken when deciding whether resources and content objects should be classified as global or topic based - access to global resources and global content objects cannot be restricted by any security. Generally, it is better to use topic resources and content objects.

Adding resources and content objects to the repository

Resources and content objects can be added directly to the repository and can then be used in questions.

[Authoring Manager](#) can also be used by authors to:

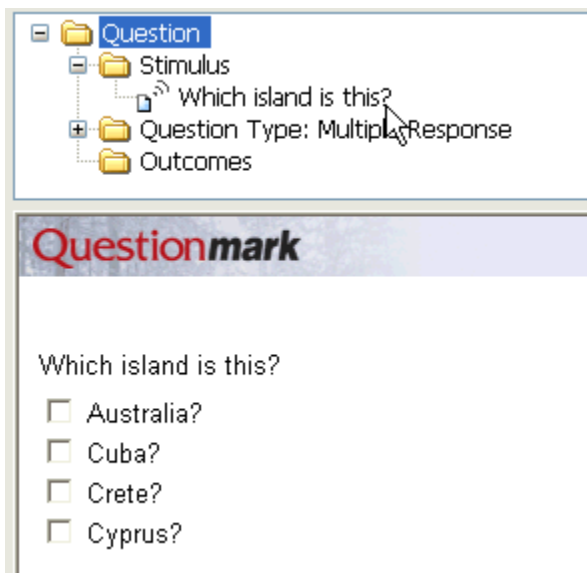
- Add resources and content objects to the repository and use them later
- Edit resources and content objects (with external applications)
- Copy, move, rename and delete resources and content objects

Example: Adding a resource to a question

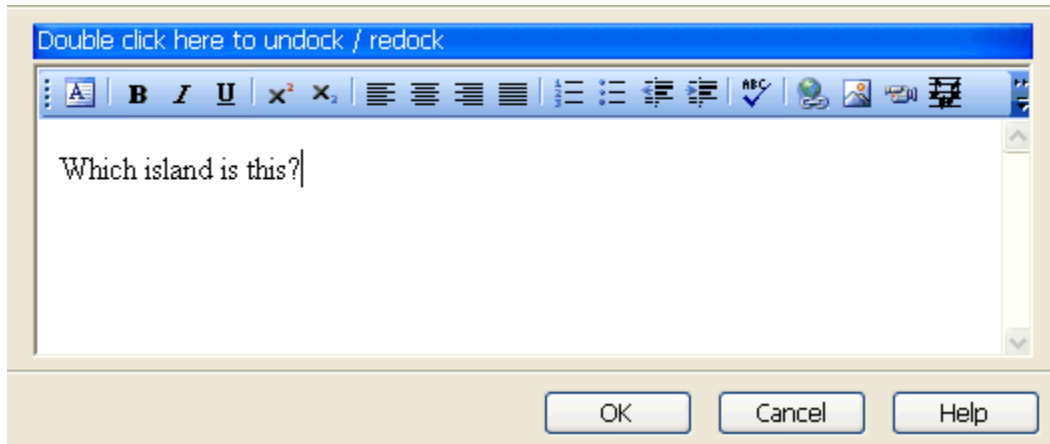
In the following example, we will use Authoring Manager to add a resource to a question. The resource that we will add is a graphic file (gif) that will be used as the stimulus in a question.


To add the resource to the question:

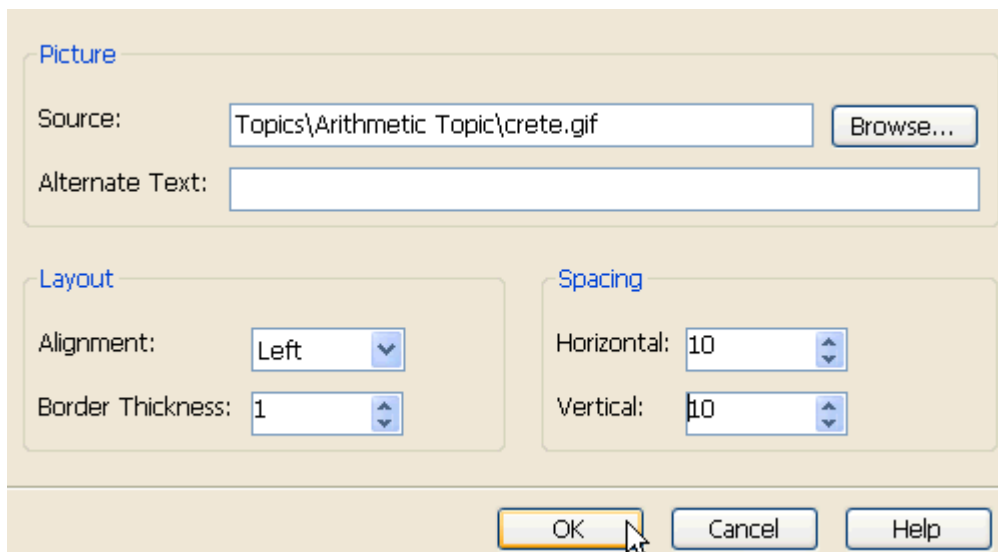
1. Open Authoring Manager and locate the question you want to add the resource to
2. Double-click the question to open the Question Editor



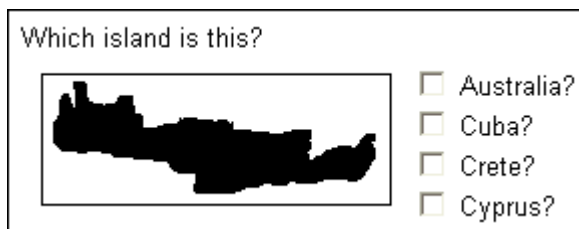
3. Double-click the question stimulus ("Which island is this?") to edit the stimulus



4. On the right-hand side of the toolbar, click the **Insert Picture** icon 
5. Click **Browse...** to select the picture you want to add
6. Click the **Topic Resources**, **Global Resources** or **Add External Resource** folders to specify the location of the picture. In this example, we will add an external resource
7. Locate the picture file on your computer and click **Open**
8. Adjust the layout and spacing of the picture within the question and click **OK**



9. Click **OK**. The Question Editor will display how the question will look to participants.



10. Click **Save and Exit**

Special Character Palettes

When answering [Essay](#) or [Text Match](#) questions, participants may need to enter characters that are not available on their keyboards. For example, a participant may be required to translate a passage of text from English to French and would therefore need to enter one or more accented characters. These characters are not readily available to participants if they are using a standard English-language keyboard.

To address this need, authors can enable the Special Character Palettes tool to enable participants to enter any character they require. If Special Character Palettes has been enabled in an assessment, an icon is displayed next to the text box for Essay and Text Match questions. If a participant clicks the icon, the Special Character Palette is displayed.



From this palette, the participant can select the special character they require and insert it into their answer.

If required, you can specify a different icon to display the Special Character Palette. You can also configure the exact list of special characters that are displayed in the Special Character Palette, as well as its size and position on the screen.

Special Character Palettes can be enabled and configured by modifying a setting in the [template](#) used by your assessment. Templates are files that determine how screens in Perception are presented to participants.

For more information on using templates to present assessments, please refer to the [Templates Reference Guide](#). This guide contains comprehensive guidance on how to modify and create template files that can be used to present assessments that fully conform to your requirements.

The Templates Reference Guide is available to members of Questionmark Communities and is located on the Perception Product Support site:

www.questionmark.com/perception/help/v5/product_guides/

Mathematical equations

Perception provides a sophisticated tool in Authoring Manager called the MathML Editor. This tool enables authors to include mathematical equations of any complexity in their questions. Mathematical equation can be built up from palettes that provide simple symbols and templates for more complex terms.

An equation is stored in the repository as both a JPEG image and in MathML format. When an equation is displayed, the JPEG image is used, but when it is edited the MathML code itself is updated.

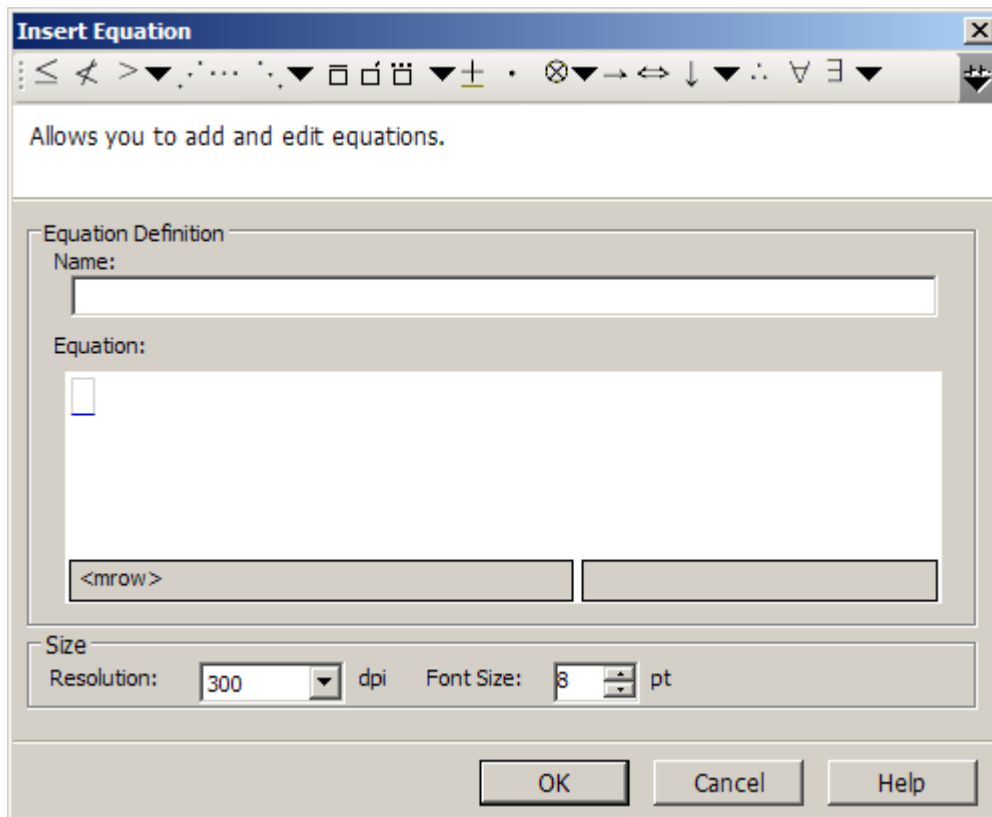
To use the MathML Editor to include a mathematical equation in your question:

1. Open Authoring Manager and connect to your repository
2. Navigate to the topic in which you want to create your question
3. Select **Add Question...** from the **Manage Items** menu to open the Question Wizard

4. In the Question Stimulus screen, click the **Insert Equation** button  to open the Insert Equation screen



5. Use the toolbar provided to select the appropriate symbols, characters or templates to create your equation



6. Specify the resolution and font of the equation you want to create
7. Click **OK** to create the equation and insert it into the question stimulus

Metatags

Metatags can be used to classify questions according to your own criteria. This section contains information on:

- [Overview of metatags](#)
- [Example metatags](#)
- [Creating metatags](#)
- [Assigning metatags](#)

- [Selecting questions by metatag](#)

Overview of metatags

You can then build assessments from questions that meet one or more of these criteria. Examples might be:

- Classification by difficulty - Used for creating assessments from questions that are all equally difficult. For example, a "Difficulty Level" may be set to "Easy", "Moderate" or "Difficult".
- Classification by metric - Used for creating assessments from questions that all measure the same thing. For example, recall of learned material or understanding of its meaning.
- Classification by acceptability - Used for creating assessments from questions that have all been approved for use in a specific area or by a specific organization. For example, "Approved in New York" or "Approved by the examining committee".

Metatags are not used to classify questions by subject - this is the function of topics. Once you have defined your metatags, you can add them to particular questions as you create or edit them.

You can define as many different metatags as you want, and each can have as many different values as you need. You can define metatags that are mandatory (in other words, require a value), or that have default values which apply unless set otherwise.

A question can only have one value for each tag assigned to it. You can use metatags to structure your questions, as a way of indexing questions, and also to guide the automatic selection of questions.



Authors should always use common values for metatags. It is recommended that different authors do not use the same tag name for different meanings. It would not be desirable, for example, for one author to use an "Approved" tag to have one meaning in their assessments, and another author to use the same value for a different purpose.

Example metatags

Metatags can be used to classify questions according to specific criteria. For example, the following table describes the values given to two metatags, Difficulty and Approved.

Tag	Value
Difficulty	Easy
	Moderate
	Difficult
Approved	New York
	Los Angeles
	Florida

The example repository contains a large number of questions with values for both metatags, some with only one and others with no tag values set. When creating an assessment, you can select the questions according to the condition:

Difficulty = Moderate AND Approved = Florida

In this way, metatags can be used to select questions for use in assessments according to their Difficulty or Approved value.



Always define your topic structure before using metatags, so that topic structuring is the primary method of organizing questions.

Creating metatags

Metatags can be created with the Metatag Definition tool in Authoring Tool. To create a metatag:

1. Open Authoring Manager and connect to your repository
2. In the **Tools** menu, select **Metatag Definition...**

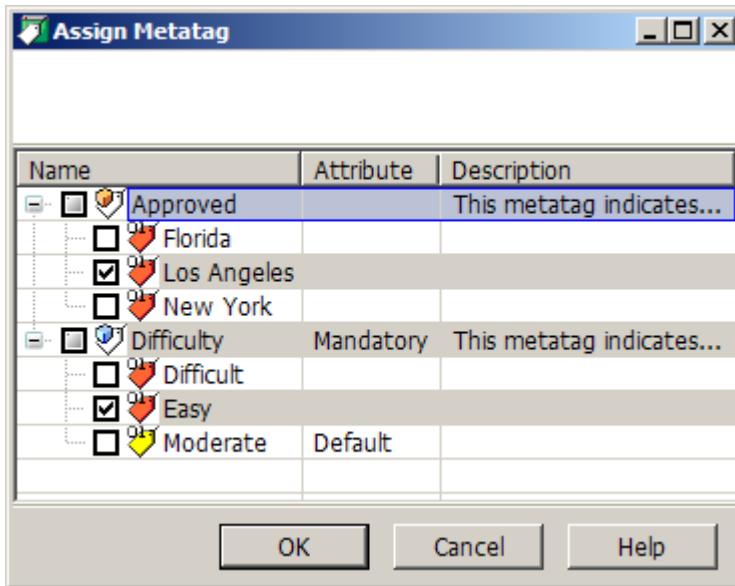
Name	Attribute
Approved	
Florida	
Los Angeles	
New York	
Difficulty	Mandatory
Difficult	
Easy	
Moderate	Default

3. Click **Add Metatag** to add a metatag and **Add Value** to add values to it. Check the Mandatory box to require the metatag to have a value
4. Click **OK** to create the metatag

Assigning metatags

Once you have created metatags, you can assign them to your question. To do so:

1. Open Authoring Manager and connect to your repository
2. Under the **Manage Items** menu, select **Edit Question > Assign Metatag...**

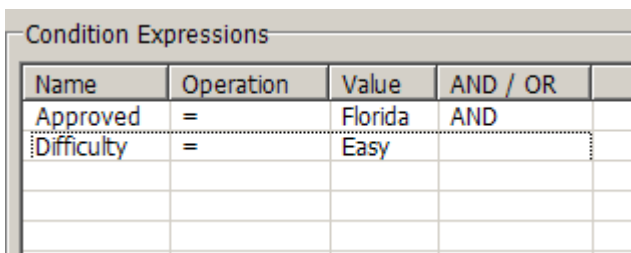


3. Select the relevant metatag values and click **OK**

Selecting questions by metatag

Once you have defined metatags and assigned them to questions, you can create assessments that include only questions with specific metatag values. To do so:

1. Open Authoring Manager and connect to your repository
2. Create your assessment
3. Open your assessment in the Assessment Editor. To do so, simply double-click on the assessment
4. Under the relevant question block, right-click the question selection including the questions you want to filter by metatag and select **Meta tags**. (Question selections are questions, whole topics or questions selected from within topics.) This opens the **Tag Equation Editor**



5. Specify the meta tag equation that you wish to create.

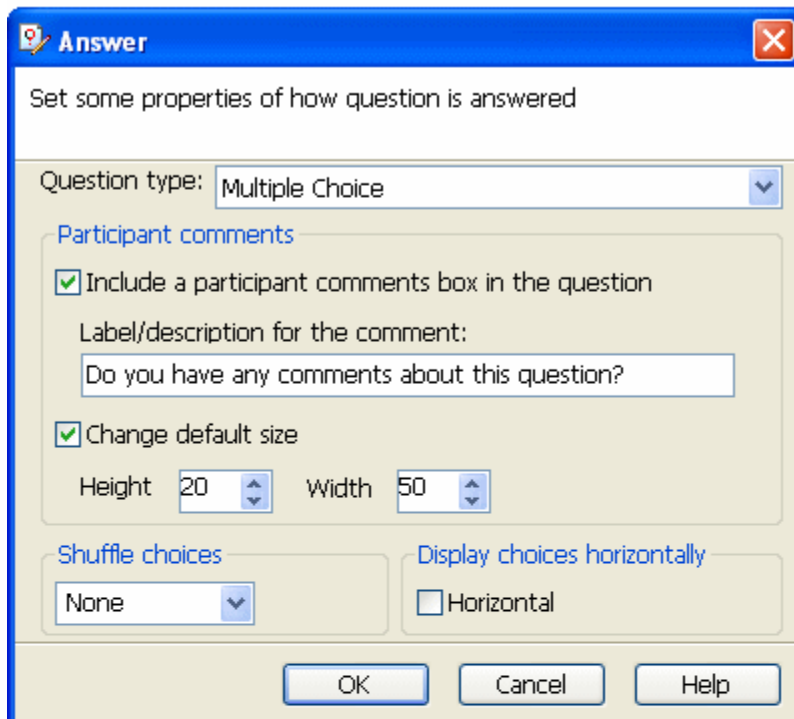
For example, in the above screenshot the Approved metatag is set to equal "Florida" and the Difficulty metatag is set to equal "Easy". By specifying an AND value, only questions with both metatags set to these specific values will be included in the question selection

Participant comments

When a question is created, an author can specify whether to provide participants with a text box in which to submit their feedback. This is particularly useful when beta-testing questions.

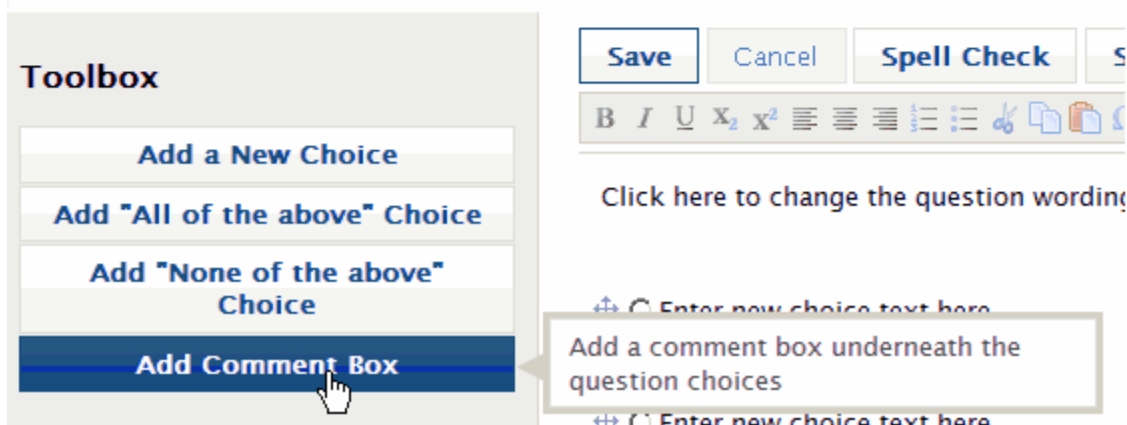
Participant comments can be enabled by using the Question Editor in Authoring Manager or the Add Comment Box option in Questionmark Live.

Authoring Manager



The 'Answer' dialog box in Authoring Manager has a blue title bar with a question mark icon and a close button. The main area is titled 'Set some properties of how question is answered'. It features a 'Question type:' dropdown menu set to 'Multiple Choice'. Below this is a 'Participant comments' section with a checked checkbox 'Include a participant comments box in the question'. A text field below it contains 'Do you have any comments about this question?'. Another checked checkbox 'Change default size' is followed by 'Height' (20) and 'Width' (50) spinners. At the bottom, there are two sections: 'Shuffle choices' with a 'None' dropdown, and 'Display choices horizontally' with an unchecked 'Horizontal' checkbox. 'OK', 'Cancel', and 'Help' buttons are at the bottom right.

Questionmark Live



The screenshot shows the Questionmark Live interface. On the left is a 'Toolbox' with four buttons: 'Add a New Choice', 'Add "All of the above" Choice', 'Add "None of the above" Choice', and 'Add Comment Box'. A mouse cursor is clicking on the 'Add Comment Box' button. To the right is a question editor with a 'Save' button, a 'Cancel' button, and a 'Spell Check' button. Below these is a rich text editor with various formatting icons. A tooltip is visible over the 'Add Comment Box' button, containing the text: 'Add a comment box underneath the question choices'. The main text area of the editor contains the text 'Click here to change the question wording' and two placeholder lines for choices: 'Enter new choice text here'.

The exact wording that invites feedback can be specified or left blank. For example, the question can ask:

Do you have any comments about this question?

You can also specify the default size of the text box in Authoring Manager, or simply drag it to the appropriate size in Questionmark Live. When participants take an assessment containing a question that has Participant comments enabled, the Participant comments text box displayed below the question.

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What is an **Atrium**?

- ☒ An inner courtyard that is open to the sky or covered by a skylight
- ☐ A window with radiating glazing bars suggesting a fan that is placed over a door
- ☐ A window set into a roof or ceiling to provide extra lighting

Do you have any comments about this question?

A rather elementary question, but the subject was covered in the course.

The participant can enter their comments in the box before moving on.

The comments made by participants can then be reviewed by running a report with Enterprise Reporter. For more information on Enterprise Reporter, please refer to the [Enterprise Reporter User Guide](#).

Assessments





This chapter describes how to create Perception assessments. It is divided into:

- See "Assessment types" on page 61
- See "Assessment blocks" on page 62
- See "Question by Question delivery" on page 66
- [Scenario assessments](#)
- See "Save As You Go" on page 73
- See "Time limits" on page 74
- See "Printing and Scanning" on page 76
- See "Printing assessments for manual scoring" on page 83
- See "Templates" on page 86
- See "Enabling participants to view reports" on page 87

Assessment types

An assessment can be defined as a structured set of elements, usually questions, that are presented to a participant to obtain a response.

There are four different types of assessment that can be created. These are described in the following table.

Assessment type	Description	
 Exam	Does not give feedback, and is secured against unauthorized access	
 Test	Mid-way between a quiz and an exam, and feedback may be given	
 Quiz	Used for self-assessment, usually gives feedback, and is open to all	
 Survey	Asks the participant questions, does not give feedback, and has no right or wrong answers	

For details about what functionality can be applied to each of the above assessment types, please refer to the following table.

Assessment type	Record answers	Provide feedback	Allow assessment to be taken from open.php	Apply a time limit	Set assessment to use Questionmark Secure	Keep results anonymous

Assessment type	Record answers	Provide feedback	Allow assessment to be taken from open.php	Apply a time limit	Set assessment to use Questionmark Secure	Keep results anonymous
Exam	✓	✗	✗	Optional	Optional	✗
Test	✓	Optional	Optional	Optional	Optional	✗
Quiz	Optional	Optional	Optional	Optional	✗	✗
Survey	✓	✗	Optional	Optional	✗	✓

✓ = Is enabled by default

✗ = Can't be enabled

Optional = Is not available by default but can be enabled.

Assessment folders

Just as questions are organized into topics, so assessments are organized into assessment folders.

An assessment can only exist in an assessment folder. An assessment folder can contain zero or more assessments as well as other assessment folders. An assessment folder that appears at the top of an assessment folder structure is called a root assessment folder. There may be one or more structures of assessment folders, each with its own root assessment folder.

Assessment blocks

Assessments are composed of blocks that determine the assessment content and the manner in which it is presented. Each block is described in the following table.

Assessment block	Description
Control block	This contains the settings for how the assessment is to be delivered. There is always one Control block in an assessment
Question block	Specifies which questions are used in an assessment. There is always at least one Question block in an assessment
Jump block	Specifies which question blocks are presented to participants according to the answers they submit as they progress through the assessment. There can be zero or more Jump blocks in an assessment
Assessment outcome	Specifies what happens when participants have answered all the questions presented to them There is always at least one Assessment outcome in an assessment

Each assessment block is described in more detail below. The assessment blocks in an [example assessment](#) is also provided.

The Control block

The Control block of an assessment contains the control and security settings that specify how the assessment is to be delivered. When an assessment is created, the Control block is automatically created.

The control settings in a Control block specify:

- The assessment name
- The [assessment type](#)
- The assessment time limit
- Whether to store results in the repository
- Whether the assessment can be taken anonymously
- The template file that determines how the assessment appears
- Whether to use Save As You Go

The security settings in a Control block specify:

- Whether the assessment requires monitoring
- Whether the assessment can run from integrations
- Whether the assessment requires Questionmark Secure
- Whether to prevent open access to the assessment
- The security password to control scheduling

Question blocks

Question blocks specify the questions and topics to use in an assessment. A question block might specify:

- A single question
- A selection of questions in a topic
- All questions in a topic
- A random number of questions picked at random from a topic
- All questions with a shared metatag value in a topic
- A random number of questions picked at random from questions with a shared metatag value in a topic

You cannot save an assessment if it has no question blocks, or if a question block does not specify any questions.

Each question block is delivered separately to the participant unless [Question by Question delivery](#) is used, in which case a question at a time will be presented.

Jump blocks

Question blocks in an assessment are typically presented in order, until the end of an assessment is reached. However, a Jump block can change the order in which question blocks are presented, either by skipping forward, missing out some blocks, or else going back to re-present a previous block.

In other words, Jump blocks control how a participant proceeds through an assessment, depending on what has happened so far. For example, a second question block may only be presented to a participant

if the participant achieves a minimum score in the first question block. This is a powerful tool that enables authors to create assessments that act flexibly depending on what the participant does.



Authors should take care when using Jump blocks, especially Jump blocks that take participants back to an earlier part of an assessment, as it is possible to create undesirable situations.

For example, it is possible to create an assessment that infinitely repeats, asking some questions and then jumping back to ask them again. Authors should thoroughly test any assessment that uses Jump blocks prior to presenting the assessment to participants.

The scoring of an assessment can be affected in three important ways when using Jump blocks:

- If an author creates a Jump block that goes backwards, and asks a question block a second time, Perception will overwrite the first set of results with the participant's most recent performance. This means that if the assessment results are being stored in the repository, only the participant's most recent performance in a Question block will be stored in the repository
- The total score for an assessment is the sum of the scores of all questions in all Question blocks sent to the participant. This means that if a Jump block enables a participant to retake the questions in a Question block, the scores for the retaken questions will count again
- If a Jump block causes a participant to skip the questions in a Question block, the score for the skipped questions does not count towards the maximum score for the assessment. For example, if an assessment contains three Question blocks, each with a maximum score of 10 points, and a participant answers the first Question block with a score of 10 out of 10, and then jumps to the end of the assessment, the score for the assessment will be 10 out of 10, and not 10 out of 30

Assessment outcomes

Assessment outcomes function in the same way as [Question outcomes](#), except at the assessment (rather than individual question) level.

When participants have answered all the questions presented to them, their overall score for the assessment will be calculated and then used to determine how their performance is evaluated. A range of overall scores is used to define one or more assessment outcome. For example, an overall score of less than 50% may be used to define a "Fail" outcome, and one of more than 50% may be used to define a "Pass" outcome.

There is always at least one assessment outcome in an assessment. You can have up to 100 different score bands, each applying to a different range of scores. For example, you could have one for 0-30%, one for 31%-60% and one for 61% to 100%.

An assessment outcome can contain instructions to:

- Define the range of scores for which it is applicable
- Give a feedback message
- Redirect the participant when the assessment ends - For example, branch to another assessment or URL
- Send a predefined email to specified recipients when the assessment ends

Prerequisite scores for topics

It is also possible require participants to achieve a minimum score in particular topics before an assessment outcome can be met. By using prerequisite scores for topics in this way, you can enforce a Pass score for specific topics, and define what happens when participants either achieve or fall below

these scores. This allows authors to ensure that participants do well enough in certain topics before they pass an assessment.



Example prerequisite score for topics

You have General Knowledge quiz that contains three topics:

- Politics
- Sport
- History

To pass the quiz, participants must achieve:

- An overall Pass mark of 75%
- A Pass mark of 50% in each of the three topics

By using prerequisite scoring for topics in this way, a minimum level of performance in all three topics (as well as an overall performance) can be required to pass the test.

Prerequisite topic scores are set within an assessment outcome block. You can add a prerequisite topic score to an assessment outcome for any, all or none of the topics whose questions are used in the assessment.

Example

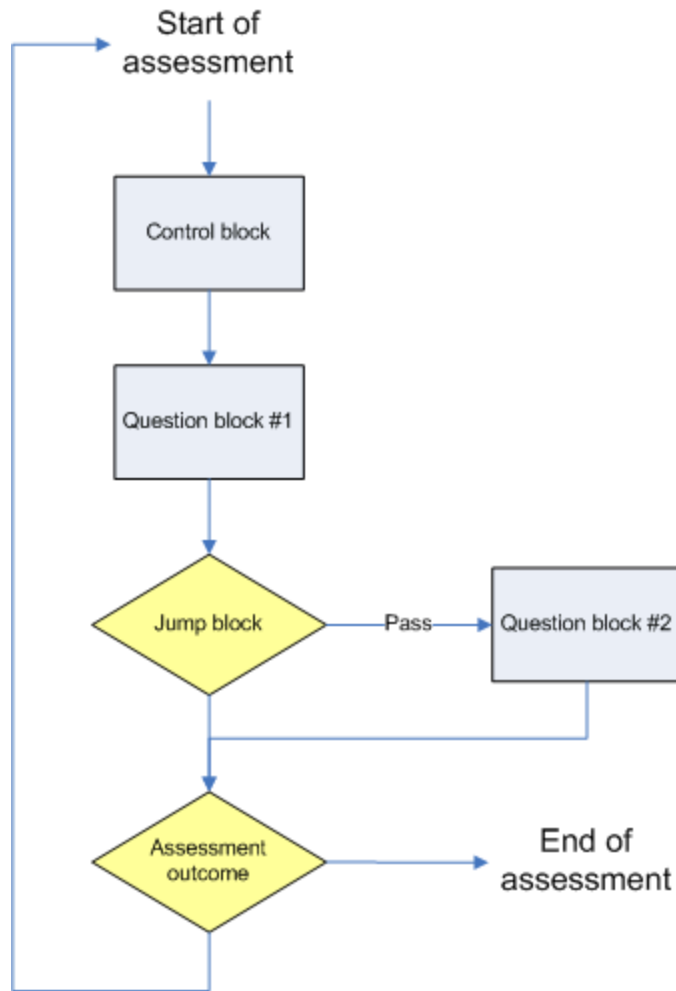
In the following example, a simple assessment has been designed that contains two Question blocks, each block containing ten questions with each correct answer to a question worth 1 point. Therefore the maximum score for the assessment is 20 points, and the Pass mark is set at 16 out of 20.

It is required that the second Question block will only be presented to participants if they answer 8 or more questions correctly in the first Question block. At the end of the assessment, if the participant has not obtained the Pass mark, they will be given the opportunity to retake the assessment.

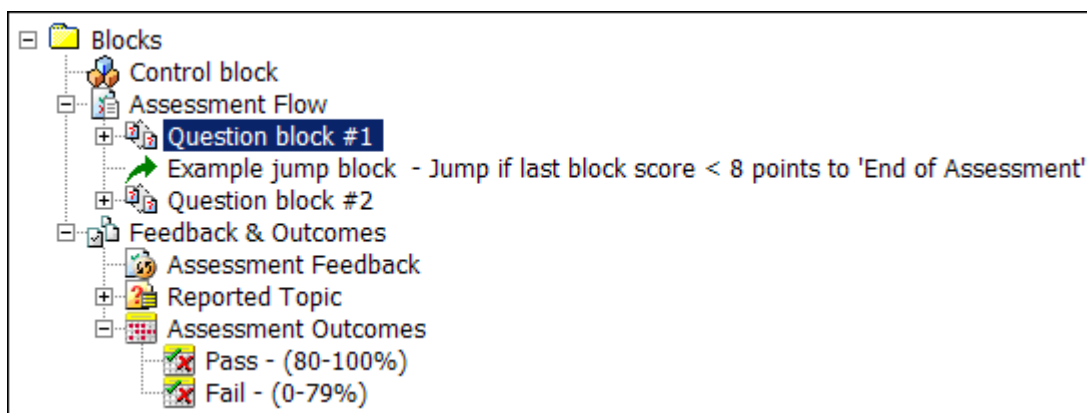
Based on the above, this example assessment will be composed of the following assessment blocks:

- One Control block
- Two question blocks
- One jump block
- One assessment outcome

This structure is displayed in the following diagram.



When viewing the assessment in the Assessment Editor tool in Authoring Manager, the assessment blocks are displayed as follows.



Question by Question delivery

When a Question block is presented, by default the first question in the Question block is displayed at the top of the screen, and all subsequent questions are displayed underneath. Because every question in a

Question block is displayed on the same screen, participants must scroll down to move between questions.

Questionmark

Oct 11 2008 | Logged in as : Dan

Medicine Quiz

This is the first part of the Medicine Quiz.

1 of 4
A tracheotomy is a surgical procedure on the neck to open a direct airway through an incision in the trachea (the windpipe).

☐ True
☐ False

2 of 4
Ophthalmology is the branch of medicine which deals with the diseases and surgery of the visual pathways, including the eye, brain, and areas surrounding the eye, such as the lacrimal system and eyelids.

☐ True
☐ False

License Text (All enabled)

This default method of presenting questions is simple and works on all browsers. However, some organizations using Perception have found that participants find it easier when only a single question is presented on the screen at a time. This enables the participant to concentrate fully on the current question, answer it and then move to the next question.


One solution to having a single question on a screen is to have only one question in each Question block, but this means that it's much harder to choose questions at random. And since it's not possible to go back to a previous Question block and change an answer, this prevents participants from going back to change and review answers.

An alternative method, called Question by Question delivery, is available. Here, the browser formats the block so that each question is displayed on a single screen, and the participant can move between them. This presents each question on its own on a single screen, and does not require the participant to scroll between questions.

Questionmark

Oct 13 2008 | Logged in as : Dan Question 1 of 4Block 1 of 2?

1 of 4



The above picture is an X-Ray of what?

☐ The paranasal sinuses

☐ A fractured tibia

☐ A stress fracture

Submit

< Intro Text

Next Question >

Assessment Navigator

License Text (All enabled)

The delivery method employed by an assessment is determined by the template it uses. As well as specifying that an assessment should use Question by Question delivery, the template used by an assessment also specifies the way in which Question by Question delivery should be presented. For example, by modifying the settings in a template, an author can change the layout of the screen, modify the graphics and labels used, as well as include or remove certain functionality such as the Flag, Help and Proceed buttons.

Refer to See "Templates" on page 86 for more information on how to modify the presentation of assessments.

Disabling navigation between questions

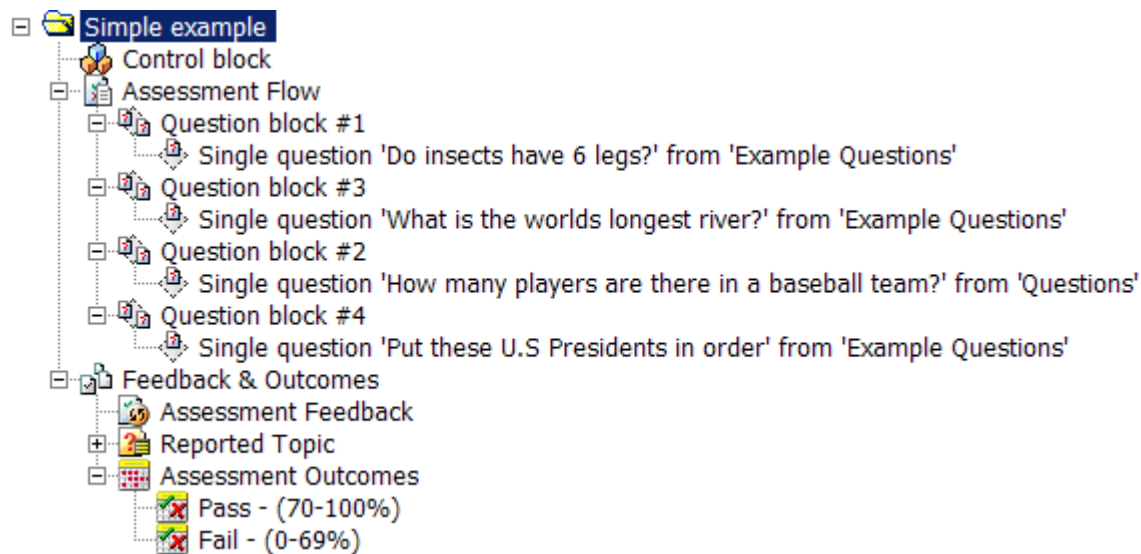
Using Question by Question delivery, it is possible to present questions one at a time. But Question by Question delivery also allows participants to flag questions or navigate to previous questions to allow them to change their answer.

In some situations this may not be desirable. To address this issue, it is possible to limit the ability of participants to navigate between questions. It is also possible to ensure that the question has been answered before it can be submitted.

To make these changes, you will need to modify the template file used by your assessment. For more information on using templates to present assessments, please refer to the [Templates Reference Guide](#). This guide contains comprehensive guidance on how to modify and create template files that can be used to present assessments that fully conform to your requirements. The Templates Reference Guide is available to members of Questionmark Communities and is located on the Perception Product Support site: www.questionmark.com/perception/help/v5/product_guides/

Placing questions within separate Question blocks

To limit a participants' ability to navigate between questions, and ensure that the question is answered before it is submitted, you will need to modify the template used by the assessment in the manner described above. You will also need to ensure that all the questions contained within the assessment are placed in their own questions blocks. For example, the following screenshot shows each question contained within separate Question blocks in the Assessment Editor in Authoring Manager.



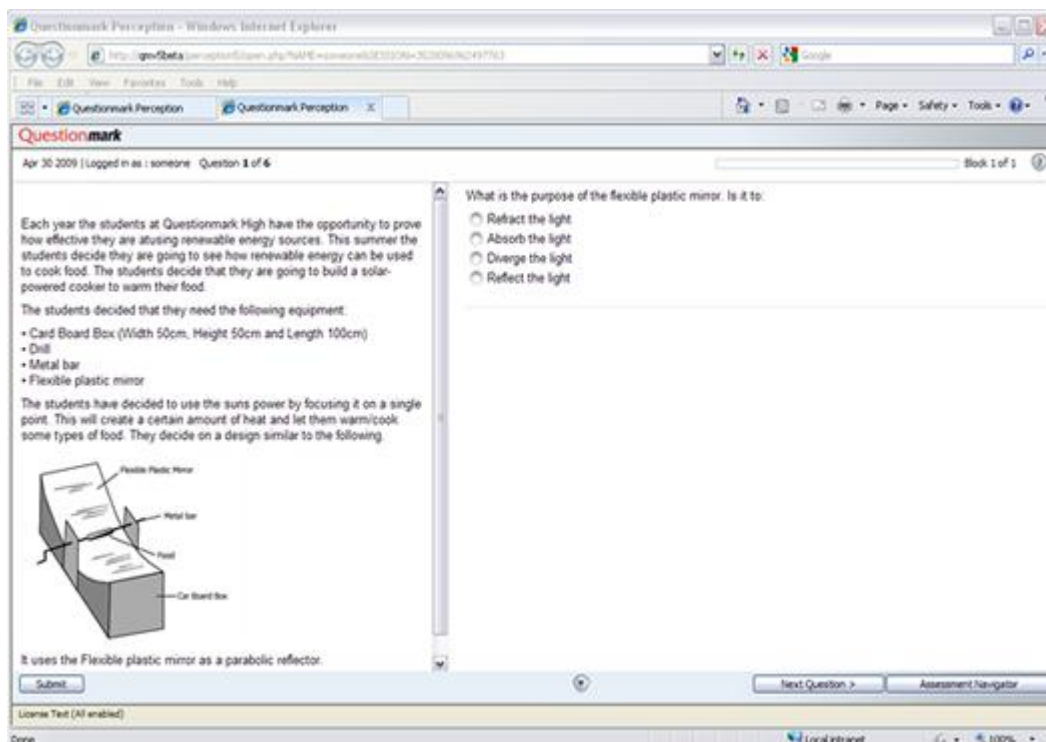
Scenario assessments

Perception has the ability to create assessments that have multiple questions based on a single stimulus. This is sometimes known as:

- Scenario-based assessments
- Case questions

Scenario-based assessments can be beneficial to organizations wishing to test a participants understanding of a specific subject or gauging how a participant would react in certain circumstances.

Perception Version 5 ships with a template specifically designed to show Scenario-based assessments. It is called **qxqIntroFixed** and looks like the following to a participant:

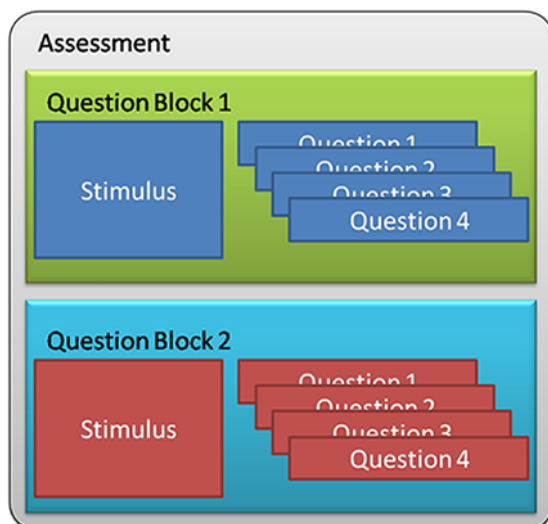


It is possible to alter any QXQ template so that it shows the static text stimulus. For instructions about how this can be done, please refer to the following Knowledge Base article:

[How can I add a static stimulus section to a QXQ template?](http://www.questionmark.com/perception/help/v5/knowledge_base/authoring/working_with_templates/template512.aspx)

http://www.questionmark.com/perception/help/v5/knowledge_base/authoring/working_with_templates/template512.aspx

A single stimulus can be created for each Question Block in an assessment as per the example below and the stimulus will appear until all the questions from the specific Question Block have been answered.



The Question Block introduction is the text that is shown in the stimulus, this is why the stimulus will only appear for questions contained in the same Question Block within an assessment.

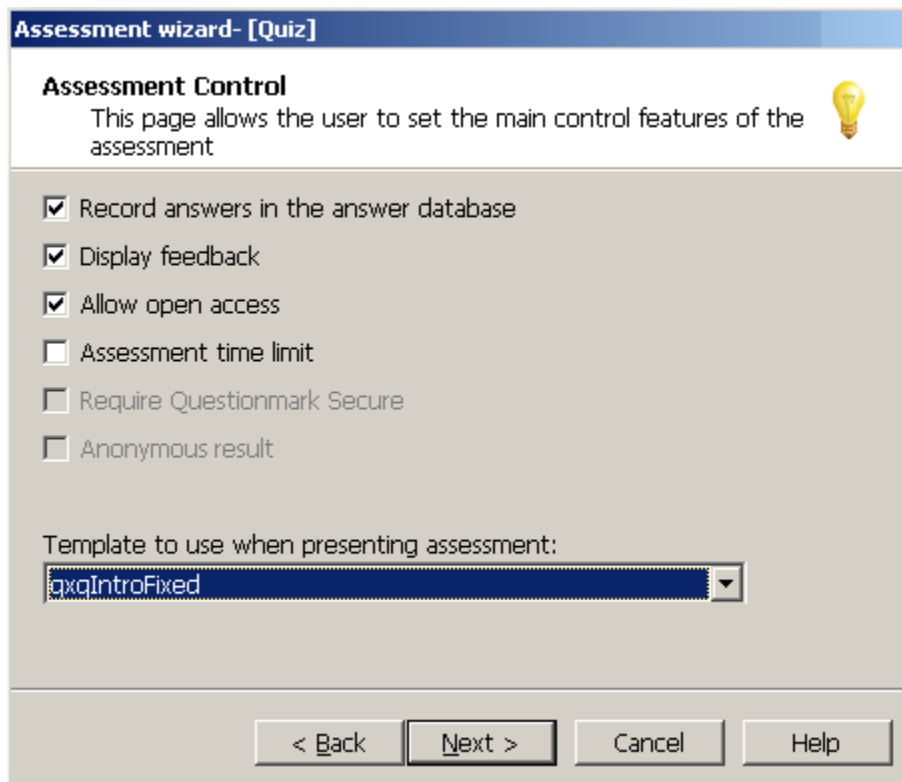
Creating questions

In general when building scenario-based assessments it is a good idea to have already created the scenario you want to assess. This will help ensure that the questions remain focused and are relevant. You can create questions as you would any normal set of questions. Group them in a single sub-topic or place the questions in other relevant topics. For instructions about how to create questions, please refer to [Questions](#) chapter.

Creating an assessment and inserting the static stimulus

To add the text you want to appear in the static block introduction you will need to create an assessment using the Assessment Wizard.

1. Set the name and type of assessment
2. Set the **Assessment control** information and choose the template **qxqIntroFixed** from the **Template** drop-down list



The screenshot shows the 'Assessment wizard- [Quiz]' window with the 'Assessment Control' tab selected. The window has a title bar with the text 'Assessment wizard- [Quiz]'. Below the title bar, the tab is labeled 'Assessment Control' with a lightbulb icon. The main area contains a list of checkboxes for assessment settings: 'Record answers in the answer database' (checked), 'Display feedback' (checked), 'Allow open access' (checked), 'Assessment time limit' (unchecked), 'Require Questionmark Secure' (unchecked), and 'Anonymous result' (unchecked). Below these is a label 'Template to use when presenting assessment:' followed by a dropdown menu showing 'qxqIntroFixed'. At the bottom are four buttons: '< Back', 'Next >', 'Cancel', and 'Help'.

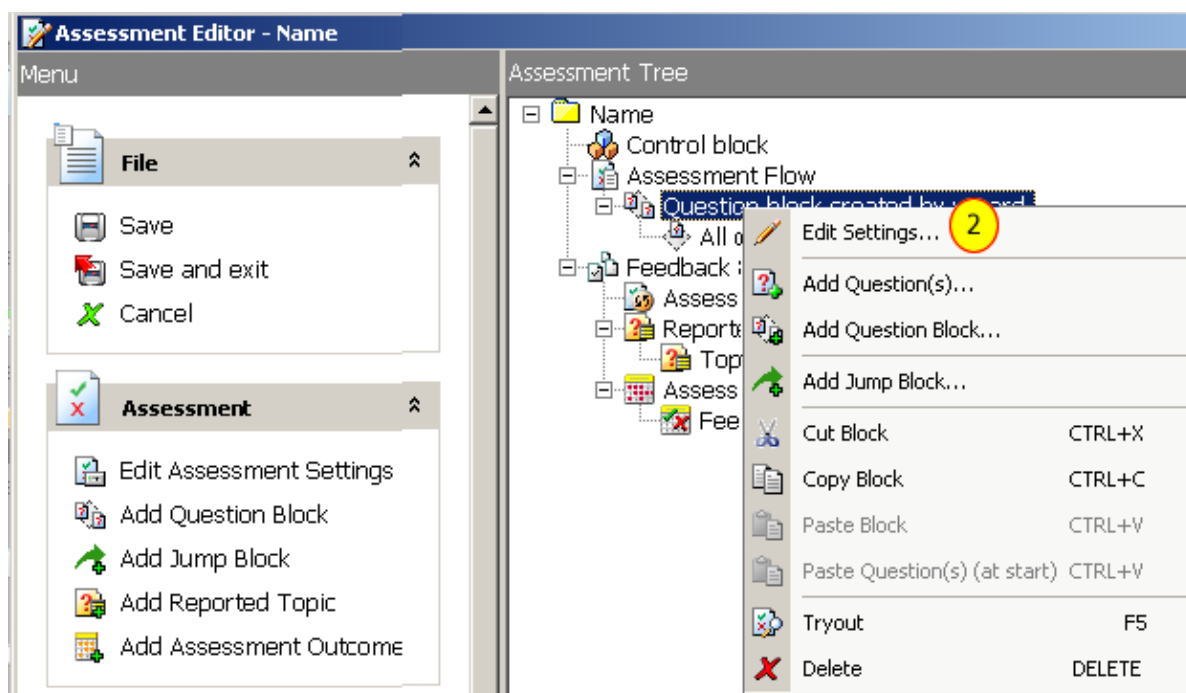
3. Add any messages you want to include and select the questions you want to display
4. Set any pass/fail information and finish the Assessment Wizard

Now that you have created the assessment you can go about adding the text to display in the static block introduction. The text/graphics that are displayed in the static stimulus of an assessment are taken from the Question Block Introduction. To add text to the Question Block introduction complete the following steps:

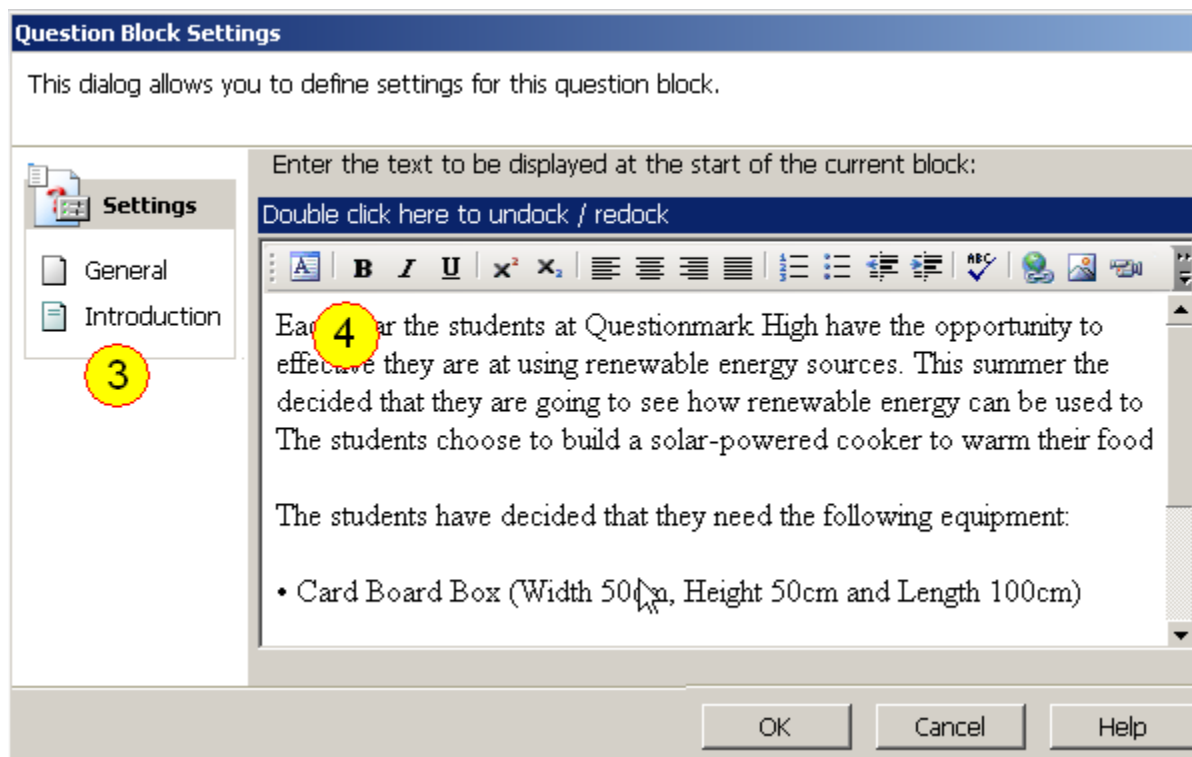
1. From the assessment folder right click on the assessment you just created and click **Edit assessment...**

The Assessment Editor window will open

2. Right click on the **Questionblock created by wizard** entry and click **Edit Settings...**



3. Click **Introduction** from the **Settings** menu on the left



4. Add the text or images you want to appear in the static block introduction
5. Click **OK** on all open windows and **Save** the changes made to the assessment

You can add additional Question Blocks to the assessment and as the assessment passes from one question to another the text in the static block introduction will change, showing the text corresponding to the current Question Block.



If you add additional Question Blocks but do not include any introduction text the static block introduction will remain empty.

Save As You Go

Sometimes a participant will begin an assessment but not complete it. This may be through choice, or because there is a system failure such as a power cut, loss of network connectivity, or software failure.

A participant's answers are recorded in the repository each time a Question block is completed. Therefore, if a participant answers all questions in one Question block, but only answers some questions in a second Question block, then in the event of a system failure (for example, if the participant's browser crashes mid-way through an assessment) only the participant's answers from the first Question block will be recorded. The participant's answers to questions in the second Question block will be lost.

By default, when they next log in to Perception, participants are given the option to resume unfinished assessments at the point at the point where the last Question block was completed. This behavior can be configured by Perception Administrators. For example, unfinished assessments can be automatically resumed when participants log in to Perception, rather than if the participant chooses to resume. For more information on how to set these delivery options, please refer to the [Enterprise Manager User Guide](#).

Save As You Go is a feature of Perception that enables participants to save every answer they have given, so that they will not have to give them again if the assessment is not completed. If this happens, the participant can log in to Perception once again and resume the assessment from their last saved point in the assessment.

Assessments using Save As You Go can include a Save button that participants can press whenever they want to save their progress.

The behavior of Save As You Go when saving a participant's performance can be determined by modifying settings in the template used by the assessment. Save As You Go can be configured to:

- Save answers on request (when the participant presses the Save button)
- Save answers at specific timed intervals (for example, every 5 minutes)
- Save answers on request as well as at timed intervals
- Confirm that answers are saved before saving them

Refer to See "Templates" on page 86 for more information on how to modify the presentation of assessments.

When an assessment has been interrupted, any answers that have been saved by the participant using Save As You Go cannot be accessed for reporting. The answers only become available for reporting after the participant submits them.

Enabling Save As You Go

Save As You Go must be enabled in the [Control block](#) of an assessment before it can be used. This can be done with the Assessment Editor in [Authoring Manager](#).

Assessment name:

Assessment description:

Assessment Type: ☐ Unset ☒ Exam ☐ Test ☐ Quiz ☐ Survey

☐ Anonymous results ☒ Record results in database

Assessment time limit: ☒ Time limit minutes

Save what information: ☒ Full data ☐ Summary data

Template file for assessment:

Save as you go: mins

Off
Manual
Automatic
Manual and Automatic

Time limits

Authors can specify that an assessment has a time limit when it is created. In Authoring Manager, this can be performed with the Assessment Wizard. Assessment time limits can also be modified by editing the Control Block in the Assessment Editor.

Assessment name:

Assessment description:

Assessment Type: ☐ Unset ☒ Exam ☐ Test ☐ Quiz ☐ Survey

☐ Anonymous results ☒ Record results in database

Assessment time limit: ☒ Time limit minutes

Save what information: ☒ Full data ☐ Summary data

Template file for assessment:

Save as you go: mins

The time limit for an assessment is independent of the time that the assessment may be scheduled for. The time limit applies from when the assessment starts, not from when it is scheduled.

The time taken by a participant in an assessment is counted from when the first Question block is sent to the participant, and ends when the last Question block is submitted. If a participant stops and then restarts an assessment, the count is not stopped or extended, but will continue until the time limit is reached or the last Question block is submitted.

Specific Question blocks can be excluded from an assessment time limit. This can be useful when presenting a Question block that introduces the assessment and thus does not require a time limit, or if an un-timed rest period is required between two timed Question blocks.



Example

An author creates an assessment that includes three Question blocks. There is a two hour time limit, but the middle block is excluded from the time period.

Participants answer questions in the first Question block, and then take an un-timed rest while the second Question block is displayed. They then answer questions in the third Question block. The time taken for the first and third Questions blocks is thus limited to two hours.

Feedback is also presented after each block, which is also excluded from the time limit.

Typically, if a time limit is set the time remaining is displayed and counts down in the browser window. Additionally, a warning message is usually given five minutes (or another amount of time) before the time is due to expire. How the time limit is displayed to the participant can be controlled by the template used by the assessment.

Once the time limit has expired, the current block is automatically submitted with whatever answers have been made. The assessment is then finished and a final page with assessment outcome is displayed. Questions in any remaining blocks are interpreted as being unanswered for scoring purposes.

Printing and Scanning

Assessments can be printed in Word or HTML form for participants to take on paper rather than online. In this way, assessments can be printed and taken on paper, the answers also printed out, and the scoring then performed manually. For more information on how assessments can be printed in Word or HTML form, refer to See "Printing assessments for manual scoring" on page 83.

A more sophisticated means of delivering assessments on paper is to use Questionmark's Printing and Scanning solution. Using Printing and Scanning, assessments created in Perception can be printed and delivered on paper. The assessment results can then be scanned and uploaded to the Perception database for reporting.

This section describes how authors can use Printing and Scanning to create assessments for paper delivery, and is divided into:

- [How does Printing and Scanning work?](#)
- [Printing an assessment with Printing and Scanning](#)
- [Customizing master documents](#)

How does Printing and Scanning work?

An assessment can be printed out from Authoring Manager onto paper using one of the Microsoft Word template files supplied with Perception. Participants then take the assessment and submit their responses by marking OMR (Optical Mark Recognition) bubble sheets. An example OMR bubble sheet is displayed below.

CompuTest®
form no. 16418

NAME – Please print within the box

STUDENT ID NUMBER

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
1	(A)	(D)				6	(A)	(D)				11	(A)	(D)				16	(A)	(D)			
2	(A)	(D)				7	(A)	(D)				12	(A)	(D)				17	(A)	(D)			
3	(A)	(D)				8	(A)	(D)				13	(A)	(D)				18	(A)	(D)			
4	(A)	(D)				9	(A)	(D)				14	(A)	(D)				19	(A)	(D)			
5	(A)	(D)				10	(A)	(D)				15	(A)	(D)				20	(A)	(D)			
6	(A)	(D)				11	(A)	(D)				16	(A)	(D)				21	(A)	(D)			
7	(A)	(D)				12	(A)	(D)				17	(A)	(D)									
8	(A)	(D)				13	(A)	(D)				18	(A)	(D)									
9	(A)	(D)				14	(A)	(D)				19	(A)	(D)									
10	(A)	(D)				15	(A)	(D)				20	(A)	(D)									
11	(A)	(D)				16	(A)	(D)				21	(A)	(D)									
12	(A)	(D)				17	(A)	(D)															
13	(A)	(D)				18	(A)	(D)															
14	(A)	(D)				19	(A)	(D)															
15	(A)	(D)				20	(A)	(D)															
16	(A)	(D)				21	(A)	(D)															
17	(A)	(D)																					
18	(A)	(D)																					
19	(A)	(D)																					
20	(A)	(D)																					
21	(A)	(D)																					

OVER

Next, the bubble sheets are scanned, and the response data is read by the third-party scanning software.

The scanning software produces an Assessment Data File in CSV (Comma Separated Value) ASCII text format suitable for uploading to Perception. Data from this file is uploaded to the Perception database, and the responses can be analyzed using Enterprise Reporter in Enterprise Manager.

What question types are supported?

The following question types can be used in Printing and Scanning assessments:

- Multiple Choice
- True / False
- Yes / No
- Likert Scale
- Multiple response

Can I shuffle questions?

Printing and Scanning can accommodate shuffled answer choices. If an assessment printed out using Printing and Scanning contains shuffled answer choices, snapshot definition data is used to handle the data processing required. This ensures that the content of the printed assessment, and the participants' responses that are scanned in, are fully coordinated in the Perception database.

For more information on assessment snapshots, please refer to the 'Printing and Scanning' chapter of the [Enterprise Manager User Guide](#).

Can I collect demographic data?

Demographic data (for example, the participant ID or department ID) can be collected by participants marking fields on their OMR bubble sheets.

Printing an assessment with Printing and Scanning

To deliver assessments on paper with Printing and Scanning:

1. Create the Perception assessment you want to deliver on paper
2. In Authoring Manager, highlight the assessment and under the **Assessments** menu, select **Print > Print Assessment for Scanning**

The **Print Assessment for Scanning** screen is displayed

Print

☒ Question sheet that will be accompanied by OMR bubble sheet
☐ Question and bubble sheet to be answered on
☐ Overprint question sheet on an OMR bubble sheet
☐ Generate XML for a custom application

Application file

☐ Include multiple response questions

Block Introductions

☐ Display all
☒ Display first only
☐ Display none

Style

Choice numbering

Master document

Randomization key

☒ Save printing options

3. Select the print option you require. These options are described in [Print options](#) below
4. Check **Include multiple response questions** if you want to include Multiple Response questions in the printed assessment
5. If **Block Introductions** options are available, you can select one of these options:
 - Display all - Display introductory text for all question blocks in the printed assessment
 - Display first only - Display introductory text for only the first question block in the printed assessment
 - Display none - Do not display introductory text in the printed assessment
6. In **Master document**, select the template you require. For more details on the master document templates provided with Perception, please refer to [Choosing a master document template](#)
7. If the assessment has been set to shuffle questions, you can define a randomization pattern by entering an alphanumeric string of one to four characters in the **Randomization key** box. This gives you the option of re-entering the same string in future and the printed assessment will be identical.

If the assessment has NOT been set to shuffle questions, or you do not wish to define a randomization key, leave this box blank

8. To save the options you have specified, so that they will be shown the next time you open this screen, check the **Save printing options** box
9. Click **Preview** to ensure that the assessment displays correctly
10. Once you are happy with the way the assessment is displayed, click **Print**

The assessment will be created and displayed in Word

11. If required, amend the title of the assessment and introductory text. It is also recommended that you ensure that for each question the answer choices aren't split by a page break

12. Print the assessment on to paper

Print options

The following tables describes each of the four available print options.

Print option	Description
Question sheet that will be accompanied by OMR bubble sheet	<p>This is the most common option. The assessment is printed out from the Microsoft Word application. Participants submit their responses onto accompanying OMR bubble sheets which, after the assessment, are scanned using an OMR scanning machine. Any type of bubble sheet can be used, but you need to ensure your scanning software will convert the response data to the required ASCII CSV data format, and produce an Assessment Data File in this format.</p> <p>The advantage with using this option is that the assessment sheets can be printed using any format you require (and answer choices can be spread over two pages).</p>
Question and bubble sheet to be answered on	<p>This option is primarily for use with Principia Remark Office software.</p> <p>Assessment questions and OMR bubbles are printed from the Word application onto blank sheets. The sheets are printed with bubbles to allow participants to submit their responses which, after the assessment, are scanned using an OMR scanning machine. The scanning machine uses Principia Remark Office or Classic software, which converts the response data to the required ASCII CSV data format, and produces an Assessment Data File in this format.</p> <p>The advantages with using this option are that the assessment sheets can be printed using any format you require (and answer choices can be spread over two pages), and, if your scanner can read barcodes, these can be put onto the sheets to gather further information.</p>
Overprint question sheet on an OMR bubble sheet	<p>The assessment is printed out from the MS Word application onto an OMR bubble sheet. Participants submit their responses onto the sheets which, after the assessment, are scanned using an OMR scanning machine. You can use any type of bubble sheet but you need to ensure your scanning software will convert the response data to the required ASCII CSV data format, and produce an Assessment Data File in this format.</p> <p>This option is used typically for surveys, where the:</p> <ul style="list-style-type: none">• Question stimuli are quite brief• Answer choices are the same for all questions (as the they are printed in the header area)• Questions are not shuffled• Questions are all of the same type <p>A template is provided for this option that can be used with the Pearson General Purpose Data Sheet II.</p>
Generate XML for a	The XML code of the assessment snapshot is generated. If iexplore.exe is

Print option	Description
custom application	specified in Application file, then a browser window will open and the XML code will be displayed in the browser.

Choosing a master document

You can print an assessment as:

- A question sheet that will be accompanied by an OMR bubble sheet
- A question and bubble sheet to be answered on
- An overprint question sheet on an OMR bubble sheet
- XML for a custom application

For each of these formats, Questionmark have provided template files that determine the assessment output. In Perception, these template files are known as master documents.

The following table provides a list of the master document templates supplied with Printing and Scanning. If you have installed Authoring Manager in the default location, these files will be located in sub-folders within the following directory:

C:\Program Files\Questionmark\Perception5\authoring\printing\ScanTemplates

Existing master documents can be customized to suit your needs. Refer to [Customizing master documents](#) for more information.

Output format	Sub-folder	Master documents	Notes
Question sheet with OMR bubble sheet	\Standard	A4 with header.doc A4 no header.doc Letter with header.doc Letter no header.doc	The standard assessment format. Assessment is printed onto blank sheets accompanied by an OMR bubble sheet. The difference between A4 and Letter templates are the paper size they print on.
Question and bubble sheet	\Principia	A4.doc Letter.doc	Provided for Principia Remark assessments and require two Principia fonts to be installed on the authoring system: <ul style="list-style-type: none"> • OMR Bubbles • 3 of 9 Barcode These can be downloaded from the Principia Web site. The difference between the A4 and Letter templates are the paper size they print on.
Overprint question sheet on OMR bubble sheet	\Overprint	Pearson General Purpose Data Sheet II.doc	Can be used with the Pearson General Purpose Data Sheet II.
XML	Not required		

Customizing master documents

You can create your own master documents by customizing the master document templates supplied with Printing and Scanning. To create a customized master document, we suggest that you make the required changes to a copy of an original master document. You can then use your customized master document to print the assessment in Authoring Manager.

You can customize your master document by opening it in Microsoft Word and making the required changes directly. For example, you may want to change the page layout, header and footers, page numbering, or paragraph styles. You can include assessment information by adding bookmarks to your master document that display assessment information when the assessment is printed. Refer to [Adding assessment data](#) for a list of the bookmarks you can add.

Master documents must contain every paragraph style used by Printing and Scanning. A master document that lacks a paragraph style will cause unpredictable results. The required styles are listed in the table below.

Style	Defines...
qm_Block_Name	The name of each question block except the first one
qm_First_Block_Name	The name of the first question block
qm_Introduction_Text	The introduction text for each block
qm_Question	All available questions
qm_EndOfQuestion	The empty paragraph that marks where one question ends and the next begins
qm_Explanation	Any explanations included in the assessment
qm_Comment	The label for any comments included in the assessment
qm_AnswerSpace	The answer space for comments
qm_MC_Bubble	Multiple Choice options when bubbles are included. The bubbles for Multiple Choice options when bubbles are included
qm_MC_NoBubble	The choices for Multiple Choice options when bubbles are NOT included
qm_MC_CorrectAnswer	The choices for Multiple Choice options when correct answers are included. The bubbles for Multiple Choice options when correct answers are included
qm_MR_Bubble	Multiple Response choices when bubbles are included. The bubbles for Multiple Response choices when bubbles are included
qm_MR_NoBubble	The choices for Multiple Response choices when bubbles are NOT included
qm_MR_CorrectAnswer	The choices for Multiple Response choices when correct answers are included. The bubbles for Multiple Response choices when correct answers are included
qm_Scoring	The instructions for scoring an individual question
qm_AssessmentScoring	The instructions for scoring an entire assessment
qm_OMR_bubble	The OMR font style for question choices. Used by Principia
qm_QuestionNum	Style of question description when displayed in table format
qm_Legend	Style of question choice legend when displayed in table format

Style	Defines...
qm_NormalMR	Style of table column heading for multiple response questions

Adding assessment data

When printing assessments for scanning, question block content is added beneath any existing material at the top of the first page of the master document and subsequently for as many pages as needed. Assessment scoring information (if included in the output) is added where the final question block ends.

You may wish to include information at the top of the first page of the master document. One way of doing so is by adding bookmarks that display assessment information when the assessment is printed.

To include bookmarks within your master document, place the cursor where you want the information to appear and select Insert>Bookmark... from the File Menu in Word.

Word requires every bookmark name to be unique. Therefore, if you've already inserted a bookmark in one location and want to insert it somewhere else, add to the name a digit from 1 to 9 to make the name unique. For example, if you've already inserted a bookmark called qmAssessment_ID and you want to insert it in another location, enter qmAssessment_ID1 as the name.

The following table lists the bookmarks you can add to a master document.

Bookmark	Specifies...
qmAssessment_ID	The unique ID of the assessment
qmSnapshot_ID	The unique Snapshot ID of the assessment
qmRandom_Key	The key used for random selection, shuffling, etc.
qmAssessment_Type	The type of assessment
qmName	The assessment name
qmDescription	The assessment description
qmAuthor	The name or ID of the person who created the assessment
qmSave_Answers	If the results are saved to the answer database
qmSave_Answer_Data	If the full answer data is saved to the answer database
qmNumber_Of_Blocks	The number of question blocks in the assessment
qmNumber_Of_Questions	The of number of questions in the assessment
qmTime_Limit	Time limit in minutes
qmPreviewMessage	A warning message
qmChoice1	First question choice for bubblesheet
qmChoice2	Second question choice for bubblesheet
qmChoice3	Third question choice for bubblesheet
qmChoice4	Forth question choice for bubblesheet
qmChoice5	Fifth question choice for bubblesheet

Printing assessments for manual scoring

Assessments can be printed in Word or HTML form for participants to take on paper rather than online. However, assessments delivered in this way must be scored manually. A more sophisticated means of delivering assessments on paper is to use Questionmark's Printing and Scanning solution. Refer to See "Printing and Scanning" on page 76 for more information.

This section contains information on how to:

- [Print assessments to Word](#)
- [Print assessments to HTML](#)

Printing assessments to Word

To print an assessment to Word:

1. Open Authoring Manager and connect to your repository
2. Highlight the assessment you want to print and from the **Assessments** menu, select **Print > Print Assessment to Word**

The Print Assessment in Word Format screen is displayed

Print Assessment in Word Format [Example assessment]

Please note that questions printed in this way cannot have results scanned back in.

Print

- ☒ Question
- ☐ Answer
- ☐ Archive
- ☐ Avoid rich media question types?

Block Introductions

- ☒ Display all
- ☐ Display first only
- ☐ Display none

Style

Choice numbering: a,b,c

Option numbering: i, ii, iii

Master document: qmprint_template.doc

Randomization key:

☒ Save printing options

3. Select the type of paper you wish to print:
 - Question - contains the questions in an assessment, usually formatted for answering on paper
 - Answer - contains the correct answers to the questions in an assessment
 - Archive - the same as an answer paper, except that it always excludes any questions in the assessment that have any rich media question types
4. If you are printing a question or answer paper, you can tick **Avoid rich media question types?** to exclude the following question types: Captivate, Flash, Drag and Drop, and Hotspot. This option is always applied if you are printing an archive paper.

It is not strictly necessary to avoid printing rich media questions, but as they are dynamic in nature, they may not print well. Note: File Upload questions cannot be printed onto paper.

5. Specify how to present introductions by selecting a **Block Introductions** option:
 - Display all - display introductory text for all question blocks in the printed assessment
 - Display first only - display introductory text for only the first question block in the printed assessment
 - Display none - do not display introductory text in the printed assessment
6. Specify **Choice Numbering** and **Option numbering** styles by selecting styles from the drop-down boxes
7. In **Master document**, select the template you require. For more details on the master document templates provided with Perception, please refer to [Choosing a master document](#) in See "Printing and Scanning" on page 76
8. If the assessment has been set to shuffle questions, you can define a randomization pattern by entering an alphanumeric string of one to four characters in the **Randomization key** box. This gives you the option of re-entering the same string in future and the printed assessment will be identical.

If the assessment has NOT been set to shuffle questions, or you do not wish to define a randomization key, leave this box blank
9. To save the options you have specified, so that they will be shown the next time you open this screen, check the **Save printing options** box
10. Click **Print**

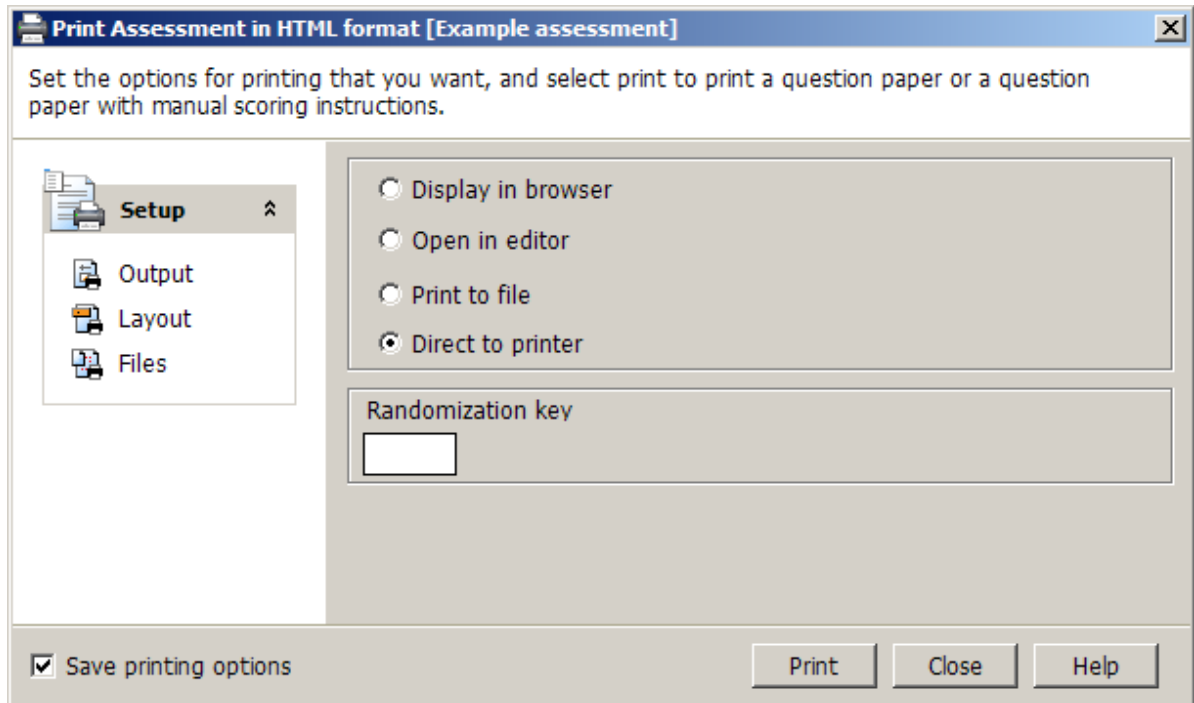
The assessment will be created and displayed in Word

Printing assessments to HTML

To print an assessment to HTML:

1. Open Authoring Manager and connect to your repository
2. Highlight the assessment you want to print and from the **Assessments** menu, select **Print > Print Assessment to HTML**

The **Print Assessment in HTML Format** screen is displayed



3. In the **Output** screen, specify where you want the HTML file to be created:
 - Display in browser - open the assessment in your default browser
 - Open in editor - create the HTML file on disk, and open the output file with a editor or word processor
 - Print to file - use a file specified with the print files screen to contain the file
 - Direct to printer - send the questions or answers directly to the printer
4. If the assessment has been set to shuffle questions, you can define a randomization pattern by entering an alphanumeric string of one to four characters in the **Randomization key** box. This gives you the option of re-entering the same string in future and the printed assessment will be identical.

If the assessment has NOT been set to shuffle questions, or you do not wish to define a randomization key, leave this box blank

5. In the **Layout** screen, specify **Question Numbering**, **Choice Numbering** and **Option numbering** styles by selecting styles from the drop-down boxes
6. To specify how many questions to fit on each page, tick **Set Number Of Questions Per Page**. If you tick this, enter a number between 1 and 10 in the adjacent box or select it with the spin control. This starts a new page after the specified number of questions, but will not shrink questions to fit the page
7. To display each question block separately, tick **Show Question Blocks Separately**

If ticked, a header is printed for each question block and the questions are numbered starting at 1 for the first question in each question block. If left unticked, no question block headers are shown and the questions are numbered from 1 to the maximum number in the assessment.
8. To include in the scoring information assessment outcomes with a score of zero, or without a score defined, tick **Show Outcomes With Zero Score**
9. In the **Files** screen, define the files that will be used in the printing process

The **Format File To Use For Printing** is typically the **master.format** file installed in the **\perception5\authoring\format** directory. Advanced users can modify this file, or make their own template files to modify it

The **Template File To Use For Printing** is typically the **default.template** file installed in the **\perception5\authoring\default\system\template** directory

10. To save the options you have specified, so that they will be shown the next time you open this screen, check the **Save printing options** box

11. Click **Print**

The assessment will be created

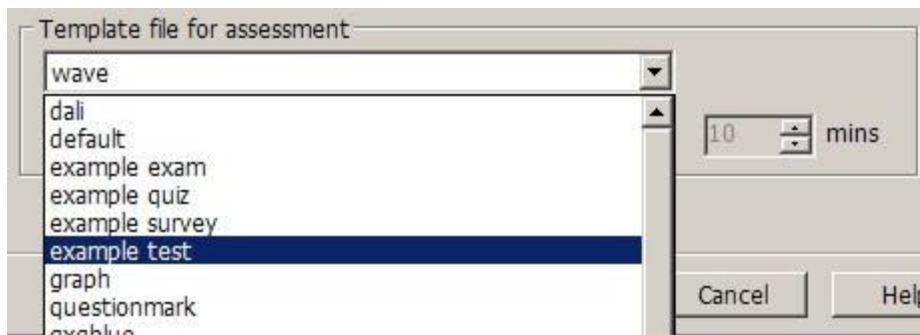
Templates

Templates determine how screens in Perception are presented to participants. Templates can be modified to control the functionality as well as the appearance of these screens. For example, you may wish to:

- Replace the English text presented to participants when they log in to Perception and take an assessment with the text of another language
- Display your company logo and corporate style
- Make your assessments more accessible to participants with disabilities

Templates are XML files with the extension .xtmp. Template files are stored in the **\[repository]\templates** folder within each repository, where [repository] is the name of your repository. Numerous template files are supplied with Perception. These are appropriate for delivering a wide range of assessments and can meet the needs of most organizations. However, if none of the templates supplied with Perception exactly match the way you want a particular assessment to be presented, you can create new templates.

When creating or editing assessments, authors can specify the template the assessment should use. In Authoring Manager, this can be performed with the Assessment Wizard or the Assessment Editor.



There are two types of template - those that use [Question by Question delivery](#), in other words, that present each question individually, and those that do not.

Customizing templates

Templates can be modified to control the functionality as well as the appearance of screens. For example, you may wish to:

- Customize the way an assessment is displayed so that it conforms precisely to your requirements
- Display assessments with a company logo on the screen and generally conform to a corporate style

- Replace the English text presented to participants when they take an assessment with the text of another language
- Make your assessments more accessible to participants with disabilities

For more information on using templates to present assessments, please refer to the [Templates Reference Guide](#). This guide contains comprehensive guidance on how to modify and create template files that can be used to present assessments that fully conform to your requirements.

The Templates Reference Guide is available to members of Questionmark Communities and is located on the Perception Product Support site:

www.questionmark.com/perception/help/v5/product_guides/

Enabling participants to view reports

Links to a Coaching Report for an assessment that has just been taken can be displayed at the end of an assessment. This can be useful if you want to show participants additional information on their performance.

By default, links to Coaching Reports for assessments that have just been taken are not displayed at the end of assessments. To display the link, authors must specify in the assessment outcome that the assessment is to branch to a program or URL, and set the URL to branch to as %SESSION.REPORT%.

You can modify assessment outcomes in [Authoring Manager](#) or [Browser-Based Authoring](#). To do so in Authoring Manager:

1. Open Authoring Manager
2. Right-click the assessment you want to add a link to the Coaching Report to and click **Edit Assessment...**
3. Under **Assessment**, click **Add Assessment Outcome**
4. Under **Settings**, click **Outcome**
5. Check **Branch to another program or URL** and enter %SESSION.REPORT%

Assessment Outcome

This dialog allows you to change the outcome's results, feedback, branching, and email settings

Settings

- Outcome
- Branching
- Email

☐ Do not branch
☐ Branch to another assessment
 Assessment name:

☒ Branch to another program or URL e.g. http://www.xyzcompany.com

6. Click **OK**

Browser-Based Authoring

Browser-Based Authoring is a web application that enables authors to create questions and assessments without needing to install Authoring Manager. If an author has been given permission to use Browser-Based Authoring, only an Internet connection and a web browser is required.

This chapter describes how authors can use Browser-Based Authoring, and is divided into:



See "Browser-Based Authoring" on page 16



See "Accessing Browser-Based Authoring" on page 89



See "Question Manager" on page 90



See "Assessment Manager" on page 95



See "Resource Manager" on page 99



See "Translation Manager" on page 100



See "Importing QPacks" on page 134

Accessing Browser-Based Authoring

Browser-Based Authoring can be accessed by logging-in to Enterprise Manager.

Enterprise Manager is a web application that enables Perception administrators to manage the Perception Server deployment. To access Enterprise Manager, enter the following URL into your browser:

<http://<domain name>/em5/login.aspx>

Where **<domain name>** is the name of the Perception Server domain. A typical URL might be:

<http://www.questionmark.com/em5/login.aspx>

Users of the On Demand service can access Enterprise Manager from a URL similar to:

<https://ondemand.questionmark.com/<customerid>>

Where **<customerid>** is the unique ID that relates to your On Demand service.

Enter your User Name and Password, choose the appropriate language you would like Enterprise Manager to use, and click **Login**.

To view the main Browser-Based Authoring screen, authors can select **Authoring**.

A typical author has access to some or all of the following elements.



Question Manager

View, create, edit and delete questions, which are structured in hierarchical topics. Within browser based authoring, you can view, tryout and delete all questions, but only create and edit simple ones.



Assessment Manager

Organize questions into assessments, tryout and manage assessments. With browser based authoring, you can view, tryout and delete all assessments, but only create and edit simple ones.



Resource Manager

View graphics and multimedia resources used within assessments.



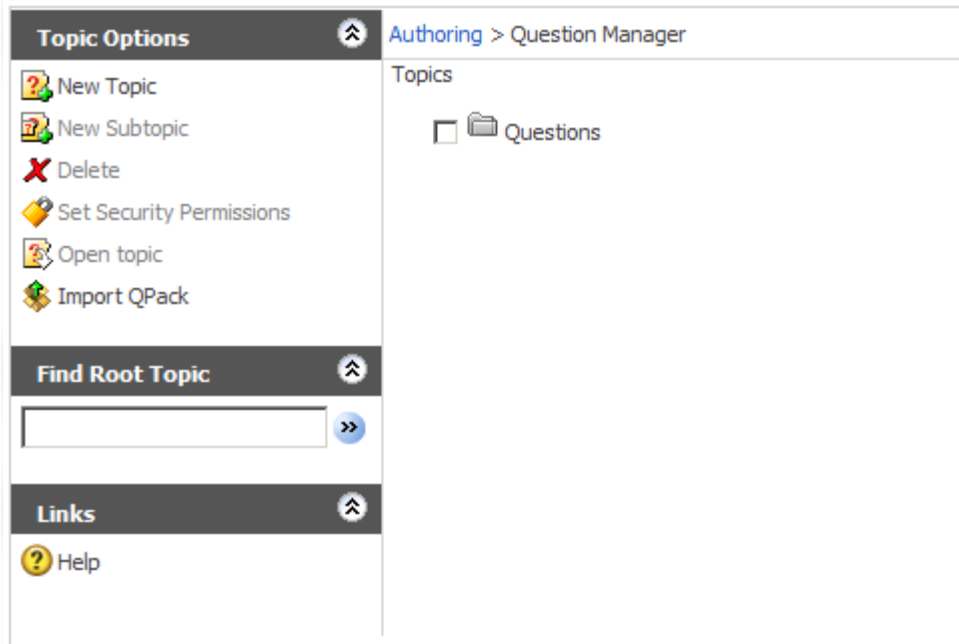
Translation Manager

Choose topic and assessment folders to translate. Then translate questions and assessments into multiple languages, either with Perception or by exporting to XML and re-importing.

If an author has been given permission to access other areas of Enterprise Manager, such as System Administration or Enterprise Reporter, the author will be able to navigate to these Enterprise Manager and see the available areas using the available menus.

Question Manager

When Question Manager is started, all topics the author has access to are displayed.



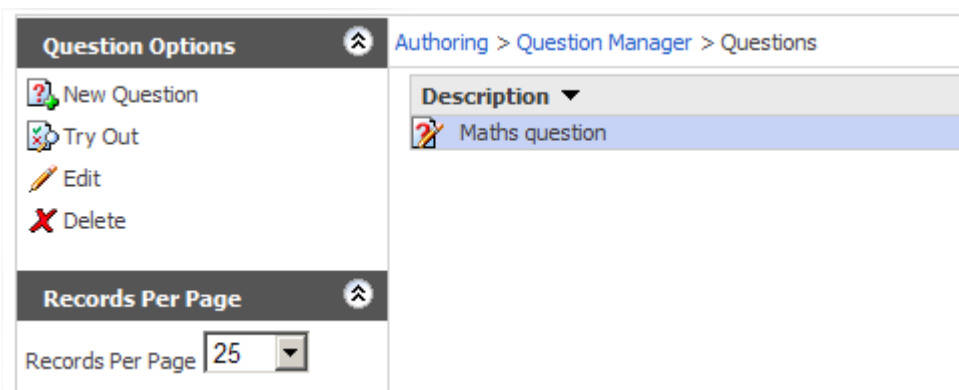
From here, authors can select an option in the **Topic Options** menu to:

- Create a root topic
- Create a subtopic
- Delete a root topic or subtopic
- Set security permissions on root topics
- Import questions from a QPack (refer to See "Importing QPacks" on page 134 for more information)

To work with questions in a specific topic, highlight the topic and select **Open topic** in the Topic Options menu.

Working with questions

When a author opens a topic, the questions in the topic are displayed.



From here, authors can select an option in the **Question Options** menu to:

- Create a new question
- Try out a question

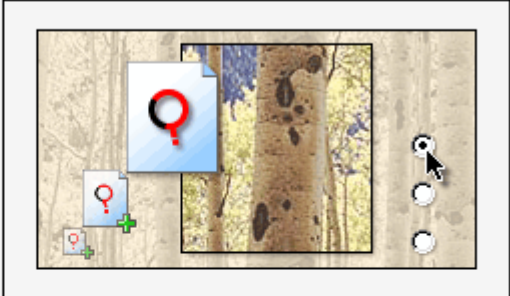
- Edit a question
- Delete a question

Creating questions

To create a question, select **New Question** from the **Question Options** menu. This opens the Question Wizard.

Create a new question - Select the question type for the question you wish to create

☒ Multiple Choice
☐ Yes/No
☐ True/False
☐ Likert Scale
☐ Numeric
☐ Multiple Response
☐ Essay
☐ Text Match



Create a multiple choice question. This allows participant to select a single answer from a list of possible choices

Cancel Create

Authors can create the following types of question:

- Multiple Choice
- Yes/No
- True/False
- Likert scale
- Numeric
- Multiple Response
- Text Match Essay

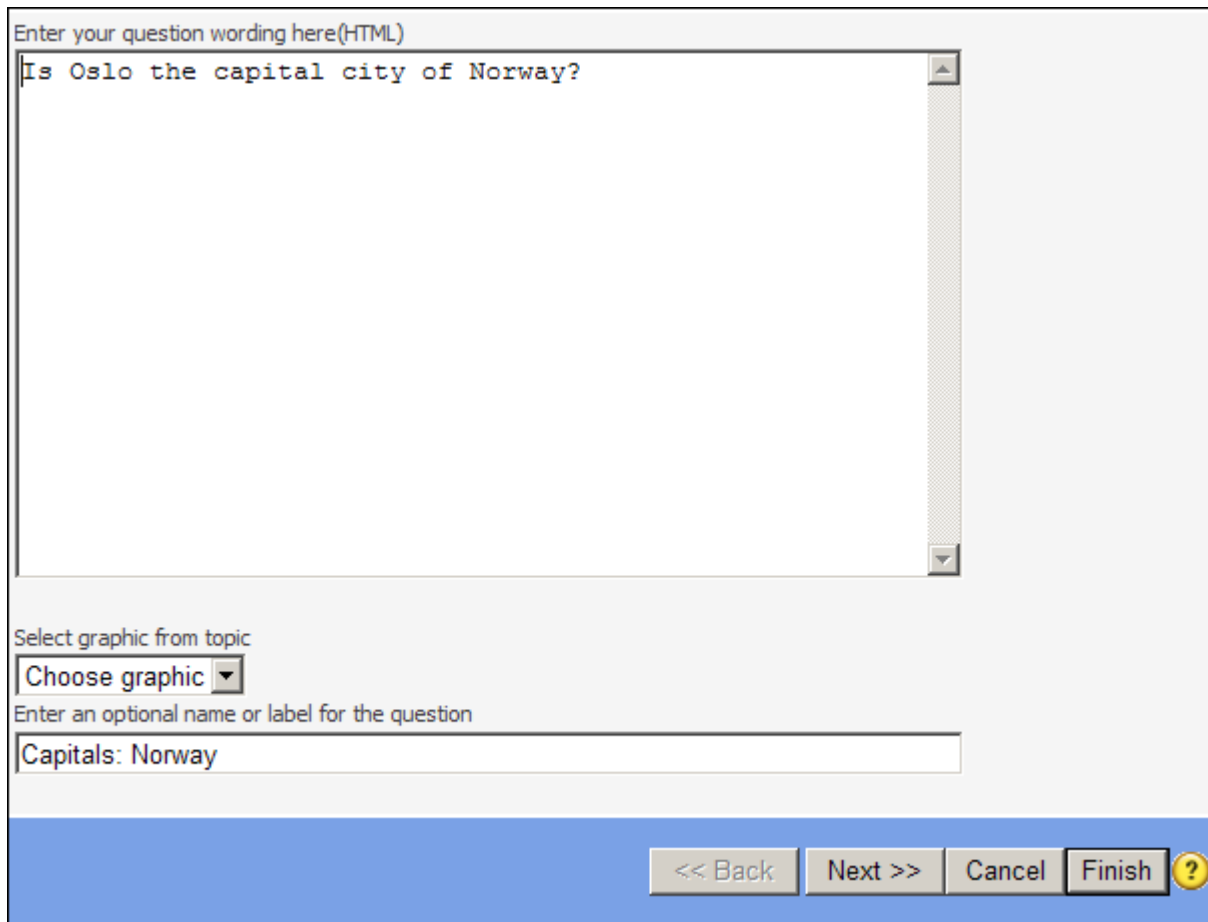
To create a question, select the type of question you want to create and click **Create**. Then complete each step of the Question Wizard to create your question.



Not every question type that can be included in Perception assessments can be created with Question Manager. To create every type of question, use Authoring Manager.

Editing questions

To edit a question, highlight the question and select **Edit** from the **Question Options** menu. This opens the Question Editor.



Enter your question wording here(HTML)

Is Oslo the capital city of Norway?

Select graphic from topic

Choose graphic ▾


Enter an optional name or label for the question


Capitals: Norway

<< Back Next >> Cancel Finish ?

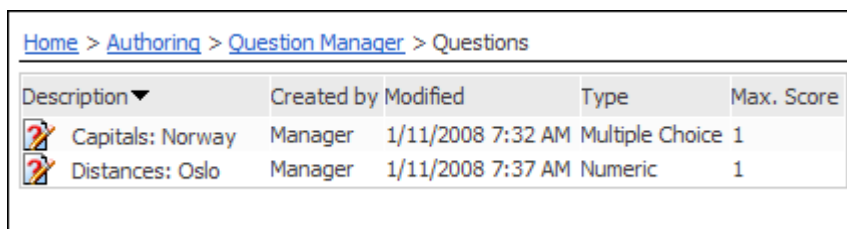
Use the **<< Back** and **Next >>** buttons to navigate through each page of the Question Editor, and click **Finish** to apply your changes to the question.



Not all types of question can be edited in Question Manager. To determine if a question can be edited with Question Manager, look at the icon associated with the question.

 This icon is displayed next to questions when it is not possible to edit them with Question Manager

 This icon is displayed next to questions that can be edited with Question Manager

The following screenshot shows two questions that can be edited with Question Manager.



Home > Authoring > Question Manager > Questions					
Description ▾	Created by	Modified	Type	Max. Score	
 Capitals: Norway	Manager	1/11/2008 7:32 AM	Multiple Choice	1	
 Distances: Oslo	Manager	1/11/2008 7:37 AM	Numeric	1	

For details of when questions can be edited in Question Manager, please refer to See "Editing questions created in Authoring Manager" on page 132.

Setting security permissions

An author's access to root topics can be controlled from within Question Manager. For example, you may want to restrict one author from being able to edit the questions in a topic, while you may want to give another author the ability to edit and delete questions in the same topic.

It is not possible to set security permissions on subtopics. To set the security permissions for a root topic:

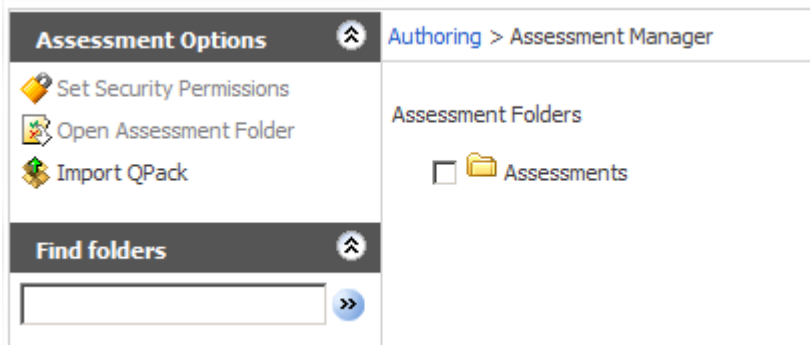
1. Open Question Manager
2. Highlight the root topic you want to set security permissions for and select **Set security permissions** from the **Question Options** menu. This opens the Security Permissions Editor

The screenshot shows the 'Security permissions for the following topics' dialog box. At the top, a text box contains 'Geography'. Below this, the dialog is divided into two main sections: 'Users available' on the left and 'Users assigned (View / Edit / Full)' on the right. The 'Users available' section has a search bar and a list containing 'Junior Author' (highlighted) and 'Senior Author'. The 'Users assigned' section has three empty boxes for 'View', 'Edit', and 'Full' permissions, each with a corresponding button ('View >>', 'Edit >>', 'Full >>') to the left. A 'Remove Selected' button is at the bottom right of the assigned section. At the very bottom of the dialog are 'Cancel' and 'Finish' buttons.

3. Set the View, Edit and Full permissions for each author
 - **View** - the selected authors can only view, tryout or copy the root topic and any subtopics below it
 - **Edit** - the selected authors can do everything with the selected root topic and any subtopics below it, except delete the root topic, delete a subtopic below the root topic, delete a question in the root topic or in a subtopic below the root topic, or cut any of the above
 - **Full** - the selected administrators can do everything with the selected root topic and any subtopics below it
4. Click **Finish** to set the security permissions

Assessment Manager

When Assessment Manager is started, all assessment folders the author has access to are displayed.



From here, authors can:

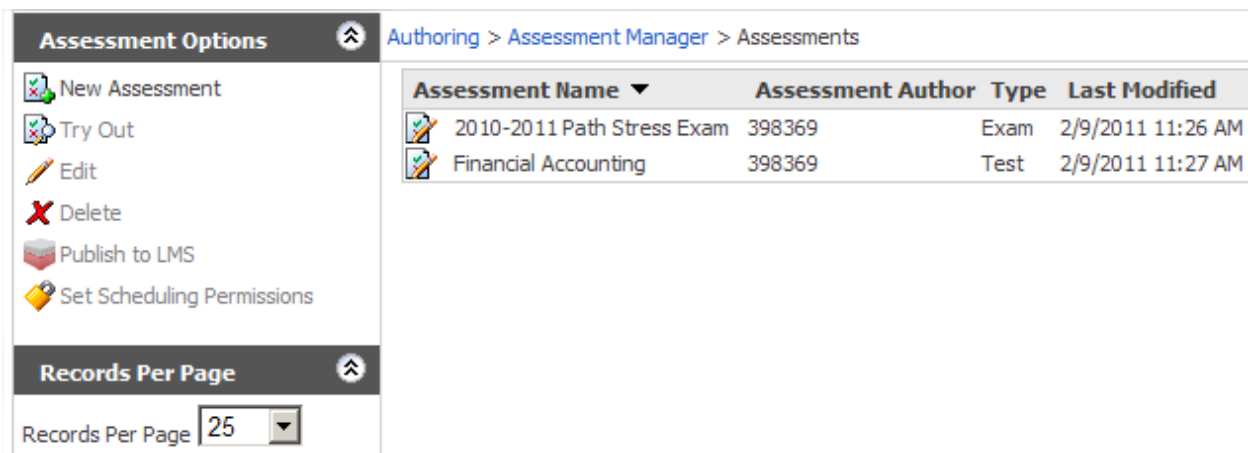
- Set security permissions for a particular assessment folder
- Open a particular assessment folder
- Import a QPack (refer to See "Importing QPacks" on page 134 for more information)

To set security permissions or open an assessment folder, highlight the assessment folder and select the appropriate option in the **Assessment Options** menu.

You cannot create or modify assessment folders in Assessment Manager. To do so, use Authoring Manager.

Working with assessments

When an author opens an assessment folder, the assessments in the folder are displayed.



From here, authors can select an option in the **Assessment Options** menu to:

- Create a new assessment
- Try out an assessment
- Edit an assessment
- Delete an assessment
- Publish the assessment to LMS

- Set scheduling permissions

Creating assessments

To create an assessment, select **New Assessment** from the **Assessment Options** menu. This opens the Assessment Wizard.

The screenshot shows a web form titled "Assessment Wizard". At the top, it says "Created by: Manager". Below this, there are two fields: "Assessment name:" followed by a text input box, and "Assessment type:" followed by a dropdown menu currently set to "Quiz". Below these fields is a large text area labeled "Message given at the start of the assessment". At the bottom of the form, there are two more fields: "Assessment password" and "Confirm password", each followed by a text input box. At the very bottom, there is a blue bar containing five buttons: "<< Back", "Next >>", "Cancel", "Finish", and a yellow circular button with a question mark.

Authors can create the following types of assessment:

- Quiz
- Test
- Survey
- Exam
- Unset (non-specific assessment)

Refer to See "Assessment types" on page 61 for more information on each type of assessment.

To create an assessment, enter the required information on each screen of the Assessment Wizard. Use the << **Back** and **Next** >> buttons to navigate through each screen, and click **Finish** to create the assessment.

Editing assessments

To edit an assessment, highlight the assessment and select **Edit** from the **Assessment Options** menu. This opens the Assessment Editor.

Assessments made with Authoring Manager can be edited in Enterprise Manager if:

- They have only one question block, and either one or two score bands
- They don't have jumps
- They don't use references to special fields in the question selection
- Certain other advanced functionality is not used

Setting security permissions

It is possible to set security permissions for the following parts of an assessment:

- [Access to assessment folders](#)
- [Access to scheduling an assessment](#)

These are described below.

Controlling access to assessment folders

An author's access to assessment folders can be controlled from within Assessment Manager. For example, you may want to restrict one author from being able to edit the assessments in an assessment folder, while you may want to give another author the ability to edit and delete assessments in the same folder.

Security permissions can only be set on root assessment folders. To set the security permissions for an assessment folder:

1. Open Assessment Manager
2. Highlight the assessment folder you want to set security permissions for and select **Set security permissions** from the **Assessment Options** menu. This opens the Security Permissions Editor

Security permissions for the following assessment folders

Assessment1

Users available Users assigned (View / Edit / Full)

Junior Author
Senior Author

Junior Author

Senior Author

3. Set the View, Edit and Full permissions for each author
 - **View** - the selected authors can only view, tryout or copy the assessment folder and any folders below it
 - **Edit** - the selected authors can do everything with the assessment folder and any folders below it, except delete the root folder, delete a sub-folder within the root folder, delete an assessment in the root folder or sub-folder, or cut any of the above
 - **Full** - the selected administrators can do everything with the selected assessment folder and any sub-folders below it
4. Click **Finish** to set the security permissions

Controlling access to scheduling assessments

The ability of an author to schedule an assessment can be controlled from within Assessment Manager. For example, you may want to restrict one author from being able to schedule a particular assessment, while you may want to give another author the ability to schedule the assessment.

Access to scheduling assessments is controlled on a group basis. In this way, you can specify that all authors belonging to a particular group can be given scheduling rights for particular assessments. To set the scheduling permissions for an assessment:

1. Open Assessment Manager
2. Highlight the assessment folder containing the assessment you want to control scheduling rights for, and select **Open Assessment Folder** from the **Assessment Options** menu

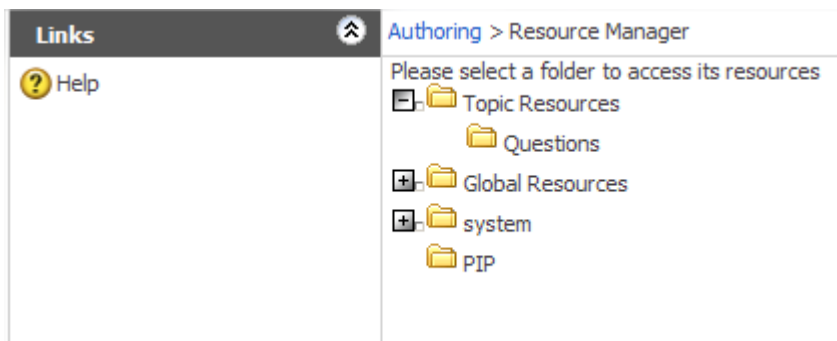
3. Highlight the assessment you want to control scheduling rights for, and select **Set Scheduling Permissions** from the **Assessment Options** menu. This opens the Scheduling Permissions Editor

The screenshot shows the 'Scheduling permissions for the following assessments:' dialog box. At the top, there is a text field labeled 'Example assessment'. Below this, the dialog is divided into two main sections: 'Groups available' on the left and 'Groups assigned' on the right. The 'Groups available' section contains a list box with 'Cambridge' and 'Oxford' items, where 'Cambridge' is currently selected. Above the list box is a search field and a 'Search' button. Between the two list boxes are two buttons: 'Add >>' and '<< Remove'. At the bottom right of the dialog are 'Cancel' and 'Finish' buttons.

4. Add the groups you want to assign scheduling rights for to the Groups assigned column.
5. Click **Finish** to set the security permissions

Resource Manager

When Resource Manager is started, the resources that the author has access to are displayed.



Resources can be:

- Topic Resources - Associated with individual topics
- Global Resources - Associated with all topics

To work with resources in a Topic Resources folder or Global Resources folder, highlight the folder and select **Open Folder** in the Resource Options menu.

When an author opens a resources folder, the resources in the folder are displayed.

Page 1 >>			
File Name ▼	File Type	Modified Date	File Size
back.gif	GIF-Image	5/17/2007 11:51 AM	2 KB
bk_dot.gif	GIF-Image	5/17/2007 11:51 AM	0 KB
graph_banner.gif	GIF-Image	5/17/2007 11:51 AM	15 KB
header.gif	GIF-Image	5/17/2007 11:51 AM	6 KB
headerLeft.gif	GIF-Image	1/24/2007 2:46 PM	11 KB
logo.gif	GIF-Image	5/17/2007 11:51 AM	3 KB

From here, authors can select an option in the **Resource Options** menu to:

- Upload a resource
- Replace a resource
- Remove a resource

Translation Manager

Translation Manager is part of Browser-Based Authoring and allows authors to create translations based on topics or assessments. Once a set of translations has been made, participants will then be able to pick a language of their choice to take the assessment in.

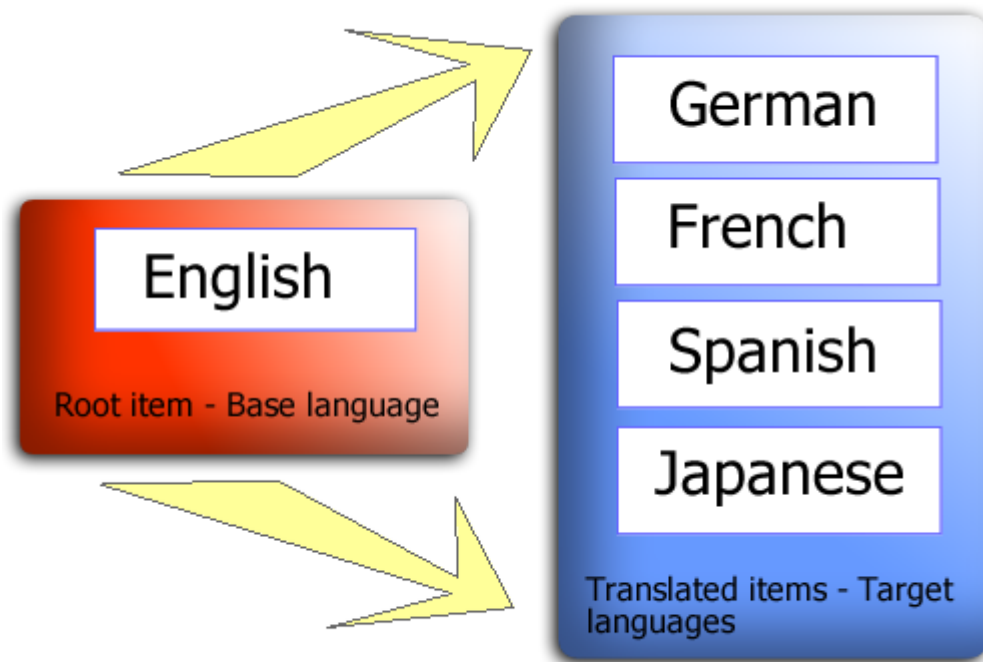
Translation Manager allows authors to create translation directly in Enterprise Manager, or export the language content out as XLIFF. XLIFF is an XML-based format that enables translators to concentrate on the text to be translated, rather than have to worry about medium the text is available in or the format of it.

For further information about Browser-Based Translation Manager, please refer to:

- [How does Translation Manager work?](#)
- [What is XLIFF?](#)
- [Using Translation Manager](#)
- [Working with translation projects](#)
- [Translating content via Perception](#)
- [Status flow diagram](#)
- [Consideration to be taken when using Translation Manager](#)
- [Working with translated items in Qpacks](#)

How does Translation Manager work?

Translation Manager is designed to make the process of translating content into multiple languages easy. It works by taking a root item and confirming this object as the baseline for the translations. The translation, using the root item as the definitive guide, can then be translated and stored as shown in the diagram below.



The following section describes:

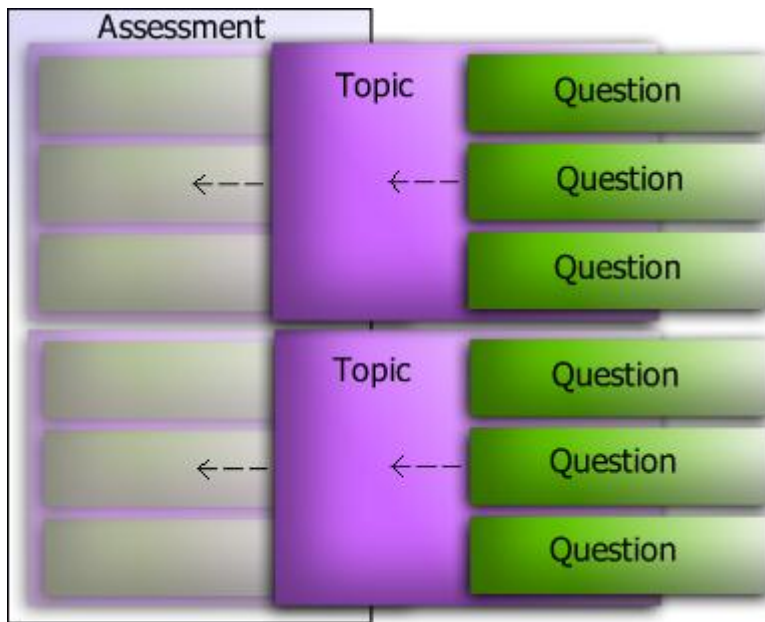
- [The translation workflow](#)
- [Maintaining translated items](#)
- [Branching translations to create unique items](#)

Translation workflow

Translations are created for 3 different items in Perception. These are

- Topics
- Questions
- Assessments

This means that to translate an assessment you will first need to translate a topic and then the questions. This ensures that once the items have been fully translated all the constituent parts of the assessment is then available to be scheduled.



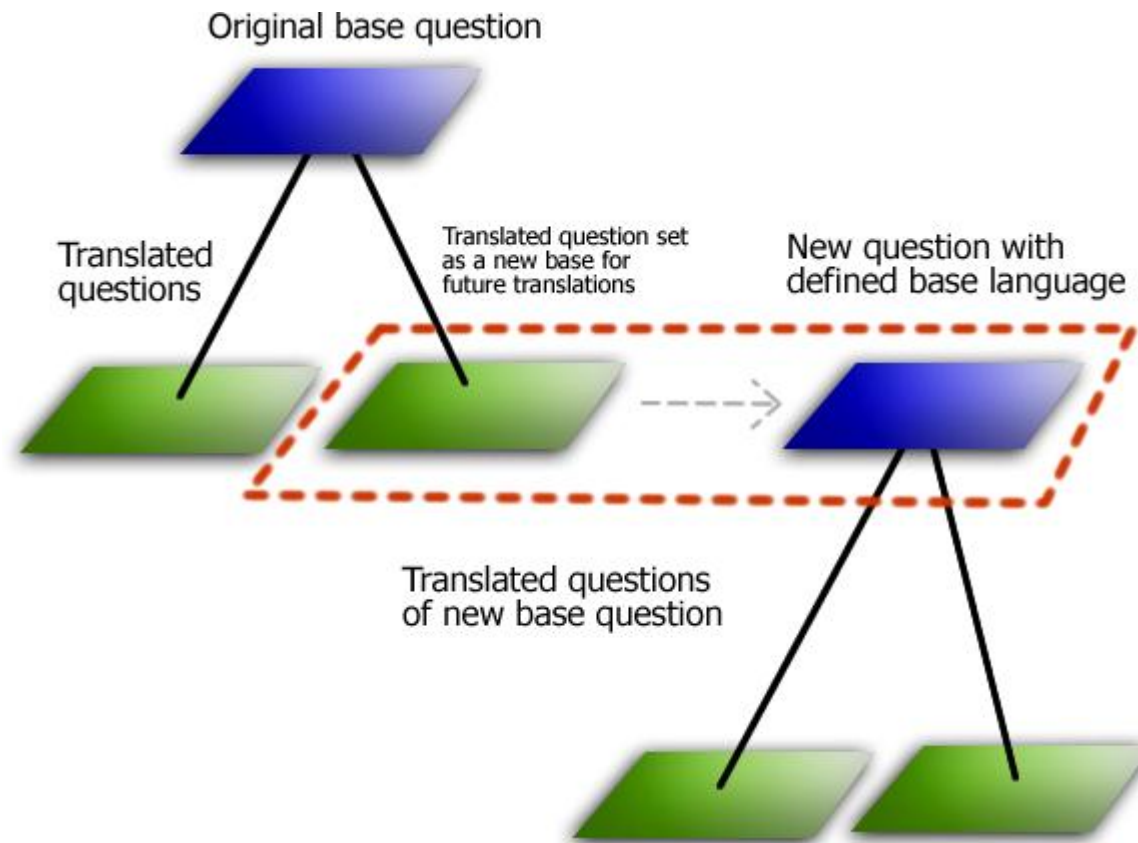
Translation maintenance

Perception is designed to notify users if an item that has been translated is changed. Meaning if an author changes the Root item in the base language this is notified to any translators that may use Translation Manager. This ensures that translated content is always kept up to-date with the original item.

Items being translated are usually grouped into projects. For example, translating a topic of questions is seen as project. Additionally, translating an assessment is also a project. Translation are grouped into projects to make them easier to manage. Translation project can be assigned different statuses to keep other users and translators informed of the progress of the project. For further details about the statuses that can be manually applied or applied automatically by Translation Manager, please refer to the section [Status flow diagram](#). Once a translation of an assessment is complete it will need to be approved before it is available for scheduling.

Branching translations

Due to the nature of translations a question or group of questions may need to change significantly when compared to the original. If this occurs it may be desirable to create future translations of the modified question rather than the original. For example, if you create a question that is region specific or language specific the translated question now no longer becomes merely a translation of the same text but a re-wording of the entire question. Translation Manager allows a topic that has translated questions within it to be copied to a separate topic and the chosen translated language to become the base language for the topic and questions copied.



For further details about how to Copy as base a specific topic, please refer to [Using Translation Manager](#).

Providing the participant with language options


Translation Manager allows the same assessment to be translated in to many languages. Perception can then be used to:


- Define which language is delivered to a participant
- Allow the participant to choose a language of their choice, as shown below

Questionmark

Oct 13 2008 | Logged in as : part1 ?

Choose one of the following languages

☐  English (United States)

☒  Spanish (Spain)

These options are available when scheduling an assessment for delivery in [Assessment Manager](#).

What is XLIFF?

XLIFF is an XML-based format that allows translators to easily translate content without having to worry about the format. In its most basic form, XLIFF consists of one or more translation elements. Each element is required to be translated into the given language. The XLIFF file also contains information relating to Perception, this is stored in the header of the file while the general text to be translated is stored in the body section. Each element that needs to be translated is stored as trans-unit elements within the body section of the file. For example, a Perception XLIFF file may contain some of the following trans-elements:

- Question title
- Question description
- Question stimulus
- Question choices
- Question outcomes
- Question feedback
- Assessment title
- Assessment description
- Assessment feedback
- Assessment outcomes



These trans-elements often include the original text known as the Source language, but also duplicate trans-elements that contains the text that can be translated (Target language). Perception can be configured to include the target language trans-elements or not, this depends on the preferred method of translating. The benefit of XLIFF is using 3rd party applications like Trados that allows translators to do a comparative translation without needing to worry about formatting and layout. The text below is an example of the layout of an XLIFF file.

```
<trans-unit id="Q9630183719559230Description" restype="x-questionmark-QuestionDescription"
datatype="plaintext" size-unit="char" maxwidth="200">

<source>This is a sentence.</source>

<target xml:lang="fr">Translation of "This is a sentence."</target>

</trans-unit>

<trans-unit id="Q9630183719559230Wording" restype="x-questionmark-QuestionWording"
datatype="html">

<source>This is a sentence.</source>

<target xml:lang="fr">Translation of "This is a sentence."</target>

</trans-unit>
```

As you can see the translator can compare the translated text directly with the source language while translating. For instructions about how to complete the translation of an XLIFF file using a 3rd party tool, please refer to the documentation that accompanied it.

The same approach of comparative translation is also adopted for the translation done via Perception in the Browser-Based Translation Manager, as shown below:

Question: I am a question?

Source : English (United States) Target : **Spanish (Spain)**

► **Question Description**

I am a question? ¿Soy una pregunta?

► **Question Stimulus**

I am a question? ¿Soy una pregunta?

► **Question Choices**

► **Question Choice 1**

Yes Si

► **Question Choice 2**

No No

Why was XLIFF chosen as the translation format of choice?

XLIFF was chosen as the translation format of choice by Questionmark because it provides a flexible approach to translations and is the most commonly used format by localization/translation vendors as it is an industry standard format that provides a self contained translation method. This is beneficial because:

- There is less dependency on vendors, as now most vendors already use XLIFF when translating content
- XLIFF is easier to handle as it is a standards based file format with multiple tools capable of editing the file correctly
- XLIFF can be generated on a per-project basis, allowing greater control of the information provided to translation vendors
- XLIFF can be used to control the information flow because it can include details about the data included in the XLIFF file

The original format release (version 1.0) of XLIFF was made available in April 2002. The current XLIFF file format is version 1.2 (released February 2008). Perception is compatible with generating and importing XLIFF files that comply with the XLIFF 1.2 standard. If you are using translations tools you should ensure that they are compatible with the relevant XLIFF version.

Using Translation Manager

Translation Manager is a built-in application designed to allow organizations to easily translate questions and assessments into various languages. Translation Manager uses projects to identify what is going to be translated in to other languages.

Projects can be created to either:

- Translate everything in a topic
- Translate an assessment

Translations can be done in Perception, or a 3rd party application capable of editing eXtensible Markup Language files in the XLIFF file format. XLIFF is a standard used to describe data stored in a file through the use of *tags*. To find out more about XLIFF, please refer to:

- See "What is XLIFF?" on page 104

To find out how to use Translation Manager, please refer to the following section:

- [Projects tab](#)
- [Updates tab](#)
- [Repository tab](#)

Projects tab

The Projects tab allows a user to manage translation projects in Perception. Using this tab a user can:

- [Create a new project](#)
- [Import XML relating to a project](#)
- [View the project in the repository](#)
- [Discard the project](#)
- [Approve the project](#)

This tab is the first of three that is available in Translation Manager. To find out more about what can be accomplished on the other tabs, please refer to the links below:

- [Updates tab](#)
- [Repositories tab](#)

The Projects tab displays any existing translation projects in a table as shown below.

Authoring > Translation Manager

Projects | Updates | Repository

Project Name contains

Show All Languages Show all Statuses

Project Name	Type	Date Created	Date Last Modified	Owner	Source	Target	Status
Transl501_wrt342	Topic	Feb 09 2011	Feb 09 2011	398369	English	Spanish (Spain)	In perception translation

The table contains information about the projects stored in the repository and includes the following detailed below.

Title	Description
Project Name	The title of the project
Type	Whether the project is to translate a whole topic or an assessment
Date Created	The date the topic was created
Date Last Modified	The date the project was last updated or modified
Owner	Who created the project
Source	The language the original content is in
Target	The language the translated content is in
Status	<p>The status of the translation. This can be:</p> <ul style="list-style-type: none"> • In Perception translation - Awaiting to be translated using Perception • XML Exported - The XML needing to be translated has been exported • XML Imported - The XML containing the translated contents has been imported back in to Perception • Approved - The translations included in the project have been completed and approved. The contents are ready to be used <p>For further details about the statuses used by Translation Manager, please refer to the translation project section of Status flow diagram.</p>

The description of a Translation project is displayed when the mouse pointer is moved over the project name. Existing translation projects can be [searched](#) for using the filters available.

Creating a project

For details about how to use the Translation project wizard to create Translation projects for assessments and topics, please refer to the section:

- See "Working with translation projects" on page 115

Importing an XML file to a project

An XML file can only be imported to a project that originally had its XML exported for translation. To import an XML file it must be imported in to the same project from which it was exported, otherwise an error will occur. To import an XML file:

1. Select the project that the original XML file was exported from
2. Click **Import XML** from the **Options** menu
3. **Browse** to the location of the XML file on your computer or network and click **Open**
4. Click **Import**

If the import is successful you will be informed, if the import is unsuccessful an error will be displayed describing possible causes and solutions to this error.

Viewing a project in a repository

Viewing a project in the repository displays the **Repository** tab with the filters already applied so that only the details and translations relating to the project selected appear in the repository view. The repository view will contain the topics and sub-topics of the project and the information in them can be viewed by selecting the topic.

To view the contents of a project as it appears in the repository:

1. Select a project from the list of available projects
2. Click **View in repository** from the **Options** menu

It is only possible to view one project at a time in the repository.

For further details, please refer to the section [Repository tab](#).

Discarding a project

Projects can only be discarded if they have not been approved. To discard a project that has not been approved:

1. Select the project from the list of available projects
2. Click **Discard** from the **Options** menu

Only one project at a time can be discarded.



Once a project has been discarded it is not possible to retrieve any information from this project or reinstate it.

Approving a project

A project can be approved once all the translations required for the project are completed. For example, a translator completes a translation of an assessment and has it reviewed. Now to make the translated assessment available for participants it needs to be approved, this is another way of saying that the translation project is complete.

A project can only be approved when the project status is:

- XML Imported
- In perception translation

To approve a project:

1. Select the project from the list
2. Click **Approve** from the **Options** menu
3. Click **OK** on the **Are you sure you want to approve the selected project?** warning message

Searching for a project

To search for a project a user can apply filters. Filters determine what should be shown. For example, a filter can be applied to show only the projects that contain the word "translation" in the project name.

Filters that can be applied are:

- Project Name
- Language used in the project (either the Source or the Target language)

- Statuses of the project

To apply a filter:

1. Select the type of filter to apply to the keywords. Project names can be filtered by applying the following to the keywords:
 - **Contains**
 - **Equals**
 - **Begins with**
 - **Ends with**
2. Enter the keyword to search for in the text-box
3. Select the language to filter the projects by
4. Select the status for the projects to be displayed
5. Click **Search**

The screen will update to only show the projects that meet the criteria set out in the filters.

Updates tab

The Updates tab displays a table containing any assessments or topic and question translations that have the status **Needs updating**.

The table below describes the information for each update.

Heading	Description
Name	The name of the item that needs updating. It will be either the: <ul style="list-style-type: none"> • Question description • Assessment name • Topic name
Type	The type of the content that needs updating. The possible value are: <ul style="list-style-type: none"> • Question • Assessment • Topic
Modified	The date the content was last modified. This will only be displayed for an assessment or question.
Source	The source or base language of the assessment, topic or question
Target	The language that the assessment, topic or question is being translated into

For the listed updates it is possible to:

- [Open in repository](#)

This will open the **Repository** tab displaying the contents of the repository in relation to the required update

- [Edit translation](#)

This will open the Edit Translation window where the required update can be completed and saved

Opening an update in the repository view

To open an update in a repository view:

1. Select the appropriate update from the table
2. Click **Open in repository** from the **Options** menu

Editing a translation

To edit the translation directly from the Updates tab:

1. Select the appropriate update from the table
2. Click **Edit translation** from the **Options** menu

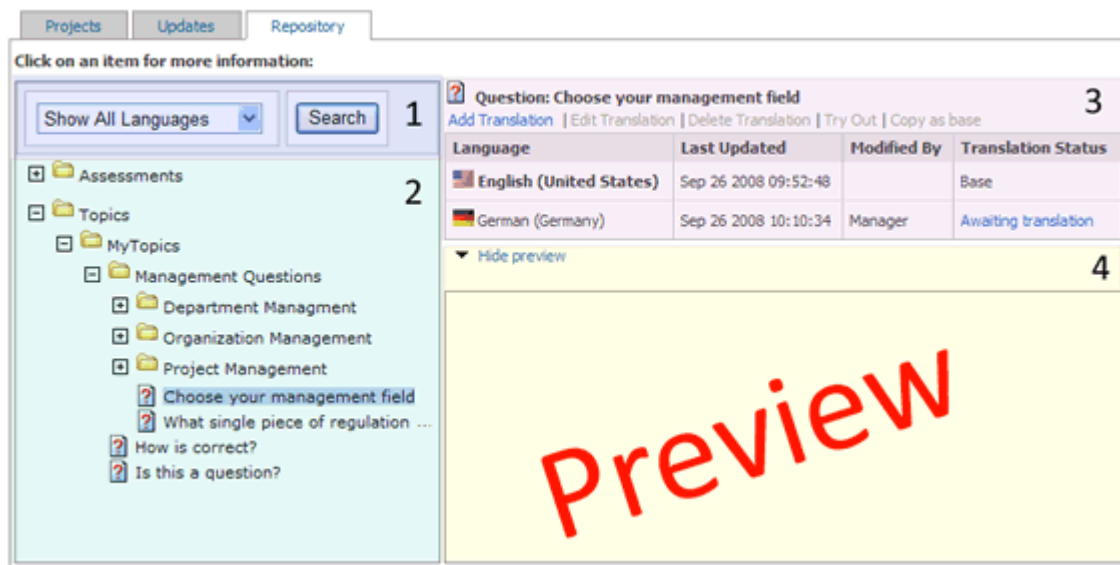
An Edit translation window is displayed where any updates can be made and saved.

Repository tab

The repository view displays the translation information as it appears in the repository. The Repository tab can be used to:

- [Set a base language](#)
- [Add a translation](#)
- [Edit a translation](#)
- [Delete a translation](#)
- [Tryout a translation](#)
- [Copy a translation as a base](#)
- [Manually set the translation status](#)

The screen is divided into four parts as indicated in the image below.



Each of the parts identified are described in the table below.

Part	Name	Description
------	------	-------------

Part	Name	Description
1	Filters	<p>This section of the screen displays the filters applied to the repository to display the current Repository structure. By default the filters applied will relate to the project selected. For example, to apply a filter to only show the repository content relating to a specific project:</p> <ol style="list-style-type: none"> 1. Select the project from the Projects tab 2. Click View in repository from the Options menu <p>The screen will be updated to show the Repository tab with the filters applied to only show the relevant project. The filter can be removed by clicking Remove the Filter?.</p> <p>If the Repository view does not already have filters applied it is also possible to filter the content of the repositories by language. To apply a language filter:</p> <ol style="list-style-type: none"> 1. Select a specific language from the languages drop-down list 2. Click Search <p>The Content view will only display content that forms part of a project where the language specified was used.</p>
2	Repository structure	<p>The repository structure window displays the topic and assessment folders and sub-folders. If filters are applied the folder views will be limited by the filters. To open folders to view the content:</p> <p>Click '+'</p> <p>Or</p> <p>Double-click the folder name</p>
3	Content view	<p>The content view displays the content relating to the question, assessment or topic folder. It will only become visible as assessments or questions are selected. It shows each language the content has been translated into and provides links to:</p> <ul style="list-style-type: none"> • Add Translation - Add further language translations to the selected content • Edit Translation - Edit a selected translation to make amendments. For further details about how to edit translation text, please refer to Translating contents • Delete Translation - Delete the selected translation because it is no longer required • Try Out - View the selected contents in the Preview window • Copy as base - Creates a copy of a selected item with the chosen language as the base language
4	Preview	<p>The preview window is available when an assessment or question is chosen from a translation project. It allows authors to view the content as it would appear to a participant.</p> <p>The preview window can be hidden if required. To hide the preview window click Hide preview. To show a hidden preview window click Show Preview.</p>

Setting a base language

In the repository view if you select a topic that has not had a base language (source language) defined for it the Set Base Language option will be displayed on the right of the screen. The topic name is displayed along with a **<Select Language>** drop-down list. To set a base language for a topic:

1. Click 

Or

If the language has been used previously in the repository select it from the **<Select Language>** drop-down list and move to [step 4](#).

2. Select a language to set as the base language from the list
3. Click **OK**
4. Click **Set Base Language**

The base language has now been set for this topic and its sub-topics.

Adding a translation

It is possible to add a translation for a Question, Topic or Assessment to the repository. To add a translation:

1. Select the item to add a translation for
2. Click **Add Translation**
3. Select the language to add a translation for

If you are translating an assessment it is only possible to choose a language where the questions have already been translated into the chosen language. For example, it is not possible to translate an assessment into Spanish if the questions have only been translated into French. To translate an assessment into Spanish you will first need to translate the questions.

4. Click **OK**

The **Edit Translation** page opens.

Editing a translation

It is possible to edit a translation that already exists for a Question, Topic or Assessment in the repository. To edit a translation:

1. Locate and select an item to edit the translation of
2. Click **Edit Translation**

The **Edit Translation** page opens

Deleting a translation

It is possible to delete a translation of a Question, Topic or Assessment from the repository. To delete a translation:

1. Locate and select the content whose translation you want to delete
2. Click **Delete Translation**

Trying out a translated question

Try Out allows administrators to preview and try the content as it would appear to participants. Only questions and assessments can be tried out. To try out an item:

1. Navigate to the item in the repository view on the left
2. Select the item
3. Select the item you would like to try out

This can either be the base item or one of the translated items

4. Click **Try Out**

A window opens with a preview of the item

It is possible to Try out several translations of a question at once. This can be used to compare the various versions of the translation. To compare translation:

1. Navigate to the item in the repository view
2. Select several translation you would like to compare (you can do this by holding down the Ctrl button and selecting the required items)
3. Click **Try Out**

Several windows open with a preview of the items. It is only possible to open 3 items at a time.

Copying a translation as a base

In certain circumstances it may be necessary to alter a question when translating. For example, if questions are *region* specific it may be necessary to change the question significantly from the original. The changes could cause confusion when updating the questions in the future because they no longer match the base language. To combat this it is possible to branch a topic and set a new base language for the topic.

The Copy as base option allows translators to copy a translated topic and all its questions (including sub topic) as base items. So that user can create assessment including translated items and schedule participants to take assessment using Enterprise Manager. However, it is important to understand that only questions in a topic with a translation status of **Translated** are copied to the new topic

To Copy as base a topic:

1. Select a topic from the repository view
2. Choose a translated topic
3. Click **Copy as base** and enter a new name for the topic
4. Click **Copy**

The new topic is displayed in the repository along with any questions that were marked as **Translated**. These questions can now be translated into further languages in the same way that the original translations were done. Changes made to the question that will not affect the original question and topic from where the items were copied.

Setting the translation status

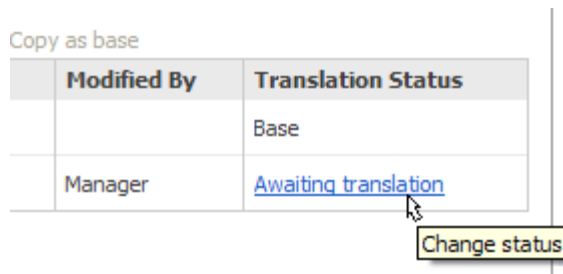
The translation status of an item allows users to identify at what stage the item is when going through the translation process. The status is updated automatically after a certain step is completed. The statuses that can be applied are listed below.

Status	Description
Awaiting translation	The item needs to be translated
Awaiting approval	The item has been translated but now needs approval
Awaiting re-translation	The item has not been approved and needs to be re-translated
Awaiting approval or re-translation	The item translation has been corrected and it needs approval again
Translated	The translation has been approved
Needs update	The source content has been updated and the translated version still needs to be updated

The status of an item is automatically set after certain stages. However, the statuses set can be manually set as well.

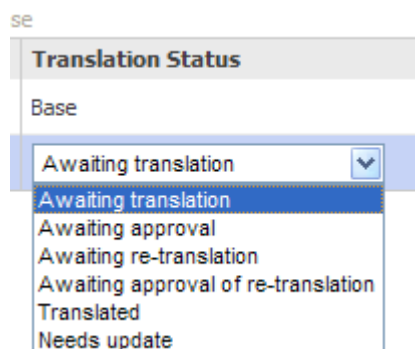
To manually set the status of an item:

1. Click on the status in the **Translation Status** column



The status will change into a drop-down box

2. Select the appropriate status from the list



The selected status is now applied to the item

For further information about the statuses that can be applied to a translated item and the work flow that causes item statuses to change, please refer to the section:

- See "Status flow diagram" on page 124

Working with translation projects

Translation Manager allows users to create projects to group translations together. For example, a project can be created to translate all the contents within a topic or for an assessment. This makes the management and tracking of translation easier.

Projects are created on a per item type basis. This means that a project to translate an assessment can not be done until a project to translate the questions has been completed. For example, creating a translation project for an assessment that has not had the questions translated will result in the assessment translation project being aborted and warning messages displayed to the user. For further details about how Translation Manager works, please refer to the section:

- [How does Translation Manager work?](#)

Creating a project

To create a translation project from the Translation Manager page:


1. Select **New Project** from the **Options** menu
2. Select what type of content will be translated in this project, The option available are:
 - Translation of all the questions in a topic
 - Translation of all text in an assessment

To choose the type of content to translate select **Translate topic** or **Translate assessment**

3. Click **Next >>** to continue
4. Apply the appropriate settings to the translation project as shown [below](#).

Applying settings to a translation project

The following settings can be applied to the translation project:

1. Enter a name for the project in the **Project name** text-box
This will make is easy to identify when you have multiple projects
2. Enter a description of the project in the **Description** text-box
The description can be used to identify what the project contains
3. Click  and select the **Source language** from the list that appears and click **OK**

Or

If content within the repository has previously been translated the languages chosen will appear in the drop-down list. A **Source language** can be chosen from this drop-down list if it is the same for this project

4. Click  and select the **Target language** from the list that appears and click **OK**

Or

If content within the repository has previously been translated the languages chosen will appear in the drop-down list. A **Target language** can be chosen from this drop-down list if it is the same for this project

5. Select the **Translation method** you would like do the translation in. The translation can be done:
 - **within Perception** - This will allow the translation to be completed in Browser-Based Authoring
 - **via XML** - This will generate an XLIFF file that can be translated using any 3rd Party application capable of editing XLIFF files
6. Select the **Text to include** in the translation project. The included text can be:
 - **All text** - This allows the user to translate all the text in the chosen topic or assessment
 - **Only text that is not yet translated** - This allows the user to translate only the text in the topic or assessment that has not already had its translation approved
7. Click **Next>>** to continue. The next page displayed will depend if the project was intended to translate an [assessment](#) or a [topic](#)

Selecting a topic to translate

To choose the relevant topic to include in your translation project:

1. Click '+' on the **Topics** folder to reveal the topics that are available
2. Locate and select the required topic to translate and click **Next >>** to continue

If the **Translation method** chosen, was:

- **within Perception**

It is possible to define if the sub-topics of a parent topic will also be included in the translation project by placing a check-mark in the **Include sub-topics** check-box

- **via XML**

It is possible to define:

- If the Translation project includes the topic names and descriptions by placing a tick in the **Translate topic name and descriptions** check-box
- If the sub-topics of a parent topic will also be included in the translation project by placing a tick in the **Include sub-topics** check-box
- If the topic outcomes are also included in the translation project by placing a tick in the **Include topic outcomes** check-box



When translating a topic **within Perception**, by default, you will also need to translate the topic:

- Name and descriptions
- Outcomes

Additionally, when a topic is selected that does not have a base language assigned a prompt will be displayed requiring asking the user to click **Yes** to set the base language for the topic to the same as the **Source** language for the project, or **Cancel** to leave the topic without a base language defined

3. The translation project is created. If any errors have occurred these will be displayed, for further details about possible errors, please refer to the section [Considerations when using Translation Manager](#)
4. If you created a project:
 - **within Perception** - Click **Finish** to be taken to the Repository tab to create some translations, refer to the section [Working with translation projects](#)

- **via XML** - Save the XLIFF file to your computer and click **Finish** to return to the Project tab

Selecting an assessment to translate

To choose the relevant assessment to include in your translation project:

1. Click '+' the **Assessments** folder to reveal assessment folders that are available
2. Double-click the assessment folder name
3. Locate and select the required assessment to translate and click **Next >>** to continue
4. The translation project is created. If any errors have occurred these will be displayed, for further details about possible errors, please refer to the section [Considerations when using Translation Manager](#)
5. If you created a project:
 - **within Perception** - Click **Finish** to be taken to the Repository tab to create some translations, refer to the section [Working with translation projects](#)
 - **via XML** - Save the XLIFF file to your computer and click **Finish** to return to the Project tab

Translating contents

When updating the contents of a translation project an author will need to translate the text stored in the repository. For any translation project assigned to be done within Perception this means that the Edit Translation window will be needed. There are three types of Edit Translation window available.

If you are editing a question or assessment the author may have left some guidance on what information has changed. This information is displayed on the Edit Translation window to assist with any further translation required. For further details, refer to [Using the guidance information when updating a translation](#) below.

When editing a translation for a question or assessment it is possible to format the translated language using the editor available. For instructions about using the formatting features, refer to [Formatting the translated text](#) below.

Editing a Translation

When editing a translation each **Edit Translation** window is slightly different in what it displays. But they are all designed to do the same thing, show the original (Base) language on the left hand-side and allow authors to type translations on the right hand side.

To edit a translation using the Edit Translation window select the type of item you want to translate from the list below.

- [Topic translation](#)
- [Question translation](#)
- [Assessment translation](#)

Topic translations

The Edit Translation window allows authors to create translations of topics in the Perception repository. The Edit Translation window shows the **Topic Name** and **Topic Description** in the **Source** language. It allows authors to store the translated **Topic Name** and **Topic Description** in the repository by updating the corresponding text on the right-hand side of the screen in to the Target language.

To translate the Topic:

1. Click the text-box that appears in the **Topic Name** section of the screen under **Target**
2. Delete the contents and insert the translated topic name
3. Click the text-box that appears in the **Topic Description** section of the screen under **Target**
4. Delete the contents and insert the translated topic description
5. Click **Save**

You will be returned to the Repository tab of the Browser-Based Translation Manager where the status of the Topic Translation will be updated to **Translated**.

Question translation

The Edit Translation window allows authors to create or update translations of questions in the Perception repository.

The Edit Translation window shows the details of the question in the Source language and allows authors to update the text found in the corresponding Target language text boxes.

Only the text for the Target language can be modified. It is possible to modify the details using the Design view to format the translated text or in HTML view.

The following information can be updated when translating a question (options available depend on the type of question being translated):

- [Description](#)
- [Stimulus](#)
- [Choices](#)
- [Choice Options](#)
- [Feedback Conditions](#)
- [Feedback](#)

Question Description

A question description is often applied to a question to allow authors to describe the question that has been created. For some questions the Question Stimulus may be split in to **Fragments**.

To translate a Question Description:

1. Select the text-box relating to the **Question Description** under the Target language on the right hand-side of the screen
2. Delete the text
3. Insert a translation

Question Stimulus

The Question Stimulus is the information that is provided to a participant which they must use to choose or form the correct answer.

To translate the Question Stimulus:

1. Select the text-box relating to the **Question Stimulus** under Target language on the right hand-side of the screen

2. Translate the Question Stimulus using the format tools or update the text using HTML code by click the **HTML** tab

Question Choices

Question Choices represent the answers that a participant can choose.

To translate the Question Choices:

1. Select the text-box relating to the **Question Choices** under Target language on the right hand-side of the screen
2. Translate the Question Choices using the format tools or update the text using HTML code by click the **HTML** tab

Question Choice Options

Question Choice Options are a list of the options available for each choice within a question.

To translate the Question Choices:

1. Select the text-box relating to the **Question Choices Options** under Target language on the right hand-side of the screen
2. Translate the Question Choice Options using the format tools or update the text using HTML code by click the **HTML** tab

Question Feedback Condition

Question Feedback Conditions are the conditions that accomplished before a certain type of feedback is displayed. For example, at a basic level the feedback condition determine if a question is to respond with the feedback of a correct or incorrect answer.

To translate a Question Feedback Condition:

1. Select the text-box relating to the **Question Feedback Condition** under the Target language on the right hand-side of the screen
2. Delete the text
3. Insert a translation

Question Feedback

Question Feedback is the information that is presented to a participant once they have submitted a question.

To translate the Question Feedback:

1. Select the text-box relating to the **Question Feedback** under Target language on the right hand-side of the screen
2. Translate the Question Feedback using the format tools or update the text using HTML code by click the **HTML** tab

Assessment translation

The Edit Translation window allows authors to create or update translations of assessments in the Perception repository.

The Edit Translation window shows the details of the assessments in the Source language and allows authors to update the text found in the corresponding Target language text boxes.

Only the text for the Target language can be modified. This text can be reformatted with the various design elements available in the formatting toolbar.

The following information can be updated when translating a question (options available depend on the type of question being translated):

- [Assessment details](#)
- [Question block](#)
- [Outcomes](#)
- [Topic Outcomes](#)

Assessment details

The assessment details that can be translated include:

- **Assessment Name**

To translate the assessment name select the corresponding target text-box and insert the translated equivalent

- **Assessment Template**

The template used to present the assessment can not be edited/translated but a new template can be chosen. The new template may contain translated elements by design

Assessment Question Blocks

The Assessment Question Block section includes details that are displayed to a participant. For example, introduction/instruction text displayed at the beginning of the question block.

To translate a Assessment Question Block:

1. Select the text-box relating to the **Assessment Question Block: Intro Text** under the Target language on the right hand-side of the screen
2. Delete the text
3. Translate the **Intro Text** using the [text editor](#) options to format the text or update the text using HTML code by click the **HTML** tab

Assessment Outcomes

The Assessment Outcome section includes details about all the different outcomes available in the assessment. For example, a typical assessment may include two outcomes, a pass and a fail outcome. Each outcome has a corresponding name and message.

To translate the Assessment Outcome:

1. Select the text-box relating to the **Assessment Outcome Name** under Target language on the right hand-side of the screen
2. Translate the Question Stimulus using the [text editor](#) options to format the text or update the text using HTML code by click the **HTML** tab
3. Select the text-box relating to the **Assessment Outcome Message** under Target language on the right hand-side of the screen
4. Translate the Question Stimulus using the [text editor](#) options to format the text or update the text using HTML code by click the **HTML** tab

5. Repeat the process for all the available assessment outcomes

Assessment Topic Outcomes

Question Choices represent the answers that a participant can choose.

To translate the Question Choices:

1. Select the text-box relating to the **Question Choices** under Target language on the right hand-side of the screen
2. Translate the Question Stimulus using the text editor options to format the text or update the text using HTML code by click the **HTML** tab

Using the guidance information when updating a translation

Guidance is displayed for the translating author in a yellow text-box that appears at the top of the screen. The Guidance text-box displays information regarding:





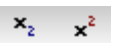
- The number of **Revisions** made
- Who **Modified** the question
- **On** what date they were modified
- Comments added by the person who **modified** the question






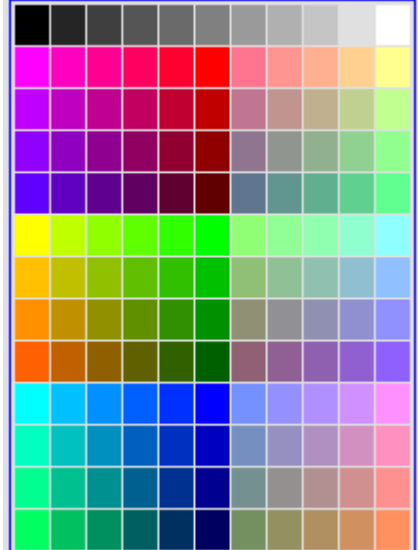
This allows authors updating the translation of the question to understand what updates have been made. This is especially important when updating long or complicated questions to ensure all added information is translated.




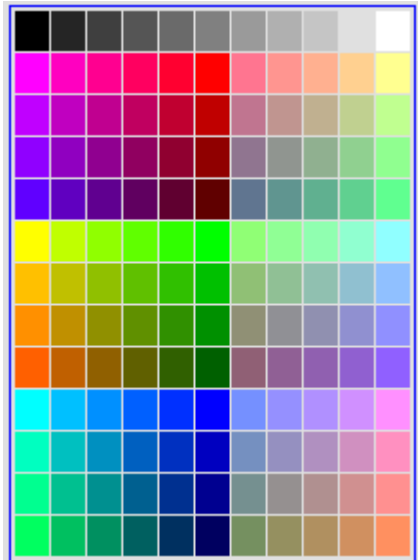


Formatting the translated text



Perception can be used to format the text used in the translation to the target language. It allows users to underline, emphasize, change color, add lists to any translated text.

The following table describes the options available on the text editor toolbars for text entry.

Icon	Description
	To insert Bold text, click the icon and enter the required text. To change text already entered to bold, highlight the text required and click the icon. Click the icon again to return to normal text.
	To insert <i>Italic</i> text, click the icon and enter the required text. To change text already entered to italic, highlight the text required and click the icon. Click the icon again to return to normal text.
	To insert <u>Underlined</u> text, click the icon and enter the required text. To change text already entered to include an underline, highlight the text required and click the icon. Click the icon again to return to normal text.
	To insert Strike-through text, click the icon and enter the required text. To change text already entered to include a strike-through, highlight the text required and click the icon.
	To insert subscript or superscript text, click the required icon and enter the required text. To change text already entered to be either subscript or superscript, highlight the text and click the icon. Click the icon again to return to normal text.

Icon	Description
	To justify the text in a paragraph to either the left hand-side, right hand-side, center or aligned to fill the whole line, select the paragraph and click the required justified icon. The text can be justified per paragraph. So, one paragraph can be justified to the center, while another paragraph can be justified to the left hand-side.
	A paragraph can be indented by placing the cursor anywhere in the paragraph and clicking the Increase indent icon. It is also possible to decrease the indentation of an indented paragraph by placing the cursor anywhere in the paragraph and clicking the Decrease indent icon.
	<p>It is possible to create ordered (numbered) or unordered (bulleted) lists.</p> <p>To create a list:</p> <ol style="list-style-type: none"> 1. Click the list icon for either a bulleted or numbered list 2. Insert some text to appear as the first entry in a list 3. Press the Enter/Return key to create a new item for the list 4. Enter some more text 5. Repeat steps 3 and 4 until the list is complete 6. To end the list click the list icon again
	<p>To change the color of the font:</p> <ol style="list-style-type: none"> 1. Click the Font Color icon 2. Select the shade of the colors you want to use  <ol style="list-style-type: none"> 3. Click on the required color  <ol style="list-style-type: none"> 4. Or, enter the hexadecimal value for the color in the text-box and press Enter/Return

Icon	Description
	
	<p>To highlight text (change the background color):</p> <ol style="list-style-type: none"> 1. Place the cursor in the word to high-light a single word, or use the mouse pointer to high-light a portion of the text 2. Click the Font Highlight icon 3. Select the shade of the colors you want to use  <ol style="list-style-type: none"> 4. Click on the required color  <ol style="list-style-type: none"> 5. Or, enter the hexadecimal value for the color in the text-box and press Enter/Return 
	<p>It is possible to insert links to other applications and web pages in the translated text.</p> <p>To insert a link:</p> <ol style="list-style-type: none"> 1. High-light the text you want to turn into a link 2. Click the Insert link icon. The Hyperlink window will open 3. Select the Type of link you want to create 4. Update the URL text-box <p>Do not delete the link specifier from the URL text-box as this will affect how the participant's computer will react when the link is clicked. For example, the link specifier http:// will open a web page, while the mailto: specifier will open an email addressed to the person specified in the URL text-box using the default email application on the participants computer.</p>

Icon	Description
	<p>5. Click OK</p> <p>It is possible to find specific text and if required, replace it with an alternative.</p> <p>To use the find and replace functionality:</p> <ol style="list-style-type: none"> Click the Find icon <p>The Find/Replace window will open</p> <ol style="list-style-type: none"> Enter the text to find in the Find what text-box It is possible to only find instance of the search term that Match case or Match the whole word by placing a tick in the required check-box You can find the text by clicking Find Next Or, you can replace the found text with any text entered in the Replace with text-box and clicking Replace. To replace all instances of the word with the replaced text click Replace All. Click Cancel to close the window
	<p>Images can be added to the text.</p> <p>To add an image:</p> <ol style="list-style-type: none"> Click the Insert Image icon <p>The Modify image window is displayed. The window shows the Files stored in the repository of your Perception installation.</p> <ol style="list-style-type: none"> Locate the image to include <p>To add an image it must have been added as a resource and can be found in the topicresources folder. You can view the contents of a folder by clicking the folder name. To return to the previous folder click Browse Up.</p> <ol style="list-style-type: none"> Selecting the image to include will provide a preview of the image in the Preview box and the image details will be displayed Select where the image should appear on the screen by selecting its alignment from the Align drop-down list Insert an alternative description of the image for browsers that do not support images in the Alt text text-box Choose the thickness of the border from the Border drop-down list Click OK to add the image

Status flow diagram

The following section describes the available statuses in Translation Manager. Statuses are applied differently for:

- [Translation items](#)
- [Translation projects](#)

Statuses are applied to items and projects so that users can easily identify what translation work need to be carried out. This section also identifies what actions will cause the different statuses to be applied to an item or project.

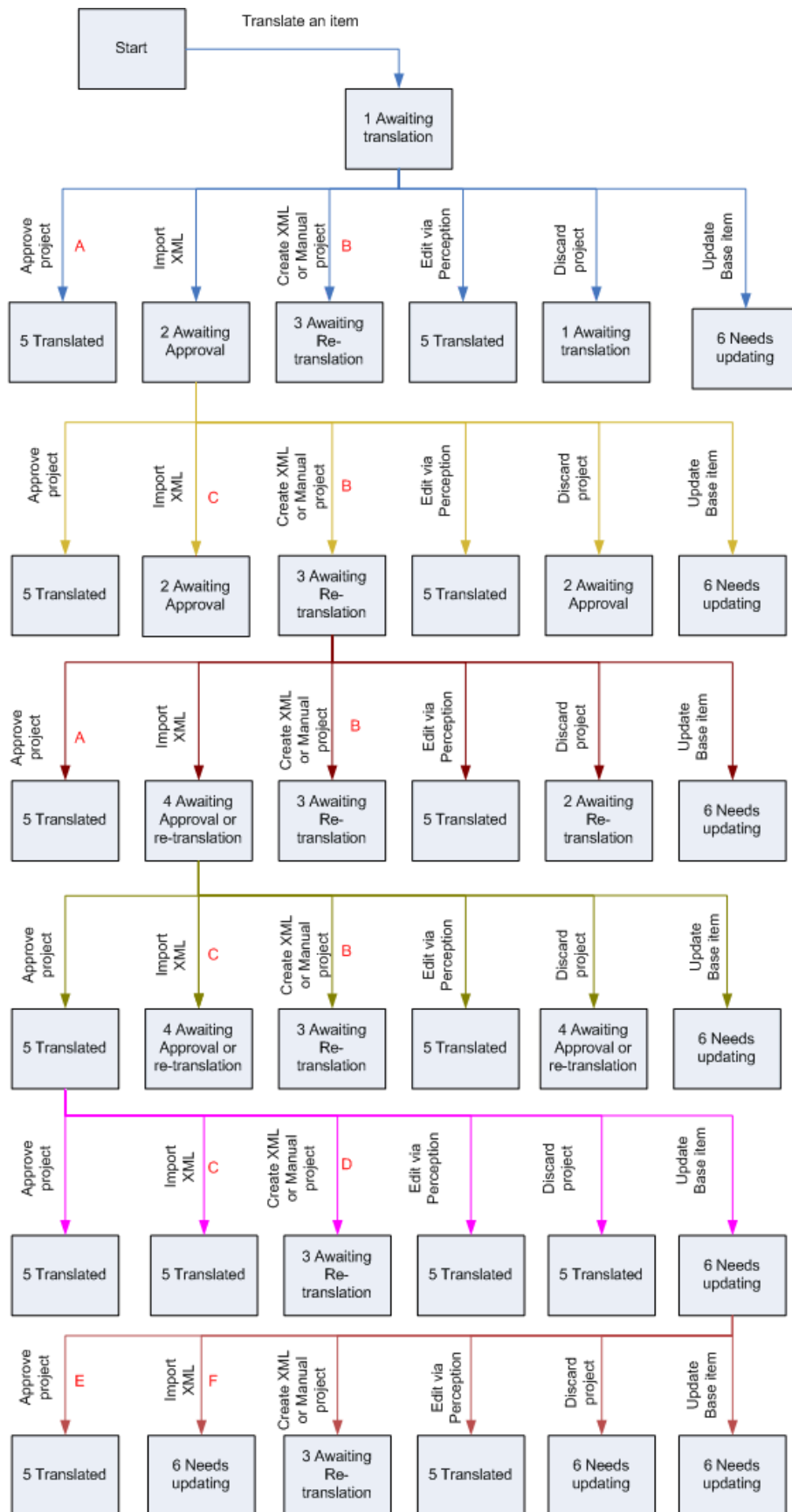
Each item in a Translation project can have a different status. The status applied to the item is separate to the status of the project.

Translation items

The available statuses in Translation Manager for items are included in the table below.

ID	Status	Description
1	Awaiting translation	The item is part of a project. The target language did not exist previously.
2	Awaiting Approval	The item is part of a project. The target language did not exist previously. The user has updated the item, but has not approved the project yet.
3	Awaiting Re-translation	The item is part of a project. The target language did exist previously, and is being edited.
4	Awaiting Approval of re-translation	The item is part of a project. The target language did exist previously, and is being edited. The user has updated the item, but has not approved the project yet. If the user decides to discard the project this item will not be deleted.
5	Translated	Item has been translated
6	Needs update	Item needs update

The following flow diagram highlights the steps and actions that can be taken. Each step and action will cause the status of the translation item to be changed.



The **red** letters indicate possible warning that could occur when applying a particular action to an item in this state. The definitions of the warning are included in the table below.

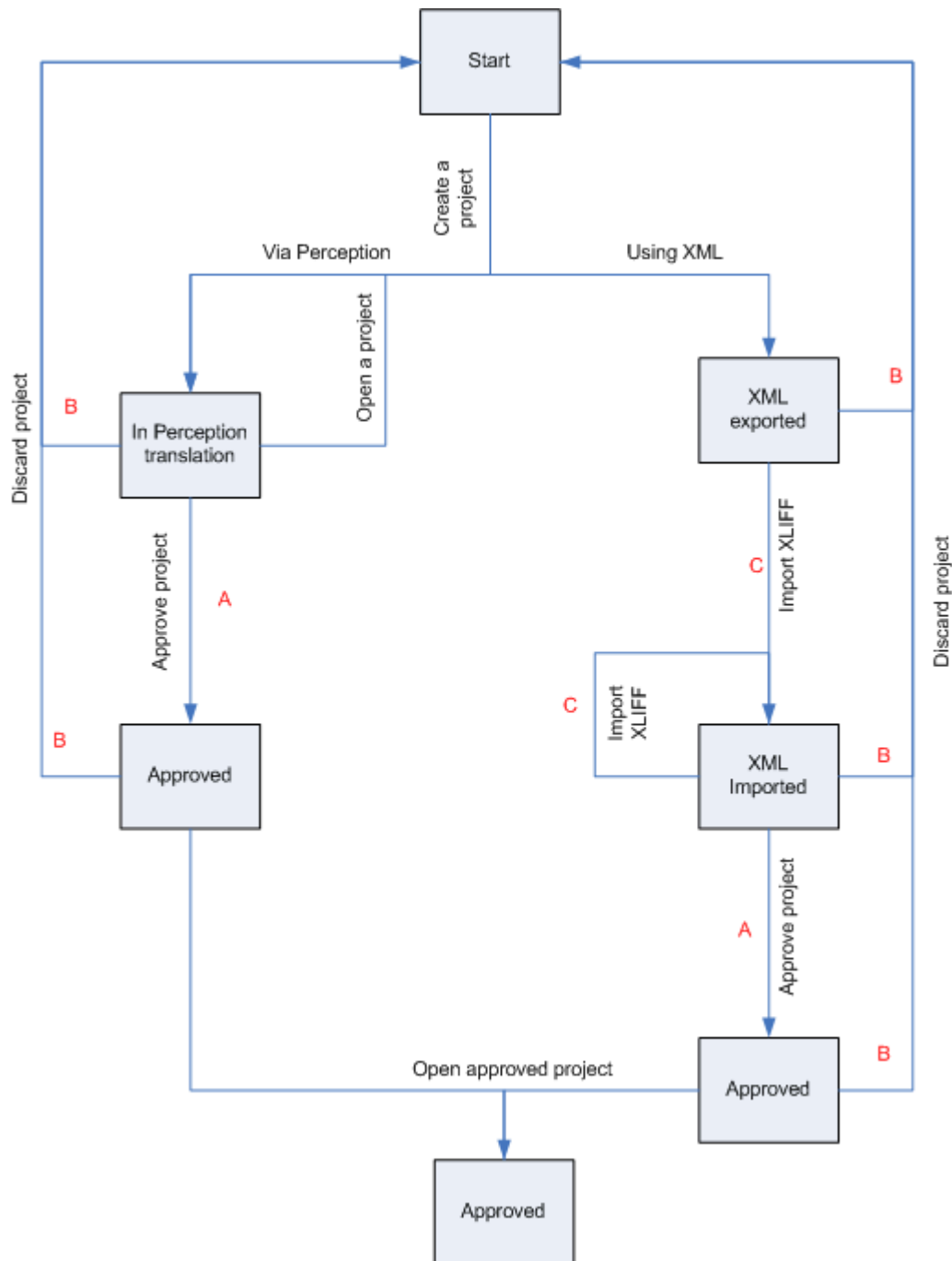
Letter	Description
A	The translation may not be complete. Are you sure you want to approve it?
B	The item is already in translation.
C	The translation already exists. Do you want to overwrite?
D	The item has already been translated.
E	The translation is flagged as needing update. Are you sure you want to approve it?
F	If structural change has been created then an error is shown. See the section Considerations when using Translation Manager for further details.

Translation project

The available statuses in Translation Manager for projects are included in the table below.

ID	Status	Description
1	In Perception translation	New manual translation project
2	XML exported	New XLIFF translation project
3	XML imported	Translated XLIFF file is imported
4	Approved	Translation is reviewed and approved for delivery, meaning the user has completed all the necessary translations

The following flow diagram highlights the steps and actions that can be taken. Each step and action will cause the status of the translation project to be changed.



The **red** letters indicate possible warning that could occur when applying a particular action to an item in this state. The definitions of the warning are included in the table below.

Letter	Description
A	The translation may not be complete. Are you sure you want to approve it?
B	Are you sure you want to delete the translation project? Warning for individual items based on their item status.
C	Check that the imported XML file includes the correct project ID, if not an error will be shown.

Considerations when using Translation Manager

The translation of items can be a complex task. When translating items it is important to be aware of the following:

- [Features that does not work with Translation Manager](#)
- [Translating items using XLIFF](#)
- [Translated items](#)

Features that do not work with Translation Manager

Translation Manager does not work with the following features in Perception:

Feature	Description
Printing and Scanning	Translation Manager is not designed to work with Printing and Scanning in Perception. It is not possible to identify language when using this feature.
Print to Word/HTML	It is not possible to Print to HTML or Word any translated assessments. This feature can only work for the base language of the assessment.
Reporting	Reports on translated assessments are not available without first taking the assessment in the base language. Please refer to the following Knowledge Base article for further details: Why don't the results for an assessment I translated appear in reports? www.questionmark.com/perception/help/v5/knowledge_base/troubleshooting/perception_server/ts_ps519.aspx
Questionmark To Go	It is not possible to deliver translated assessments using the Questionmark To Go player. Questionmark To Go can only be used to deliver the base language assessment.
Export to QML	It is not possible to export the QML of a translated question.

Translating items using XLIFF

If you are translating a project by XML using the XLIFF format it is important to be aware of the following when translating:

- **Perception keywords**

Perception keywords are often used to provide specific information to the Perception Server and could include information relating to the session, the server or URLs required. Generally this information is dynamically created each time the assessment is run, so only appear as keywords in the relevant XML files. These should **NOT** be changed or translated. Possible keywords are listed below:

- %SESSION.TITLE%
- %SESSION.ID%
- %SESSION.TIME%
- %SESSION.TITLE%
- ASSESSMENT_URL

- **HTML tags**

Perception stores the question stimulus, choice and feedback as HTML text so that they can be formatted for display through a compatible web browser. When items are translated using XML the HTML tags are included in the output. It is recommended that these are only altered if a change to the format is required for the translation and that the person translating understands how to use HTML tags because altered HTML tags not correctly formed could result in HTML tags appearing in your translations. Some of the most common HTML tags are listed below:

- `<P> </P>`
- ` `
- `<A ...> `

XLIFF applications use a particular mechanism to ease the translation of items including inline formatting through the use of HTML tags. The mechanism leaves the formatting in place, but embeds it inside a set of `<bpt><ept>` or `<it>` tags. The `bpt` and `ept` tags are used to mark up paired formatting, with `bpt` surrounding the beginning formatting, and `ept` surrounding the ending formatting. The `<it>` element surrounds non-paired formatting. In these cases, the characters "<" and ">" need to be converted to their respective entities: `<` and `>`. For example, the tag `` would be marked up as `<it id="a1" pos="1"></it>`

The mechanism for identifying inline formatting using HTML tags is dependant on the XLIFF application used. Some applications will automatically strip out all the HTML tags and store them separately, others will include the HTML tags in the translation text, while others will use the `<bpt><ept>` tags mentioned above.

- **Resource links**

Resources are often included in questions and can be images, documents, links to web sites or files. Resources like images, video and audio are commonly stored within the repository, while other resources are links to other web pages and files. The references and links to the resources are included in the output so that when translating the links and references can be changed to point to relevant language specific versions of these resources.

- **Template references**

Assessments can use templates to alter the format they are displayed. The template reference is also included in an outputted XML file so that a specific localized template can be used if required. It is important to ensure that the template chosen for the translation is available to the Perception Server because an incorrect or missing template could cause issues when displaying the translated assessment.

Translated items

The following section lists a number of factors that users should be aware about when using Translation Manager. The factors are:

- [Changing exported base items](#)
- [Copying items between repositories](#)
- [Reporting on translated assessments](#)

Changing exported base items

If a base question, topic or assessment has been structurally changed since:

- The initial translation

- XLIFF export

You may find an error is caused when any subsequent import of the XLIFF is made or that the status of the translated items reverts to **Needs Updating**.

A structural change for any translatable item is a non textual change to any of the structures that the item can contain or the number of those structures. For example, structural changes include the following scenarios:

- **Question wording fragment** - e.g. the text containing a blank in a select a blank question or text match
- **Question choice text** - e.g. answer choices are changed for question include Select a Blank, Ranking or Multiple Choice questions
- **Question choice options, including adding text to existing choices** – e.g. Additional options in a Select a Blank, Ranking or Knowledge Matrix question

Editing Ranking questions in Authoring Manager allows the removal of a question choice option from one choice only. Doing just this is not counted as a structural change. However, editing a Ranking question to remove the same question choice option from all of the options is counted as a structural change. Removing a question choice option from one option in Select a Blank and Knowledge Matrix question automatically removes the same question choice option from all the question's options and is therefore a structural change.

For further information about question choices, please refer to the 'Questions' chapter of the [Authoring Guide for Perception 5](#).

- **Outcome conditions** - if it has associated feedback



Adding new stimulus text does not constitute a structural change. This is the same as editing the text of a question by adding text to the beginning or end of the question text and so is counted as a textual change.

- **Topic outcome altered** - e.g. when the number of topic outcomes is changed or any change to maximum score of any of the topic's outcomes
- **Changes to an assessment** - e.g. when the number of or the identity of any of the following objects within the base assessment differs from the number or identity of those objects in the assessment translations
 - Questions (see below)
 - Question blocks
 - Overridden assessment topic outcomes
 - Assessment outcomes



Editing the settings for an assessment outcome does not constitute a structural change, this includes:

- Email settings
- Branching any assessment outcome field within edit settings
- Adding a pre-requisite to an assessment outcome

- **Deleted question from an assessment** - This will also remove the same question from all the assessment's translations. This will move the translation status to **Needs Update** but as the structure of the base and the translation is kept in step no structural change error will be displayed when the import is attempted and only the questions that exist in the base will be translated
- **Added questions to an assessment** - This will automatically add it to the translations of the assessment if that question exists in the language of the assessment translation. In this case the

assessment translation will only be flagged as **Needs Update** as both base and translation are kept in step. This is true even if the added question has a translation status other than **Translated**. The translation status of the added question is not important here; only that a translation of it exists in the target language is important.

If the question you add to the base assessment has not been translated into a language that the assessment has been translated into then that assessment translation will be out-of-step with the base and on import a structural change error will be displayed.

- **Deleting a question block** - This will also delete the same block from all translations of the assessments. The base of the assessment and all its translations are kept in step so on import only a **Needs Update** warning will appear



Adding a new question block to the base assessment is counted as a structural error on import - as the new block will be added to the base and not to the assessment translation(s).

Copying items between repositories

When translating items it is important to understand the affect this has on the item and its compatibility with the rest of Perception. For example, when a translated question is cut and pasted or copied from a shared repository to a local repository only the base question is copied not the translated contents. The same is also true for assessments.

Reporting on translated assessments

It is only possible to report on a translated assessment if the assessment consisting of the base language has been scheduled and delivered to a participant once before. This ensures that the results pertaining to the translated assessment can be recorded in the database correctly.

Working with translated items in Qpacks

Topics, assessments and assessment folders can be exported from a repository to external files called Qpacks. Qpacks are compressed files that have the default file extension **.qpack4**.

You can import Qpacks in both Authoring Manager or Browser-Based Authoring, but you can only create Qpack files in Authoring Manager.

Qpacks created in Perception Version 4 are still compatible with Perception Version 5.



Language information is only included in a Qpack when the Qpack is exported from a shared repository. It is not included when exported from a local repository. You should not, therefore, export Qpacks containing translated items from local repositories.

Questions, topics and assessments imported into a shared repository will inherit the base language settings of the topic chosen as the destination folder for the Qpack contents.

Editing questions created in Authoring Manager

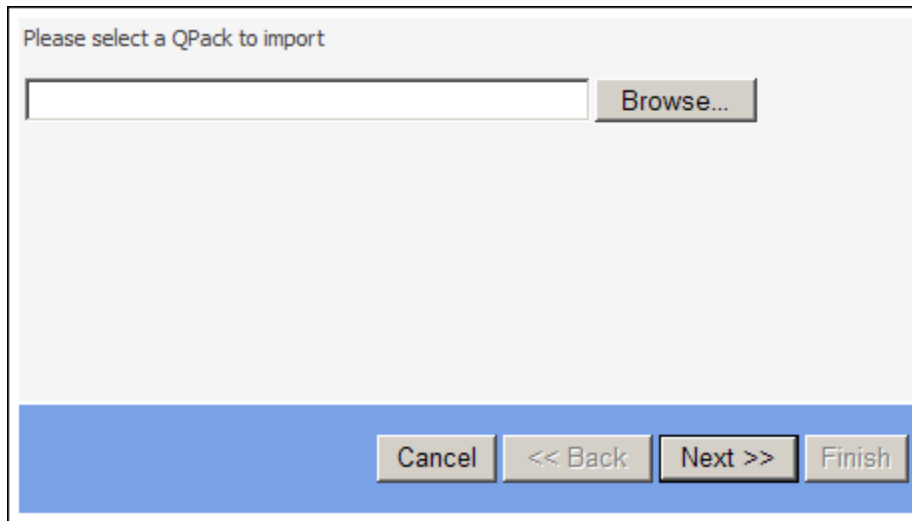
Questions created with the Question Wizard in Authoring Manager can be edited with Question Manager if they have not been altered manually, and they conform to the following specification.

Question type	Can be edited with Question Manager if...
---------------	---

Question type	Can be edited with Question Manager if...
<p>Multiple Choice</p> <p>Includes Yes/No, True/False and Likert scale</p>	<ul style="list-style-type: none"> • Only one content element for the question wording is present • No more than one graphic is included • The question wording, any choice text and feedback text all contain entirely plain text or entirely HTML • Each choice has only one outcome
<p>Numeric</p>	<ul style="list-style-type: none"> • Only one content element for the question wording is present • No more than one graphic is included • The question wording, any choice text and feedback text all contain entirely plain text or entirely HTML • Outcomes are structured as per the Question Wizard in Authoring Manager
<p>Multiple Response</p>	<ul style="list-style-type: none"> • Only one content element for the question wording is present • No more than one graphic is included • The question wording, any choice text and feedback text all contain entirely plain text or entirely HTML • All outcomes must have the accumulate option set (so that the outcome scores are added)
<p>Text Match</p>	<ul style="list-style-type: none"> • No more than one content element for the question wording is present • No more than one graphic is included • The question wording, any choice text and feedback text all contain entirely plain text or entirely HTML • All outcomes must only have one string each (that is, they must not contain OR or AND operators) • All outcomes must employ the same case sensitivity in matching text • All outcomes must have MATCHES conditions, except the [OTHER] outcome • There is only one [OTHER] outcome • No outcome has the accumulate option set (so that the outcome scores are not added)
<p>Essay</p>	<ul style="list-style-type: none"> • No more than one content element for the question wording is present • No more than one graphic is included • The question wording, any choice text and feedback text all contain entirely plain text or entirely HTML • Only one choice is present

Importing QPacks

QPacks contain topics and questions, and are a useful method of distributing questions. To import a QPack into your repository, select **Import QPack** in the **Question Options** menu or **Assessment Options** menu. This opens the Import QPack Wizard.



Please select a QPack to import


Browse...

Cancel << Back Next >> Finish

When importing a QPack you will need to:

1. Specify the location of the QPack to import
2. Accept the terms of the licensing agreement (this is only required if a license agreement was specified when the QPack was created)
3. Specify where in the repository the contents of the QPack are to be imported
4. Confirm that you want to overwrite content in the repository with the contents of the QPack (this is only required if the contents of the QPack will overwrite existing content in the repository)

You should also ensure that the QPack does not contain any topic with the same name as a topic already residing in the repository. If this happens, the questions contained within the duplicate topic will not be imported.

 Language information is only included in a Qpack when the Qpack is exported from a shared repository. It is not included when exported from a local repository. You should not, therefore, export Qpacks containing translated items from local repositories.

Overview

Questionmark Live is an On Demand authoring tools that lets you easily write questions and then export them for use in Questionmark Perception. Subject Matter Experts (SMEs) can access this powerful authoring tool anytime, anywhere. Questionmark Live is available free of charge to all Questionmark Software Support Plan customers.

This chapter describes:

- [Accessing Questionmark Live](#)
- [Creating questions](#)
- [Importing questions from other systems](#)
- [Sharing question sets between authors](#)
- [Exporting questions and assessments](#)

Accessing Questionmark Live

Questionmark Live lets you easily write questions and then export them for use in Questionmark Perception. Subject matter experts (SMEs) can access this powerful authoring tool anytime, anywhere. This Web-based application is available free of charge to all Questionmark Software Support Plan customers signed up to Questionmark Communities.

Community account holders

To get access to Questionmark Live if you already have a Communities account:

1. Click **Questionmark Live** on the Questionmark web site (in the **My Questionmark** menu)
2. Enter your Questionmark Communities username and password when prompted

Non Community account holders

To get access to Questionmark Live if you do not have a Communities account:

1. Click **Questionmark Live** on the Questionmark web site (in the **My Questionmark** menu)
2. Click **Become a new Community member**
3. Enter your details as required



The email address you use will need to have the same @domain.com address as the email address that is registered in your SSP contract. For example, if jsmith@mycompany.com is the registered contact in the SSP contract your email will need the same @mycompany.com domain for access to be granted successfully at an organization level.

4. Read the **Questionmark Communities terms and conditions** and place a tick in the check-box to indicate that you agree with them
5. Click **Next >** to continue the process
6. In step 2 click **Next >** to skip adding information about a new license
7. You will receive an email from *customer@questionmark.com* containing your password and a link to login to communities.

You can follow the instructions in the email to change your password.

8. Once you have logged in click **Questionmark Live** from the **My Questionmark** menu

Invited to use Questionmark Live

If you have been invited to share a Question Set from somebody you know using Questionmark Live you will:

1. Receive an email notifying you that someone has shared a Question Set with you
 2. Follow the link in the email to create your own Questionmark Communities account (<https://www.questionmark.com/communities/register.aspx>)
 3. Log into Questionmark Live using your Communities email and password by:
 - a. Navigating to the Questionmark web site
 - b. Clicking **Questionmark Live** on the **My Questionmark** menu
 - c. Entering your Questionmark Communities details when prompted
- Or
- a. Navigating to <https://live.questionmark.com>
 - b. Entering your Questionmark Communities username and password when prompted
4. Click the **Questions** tab to access all your question sets, including those that have been shared with you.
 5. Click the title of the Question Set to access its contents

Creating questions and assessments

The following section provides basic information on creating questions and assessments in Questionmark Live. It is divided in to the following sections:

- [Adding a Question Set](#)
- [Adding a Question](#)
- [Creating an Assessment](#)

Adding a Question Set

Questions are stored in Question Sets. These can be equated to Topics in Authoring Manager or Browser-Based Authoring.

To Create a Question Set:

1. Click **New**
2. Enter a name and description for the new Question Set
 - a. If you want to automatically share this Question Set with others who you have previously shared a Question Set with place a tick in the **Copy sharing from another Question Set** check-box
 - b. Select the Question Set you would like to copy the sharing information from in the **Question Set** drop-down box
3. Click **OK** to create the Question Set

Adding a Question to a Question Set

Now that a Question Set has been created you can add question to it. To do this:

1. Enter the Question Set by clicking on it from the Question Sets page
2. Click **New**
3. Select the required **Question Type**

Select a Question Type

Hover over a question type to view a description of the question type. Click a question type to create a question.

Multiple Choice	In a Multiple Choice question the participant selects a single choice from a number of choices to answer the question. The participant must select a single choice as the answer.
Multiple Response (right/wrong)	
Multiple Response (score per choice)	
True/False	
Yes/No	
Text Match	
Essay	
Likert	
Pull-down	
Explanation	

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Donec pulvinar venenatis massa, non vehicula elit aliquam vel. Nullam ac lacus ipsum, eget eleifend lectus. Donec et turpis sed justo bibendum lacinia. Aenean lobortis facilisis justo eu consequat. Nunc urna lacus, blandit in hendrerit sed, vestibulum ut nisi.

- ☐ Class aptent taciti sociosqu ad litora torquent per conubi.
- ☐ Inceptos himenaeos. Cras vitae quam at diam imperdiet sodales.
- ☐ Nulla porta sagittis sagittis.
- ☐ Aliquam et mi justo, at fermentum urna.

4. To create or edit the wording for your question, click where it says "Click here to change the question wording" and enter the question wording. You can use the Text Formatting toolbar to present the question wording in any way you wish.
5. Depending on the chosen Question Type, you will need to ensure you have setup your choices and scoring appropriately. For instructions about how to do this, please refer to the Help available within the application.
6. To add feedback to a question, click **Show Feedback** and include the necessary text.
7. Add a question description. Question descriptions enable you to provide information on the question being created. To add a description to a question, click **Edit Question Description**, enter the description and click **OK**.
8. Click **Spell Check** to check the spelling of the text contained in the question.
9. Add a comment box. Adding a comment box to a question enables participants to provide a response to the question. This is particularly useful when creating surveys. To add a Comment box to a question, simply click **Add Comment Box**. The Comment Box will be added to the bottom of the question. Once a Comment box has been added, you can edit the text used to introduce the Comment box. By default this is "Add your comment:".
10. Click **Save** to store your question.

Toolbox

Add a New Choice
Add "All of the above" Choice
Add "None of the above" Choice
Add Comment Box

Properties
Delivery Style
Scored
Shuffling Option?
All but last choice
Display
Display vertically
Edit Question Description

Save

Cancel

Spell Check

Show Feedback

B I U X₂ X²

Click here to change the question wording

Enter new choice text here

0

Enter new choice text here

0

Enter new choice text here

0

Multiple Choice

Creating an Assessment

Once you have created all your necessary questions you can compile them in to an assessment. To create a assessment for use in Questionmark Perception:

1. Click the **Assessment** tab.
2. Click **New**.
3. Click **Assessment**.
4. On the **Details** tab enter a **Title**, **Description** and **Introduction** for the assessment.
5. Click **Next >**.
6. From the **Select a Question Set** drop-down box select a Question Set you are the owner off. The questions contained in the Question Set will be included in the assessment.
7. Click **Next >**.
8. If you want to display feedback, place a tick in the **Display Feedback** check-box.
9. If you want to use feedback you now have the option of setting a Pass/Fail mark by ticking the **Enable Pass/Fail** check box and entering a **Pass/Fail %** in the text-box.
10. Enter the necessary Pass and Fail feedback for the assessment. If you would like to provide links to participants you can do this by entering appropriate Pass and Fail URLs
11. Click **Create Assessment**

Feedback

☒ Display Feedback
☒ Enable Pass/Fail

Pass/Fail %

Pass Feedback

B *I* U x_2 x^2

Congratulations! You have successfully achieved the required pass mark.

Pass URL

Fail Feedback

B *I* U x_2 x^2

Unfortunately you have not achieved sufficient marks to pass. Please consider brushing up on the subject and trying again.

Fail URL

[< Back](#) [Create Assessment](#)

With the assessment now created you can [export](#) it for use in Questionmark Perception.

Importing questions from other systems

Questionmark Live can also be used to import content from different platforms where they can be viewed, modified, shared and exported as Qpacks. Questionmark Live can import the following types of content:

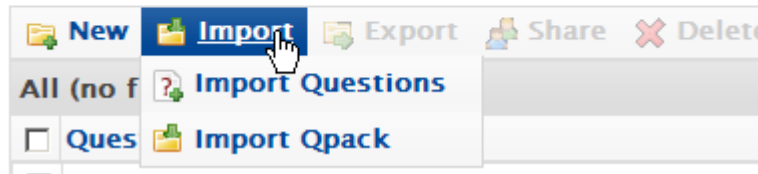
- LXR Test 6.1 Merge
- Blackboard 6/8/9 Pool
- Blackboard Upload
- Questionmark Live CSV - The Questionmark Live CSV format is a new format specifically created for Questionmark Live. It allows users to quickly create questions in Excel or other text tool that is in the format of a CSV file. The CSV file can then be imported.
- Questionmark Qpacks
- Moodle XML

If you have questions available in any of the formats described above you can import them in to Questionmark Live. The imported questions will be stored in their own Question Set. Where they can be reviewed and modified. Once you are happy with your imported questions you can then export them as a Qpack ready for use in Perception.

To import questions from other systems, complete the following steps:

1. From the Question Sets page click **Import Questions** from the **Import** menu

Question Sets



2. Enter a **Title** and **Description** for the new Question Set
3. Select the format of the questions you want to import from the **Import Type** drop-down list
4. Click **Browse**
5. Navigate to where you have saved the associated file you want to import. The file may be stored in a folder on your computer or a network storage device
6. Once you have located the file select it and click **Open**
7. Click **Upload**
8. Once the file has been uploaded to the Questionmark Live server the window will change to show the file name of the file you uploaded in the **Import File** section of the window
9. Click **OK**

A new Question Set will now appear in the list of available Question Sets with the title you provided when importing the file. It is now possible to open the question set and view and edit the questions just as you would any questions created directly using Questionmark Live.

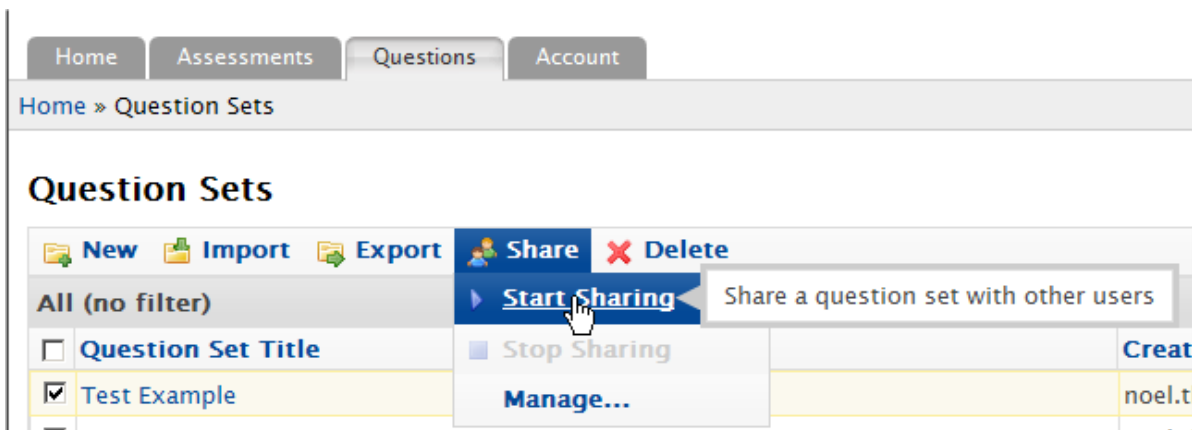
To import questions from a Qpack:

1. From the Question Sets page click **Import Qpack** from the **Import** menu
2. Click **Browse**
3. Navigate to where you have saved the associated file Qpack. The file may be stored in a folder on your computer or a network storage device
4. Click **Upload**
5. Once the file has been uploaded to the Questionmark Live server the window will change to show the file name of the file you uploaded the Question Set name where they will be stored and the number of questions that will be imported. This information is shown in the **Import File** section of the window
6. Click **OK**

Sharing questions between authors

It is possible to share Question Sets with other users that are registered to use Questionmark Live. For a quick way to share a Question Set:

1. Select the Question Set you want to share by placing a tick in the check-box associated with it
2. From the **Share** menu click **Start Sharing**



3. Enter the e-mail address or addresses of the users you want to share the Question Set with in the **Invite** text-box (press the Enter key after each email address is entered)
 - If you change your mind about who you want to share the Question Set with click the **Delete** button to remove them from the list
4. Click **Send** (An email inviting the user(s) to share the Question Set is sent to the email addresses indicated. If you would prefer not to notify the users that they can share the Question Set via email click **Share without sending invitation**)
 - The **Share without sending invitation** link will only be available on email addresses that you add which are already registered with Questionmark Live.
 - If you are attempting to share a Question Set with a user who is **not** registered with Questionmark Communities they will automatically be sent an email providing instructions about how to enroll and access Questionmark Live

Managing who your are sharing your Question Set with

To manage who has access to **your** shared Question Sets, click **Manage...** from the **Share** menu for a selected Question Set.

Once in the Manage Sharing screen a list of the user currently sharing the Question Set is displayed. You can un-share or add further sharing users by using the buttons available.

To add a new person to share the Question Set with:

1. Click **New Shared User**
2. Enter the e-mail address or addresses of the users you want to share the Question Set with in the **Invite** text-box (press the Enter key after each email address is entered)
 - If you change your mind about who you want to share the Question Set with click the **Delete** button to remove them from the list
3. Click **Send** (An email inviting the user(s) to share the Question Set is sent to the email addresses indicated. If you would prefer not to notify the users that they can share the Question Set via email click **Share without sending invitation**)
 - The **Share without sending invitation** link will only be available on email addresses that you add which are already registered with Questionmark Live.
 - If you are attempting to share a Question Set with a user who is **not** registered with Questionmark Communities they will automatically be sent an email providing instructions about how to enroll and access Questionmark Live

To un-share the Question Set with a specific user:

1. Select the user(s) who you do not want to share the Question Set with any longer by placing a tick in the check-box next to their name
2. Click **Remove**
3. Click **Yes**

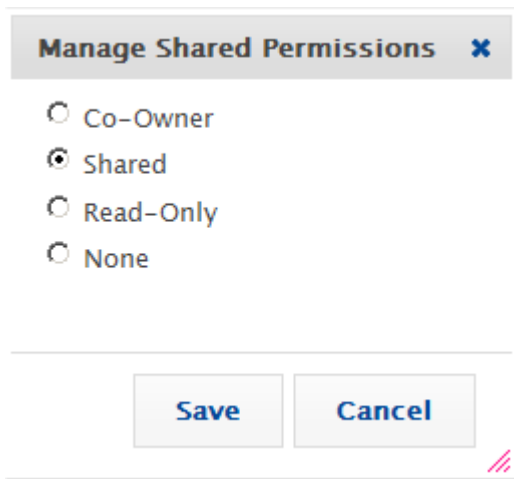
Assigning permissions

To assign permissions to a user you have shared your Question Set on the Manage Sharing screen, click **Manage Shared Permissions**. The following permissions are available:

- Shared – default level of sharing. When you share a question set with another user, they can only edit or add new questions. Participants you share question sets with cannot delete questions from a question set or download or email Qpacks.
- Co-Owner – allows the user to download Qpacks, delete questions or question sets; and manage sharing with other users
- Read Only – The shared user can view shared question sets but cannot edit them
- None – The person is kept in the owner's sharing list for reference purposes only

To Manage the Shared Permissions for a specific user:

1. Select the user(s) you want
2. Click the **Manage Shared Permission** button.
3. Pick the level of permissions for the individual or group.



4. Click the **Save** button.

Un-sharing a Question Set

To un-share a Question Set:

1. From the **Questions** tab select the Question Set you want to stop sharing by placing a tick in the check-box associated with it
2. From the **Share** menu click **Stop Sharing**
3. Click **OK**

This will stop all users, who previously had access, from viewing or editing the Question Set. To un-share the Question Set for a specific user you will need to use the **Manage...** option from the **Share** menu, as described above.

Exporting questions and assessments from Questionmark Live

Question Sets and assessments can be exported to Qpacks. Qpacks can be used to import the content in to a Questionmark Perception repository.

Exporting or emailing a Question Sets

To export a Question Set as a Qpack:

1. Select the **Question** tab
2. Select the Question Set you want to export by placing a tick in the check-box next to it (please note that you can only export one Question Set at a time)
 - To download the Qpack:
 - a. Click **Download Qpack** from the **Export** menu
 - b. Click **Save**
 - c. Specify a location in which you want to save the Qpack and click **Save**
 - To email the Qpack:
 - a. Click **Email Qpack** from the **Export** menu
 - b. Enter a **To** email address
 - c. A **Subject** line for the email
 - d. A **Message** to go along with the Qpack
 - e. Click **Send**

Exporting an Assessment

To export an assessment as a Qpack:

1. Select the **Question** tab
2. Select the assessment you want to export by placing a tick in the check-box next to it (please note that you can only export one assessment at a time)
 - To download the Qpack:
 - a. Click **Download Qpack** from the **Export** menu
 - b. Click **Save**
 - c. Specify a location in which you want to save the Qpack and click **Save**
 - To email the Qpack:
 - a. Click **Email Qpack** from the **Export** menu
 - b. Enter a **To** email address
 - c. A **Subject** line for the email
 - d. A **Message** to go along with the Qpack
 - e. Click **Send**

Importing content

This chapter describes how authors can import question and assessment data ('content') into Perception. This can help you to determine and implement a strategy for importing into Perception content stored in formats such as QTI-XML, Blackboard, ASCII or Word.

It is divided into:

- See "Choosing the right method" on page 145
- See "Example scenarios" on page 149
- See "Working with QTI XML files" on page 157
- See "Converting to ASCII" on page 147
- See "Importing content from ASCII files" on page 151
- See "Importing and exporting Qpacks" on page 150
- See "Copying between repositories" on page 148
- See "Working with QML" on page 155

Choosing the right method

If you have content outside of your Perception repository, you can bring the content into Perception in several ways. The method you can use will depend on the format of the content you want to import. If your content is in the format described in the following table, there are tools available that will enable you to import your content easily and quickly.

To import content from...	Then you can...
QTI XML files	Import QTI XML files using Authoring Manager (refer to See "Working with QTI XML files" on page 157 for details)
One of the following systems: <ul style="list-style-type: none">• Blackboard 6 and higher zip files• LXR-Test 6.1• Moodle XML	Use Questionmark Live
ASCII files	Use the ASCII Import tool in Authoring Manager (refer to See "Importing content from ASCII files" on page 151 for details)
Word-processor files	Use the ASCII Import tool in Authoring Manager (refer to See "Importing content from ASCII files" on page 151 for details)
A different Perception version 4 repository	Copy content between repositories using Authoring Manager (refer to See "Copying between repositories" on page 148 for details)
QML files	Import QML files using Authoring Manager (refer to See "Working with

To import content from...	Then you can...
	QML" on page 155 for details)
Perception version 4 QPacks	Import Qpacks using Authoring Manager or Browser-based Authoring (refer to See "Importing and exporting Qpacks" on page 150 for details)
Perception version 3 databases	Import version 3 databases can be done using the Shared Repository Manager, please refer to the Shared Repository Help for your database version: <ul style="list-style-type: none"> • SQL Server • Oracle

If your content is in a different format to that listed above, the options available to import your content are as follows.

Option	Description
Convert your content to QTI XML	This option may be appropriate if you are using a tool that can convert your content to QTI XML, or if you want to move your content into the QTI XML format. Once you have converted your content to QTI XML, you can import the QTI XML files using Authoring Manager (refer to See "Working with QTI XML files" on page 157 for details)
Convert your content to ASCII	<p>If you can add your content to Microsoft Word or a similar word-processing tool, you can format the content and then save the file in ASCII format. This option may be appropriate if your content is stored in word-processor format, or you are able to manipulate the content in a word-processor.</p> <p>Refer to See "Converting to ASCII" on page 147 for more information. Once you have converted your content to ASCII, you can use the ASCII Import tool in Authoring Manager. Refer to See "Importing content from ASCII files" on page 151 for details of how to do this</p>
Convert your content to QML	<p>Question Markup Language (QML) is used as the native language for describing questions in Perception, and all questions are stored in the database as QML. You can convert your content programmatically to QML format for importing into Perception. This option may be appropriate if you have a large amount of similar questions in a computerized format.</p> <p>Once you have converted your content to QML, you can import your QML content into Perception. Refer to See "Working with QML" on page 155 for more information</p>
Add questions individually into Perception	This option may be appropriate if the amount of content you want to convert is relatively small. In this case, you can use one of the Perception Authoring tools to add content to Perception by Copying and Pasting the individual questions

See "Example scenarios" on page 149 provides some example importing situations that illustrate these options.



If you are unsure which of the above options you should use, or would like the your content to be imported into Perception for you, please contact the [Questionmark Consulting Team](#). For more

information, please refer to:

www.questionmark.com/support/consultingservices.aspx

Converting to ASCII

Question content that exists in word processor documents (such as Microsoft Word files) can be modified to enable them to be imported into Perception. This section provides guidance on how to edit your word processed documents so that question content can be imported into Perception using the ASCII Import tool in Authoring Manager. This is done by replacing question numbering and answer options into compatible tags by using the Find and Replace operation. In the example provided below, we use Microsoft Word 2003 as the example word processor. However, similar functions are available in other versions of Microsoft Word as well as Word Perfect and other word processor software.

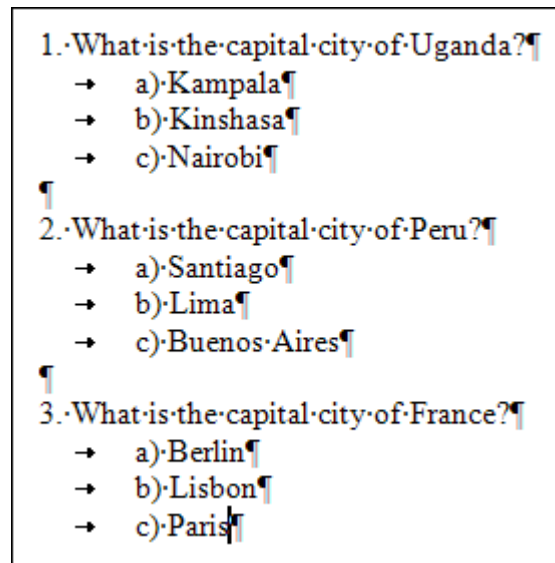
Example

To convert question content in a word processor document, you will need to Find and Replace the question marker text used with the marker text required by the ASCII Import tool in Authoring Manager. For example, you may be using the following style of formatting in your word processor file:

For questions: <number><period><question>

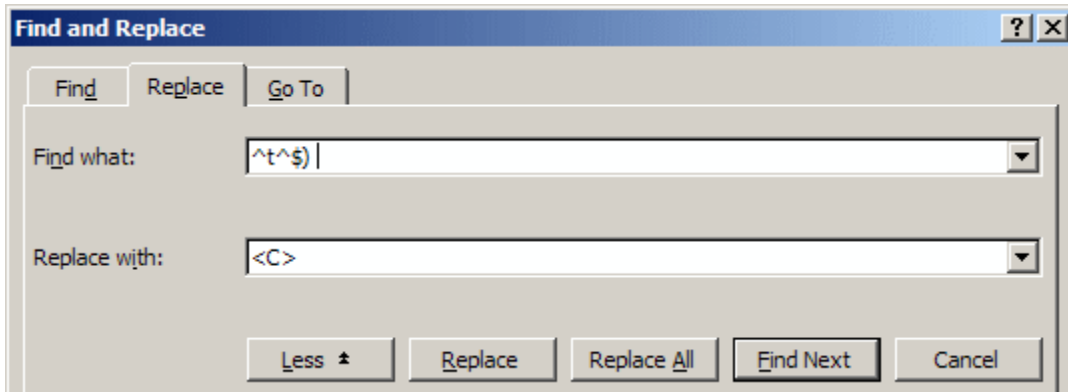
For answers: <tab><letter><bracket><space><answer>

This is shown in the example word processor document below (formatting marks shown).



To modify the above marker text so that it can be imported into Perception:

1. Select **Replace** from the **Edit** menu
2. Click **More** to display the advanced options
3. Click **Special** and select **Tab character** from the list
4. Click **Special** again and select **Any letter** from the list
5. Add a right bracket character and a space character to the **Find What:** box
6. In the **Replace with:** box, enter <C>



7. Click **Replace all**
8. Delete the content in the **Find What:** box
9. Click **Special** and select **Any Digit** from the list
10. Add a period character (.) and a space character and click **Replace all**
11. The document will now be correctly formatted

```
<Q>What is the capital city of Uganda?¶
<C>Kampala¶
<C>Kinshasa¶
<C>Nairobi¶
¶
<Q>What is the capital city of Peru?¶
<C>Santiago¶
<C>Lima¶
<C>Buenos Aires¶
¶
<Q>What is the capital city of France?¶
<C>Berlin¶
<C>Lisbon¶
<C>Paris¶
```

12. Finally, to specify the correct answers you will need to change the <C> Choice marker to <C+> for each question.

Copying between repositories

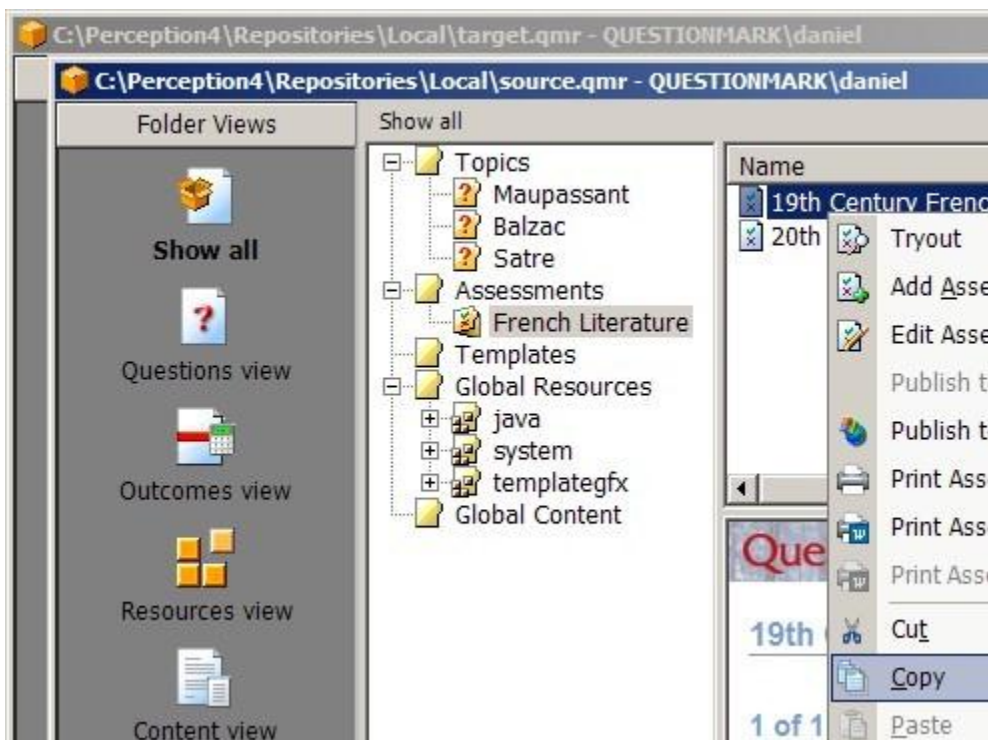
If you have access to both repositories, you can import content from one Perception repository to another with the Copy/Paste or Drag and Drop operation in Authoring Manager. By doing so, you can copy any topic, assessment, template, content or resource object in a repository to another.

If you do not have access to both repositories, you will need to export the content from the source repository as a Qpack. You will then need to import the Qpack into the target repository. Refer to Importing and exporting Qpacks for more information.

Example

In the following example, we will copy an assessment from one repository to another. However, the process is the same if you are copying individual questions, topics containing questions, assessment folders, templates, or content and resource objects.

1. Start Authoring Manager and open both the source repository containing the assessment you want to copy and the target repository in which you want to copy the assessment
2. In the source repository, right-click the assessment you want to copy and select **Copy**
3. In the target repository, right-click the assessment folder in which you want to copy the assessment, and select **Paste**



4. The assessment and all the content associated with it will be copied to the target repository. If doing so will overwrite any existing files in the target repository, you will be asked to confirm the operation. Note that this operation cannot be undone

You can perform the same operation by using the Drag and Drop method. In the above example, instead of right-clicking the assessment you want to copy and selecting **Copy**, you can instead drag the assessment and drop it in the assessment folder of the target repository in which you want to copy it.

Example scenarios

The following example scenarios discuss the different options available to import content into Perception in different circumstances.

Scenario	Suggestions
Jeff is a corporate manager who has an old UNIX custom system	There is too much content in Jeff's database to add questions individually into Perception. Therefore, Jeff will need to convert the

Scenario	Suggestions
for delivering questions with 3,000 multiple choice questions in an old style database format	<p>content programmatically to QML format for importing into Perception. This is particularly appropriate if there is a large amount of similar questions, such as multiple choice questions.</p> <p>Once the database has to converted to QML, Jeff can import his QML content directly into Perception. Refer to See "Working with QML" on page 155 for more information</p>
Jane is a university lecturer who has some free questions from a publisher in Blackboard format	<p>If the Blackboard system is version 6 or above, and she has access to the system, Jane can create Blackboard 6 and higher zip files containing her questions. She can then use Questionmark Live to import the questions, edit them and export them to the Qpack format.</p> <p>Once the Blackboard questions have been turned into Qpacks, they can then be imported into Perception in the standard way. Refer to See "Importing and exporting Qpacks" on page 150 for more information</p>
Carlos is a manager at an awarding body who has a test of 50 questions in Word format	<p>Carlos has two options:</p> <ul style="list-style-type: none"> • If the questions use a standard format, he can quickly format the questions so that the file can be converted to ASCII. This is done by replacing question numbering and answer options into compatible tags by using the Find and Replace operation. Once he has converted his Word file to ASCII, Carlos can use the ASCII Import tool in Authoring Manager to import the content directly into Perception • If the questions do not use a standard format, formatting the questions so that the file can be converted to ASCII may be more complex than simply adding the 50 questions individually into Perception. Carlos could use Authoring Manager, Browser-based Authoring or Questionmark Live to accomplish this

Importing and exporting Qpacks

Topics, assessments and assessment folders can be exported from a repository to external files called Qpacks. These are compressed files that have the default file extension **.qpack4**. You can import Qpacks in both Authoring Manager or Browser-based Authoring, but you can only create Qpack files in Authoring Manager.



If you have access to both repositories, you can import content directly from one Perception repository to another with the Copy/Paste or Drag and Drop operation in Authoring Manager. This process can be quicker than importing and exporting a Qpack file containing the same information. Refer to See "Copying between repositories" on page 148 for more information

Exporting Qpacks

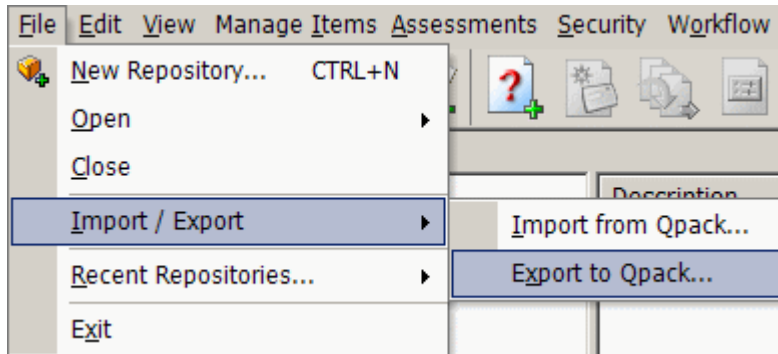
With the Export Qpack Wizard in Authoring Manager, you can create Qpacks that contain:

- Topics, assessments or assessment folders

- Any resources or templates associated with these topics, assessments or assessment folders

When you export a Qpack, you can also specify which of the questions included in the Qpack the author importing the Qpack can edit. To export a Qpack:

1. Open Authoring Manager and connect to the repository containing the content you want to export as a Qpack
2. Highlight the topic, assessment or assessment folder that you want to export to a Qpack
3. Select **File | Import/Export | Export to Qpack...**



4. Follow the instructions given in the Export Qpack Wizard

Importing Qpacks

You can import Qpacks in both Authoring Manager or Browser-based Authoring.

For instructions on how to import Qpacks with Browser-Based Authoring, refer to See "Importing QPacks" on page 134.

To import a Qpack with Authoring Manager:

1. Open Authoring Manager and connect to the repository in which you want to import the Qpack
2. Select **File | Import/Export | Import from Qpack...**
3. Follow the instructions given in the Import Qpack Wizard

Importing content from ASCII files

Question content in ASCII files can be imported into Perception with the ASCII Import tool in Authoring Manager. This chapter contains information on how to import content in ASCII files into Perception.

Marker codes are used in ASCII files to define question elements such as question type, question text, correct answer choices, incorrect answer choices, and feedback text. Click [Here](#) to view an example ASCII file containing three questions.

This section is divided into:

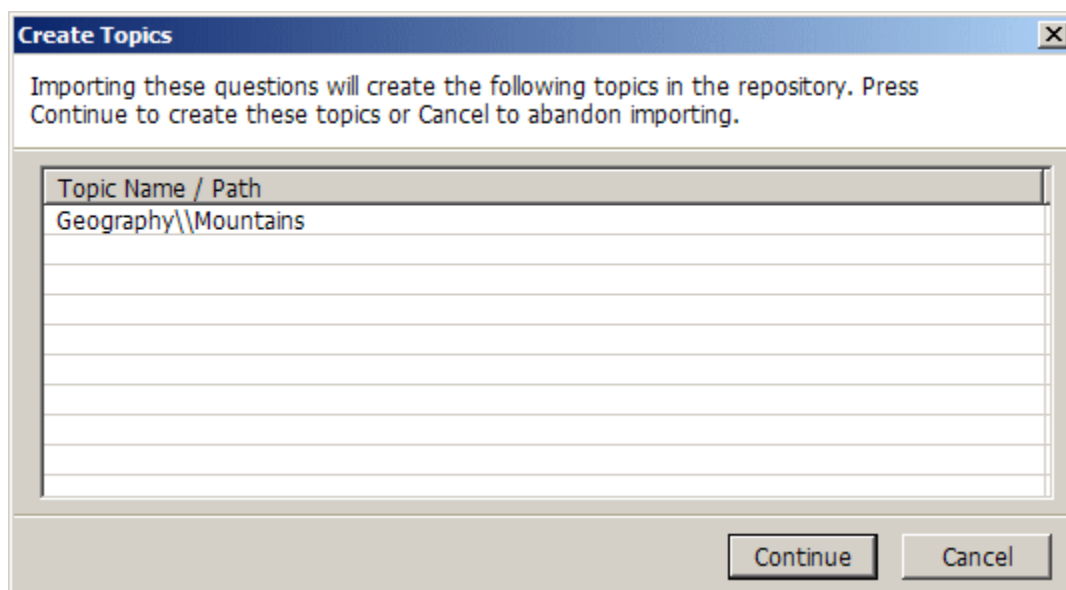
- [Importing questions with the ASCII Import tool](#)
- [ASCII Import definitions](#)

For information on how to convert content to ASCII format, please refer to See "Converting to ASCII" on page 147.

Importing questions with the ASCII Import tool

To import question content into Perception from an ASCII file:

1. Ensure that the marker codes used in your ASCII files are compatible with the marker codes that have been defined in Authoring Manager. For information on the marker codes defined in Authoring Manager, refer to ASCII Import definitions
2. Ensure that the ASCII file has a .txt file extension, and is in Unicode format
3. Open your repository in Authoring Manager
4. **Under Folder Views, select Questions view**
5. Highlight the topic into which you want to import the question content and select **Manage Items | Import | Import ASCII...**
6. The Import Questions from ASCII screen is displayed
7. Select the ASCII file that contains the questions you wish to import and click **Open**
8. If any new topics or subtopics will be created by importing the new question content, you will be asked to confirm that you want to create them



9. The questions in the ASCII file are imported and the imported questions will appear in the highlighted topic

ASCII Import definitions

The definitions used by the ASCII Import tool and the default marker code values are described in the table below.

Unless you specify otherwise, the ASCII Import tool will import the ASCII file using the default marker codes for the ASCII import definitions. Refer to Modifying marker codes for information on how to modify these codes.

Marker code	Definition	Description
<TOPIC>	Topic Name	Inserted in front of the name of a question topic. Specifies the name of the

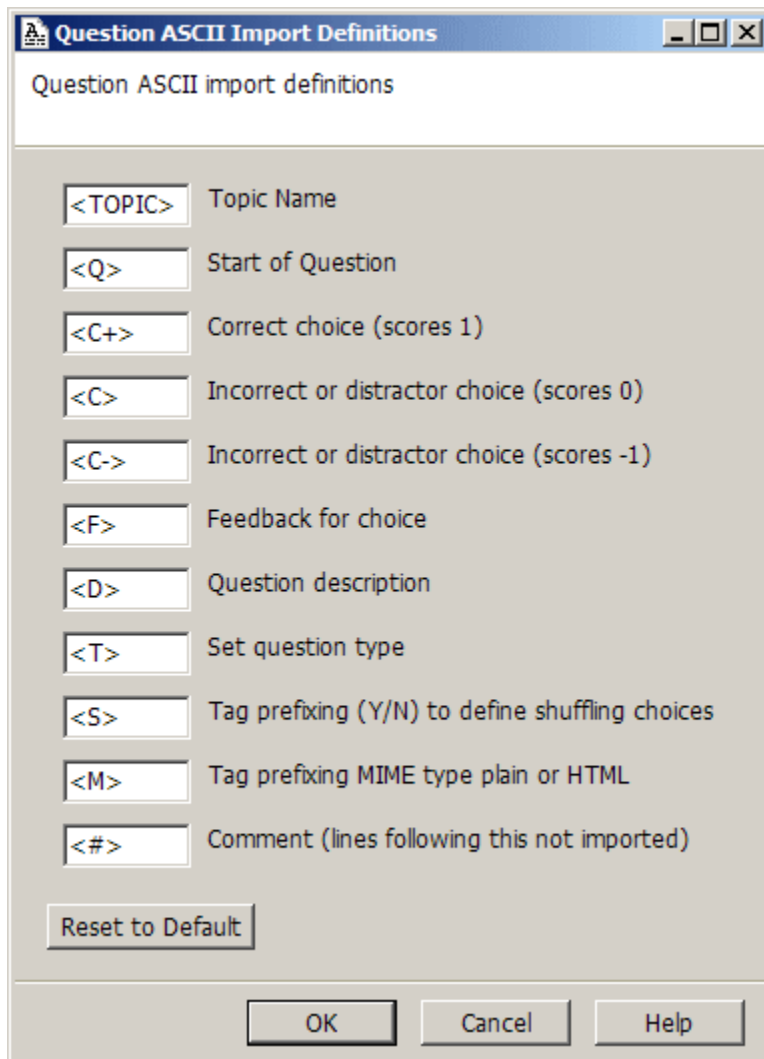
Marker code	Definition	Description
		<p>topic or subtopic in which to import the question content. If the topic or subtopic does not exist, you will be asked to confirm that you want to create the topic or subtopic. Authors can only import questions into a topic or subtopic if they have the permission to do so</p> <p>The use of this code is optional. If not used for a question, the question will be imported into the topic or subtopic selected in Authoring Manager.</p> <p>This code is inserted in front of the name of a question topic. Double backslashes (\\) are used to separate the names of topics and subtopics. For example:</p> <p style="padding-left: 40px;"><TOPIC>Geography\\Mountains</p> <p>The following errors will cause the file to be rejected and an error message displayed identifying the problem:</p> <p style="padding-left: 40px;">Invalid topic or subtopic names</p> <p style="padding-left: 40px;">topic or subtopic names of more than 50 characters</p> <p style="padding-left: 40px;">illegal characters</p> <p style="padding-left: 40px;">Subtopics of more than 10 levels deep</p>
<Q>	Start of Question	<p>Inserted in front of the text of the question. For example:</p> <p style="padding-left: 40px;"><Q>The tallest mountain in the world is:</p>
<C+>	Correct choice (scores 1)	<p>Inserted in front of the text of the correct answer choice. For example:</p> <p style="padding-left: 40px;"><C+>Mount Everest</p> <p>This import definition scores +1</p>
<C>	Incorrect or distractor choice (scores 0)	<p>Inserted in front of the text of an incorrect choice. For example:</p> <p style="padding-left: 40px;"><C>Mont Blanc</p> <p>This import definition scores 0</p>
<C->	Incorrect or distractor choice (scores -1)	<p>Inserted in front of the text of an incorrect (negative) choice. For example:</p> <p style="padding-left: 40px;"><C->Mont Blanc This import definition scores -1</p>
<F>	Feedback for choice	<p>Inserted in front of question feedback text. For example:</p> <p style="padding-left: 40px;"><F>Mount Everest is the tallest mountain in the world</p>
<D>	Question description	<p>Inserted in front of the question description text. For example:</p> <p style="padding-left: 40px;"><D>Typical Multiple Choice Question</p>

Marker code	Definition	Description
		Description text is not displayed to participants
<T>	Set Question type	<p>Inserted in front of the question type. The following question types can be imported in ASCII question data:</p> <ul style="list-style-type: none"> • MC - Multiple Choice • MR - Multiple Response • YN - Yes/No • TF - True/False • LKS - Likert Scale • E - Explanation <p>For example:</p> <p><T>MC</p>
<S>	Tag prefixing to set define shuffling choices	Inserted above a question in the question data. All questions from that point on will have their choices shuffled
<M>	Tag prefixing Mime type plain or HTML	<p>Inserted in front of the MIME type. For example:</p> <p><M>text/plain</p>
<#>	Comment (Lines following this not imported)	<p>Inserted in front of comment text. For example:</p> <p><#></p> <p>This is a sample Multiple Choice Question Comment text is not displayed to participants</p>

Modifying marker codes

To customize the marker codes used for importing questions from ASCII:

1. Open your repository in Authoring Manager
2. Select **Tools | Question ASCII Import Definition**
3. Specify the marker codes to be used



Refer to [ASCII import definitions](#) for more details on the ASCII Import definitions

4. Click **OK**

Working with QML

Question Markup Language (QML) is a platform-independent language that describes questions for use in tests and assessments. It is an open standard and as such is freely available for anybody who wishes to use it. QML offers an extensible solution that is precise, flexible and easy to use. Anybody who has mastered HTML should feel comfortable with QML.

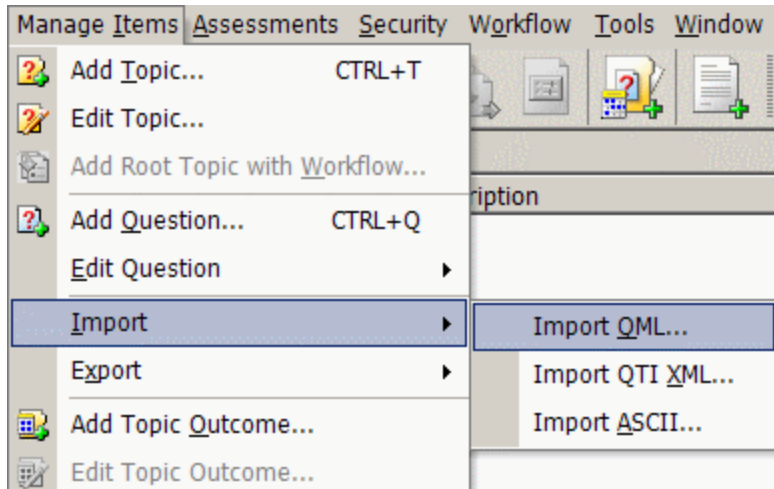
QML is used as the native language for describing questions in Perception, and all questions are stored in the database as QML. The Perception repository stores QML, and Authoring Manager and Enterprise Manager work directly with the QML stored in the repository. QML is defined by Questionmark and is XML-compliant. Only individual questions are described by QML and each question is independent of any other. Assessments cannot be defined by QML, and nor can the sequencing of questions (for example, branching, jumps and selection of questions at random for a test). However, any number of questions may be defined in the same QML file.

This section contains information on:

- [Exporting and importing QML files](#)
- [QML structure](#)

Exporting and importing QML files

Question content saved as QML can be exported from and imported to Authoring Manager using the **Import** option under **Manage Items**.



QML structure

The root element in a QML file is <question>. The root element can contain the following child elements:

Child element	Description
<Tag>	Contains information on the classification of a question item
<Comment>	Contains annotation and comments on questions
<Content>	Contains all the material presented or made available to the participant
<Answer>	Contains the different responses to the question made available to the participant. Responses are contained within one or more <Choice> child elements
<Outcome>	Contains the score to set and what feedback to display, depending on the choice or choices selected

For more information on QML, please refer to the Knowledge Base article:

[What is QML?](#)

www.questionmark.com/perception/help/v5/knowledge_base/authoring/importing_and_exporting_content/content502.aspx

Click [here](#) for the XSD schema for QML.

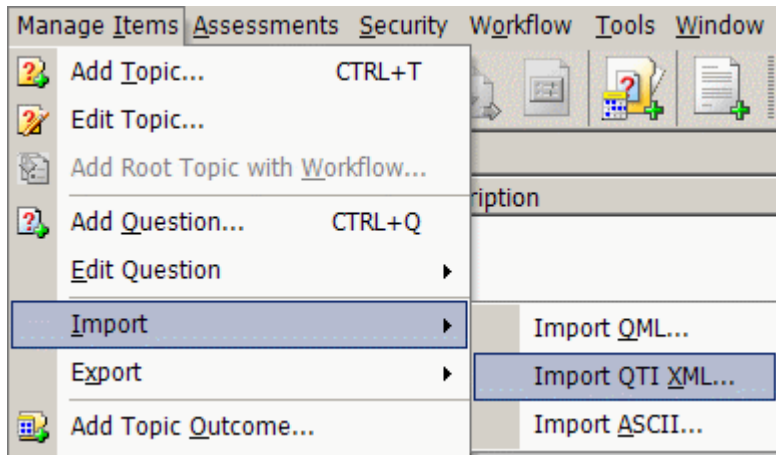
www.questionmark.com/schemas/

Working with QTI XML files

The IMS have published a specification for QTI XML, the XML question and test description language. Full details of the IMS specification can be found at:

www.imsproject.org/question

Perception is compliant with version 1.2 of the IMS QTI specification. In other words, Perception authors can use Authoring Manager to import question content from QTI XML files and export them to QTI XML files. In Authoring Manager, this can be accomplished by using the **Import** option under **Manage Items**.



The following question types can be imported and exported as QTI XML:

- Multiple Choice
- Multiple Response
- Numeric
- Pull-down list
- Fill in Blanks
- Matrix
- Essay
- Matching
- Ranking
- Select a Blank
- Macromedia Flash

Only individual questions can be imported or exported in QTI XML files, and each question is independent of any other. Assessments cannot be defined by QTI XML, and nor can the sequencing of questions (for example, branching, jumps and selection of questions at random for a test). However, any number of questions may be defined in the same QTI XML file.

Workflow

Workflow provides a simple and effective means of controlling the development of questions. This control is achieved through the creation and implementation of a process that ensures the needs of an organization are fully met. The process is defined as an individual workflow which workflow administrators can manage using the Workflow Editor in Authoring Manager.



Questionmark can create custom workflows for organizations. These workflows can ensure that the processes of authoring within the organization are quickly put in place and reliably enforced. Please contact the [Questionmark Technical Services Team](#) for more information.

This chapter provides an overview of workflow, and is divided into:

- See "What is workflow?" on page 159
- See "Workflow structure" on page 160
- See "Managing workflow" on page 161
- See "Example workflow" on page 162

What is workflow?

This section introduces what workflow is and how it works.

In a workflow, questions progress from an authoring stage, through various approval stages, to the production stage where the question can be included within assessments. To implement a workflow, you must create a new root topic in your repository that uses the workflow. The workflow is applied to all questions in the new root topic or subtopics.

Authors (that is, users of Authoring Manager) can be provided permissions by allocating them to roles. An author's role determines the questions they can see, and what they can do with them. Actions can be applied to questions to move them from one stage to another by users who have the required permissions.

The most common actions are the *Accept* action and the *Reject* action. These are the basic actions in any workflow, although it is possible to use more descriptive names that are meaningful for the workflow.

A question that is subject to a workflow will always be at one of the stages defined in the workflow. Authoring Manager displays both the workflow and the current stage for all such questions. The question will be assigned a delivery status that is defined in the stage, and Authoring Manager also displays this for the question.



Workflows can be distributed between shared repositories by using the **Import Workflow** and **Export Workflow** options in Authoring Manager. Refer to the Authoring Manager Help for instructions.

Workflow permissions

The actions an author can perform on questions are controlled by the access rights specified for a shared repository. A workflow can impose further restrictions on authors' actions. However, these additional restrictions only apply to authors when they are working with a question in a topic that has a workflow assigned to it.



An administrator can never do more than their access rights permit, even if workflow permissions imply otherwise. The security set in a shared repository always takes precedence over workflow permissions.

Workflow permissions determine what authors can do with questions according to both the stage the question is in and the restrictions applied by security. When a question is in a particular stage:

- The stage will have one or more actions that have this stage as their *From Stage*
- Each of these actions have one or more roles assigned to it
- Each of these roles have one or more administrators belonging to it

The stage will therefore have one or more administrators associated with it.

The permissions available for roles are:

- Edit permission - Authors can edit questions that are in the relevant stage
- View permission - Authors can view questions that are at the relevant stage
- Delete permission - Authors can delete questions that are at the relevant stage
- Create permission - Authors can create questions that are at the *authoring* stage

Designing a workflow

When designing a workflow, you should consider the following issues:

Issue	Description
Testing your design	It is important to consider your design carefully and ensure that it provides a process that meets your organization's requirements. We recommend that you test your workflow thoroughly before making it live.
Changing a workflow	When a workflow is live, it is difficult to predict the effect of changing it. You should take care when updating a workflow that is in use.
Defining roles	When you define a role in a workflow, it is associated with the shared repository rather than the workflow itself. This means that all roles are available to all workflows, and so every role in the shared repository will appear in each workflow. For this reason, we recommend that you think carefully about your roles and what they will be used for.
Setting security permissions	Security permissions in a workflow impose restrictions on users further to those defined by access rights. However, the workflow permissions can never enable users to do anything that their access rights do not allow. You must bear this in mind when extending your security restrictions with a workflow.

Workflow structure

This section defines the terms that are used when working with workflow, and provides an outline of how workflows are structured.

A workflow consists of three components:

- [Stages](#) - The steps through which a question passes
- [Actions](#) - The means by which a question passes from one stage to another
- [Roles](#) - The definition of who may perform an action

Stages

The stages in a workflow are the steps through which a question passes. A question passes from one stage to another by means of an action. A workflow stage has the following attributes:

- Name
- Description
- Delivery status

A question in a topic under a workflow passes through three types of stage:

1. Authoring - the stage a question is at when it is created
2. Approval - stages the question passes through as it is developed, and before it is approved for use in assessments
3. Production - the stage of a question that is ready to be used in an assessment

Actions

A question in a topic under a workflow passes from one stage to another by means of an action. There may be one or more actions between one stage and another.

Roles define who may perform an action, and may be performed by one or more administrators. What administrators can do with a question in a topic under a workflow is controlled by permissions.

Roles

Roles define who may perform an action. A workflow role has a name and a description and may have one or more administrators assigned to it. When a role is defined, it is available throughout the repository. A role can be used in more than one workflow.

It is possible to set permissions for each of the roles associated with a stage. This means that what can be done to questions by authors with particular roles will depend on:

- The stage the question is at
- The restrictions applied by security

Managing workflow

Workflow administrators can use the Workflow Editor in Authoring Manager to:

- Create a new workflow
- Edit an existing workflow
- Rename a workflow
- Delete a workflow

The Workflow Editor enables workflow administrators to create stages, define actions between stages, create the roles associated with actions, assign administrators to roles and set permissions for roles for specific stages.

Once a workflow administrator has created a workflow, a root topic can be created using the workflow. The workflow will then be applied to all questions in the new root topic or in topics below the new root topic.

As a question is developed, the workflow administrator can apply an action that changes the stage of the question in the workflow. Refer to Example workflow for a real-life example of using a workflow.



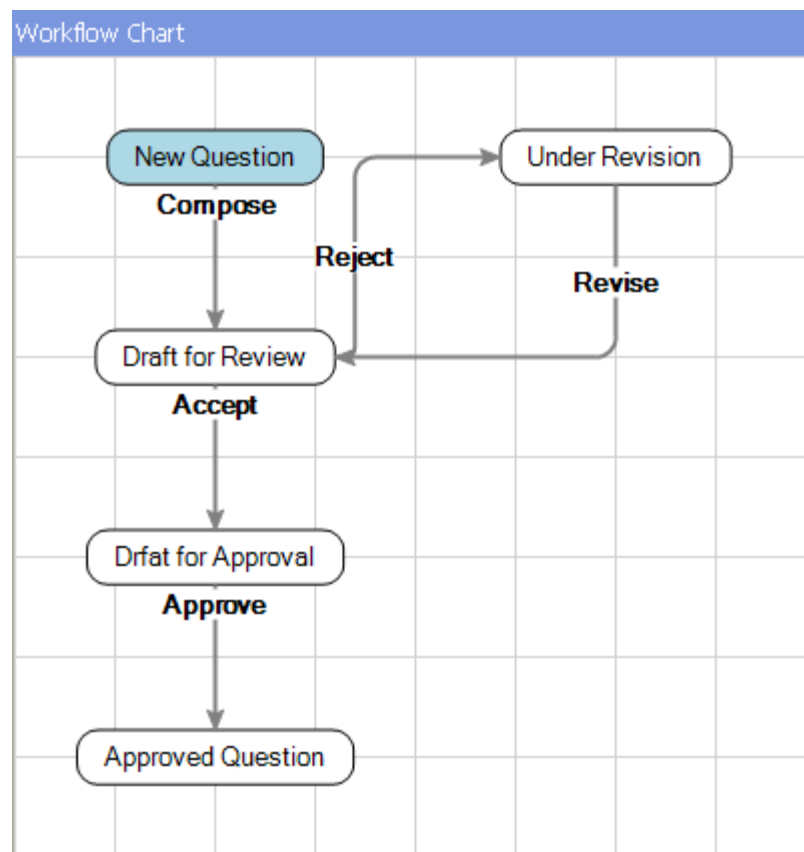
It is also possible for workflow administrators with sufficient rights to change a stage independently.

You can move a workflow between shared repositories by exporting a workflow from one shared repository and then importing a workflow to another shared repository. When exporting a workflow, the workflow administrator creates a workflow archive which is a file with the extension .wml. These files can be used for archiving workflows.

For instructions on how to use Authoring Manager to control workflow, please refer to the Authoring Manager Help that accompanies the application

Example workflow

The following example describes a workflow named Simple.



This example will show how the activities of two authors (Author 1 and Reviewer 1) are controlled by the Simple workflow. Three stages are created:

- New Question
- Draft for Review
- Under Revision

Author 1 is given the following authoring access rights.

Can use: ☒ Authoring Manager ☒ BBA

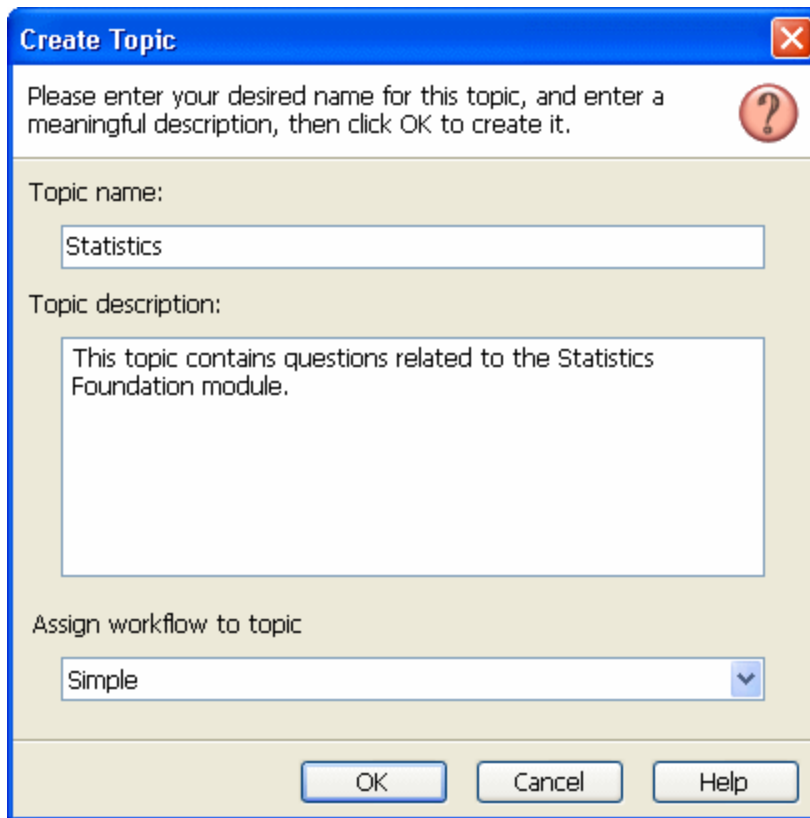
- ☒ Can view the topic structure.
 - ☐ Can access all topics.
- ☒ Can view the assessment folder structure.
 - ☐ Can access all assessment folders.
 - ☐ Ignores assessment passwords.
- ☒ Can view resources.
 - ☒ Can add new global resources.
 - ☒ Can edit existing global resources.
 - ☒ Can delete existing global resources.
- ☒ Can view content files.
 - ☒ Can add new global content.
 - ☒ Can edit existing global content.
 - ☒ Can delete existing global content.
- ☒ Can view workflows.
 - ☐ Can manage workflows.

Reviewer 1 is given the following authoring access rights.

Can use: ☒ Authoring Manager ☒ BBA

- ☒ Can view the topic structure.
 - ☐ Can access all topics.
- ☒ Can view the assessment folder structure.
 - ☐ Can access all assessment folders.
 - ☐ Ignores assessment passwords.
- ☒ Can view resources.
 - ☐ Can add new global resources.
 - ☐ Can edit existing global resources.
 - ☐ Can delete existing global resources.
- ☒ Can view content files.
 - ☐ Can add new global content.
 - ☐ Can edit existing global content.
 - ☐ Can delete existing global content.
- ☒ Can view workflows.
 - ☐ Can manage workflows.

The workflow administrator creates a root topic with workflow and creates a topic called Statistics which is assigned the Simple workflow.



Create Topic

Please enter your desired name for this topic, and enter a meaningful description, then click OK to create it.

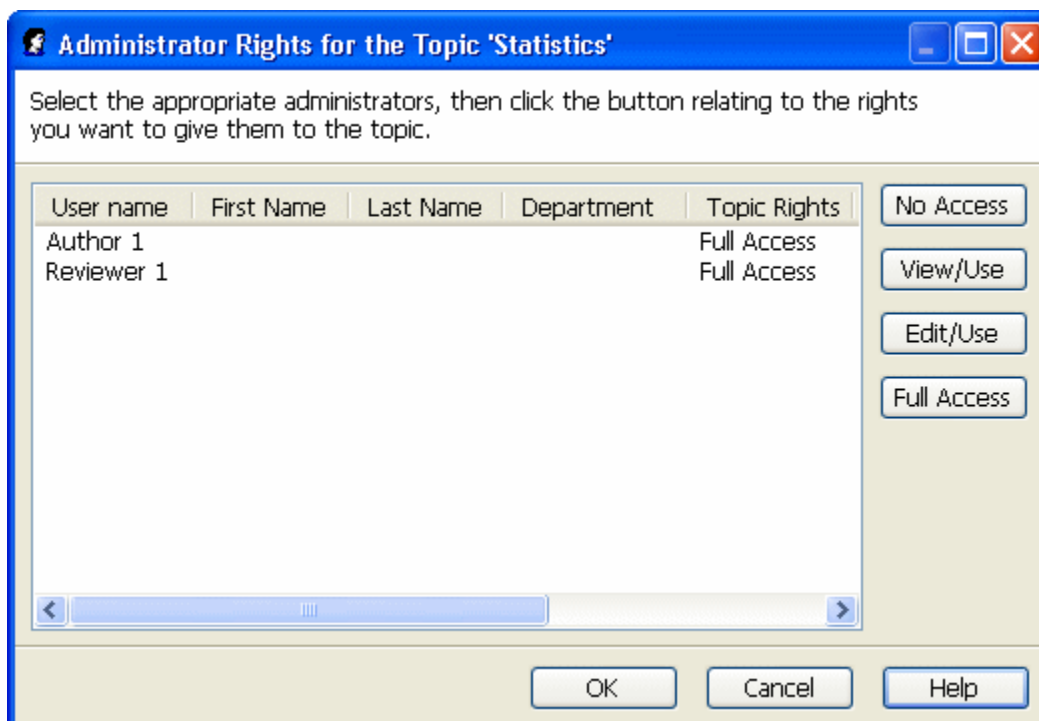
Topic name:

Topic description:

Assign workflow to topic

OK Cancel Help

The workflow administrator then assigns the following access rights to the Statistics topic for Author 1 and Reviewer 1.



Administrator Rights for the Topic 'Statistics'

Select the appropriate administrators, then click the button relating to the rights you want to give them to the topic.

User name	First Name	Last Name	Department	Topic Rights
Author 1				Full Access
Reviewer 1				Full Access

No Access
View/Use
Edit/Use
Full Access

OK Cancel Help

This specifies that Author 1 and Reviewer 1 will be able to do anything with any question in the Statistics topic (unless the Simple workflow applies restrictions).

In the Simple workflow, Author 1 is a member of the *Authoring* role, and Reviewer 1 is a member of the *Reviewing* role. The three stages in the workflow (*New Question*, *Draft for Review* and *Under Revision*) have the following permissions set for them.

Role	Stage		
	New Question	Draft for Review	Under Revision
Authoring	<ul style="list-style-type: none"> • View • Edit • Create 	<ul style="list-style-type: none"> • View 	<ul style="list-style-type: none"> • View • Edit
Reviewing	<ul style="list-style-type: none"> • View 	<ul style="list-style-type: none"> • View 	<ul style="list-style-type: none"> • View

This means that:


- Author 1 (who is a member of the *Authoring* role) can only edit questions if they are in the stages *New Question* and *Under Revision*
- Reviewer 1 (who is a member of the *Reviewing* role) can never edit questions if they are in any of these stages

In this way, the Simple workflow has applied restrictions to the access rights initially set up in the shared repository for Author 1 and Reviewer 1. These restrictions only apply to the Statistics topic or any other topic with the Simple workflow assigned to it.

Finally, the actions *Compose* and *Revise* can only be applied by members of the *Authoring* role, and the actions *Accept* and *Reject* can only be applied by members of the *Reviewing* role.


The following sequence of events might now take place:

1. Author 1 logs in to the shared repository and creates a question called Poisson Distribution
2. Author 1 then applies the action *Compose*, so the question Poisson Distribution moves to the stage *Draft for Review*

Name	Workflow state	Status
 Poisson Distribution	(Simple) Draft for Review	Incomplete


At this point, Author 1 cannot edit the question because it is in the workflow stage *Draft for Review*, and nor can they apply any further workflow actions

3. Reviewer 1 logs in to the shared repository and attempts to edit the question, but cannot because they belong to the role *Reviewing* whose members are not allowed to do this
4. Reviewer 1 applies the action *Revise*, so the question moves to the stage *Under Revision*

Name	Workflow state	Status
 Poisson Distribution	(Simple) Under Revision	Incomplete

5. Author 1 can now edit the question
6. Author 1 edits the question and applies the action *Revise*, so the question moves to the stage *Draft for Review*
7. Reviewer 1 can then apply the actions *Accept* or *Revise*
8. The process continues until Reviewer 1 applies the action *Accept* to the question when it is at the stage *Draft for Review*

When Reviewer 1 does this, the question moves to the stage *Draft for Approval*

Name	Workflow state	Status
 Poisson Distribution	(Simple) Draft for Approval	Incomplete

Appendix

The Appendix contains technical information on:

- See "Finding more information" on page 167
- See "Frequently Asked Questions" on page 169
- See "Contacting Questionmark" on page 169

Finding more information

This section contains a list of useful resources on the following subjects:

- [Authoring Manager](#)
- [Enterprise Manager](#)
- [Enterprise Reporter](#)
- [Templates](#)
- [Workflow](#)

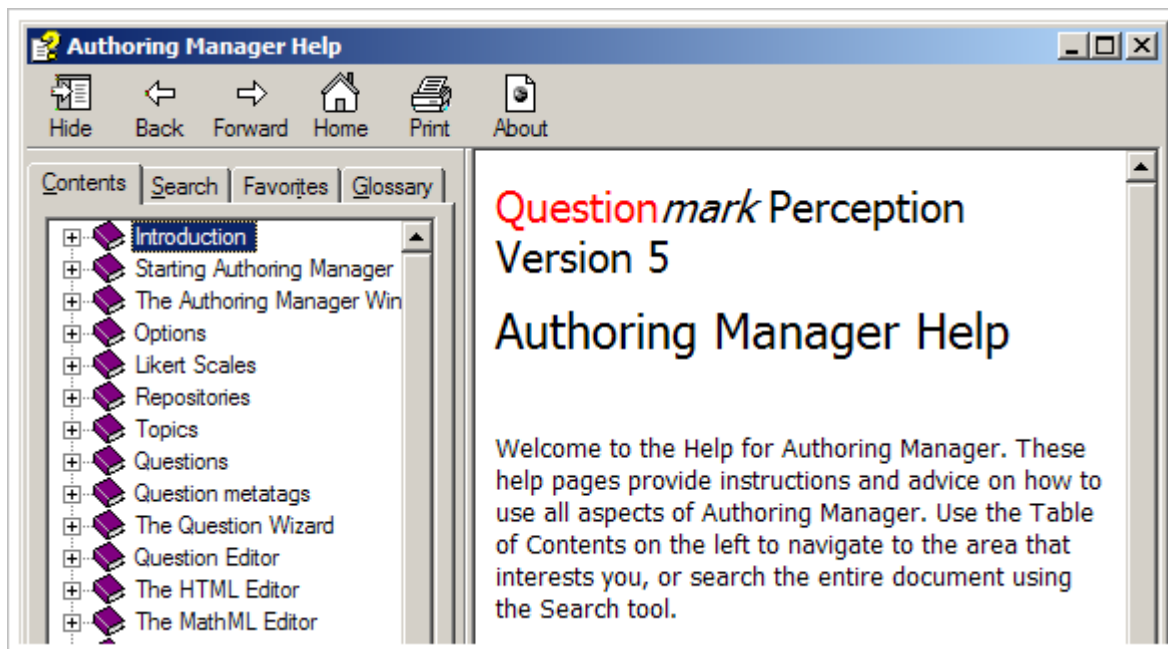
Authoring Manager

For detailed instructions on installing Authoring Manager, please refer to the [Authoring Manager Install Guide](#).

If you are new to Authoring Manager, we recommend that you read the [Getting Started Guide](#), which contains information on how to get started and quickly become productive with Authoring Manager.

For detailed guidance on how to use Authoring Manager to perform specific tasks, please refer to the Online Help that can be accessed from within the Authoring Manager application.

To access the Online Help for Authoring Manager, press the F1 key, or select **Help > Contents** from the File menu.



Enterprise Manager

For more information on Enterprise Manager, please refer to the [Enterprise Manager User Guide](#).

This guide is available to members of Questionmark Communities and is located on the Perception Product Support site:

www.questionmark.com/perception/help/v5/product_guides/

Additionally, comprehensive guidance on how Perception administrators can use Enterprise Manager can be found in the Help that accompanies the product.

Enterprise Reporter

For more information on Enterprise Reporter, please refer to the [Enterprise Reporter User Guide](#).

Templates

For more information on using templates to present assessments, please refer to the [Templates Reference Guide](#). This guide contains comprehensive guidance on how to modify and create template files that can be used to present assessments that fully conform to your requirements.

The Templates Reference Guide is available to members of Questionmark Communities and is located on the Perception Product Support site:

www.questionmark.com/perception/help/v5/product_guides/

Workflow

For instructions on how to use Authoring Manager to control workflow, please refer to the Authoring Manager Help that accompanies the application

Frequently Asked Questions

The following table answers some of the most frequently asked questions on authoring assessments.

Question	Answer
Where can I obtain the latest version of Authoring Manager?	The latest version of all Questionmark applications can be obtained from the Downloads area of the Questionmark web site. www.questionmark.com/download
How do I make assessment folders in Browser-Based Authoring?	You cannot make assessment folders in Browser-Based Authoring. Instead, you have to create the assessment folders in Authoring Manager, and then they can be used within Browser-Based Authoring in Enterprise Manager.
How can I contact Questionmark?	Please refer to See "Contacting Questionmark" on page 169 for details.

Contacting Questionmark

If you have a technical problem with Perception that you cannot resolve, please contact Questionmark Technical Support. Contact details are provided in the table below.

Area	Technical Support phone	Technical Support Email
US	800-597-3950	support@questionmark.com
UK	+44 (0)800 731 5895	
Europe	+32 (0)2 398 02 05	
Rest of World	+44 (0)800 731 5895	

If you have a licensing query, please email the Questionmark Customer Service team. Please refer to the full list of [Questionmark Sales Offices](#) for the contact details of your nearest office. This list can be found on the Questionmark web site:

www.questionmark.com/sales_offices.aspx