



## RapidExam v3.0 Deluxe Exporting to IMS QTI Format

### Introduction

This document details the RapidExam v3.0 Deluxe features that are supported and not supported when exported to IMS QTI format.

IMS Question and Test Interoperability (QTI) is an XML-based development standard that enables the reuse of question-based exam/assessment content between different exam development systems that comply with the IMS QTI specifications. An IMS QTI-compliant exam/assessment technology (such as RapidExam) should be able to both export question content to the IMS QTI XML language as well as import question content from the IMS QTI XML language. In regards to exporting, the technology should be able to fully export all of its supported question types into QTI XML format, and such QTI should meet the IMS QTI Document Type Definitions (DTDs). In regards to importing, the technology only needs to be able to import the question types that the technology itself supports.

### NOTES

- When a RapidExam file is exported to IMS QTI format, only the Question frame content within the file will be exported (because only question-based content is relevant in QTI). Any other frame types that exist within the file (i.e., Splash, Login, Introduction, Report, and/or Ending frames) will **not** be exported. In addition, when a third-party IMS QTI-compliant file is imported into a RapidExam file, only question types supported by RapidExam will be imported.
- RapidExam's Draw Objects, Frame Properties, and Global Properties have no relevance in QTI and thus are **not** supported when exporting to IMS QTI format.

### Supported and Unsupported Features in IMS QTI

Due to IMS QTI limitations, some RapidExam v3.0 Deluxe features are not supported when exporting RapidExam question content to IMS QTI format.

The following table outlines the RapidExam v3.0 Deluxe features that are currently supported and not supported in IMS QTI:

<b>RapidExam v3.0 Deluxe (Feature List)</b>	<b>QTI (Supported Features)</b>	<b>QTI (Unsupported Features)</b>
<b>Frame Types</b>	<p>The following frame types are supported in QTI:</p> <ul style="list-style-type: none"> <li>• Question</li> </ul> <p><b>NOTE:</b> Because QTI deals strictly with question-based content, only Question frames (and not other frame types) are exported to QTI.</p>	<p>The following frame types are not supported in QTI:</p> <ul style="list-style-type: none"> <li>• Splash</li> <li>• Login</li> <li>• Introduction</li> <li>• Report</li> <li>• Ending</li> </ul>
<b>Question Types</b>	<p>The following question types are supported in QTI:</p> <ul style="list-style-type: none"> <li>• True or False</li> <li>• Multiple Choice</li> <li>• Check List</li> <li>• Fill-in-the-Blanks</li> <li>• Hot Spot</li> <li>• Match List</li> <li>• Drag and Drop</li> <li>• Combo Box</li> <li>• Edit Combo Box</li> <li>• List Box</li> <li>• Matrix</li> </ul>	<p>The following question types are not supported in QTI:</p> <ul style="list-style-type: none"> <li>• Short Answer</li> </ul>
<b>Edit Objects</b>	<p>The following RapidExam Edit Objects are supported in QTI:</p> <p><b>General Objects</b></p> <ul style="list-style-type: none"> <li>• Text Field</li> <li>• Image</li> <li>• Animated GIF</li> </ul> <p><b>Question Objects</b></p> <ul style="list-style-type: none"> <li>• Radio Button</li> <li>• Check Box</li> </ul>	<p>The following RapidExam Edit Objects are not supported in QTI:</p> <ul style="list-style-type: none"> <li>• Hyperlink</li> <li>• Login Field</li> <li>• Video Stage</li> <li>• Flash Stage</li> <li>• Instruction Box</li> <li>• Mouse Plot</li> </ul>

RapidExam v3.0 Deluxe (Feature List)	QTI (Supported Features)	QTI (Unsupported Features)
	<ul style="list-style-type: none"> <li>• Fill-in-the-Blanks</li> <li>• Combo Box</li> <li>• Edit Combo Box</li> <li>• List Box</li> <li>• Hot Rectangle</li> <li>• Hot Pencil</li> </ul>	<ul style="list-style-type: none"> <li>• Short Answer Field</li> <li>• Flag Box</li> <li>• Status Bar</li> </ul>
<b>“Text Field” Edit object</b>	<p>Text Field Properties supported in QTI:</p> <ul style="list-style-type: none"> <li>• Left</li> <li>• Top</li> <li>• Height</li> <li>• Width</li> <li>• Font Properties</li> <li>• Drag Drop</li> <li>• Match Side</li> </ul>	<p>Text Field Properties not supported in QTI:</p> <ul style="list-style-type: none"> <li>• Attribute</li> <li>• Transparent</li> <li>• Background Color</li> <li>• Scrolling</li> <li>• Insert Variable</li> <li>• Hotword</li> <li>• Effects</li> <li>• Set/Clear Bullet</li> <li>• Align</li> <li>• Speed</li> <li>• Print This Field As</li> <li>• Answer Component</li> <li>• Global</li> <li>• Global ID</li> </ul>

<b>RapidExam v3.0 Deluxe (Feature List)</b>	<b>QTI (Supported Features)</b>	<b>QTI (Unsupported Features)</b>
<b>“Image” Edit object</b>	Image Properties supported in QTI: <ul style="list-style-type: none"> <li>• Left</li> <li>• Top</li> <li>• Height</li> <li>• Width</li> <li>• Drag Drop</li> <li>• Match Side</li> <li>• Image File</li> </ul>	Image Properties not supported in QTI: <ul style="list-style-type: none"> <li>• Align</li> <li>• Stretch</li> <li>• Transparent Color</li> <li>• Print This Image As</li> <li>• Answer Component</li> <li>• Global</li> <li>• Global ID</li> </ul>
<b>“Animated GIF” Edit object</b>	Animated GIF Properties supported in QTI: <ul style="list-style-type: none"> <li>• Left</li> <li>• Top</li> <li>• Height</li> <li>• Width</li> <li>• Drag Drop</li> <li>• Match Side</li> <li>• Image File</li> </ul>	Animated GIF Properties not supported in QTI: <ul style="list-style-type: none"> <li>• Align</li> <li>• Stretch</li> <li>• Transparent Color</li> <li>• Print This Image As</li> <li>• Answer Component</li> <li>• Global</li> <li>• Global ID</li> </ul>
<b>“Radio Button” Edit object</b>	Radio Button Properties supported in QTI: <ul style="list-style-type: none"> <li>• Left</li> <li>• Top</li> <li>• Caption</li> </ul>	Radio Button Properties not supported in QTI: <ul style="list-style-type: none"> <li>• Attribute</li> <li>• Transparent</li> <li>• Normal Image</li> <li>• Clicked Image</li> <li>• Height</li> <li>• Width</li> <li>• Font Properties</li> <li>• Tool Tip</li> <li>• Fore Color</li> <li>• Back Color</li> </ul>

RapidExam v3.0 Deluxe (Feature List)	QTI (Supported Features)	QTI (Unsupported Features)
		<ul style="list-style-type: none"> <li>• Align Text</li> <li>• Pushlike</li> <li>• Flat</li> <li>• Answer Component</li> </ul>
<b>“Check Box” Edit object</b>	Check Box Properties supported in QTI: <ul style="list-style-type: none"> <li>• Left</li> <li>• Top</li> <li>• Caption</li> </ul>	Check Box Properties not supported in QTI: <ul style="list-style-type: none"> <li>• Attribute</li> <li>• Transparent</li> <li>• Normal Image</li> <li>• Clicked Image</li> <li>• Height</li> <li>• Width</li> <li>• Font Properties</li> <li>• Tool Tip</li> <li>• Fore Color</li> <li>• Back Color</li> <li>• Align Text</li> <li>• Pushlike</li> <li>• Flat</li> <li>• Answer Component</li> </ul>
<b>“Fill-in-the-Blanks” Edit object</b>	Fill-in-the-Blanks Properties supported in QTI: <ul style="list-style-type: none"> <li>• Validation Type</li> <li>• Validation String</li> <li>• Case Sensitive</li> </ul>	Fill-in-the-Blanks Properties not supported in QTI: <ul style="list-style-type: none"> <li>• Attribute</li> <li>• Left</li> <li>• Top</li> <li>• Height</li> <li>• Width</li> <li>• Fore Color</li> <li>• Back Color</li> </ul>

RapidExam v3.0 Deluxe (Feature List)	QTI (Supported Features)	QTI (Unsupported Features)
		<ul style="list-style-type: none"> <li>• Font Properties</li> <li>• Align Text</li> <li>• Dynamic Grow</li> </ul>
<p><b>“Combo Box” Edit object</b></p>	<p>Combo Box Properties supported in QTI:</p> <ul style="list-style-type: none"> <li>• Items</li> <li>• Correct Item(s)</li> </ul> <p><b>NOTE:</b> The Combo Box object will not be exported to QTI as a Combo Box. Instead, the items listed in the Combo Box will be converted to radio buttons or check boxes. If the style of the Combo Box is “Single Select”, then the items will be converted to radio buttons (with the item text shown as a caption on each radio button). If the style of the Combo Box is “Multi-Select”, then the items will be converted to check boxes (with the item text shown as a caption on each check box).</p>	<p>Combo Box Properties not supported in QTI:</p> <ul style="list-style-type: none"> <li>• Left</li> <li>• Top</li> <li>• Height</li> <li>• Width</li> <li>• Style</li> <li>• Fore Color</li> <li>• Back Color</li> <li>• Font Properties</li> </ul>
<p><b>“Edit Combo Box” Edit object</b></p>	<p>Edit Combo Box Properties supported in QTI:</p> <ul style="list-style-type: none"> <li>• Items</li> <li>• Correct Item</li> <li>• Validation String</li> </ul> <p><b>NOTE:</b> The Edit Combo Box object will not be exported to QTI as an Edit Combo Box. Instead, the items listed in the Edit Combo Box will be converted to radio buttons (with the item text shown as a caption on each radio button). If any validation strings have been assigned, they will be exported as a Fill-in-the-Blanks object.</p>	<p>Edit Combo Box Properties not supported in QTI:</p> <ul style="list-style-type: none"> <li>• Left</li> <li>• Top</li> <li>• Height</li> <li>• Width</li> <li>• Fore Color</li> <li>• Back Color</li> <li>• Font Properties</li> </ul>

RapidExam v3.0 Deluxe (Feature List)	QTI (Supported Features)	QTI (Unsupported Features)
<p><b>“List Box” Edit object</b></p>	<p>List Box Properties supported in QTI:</p> <ul style="list-style-type: none"> <li>• Items</li> <li>• Correct Item(s)</li> </ul> <p><b>NOTE:</b> The List Box object will not be exported to QTI as a List Box. Instead, the items listed in the List Box will be converted to radio buttons or check boxes. If the style of the List Box is “Single Select”, then the items will be converted to radio buttons (with the item text shown as a caption on each radio button). If the style of the List Box is “Multi-Select”, then the items will be converted to check boxes (with the item text shown as a caption on each check box).</p>	<p>List Box Properties not supported in QTI:</p> <ul style="list-style-type: none"> <li>• Left</li> <li>• Top</li> <li>• Height</li> <li>• Width</li> <li>• Style</li> <li>• Fore Color</li> <li>• Back Color</li> <li>• Font Properties</li> </ul>
<p><b>“Hot Rectangle” Edit object</b></p>	<p>The Hot Rectangle object is exported as a rectangle shape.</p>	<p>Hot Rectangle Properties not supported in QTI:</p> <ul style="list-style-type: none"> <li>• Left</li> <li>• Top</li> <li>• Height</li> <li>• Width</li> <li>• Border Style</li> <li>• Thickness</li> <li>• Border Color</li> <li>• Display Border Color</li> <li>• Normal Color</li> <li>• Display Normal Color</li> <li>• Clicked Color</li> <li>• Display Clicked Color</li> <li>• Selected Color</li> <li>• Display Selected Color</li> <li>• Act as Done Button</li> </ul>

RapidExam v3.0 Deluxe (Feature List)	QTI (Supported Features)	QTI (Unsupported Features)
<b>“Hot Pencil” Edit object</b>	The Hot Pencil object is exported as an ellipse shape.	Hot Pencil Properties not supported in QTI: <ul style="list-style-type: none"> <li>• Border Style</li> <li>• Thickness</li> <li>• Border Color</li> <li>• Display Border Color</li> <li>• Normal Color</li> <li>• Display Normal Color</li> <li>• Clicked Color</li> <li>• Display Clicked Color</li> <li>• Selected Color</li> <li>• Display Selected Color</li> <li>• Act as Done Button</li> </ul>
<b>Done Button Object</b>	Done Button Properties supported in QTI: <ul style="list-style-type: none"> <li>• Validate Incorrect Message</li> <li>• Validate Correct Message</li> <li>• Hint Message</li> <li>• Add Groups</li> <li>• Answer Properties</li> </ul>	Done Button Properties not supported in QTI: <ul style="list-style-type: none"> <li>• Attribute</li> <li>• Transparent</li> <li>• Left</li> <li>• Top</li> <li>• Height</li> <li>• Width</li> <li>• Font</li> <li>• Fore Color</li> <li>• Back Color</li> <li>• Align Text</li> <li>• Tool Tip</li> <li>• Caption</li> <li>• Enable Feedback</li> <li>• Report Feedback Text</li> <li>• Display Report Feedback</li> </ul>

RapidExam v3.0 Deluxe (Feature List)	QTI (Supported Features)	QTI (Unsupported Features)
		<ul style="list-style-type: none"> <li>• Allowed Attempts</li> <li>• Validation Attempt Message</li> <li>• Validation Attempt Text Field</li> <li>• Validation Attempt Sound</li> <li>• Validation Attempt Image</li> <li>• Hint After Attempt</li> <li>• Hint Text Field</li> <li>• Hint Sound</li> <li>• Hint Image</li> <li>• Maximum Time Allowed</li> <li>• Validate Time Message</li> <li>• Validate Incorrect Text Field</li> <li>• Validate Incorrect Sound</li> <li>• Validate Incorrect Image</li> <li>• Validate Correct Text Field</li> <li>• Validate Correct Sound</li> <li>• Validate Correct Image</li> <li>• Navigate To</li> <li>• Navigate After Attempt</li> <li>• Immediate Feedback Message</li> <li>• Immediate Feedback Text Field</li> <li>• Immediate Feedback Sound</li> <li>• Immediate Feedback Image</li> <li>• Position of Feedback</li> </ul>

RapidExam v3.0 Deluxe (Feature List)	QTI (Supported Features)	QTI (Unsupported Features)
		<ul style="list-style-type: none"> <li>• Done Image Normal</li> <li>• Done Image Clicked</li> <li>• Done Image Mouse Over</li> <li>• Return Image Normal</li> <li>• Return Image Clicked</li> <li>• Return Image Mouse Over</li> <li>• Return Tool Tip</li> <li>• Return Caption</li> <li>• Allow Part Marks</li> <li>• Define Difficulty</li> </ul>