



Authoring

Overview of Questionmark Perception Authoring	Questionmark	Competitive Product
Authors using Windows need	PC Running Windows 7, Vista or XP	
Authors using a browser need	IE 7 or higher	
Try out questions while authoring	Yes	
How you edit questions?	Authoring Manager's Wizards, Question Editor or Browser-based Authoring	
Author and publish questions and assessments directly to shared repository on remote server	Yes	
Multiple authors can work collaboratively using the same shared repository	Yes	
Author questions and feedback with easy-to-use WYSIWYG HTML Editing tool	Yes	
Database supported for authoring	Microsoft SQL, Oracle	
Define topic-based feedback to provide learning prescription?	Yes	
Group questions by their objective?	Yes	
Languages available for spell-checker:	Uses Microsoft Word spell checker -- any language supported by Microsoft Word's dictionary	
Add own words to spell checker?	Yes	
Ability to search and filter item banks by keyword in question stimuli, choices, feedback, metatags, descriptions, topic names or author names.	Yes	
Import questions/items from ASCII files?	Yes	
Define your own import delimiters in ASCII text to make it easy to import a wide range of existing formats of questions.	Yes	
Import/Export questions to Qpacks to allow you to buy and sell item banks?	Yes	
Import/Export questions to industry standard files such as IMS QT1?	Yes	
Export questions to other files?	Export to QML	
Print questions?	Yes	
Record author name and date of last modification by each question so you can see when question was last modified.	Yes	
Insert server variables such as participant name, date or time directly into questions and feedback?	Yes	
Play audio, video, multimedia, Flash from within questions and feedback?	Yes	
Translation management for multilingual assessments	Yes	
Create and manage multilingual items	Yes	
Create and manage multilingual assessments	Yes	
Export/Import to XLIFF for external localization of items/assessments	Yes	
Call third party programs from within assessments?	Yes	
Support for multinational character sets enabling use of Chinese, Japanese, Cyrillic and other double-byte characters	Yes	
Encrypt assessments for delivery with a Windows run-time program	Yes	
Customizable templates to control the look and feel of your questions and assessments	Yes	
Can use Cascading Style Sheets to control the look and feel or enhance accessibility of assessments	Yes	
Wizard for creating IMS, AICC, or SCORM packages available in both Windows Author and Browser-Based Author	Yes	
Browser-based "Open Author" enables Subject Matter Experts to deposit items directly into repository	Yes	
Browser-based SME Authoring tool for creating different question and assessment types for deployment within Questionmark Perception	Yes	
Wizard-based publishing of assessments for Windows Delivery and distribution via CD, memory stick and other media	Yes	
Security		
Define roles and multiple levels permissions for authors and administrators	Yes	
Define security permissions for specific folders to control access to specific topic or assessment folders?	Yes	
Can limit administrator log-ins to range of IP addresses	Yes	
Workflow Management		
Define, control and document how questions move from creation to release?	Yes	
Can define states that questions can be in?	Yes	
Can define actions that move from state to state?	Yes	
Can define roles that administrators can be in?	Yes	
Can define which roles can take which actions and which roles can create questions and which roles can view, edit and delete questions in each state?	Yes	
Can allocate a workflow to a topic, different workflows can apply to different topics?	Yes	
Can link question states to delivery status so that questions are only released and available for use in assessments when they've got to a certain state in workflow?	Yes	
All changes from state to state are recorded in a workflow history, which can be viewed by users?	Yes	
Can be used to establish audit trail essential for legally definable high-stakes assessments?	Yes	
Content Repositories		
Simple drag, drop, cut and paste controls to manage and publish questions and assessments and supporting resource files (graphics, sound files, multimedia, etc.)	Yes	
Lock files from being edited simultaneously by more than one author	Yes	
Multiple authors can simultaneously author and publish to repository?	Yes	
Topic-based management of questions and supporting content	Yes	
Put simple learning content within the repository and link to it from question, topic or assessment feedback.	Yes	

Question Types	Questionmark	Competitive Product
Windows Based Authoring		
All question types		
Categorize questions by topic?	Yes	
Allow different scores by choice or combination of choices?	Yes	
Provide different feedback based on choice, or choices, selected?	Yes	
Easily enhance text with underline, bold, italics, superscripts, subscript, etc?	Yes	
Present mathematic equations using MathML?	Yes	
MathML expressions automatically converted to universal browser-friendly graphical format (JPEG)	Yes	
Auto-run sound and video?	Yes	
Loop sound and video?	Yes	
Include multimedia or embed?	Yes	
Set size of graphic independently of its size?	Yes	
Insert audio, video, multimedia, Flash, Captivate Simulations, graphics, fonts and equations in questions?	Yes	
Multiple options for shuffling choices in multiple choice questions	Yes	
Allow scores from -99 to +99 per choice?	Yes	
Set upper and lower limits on scoring for complex question types?	Yes	
Tag questions so they can be selected by topic and question tags	Yes	
Define states that questions can be in (e.g. Normal, Experimental, Beta, Retired)	Yes	
Allow participant to comment on a question they have answered (used to understand why someone chose a particular choice.)	Yes	
Include text notes and metadata for each question.	Yes	
Easy to enter hyperlinks within feedback (without knowledge of HTML).	Yes	
Essay	Yes	
Participant is prompted to type an essay on a particular topic.		
Wizard to assist authoring	Yes	
Allow variable height and width of text answer area, including long scrolling areas for entry?	Yes	
Assign different scores to different answers?	Yes	
Author can choose to ignore or use letter case in scoring?	Yes	
Assign different feedback to different possible answers?	Yes	
Look for keywords and absence of keywords?	Yes	
Allow for a misspelling check	Yes	
Report for manual grading of essay questions	Yes	
Grade essay questions using a browser	Yes	
Set rubrics for when grading using a browser	Yes	
Integrated with ETS automated essay grading system	Yes	
Explanation	Yes	
Participant is provided information that they will need to answer the assessment.		
Wizard to assist authoring	Yes	
How much text can be presented?	Total size of question limited to 32K, but can make links outside	
Likert Scale	Yes	
Participant is prompted to agree or disagree with a statement and each choice is given a weight to aid analysis.		
Wizard to assist authoring	Yes	
Include standard text for Likert scale?	Yes	
You can define your own range of choices?	Yes	
Allow for not applicable?	Yes	
Not applicable choice allowed?	Yes	
Define your own "weights"?	Yes	
Insert graphics, fonts and equations in text of choices?	Yes	
Adobe Flash	Yes	
Participant is prompted using material generated with Adobe Flash.		
Wizard to assist authoring	Yes	
Partnership with Macromedia?	Yes	
Flash score recorded for analysis?	Yes	
Adobe Captivate Simulations	Yes	
Participant is prompted using material generated with Adobe Captivate		
Wizard to assist authoring	Yes	
Can apply score for whole simulation?	Yes	
Can evaluate and score each interaction participant makes within the simulation?	Yes	
Score recorded for analysis?	Yes	
True/False	Yes	
Participant is asked whether they think a statement is true or false.		
Wizard to assist authoring including WYSIWYG HTML Editor	Yes	
Max no. of choices	2 True and False	
Display choices vertically or horizontally?	Yes	
Insert audio, video, multimedia, Flash, graphics, fonts and equations in text of choices, even when shuffled?	Yes	
Yes/No	Yes	
Participant is prompted to state whether they agree or disagree with a statement.		
Wizard to assist authoring including WYSIWYG HTML Editor	Yes	
Max no. of choices	2 Yes and No	
Insert audio, video, multimedia, Flash, graphics, fonts and equations in text of choices, even when shuffled?	Yes	
Multiple Choice	Yes	
Participants select one choice from several.		
Wizard to assist authoring including WYSIWYG HTML Editor	Yes	
Included standard multiple choice, true false, Yes/No, and Likert scale, etc.	Yes	
Max no. of choices	No reasonable limit	
Shuffle choices each time question is presented?	Yes	
Keep last choice last when shuffling for situations with "None of the Above", or, "All of the Above" choices?	Yes	
Ability to shuffle all but the last two choices when shuffling choices?	Yes	

Multiple Response	Yes	
Participant selects several choices from many.		
Wizard to assist authoring including WYSIWYG HTML Editor	Yes	
Max no. of choices	No reasonable limit	
Shuffle choices each time question is presented?	Yes	
Insert audio, video, multimedia, Flash, graphics, fonts and equations in text of choices, even when shuffled?	Yes	
Assign different scores to different choices, or different combination of choices?	Yes	
Assign a score only if the participant gets entire answer right (right/wrong marking)?	Yes	
Can exclude last choice from shuffling?	Yes	
Can exclude last two choices from shuffling?	Yes	
Can specify horizontal or vertical layout of choices	Yes	
Limit number of choices participant may select. (for example, "Select up to 3")	Yes	
Assign different feedback to different choices, or different combination of choices?	Yes	
Matching	Yes	
Participant has to match two lists but is prevented from matching the same choice twice.		
Wizard to assist authoring including WYSIWYG HTML Editor	Yes	
Limits on either of the two lists to match	No reasonable limit	
Shuffle choices in lists each time question is presented?	Yes	
Can generate drag and drop Flash animated choices for Matching questions?	Yes	
Insert audio, video, multimedia, Flash, graphics, fonts and equations in text of choices, even when shuffled?	Yes	
Assign different scores to different matches, or combination of matches?	Yes	
Assign a score only if the participant gets entire list matched correctly (right/wrong marking)?	Yes	
Assign different feedback to different matches, or combination of matches?	Yes	
Pull-Down List	Yes	
Participant has to match a list of choices against a pull down list of options.		
Wizard to assist authoring including WYSIWYG HTML Editor	Yes	
Max no. of choices	No reasonable limit	
Max no. of options	No reasonable limit	
Shuffle choices each time question is presented?	Yes	
Insert audio, video, multimedia, Flash, graphics, fonts and equations in text of choices, even when shuffled?	Yes	
Assign different scores to different choices, or combination of choices?	Yes	
Assign a score only if the participant gets entire answer right (right/wrong marking)?	Yes	
Assign different feedback to different choices, or combination of choices?	Yes	
Rank in Order (Ranking)	Yes	
Participant ranks a list in order.		
Wizard to assist authoring including WYSIWYG HTML Editor	Yes	
Max no. of choices	No reasonable limit	
Max no. of options	No reasonable limit	
Can generate drag and drop Flash animated choices for Matching questions?	Yes	
Shuffle choices each time question is presented?	Yes	
Insert audio, video, multimedia, Flash, graphics, fonts and equations in text of choices, even when shuffled?	Yes	
Assign different scores to different choices, or combination of choices?	Yes	
Assign a score only if the participant gets entire answer right (right/wrong marking)?	Yes	
Assign different feedback to different choices, or combination of choices?	Yes	
Knowledge Matrix	Yes	
Participant is presented with several multiple-choice questions.		
Wizard to assist authoring including WYSIWYG HTML Editor	Yes	
Max no. of choices	No reasonable limit	
Max no. of options	No reasonable limit	
Shuffle choices each time question is presented?	Yes	
Insert audio, video, multimedia, Flash, graphics, fonts and equations in text of choices, even when shuffled?	Yes	
Assign different weights/scores to different choices or combination of choices?	Yes	
Assign a score only if the participant gets entire answer right (right/wrong marking)?	Yes	
Assign different feedback to different choices?	Yes	
Survey Matrix	Yes	
Presents multiple rows of Likert questions within a table with column headers included.		
Wizard to assist authoring	Yes	
Include standard text for Likert scale?	Yes	
You can define your own range of choices?	Yes	
Allow for not applicable?	Yes	
Not applicable choice allowed?	Yes	
Define your own "weights"?	Yes	
Insert graphics, fonts and equations in text of choices?	Yes	
Numeric answer	Yes	
Participant enters a number in response to the question.		
Wizard to assist authoring including WYSIWYG HTML Editor	Yes	
Prevent entry of text by user?	Yes (providing browser can run JavaScript)	
Allow entry of whole number, real numbers and scientific numbers with exponents?	Yes	
Allow multiple numeric entry areas?	Yes	
Assign score of your choice to getting question right?	Yes	
Assign score to getting question right within a range?	Yes	
Assign scores to more than one number or range?	Yes	

Text Match		Yes
Participant enters some text in answer to the question.		
Wizard to assist authoring including WYSIWYG HTML Editor		Yes
Allow variable height and width of text answer area, including long scrolling areas for entry?		Yes
Assign different scores to different answers?		Yes
Author can choose to ignore or use letter case in scoring?		Yes
Assign different feedback to different possible answers?		Yes
Look for keywords and absence of keywords?		Yes
Automatic mis-spelling check		Yes
Report for manual grading of essay questions		Yes
Fill in Blank		Yes
Participant is presented with a statement with blanks (missing text), and enters text within the blanks.		
Wizard to assist authoring including WYSIWYG HTML Editor		Yes
Number of different text entry areas permitted?		No reasonable limit
Allow more than one correct answer for each gap?		Yes
Allow partial marking (score for each gap right)?		Yes
Allow different feedback for each gap?		Yes
Author can choose to ignore or use letter case in scoring?		Yes
File Upload		Yes
Participant may upload a file in response to a question.		
Wizard to assist authoring including WYSIWYG HTML Editor		Yes
Specify allowed file types		Yes
Specify maximum file size		Yes
Set rubrics for when grading using a browser		Yes
Select a Blank		Yes
Participant is present with a statement with a pull-down list indicating a missing word or phrase. The participant has to select the missing text from the pull-down list.		
Wizard to assist authoring including WYSIWYG HTML Editor		Yes
Number of different text entry within pull-down list?		No reasonable limit
Allow more than one correct answer for each pull-down list?		Yes
Allow partial marking (score for each possible selection)?		Yes
Allow multiple pull down lists within a paragraph.		Yes
Hotspot		Yes
Participant clicks on a graphic to indicate their choice and a marker graphic is moved to that position.		
Wizard to assist authoring including WYSIWYG HTML Editor		Yes
Define your own background graphic?		Yes
Define your own marker graphic?		Yes
Define areas on the graphic as rectangles, circles or polygons?		Yes
Drag and Drop		Yes
Participant has to drag and drop images to a certain position, normally on top of another graphic.		
Wizard to assist authoring including WYSIWYG HTML Editor		Yes
Define your own static graphics?		Yes
Can generate drag and drop Flash animated choices for Matching questions?		Yes
Define up to 10 movable graphics?		Yes
Assign different scores to different areas that you move the moveable graphics to?		Yes
Other question types		Yes
Participant interacts with a custom developed question type developed in QML.		
Define your own question types without needing programming from Questionmark?		Yes (documented on web site)

Assessment Presentation Features	Questionmark	Competitive Product
How questions are presented		
Present each question on its own screen?	Yes	
Present questions in a list?	Yes	
Specify order in which questions appear?	Yes	
Divide assessment into separate blocks or sections?	Yes	
Option to make answering question(s) in a block mandatory?	Yes	
Allow free movement around an assessment?	Yes	
Provide an "assessment navigator" for easily navigating unanswered and flagged questions	Yes	
Include tools and resources such as calculators within an assessment	Yes	
Allow restart of assessment, from where you left off, when technical issues cause problems?	Yes	
Save As You Go		
Allow participants to save their answers without affecting their progress through the assessment?	Yes	
Allow auto-save to save participant's answers without affecting their progress through the assessment?	Yes	
Time limit		
Set time limit for a assessment	Yes	
Allow un-timed question blocks to provide introductions/information and prompt for demographics?	Yes	
Display time remaining	Yes (optional)	
Provide warning when time limit is about to expire	Yes (optional)	
Selection and Sequencing		
Randomly select questions from topic, or sub-topics at run-time?	Yes	
Select questions using tags, and/or combinations of tags?	Yes	
Use a hierarchical system of topics to randomize from (including randomizing from subtopics)?	Yes	
Mix questions from different topics randomly?	Yes	
Shuffle choices within a question?	Yes	
Jumps		
Jump within an assessment based on current score or based on results of a question?	Yes	
Link to another assessment based on assessment score?	Yes	
Link to a web page, or application, based on results from a question, topic score or assessment score?	Yes	
Final page at end of assessment		

Feedback		
Optional item level prescriptive feedback?	Yes	
Optional topic based prescriptive feedback?	Yes	
Optional assessment score based feedback?	Yes	
Optional topic based feedback and scoring	Yes	
Automatically send email at end of assessment	Yes	
Display feedback at end of each block or section?	Yes	
Display feedback after each question?	Yes when each question is a block	
Graphics in assessments		
Number of graphics per question, choice, or feedback?	Unlimited	
Graphics formats supported?	GIF, JPEG, PNG, WMF, DIB, BMP	
Allow wallpaper / background graphic	Yes	
Multimedia		
Sound fully supported	Yes	
Video Multimedia fully supported	Yes	
Embed external video via iFrame	Yes	
Adobe Flash and Captivate supported	Yes	
Question Layout		
Allow content to change look and feel for different assessment styles	Yes	
Use style sheets to control content layout?	Yes	
Allow content to change look and feel to match web site or applications	Yes	
All text presented to participants can be changed without programming?	Yes	



Comparison of Authoring Option in Questionmark Perception

Description	Perception Authoring Manager	Perception Browser-Based Authoring	Questionmark Live	Open Authoring
Question Types	<ul style="list-style-type: none"> Drag-and-Drop Essay question Explanation screens File Upload Fill-in-the-blank Hotspot Knowledge Matrix Likert scale Matching Multiple choice Multiple response Numeric questions Pull-Down List (selection question) Ranking (Rank in Order) Select-a-blank Survey Matrix True/False Word response(text match) Yes/No Macromedia Captivate Simulations Java Macromedia Flash 	<ul style="list-style-type: none"> Essay Likert Scale Multiple Choice Multiple Response Numeric Questions True-False Yes-No Word Response 	<ul style="list-style-type: none"> Multiple Choice Multiple Response (Right/Wrong answer) Multiple Response (Score per choice) Text Match Likert True/False Yes/No Essay Pull-down list Explanation 	Multiple Choice
Include question-level feedback	Yes	Yes	Yes	Yes
WYSIWYG HTML Authoring	Yes	No	Yes	No
Include graphics, sound, multimedia in questions and feedback	Yes	Yes	Yes	No
Create assessments	Yes	Yes	Yes	No
Create branching and multiple block assessments	Yes	No	No	No
Organize questions by topic	Yes	Yes	Yes	No
Publish directly to Repository	Yes	Yes	Via export/import of Qpack	Yes
Publish via Qpack Import	Yes	Yes	Yes	No
Export/Import Qpack	Export and Import	Import only	Export and Import	No
Import Blackboard 6.x, 8.x and 9.x (zip) questions	No	No	Yes	No
Import Blackboard upload (.txt) questions	No	No	Yes	No
Create and manage multilingual questions	No	Yes	No	No
Create and manage multilingual assessments	No	Yes	No	No
Import/Export XLIFF for translation of items and assessments	No	Yes	No	No
Import LXR-Text 6.1 questions	No	No	Yes	No
Import questions in CSV	No	No	Yes	No
Import Moodle XML question	No	No	Yes	No
Manage Global Resources	Yes	Yes	No	No
Add/Manage Topic Resources	Yes	Yes	No	No
Import/Export OML	Yes	No	No	No
Import/Export QTI XML	Yes	No	No	No
Print Assessment to Word; Print assessment for scanning	Yes	No	No	No
Meta Tag Questions	Yes	No	No	No
Manage Workflow	Yes	No	No	No
Available in the following languages	<ul style="list-style-type: none"> English German Dutch French Spanish Japanese 	<ul style="list-style-type: none"> English German Dutch French Spanish Japanese 	<ul style="list-style-type: none"> English German Dutch French Spanish Chinese Japanese Arabic Hindi Polish Portuguese Italian Finnish Swedish Norwegian Russian 	<ul style="list-style-type: none"> English German Dutch French Spanish Japanese
Add/Manage Content	Yes	No	No	No
Edit Templates	Yes	No	License for unlimited number of authors within your organization	No
Number of Authors	Determined by license	Determined by license	Unlimited	Unlimited