



Performance Analyzer v3.0 Exporting to Flash™ (SWF) Format

Introduction

This document details the Performance Analyzer features that are supported and not supported when exported to Flash.

NOTE: The size of a generated Flash file is very close to the size of a Performance Analyzer file. The Flash file size will increase depending on the number of distinct images and audio/sound files present within the file. The Flash file size will also be dependent on the number of changes from screen to screen after capturing has been completed. Note that 8-bit sound/audio files will also increase the Flash file size since they are not compressed when exported to Flash. Therefore, we recommend using something other than 8-bit sound/audio files (e.g., 16-bit sound/audio files) to keep the Flash file size down.

Supported and Unsupported Features in Flash

Due to limitations in the current Flash Software Development Kit (SDK), some Performance Analyzer v3.0 features are not supported when exporting to Flash format.

The following table outlines the Performance Analyzer v3.0 features that are currently supported and not supported in Flash:

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
Captured Frames Performance Analyzer can capture the desktop in three (3) different ways: <ol style="list-style-type: none">1. Capture Entire Desktop2. Capture Selected Screen Area3. Capture Active Window On Mouse Click	All of these options are supported when exporting to Flash.	None.

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
<p>Supported Screen Resolutions</p> <ul style="list-style-type: none"> • 640 x 480 • 800 x 600 • 1024 x 768 <p>Color Settings</p> <ul style="list-style-type: none"> • 256 colors (8 bits per pixel) • 65,000 colors (16 bits per pixel) • 16,000,000 colors (24 bits per pixel) 	<p>Flash supports the same resolutions and color settings.</p> <p>NOTE: 24-bit data will be converted to 32-bit.</p>	<p>None.</p>
<p>Edit Objects</p>	<p>The following Performance Analyzer Edit Objects are supported in Flash:</p> <ul style="list-style-type: none"> • Video Stage • Flash Stage • Instruction Box • Text Field • Rotated Text Field • Image • Animated GIF • Validation Field • Login Field • Highlighter 	<p>None.</p>
<p>“Video Stage” Edit object</p>	<p>Video Stage Properties supported in Flash:</p> <ul style="list-style-type: none"> • Left • Top • Height • Width 	<p>None.</p>

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
	<ul style="list-style-type: none"> • Select Video Clip (all files except ASF) • Stage Image Behavior • Caption Text • Back Color • Transparent • Auto Play • Control Panel • In Frame • Out Frame • Global • Global ID <p>Video Stage Actions supported in Flash:</p> <ul style="list-style-type: none"> • On Finish Play • On Stop Play <p>Video Stage Events supported in Flash:</p> <ul style="list-style-type: none"> • Validation Frame 	
“Flash Stage” Edit object	<p>Flash Stage Properties supported in Flash:</p> <ul style="list-style-type: none"> • Left • Top • Height • Width • Select Flash File <p>Note: The Flash file assigned in the Flash Stage should be present in the same folder as the RPE file being exported to Flash. However, this is not required if the “Embed Within File” option is selected in the Resource Editor.</p>	None.

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
	<ul style="list-style-type: none"> • Stage Image Behavior (“Stretch Stage” and “Stretch Video” options only) • Caption Text • Back Color • Transparent • Auto Play • Control Panel • In Frame • Out Frame • Global • Global ID <p>Flash Stage actions supported in Flash:</p> <ul style="list-style-type: none"> • On Finish Play • On Stop Play <p>Flash Stage events (for “On Finish Play” and “On Stop Play” actions) supported in Flash:</p> <ul style="list-style-type: none"> • Validation Frame 	
<p>“Instruction Box” Edit object</p>	<p>Instruction Box Properties supported in Flash:</p> <ul style="list-style-type: none"> • Left • Top • Height • Width • Scrolling* <p>*Note: An Instruction Box exported to Flash as an image will <u>not</u> support scrolling.</p> <ul style="list-style-type: none"> • Back Color • Title Bar • Caption Text 	<p>Instruction Box Properties not supported in Flash:</p> <ul style="list-style-type: none"> • Tab Space • Spread Over Frames

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
	<ul style="list-style-type: none"> • Line Space • Baselines* <ul style="list-style-type: none"> *Note: Baselines are only supported in an Instruction Box exported to Flash as an image. • Inline Graphics* <ul style="list-style-type: none"> *Note: Inline graphics are only supported in an Instruction Box exported to Flash as an image. • Record Field • Global • Global ID • Margin Settings <p>Right-click menu options supported in Flash:</p> <ul style="list-style-type: none"> • Font • Color • Bullets* <ul style="list-style-type: none"> *Note: Due to Flash limitations, the size of the bullets will not change according to font size. • Align (Left only)* <ul style="list-style-type: none"> *Note: The “Right” and “Center” alignment options are only supported in an Instruction Box exported to Flash as an image. • Set, Modify, Clear Hotword/Hyperlink <ul style="list-style-type: none"> Note: For a hotword, the “Read From File” and “Play EXM” options are not supported in Flash. 	

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
<p>“Text Field” Edit object</p>	<p>Text Field Properties supported in Flash:</p> <ul style="list-style-type: none"> • Left • Top • Height • Width • Attribute • Text Field Call-Outs* <p>*Note: Call-outs are only supported in a Text Field exported to Flash as an image.</p> <ul style="list-style-type: none"> • Transparent • Scrolling* <p>*Note: A Text Field exported to Flash as an image will <u>not</u> support scrolling.</p> <ul style="list-style-type: none"> • Back Color • Line Space • Inline Graphics* <p>*Note: Inline graphics are only supported in a Text Field exported to Flash as an image.</p> <ul style="list-style-type: none"> • Text File • Paragraph Number • Record Field • Global • Global ID • Margin Settings <p>Right-click menu options supported in Flash:</p> <ul style="list-style-type: none"> • Font • Color 	<p>Text Field Properties not supported in Flash:</p> <ul style="list-style-type: none"> • Tab Space • Baselines • Slide-out • Effects • Speed

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
	<ul style="list-style-type: none"> • Bullets* *Note: Due to Flash limitations, the size of the bullets will not change according to font size. • Align (Left only)* *Note: The “Right” and “Center” alignment options are only supported in a Text Field exported to Flash as an image. • Set, Modify, Clear Hotword/Hyperlink Note: For a hotword, the “Read From File” and “Play EXM” options are not supported in Flash. 	
“Rotated Text Field” Edit object	<p>Rotated Text Field Properties supported in Flash:</p> <ul style="list-style-type: none"> • Left • Top • Height • Width • Attribute • Transparent • Alignment • Font • Fore Color • Back Color • Rotation Degree • Global • Global ID 	None.

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
“Image” Edit object	<p>Image Properties supported in Flash:</p> <ul style="list-style-type: none"> • Left • Top • Height • Width • Image File (All images from Performance Analyzer are exported as bitmaps in Flash.) • Align • Stretch • Rotation Degree • Set Chroma Key • Global • Global ID <p>Image Actions supported in Flash:</p> <ul style="list-style-type: none"> • On Left Single Click • On Right Single Click • On Left Double Click • On Right Double Click <p>Image Events supported in Flash (for the On Left Single Click, On Right Single Click, On Left Double Click and On Right Double Click actions):</p> <ul style="list-style-type: none"> • Validation Message • Validation Error Message 	<p>Image Properties not supported in Flash:</p> <ul style="list-style-type: none"> • Slide-out
“Animated GIF” Edit object	<p>Animated GIF Properties supported in Flash:</p> <ul style="list-style-type: none"> • Left • Top • Height • Width • Image File 	<p>Animated GIF Properties not supported in Flash:</p> <ul style="list-style-type: none"> • Slide-out

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
	<ul style="list-style-type: none"> • Align • Stretch • Set Chroma Key • Global • Global ID <p>Animated GIF Actions supported in Flash:</p> <ul style="list-style-type: none"> • On Left Single Click • On Right Single Click • On Left Double Click • On Right Double Click <p>Animated GIF Events supported in Flash (for the On Left Single Click, On Right Single Click, On Left Double Click and On Right Double Click actions):</p> <ul style="list-style-type: none"> • Validation Message • Validation Error Message 	
“Validation Field” Edit object	<p>Validation Field Properties supported in Flash:</p> <ul style="list-style-type: none"> • Attribute (None, Rectangle, and Transparent only) • Left • Top • Height • Width • Validation String • Character Limit • Case Sensitive • Set as Password • Ignore Null Character • Align Text (Left only) 	<p>Validation Field Properties not supported in Flash:</p> <ul style="list-style-type: none"> • Dynamic Grow

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
	<ul style="list-style-type: none"> • Font • Fore Color • Back Color • Default String • Margin Settings (Left Margin and Right Margin only) <p>Validation Field Actions supported in Flash:</p> <ul style="list-style-type: none"> • Action Keys • On Auto Entry • On Focus Lost <p>Validation Field Action Keys supported in Flash:</p> <ul style="list-style-type: none"> • ENTER • ESC (Not supported in browser) • DEL • PAGE UP • PAGE DOWN • SPACE • TAB • HOME • END • INSERT • A – Z • 0 – 9 • F1 – F12* <p>*NOTE: The F5 key should not be used as a Validation Field action key or frame validation key. If the F5 key is pressed during playback of the Flash file, then logout will occur.</p>	

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
	<p>In addition, please note the following with regard to the functions keys in the browser:</p> <p>F3 – Opens the Find All Files dialog box.</p> <p>F4 – The URL drop-down menu is selected.</p> <p>F6 – The URL is selected.</p> <p>F10 – Contains commands for working with selected items.</p> <p>F11 – The browser window is resized.</p> <ul style="list-style-type: none"> • CTRL+ALT+SHIFT combinations with the keys listed above <p>NOTE: In the browser, the F1 keystroke will work along with the Help menu being displayed.</p> <p>Validation Field Events (for specified validation action keys, the “On Focus Lost” action, and the “On Auto Entry” action) supported in Flash:</p> <ul style="list-style-type: none"> • Attempts/Hint Properties • Validation Message • Validation Error Message • Validation Image • Ignore Key (for ENTER action key only) • Validation Frame (with target frame specified as “Next Frame”, “Previous Frame”, or any existing frame in the current task) • Incorrect Frame (with target frame specified as “None”, “Next Frame”, “Previous Frame”, or any existing frame in the current task) • Move to Next Field 	

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
<p>“Login Field” Edit object</p>	<p>Login Field Properties supported in Flash:</p> <ul style="list-style-type: none"> • Left • Top • Height • Width • Transparent • Font • Fore Color • Back Color • Case Sensitive 	<p>None.</p>
<p>“Highlighter” Edit object</p>	<p>Highlighter Properties supported in Flash:</p> <ul style="list-style-type: none"> • Highlighter Mode (Cell Highlighter, Text Highlighter, Area Highlighter) • Left • Top • Height • Width • Reverse Colors • Select Accuracy • Guide Lines (Animated*, Cycle Colors, Attribute, Color, Line Start Attribute, Line End Attribute, Line End Color) <p>*Note: For a Highlighter object with animated Guide Lines set, the animation will play according to the frame rate specified in the Flash Export Settings dialog box.</p>	<p>Highlighter Properties not supported in Flash:</p> <ul style="list-style-type: none"> • Guide Lines (Guide Line Style*, Line Start Image, Line End Image) <p>*Note: For the “Guide Line Style” property, the “Rectangle” option is disabled.</p> <ul style="list-style-type: none"> • Text Highlighter (Reset Grid Upon Click, Dynamic Grow) • Cell Highlighter (Reset Grid Upon Click, Dynamic Grow)

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
	<ul style="list-style-type: none"> • Text Highlighter (Highlight Color, Cell Highlighter Color, Show Grid Borders, Grid Border Thickness, Grid Border Color, Show Cell Borders, Cell Border Color, Cell Border Thickness, Cell Vertical Size, Cell Horizontal Size) • Cell Highlighter (Cell Highlighter Color, Show Grid Borders, Grid Border Thickness, Grid Border Color, Show Cell Borders, Cell Border Color, Cell Border Thickness, Cell Vertical Size, Cell Horizontal Size) • Area Highlighter (Area Highlighter Color, Area Highlighter Style, Draw Mode) <p>Highlighter Actions supported in Flash:</p> <ul style="list-style-type: none"> • On Mouse Up • On Mouse Down <p>Highlighter Events supported in Flash (for the "On Mouse Up" and "On Mouse Down" actions):</p> <ul style="list-style-type: none"> • Validation Error Message • Validation Message • Validation Image • Validation Sound • Validation Video • Validation Frame (with target frame specified as "Next Frame", "Previous Frame", or any existing frame in the current task) • Incorrect Frame/Neutral Frame (with target frame specified as "None", "Next Frame", "Previous Frame", or any existing frame in the current task) 	

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
Button Objects	<p>The following Performance Analyzer Button Objects are supported in Flash:</p> <ul style="list-style-type: none"> • Hyperlink 	None.
“Hyperlink” Button object	<p>Hyperlink Properties supported in Flash:</p> <ul style="list-style-type: none"> • Left • Top • Height • Width • Button Style • Attribute • Transparent • Caption Text • Align Text • Font • Fore Color • Back Color • Tool Tip • Invert • Toggle • Global • Global ID • Animate Images • Normal Animation • Clicked Animation • Hover Animation <p>Hyperlink Actions supported in Flash:</p> <ul style="list-style-type: none"> • On Left Single Click • On Right Single Click • On Left Double Click 	<p>Hyperlink Events not supported in Flash (for the “On Left Single Click”, “On Right Single Click”, “On Left Double Click” and “On Right Double Click” actions):</p> <ul style="list-style-type: none"> • Play RPE File • Play RBX/EXM File (Applies to EXM files only; RBX files are supported in Flash). <p>Hyperlink Events not supported in Flash (for the “On Mouse Enter” and “On Mouse Leave” actions):</p> <ul style="list-style-type: none"> • Hover Sound

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
	<ul style="list-style-type: none"> • On Right Double Click • On Mouse Enter • On Mouse Leave <p>Hyperlink Events supported in Flash (for the “On Left Single Click”, “On Right Single Click”, “On Left Double Click” and “On Right Double Click” actions):</p> <ul style="list-style-type: none"> • Run an External File • Open URL • Validate Target • Attempts/Hint Properties • Validation Error Message (supported only if the Hyperlink is not set to “Neutral”) • Validation Message • Validation Image • Validation Sound • Validation Video • Validation Frame (with target frame specified as “Next Frame”, “Previous Frame”, or any existing frame in the current task) • Incorrect Frame*/Neutral Frame (with target frame specified as “None”, “Next Frame”, “Previous Frame”, or any existing frame in the current task) <p>*Note: The “Incorrect Frame” event is present only if the Hyperlink’s “Validate Target” event is enabled (i.e., set to validate a selected Validation Field object on the frame).</p> <ul style="list-style-type: none"> • Return to System Variable • Play RBX/EXM File (EXM files are not supported in Flash). 	

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
	<ul style="list-style-type: none"> • Exit Play (Exit Play, Exit Play Warning, and Exit Warning Message) <p>Hyperlink Events supported in Flash (for the “On Mouse Enter” and “On Mouse Leave” actions):</p> <ul style="list-style-type: none"> • Mouse Pointer 	
Draw Objects	<p>The following Performance Analyzer Draw Objects are supported in Flash:</p> <ul style="list-style-type: none"> • Line • Round Rectangle • Ellipse • Rectangle • Pencil • Air Brush • Paint Brush • Polyline • Polygon 	None.
“Line” Draw object	<p>Line Properties supported in Flash:</p> <ul style="list-style-type: none"> • X1 • Y1 • X2 • Y2 • Line Style (Only “Solid”) • Color • Width • Arrow • Global • Global ID 	<p>Line Properties not supported in Flash:</p> <ul style="list-style-type: none"> • Line Style (all options except “Solid”) • Slide-out

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
“Round Rectangle” Draw object	Round Rectangle Properties supported in Flash: <ul style="list-style-type: none"> • Left • Top • Height • Width • Border Style (Only “Solid”) • Border Color • Border Width • Fill Mode • Fill Color • Fill Pattern (Only “Solid”) • Global • Global ID 	Round Rectangle Properties not supported in Flash: <ul style="list-style-type: none"> • Border Style (all options except “Solid”) • Fill Pattern (all options except “Solid”) • Slide-out
“Ellipse” Draw object	Ellipse Properties supported in Flash: <ul style="list-style-type: none"> • Left • Top • Height • Width • Border Style (Only “Solid”) • Border Color • Border Width • Fill Mode • Fill Color • Fill Pattern (only “Solid”) • Global • Global ID 	Ellipse Properties not supported in Flash: <ul style="list-style-type: none"> • Border Style (all options except “Solid”) • Fill Pattern (all options except “Solid”) • Slide-out

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
“Rectangle” Draw object	Rectangle Properties supported in Flash: <ul style="list-style-type: none"> • Left • Top • Height • Width • Border Style (Only “Solid”) • Border Color • Border Width • Fill Mode • Fill Color • Fill Pattern (only “Solid”) • Global • Global ID 	Rectangle Properties not supported in Flash: <ul style="list-style-type: none"> • Border Style (all options except “Solid”) • Fill Pattern (all options except “Solid”) • Slide-out
“Pencil” Draw object	Pencil Properties supported in Flash: <ul style="list-style-type: none"> • Color • Global • Global ID 	Pencil Properties not supported in Flash: <ul style="list-style-type: none"> • Slide-out
“Air Brush” Draw object	Air Brush Properties supported in Flash: <ul style="list-style-type: none"> • Color • Global • Global ID 	Air Brush Properties not supported in Flash: <ul style="list-style-type: none"> • Slide-out

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
“Paint Brush” Draw object	Paint Brush Properties supported in Flash: <ul style="list-style-type: none"> • Color • Global • Global ID 	Paint Brush Properties not supported in Flash: <ul style="list-style-type: none"> • Slide-out
“Polyline” Draw object	Polyline Properties supported in Flash: <ul style="list-style-type: none"> • Color • Width • Global • Global ID 	Polyline Properties not supported in Flash: <ul style="list-style-type: none"> • Slide-out
“Polygon” Draw object	Polygon Properties supported in Flash: <ul style="list-style-type: none"> • Color • Width • Fill Mode • Fill Color • Global • Global ID 	Polygon Properties not supported in Flash: <ul style="list-style-type: none"> • Slide-out
Captured Mouse Click Object	Captured Mouse Click Properties supported in Flash: <ul style="list-style-type: none"> • Left • Top • Height • Width • Target (always Enabled) • Target Image • Mouse Over Image 	None.

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
	<p>Captured Mouse Click Actions supported in Flash:</p> <ul style="list-style-type: none"> • On Left Single Click • On Right Single Click • On Left Double Click • On Right Double Click <p>Captured Mouse Click Events supported in Flash (for the “On Left Single Click”, “On Right Single Click”, “On Left Double Click” and “On Right Double Click” actions):</p> <ul style="list-style-type: none"> • Validation Message • Validation Error Message • Attempts/Hint Properties • Validation Image • Validation Sound • Validation Video • Validation Frame (with target frame specified as “None”, “Next Frame”, “Previous Frame”, or any existing frame in the current task) 	
Frame Properties	<p>Frame Properties supported in Flash:</p> <ul style="list-style-type: none"> • Frame Type • Audio File Name • Allow Audio Interruption • User Action (always Enabled) • Fore Color • Back Color • Gradient Fill • Background Image • Image Display • Default Focus (supported for Validation Field object only) 	<p>Frame Properties not supported in Flash:</p> <ul style="list-style-type: none"> • Mouse Image • Show Print Button (for Report frame only) • Slide-out Effects (Display Sequence, Slide-out Speed, Delay Between Slide-outs)

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
	<ul style="list-style-type: none"> • Frame Delay • Validation Key • Hide and Show • System Variable • Global ID • Step Score (for Step frame only) • Penalty Points per Attempt(s) (for Step frame only) • Answer Properties (for Step frame only) • Attempts/Hint Properties (for Step frame only) • Validation Message (for Step frame only) • Validation Error Message (for Step frame only) • Report Feedback (for Step frame only) • Step Repeat Feedback (for Step frame only) • Step Repeating Options (for Step frame only) • Correct Action (for Step frame only) • Incorrect Action (for Step frame only) • Neutral Action (for Step frame only) • Neutral Action Message (for Step frame only) • Zero Score Action (for Step frame only) • Zero Action Message (for Step frame only) • No Attempts Action (for Step frame only) 	<p>Frame Events not supported in Flash (for the “On Enter” and “On Leaving” actions):</p> <ul style="list-style-type: none"> • Frame Transition Effects (Fade Method, Fade to Color, Fade Effect, Speed, Direction, Sound)

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
	<ul style="list-style-type: none"> • No Attempts Message (for Step frame only) • Report Title (for Report frame only) • Display Tasks Expanded (for Report frame only) • Show Score (for Report frame only) • Show Evaluation Facts (for Report frame only) • Show Feedback Table (for Report frame only) • Show Summary Chart (for Report frame only) • Show Attempts History Button (for Report frame only) • Show Print Button (for Report frame only) • Show Retake Button (for Report frame only) • Remove Expand/Collapse Buttons (for Report frame only) • Remove Expand/Collapse Symbols (for Report frame only) • Show Score in Evaluation Facts (for Report frame only) • Show Bar Graph (for Report frame only) • Show Score in Feedback Table (for Report frame only) • Show Score in Attempts History (for Report frame only) <p>Frame Actions supported in Flash:</p> <ul style="list-style-type: none"> • On Enter • On Leaving • Default Keys • On Left Single Click 	

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
	<ul style="list-style-type: none"> • On Right Single Click • On Left Double Click • On Right Double Click • All Validation Keys • Any captured key or any key added through the "Validation Key" property <p>Note: The only keystrokes that are not supported as frame validation keys in Flash are the shortcut keys used by the browser and ALT+ combination keys (which are not supported due to Flash limitations).</p> <p>Frame Events supported in Flash (for the "On Enter" and "On Leaving" actions):</p> <ul style="list-style-type: none"> • Validation Message <p>Frame Events supported in Flash (for each existing validation key as well as the "Default Keys" and "All Validation Keys" items):</p> <ul style="list-style-type: none"> • Audio File Name • Validation Message • Validation Error Message • Attempts/Hint Properties • Neutral/Validation/Incorrect Frame • Return to System Variable • Exit Play (Exit Play, Exit Play Warning, and Exit Warning Message) <p>Frame Events supported in Flash (for the "On Left Single Click", "On Right Single Click", "On Left Double Click" and "On Right Double Click" actions):</p> <ul style="list-style-type: none"> • Audio File Name • Validation Message 	

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
	<ul style="list-style-type: none"> • Validation Error Message • Attempts/Hint Properties • Neutral/Validation/Incorrect Frame (with target frame specified as "None", "Next Frame", "Previous Frame", or any existing frame in the current task) • Return to System Variable 	
Task Properties	Task Properties supported in Flash: <ul style="list-style-type: none"> • Report Feedback • Default Step Score • Penalty Points per Attempt(s) • Step Repeating Options 	None.
Global Properties	Global Properties supported in Flash: <ul style="list-style-type: none"> • Border Style • Window Size Horizontal • Window Size Vertical • Title Bar Style • Window Controls • Title Bar Heading • Align Title Bar Text • Title Bar Color • Access Mode • Title Bar Icon • Performance Evaluation Name • Display Full Screen • Total Tasks • Display Tasks • Randomize Tasks • Default Step Score 	Global Properties not supported in Flash: <ul style="list-style-type: none"> • System Menu Icon • Single Sign-on • Suppress Print Screen • Prevent Task Switching • Play RPE File

Performance Analyzer v3.0 (Feature List)	Flash (Supported Features)	Flash (Unsupported Features)
	<ul style="list-style-type: none"> • Passing Score • Allowed Attempts • Penalty Points per Attempt(s) • Playback Language • Equal Task Weighing • Step Repeating Options • Play RBX/EXM File (EXM files are not supported in Flash). • Open URL (Always opens in a new window). • Run an External File • Attempts/Hint Properties • Validation Message • Validation Error Message 	
Audio Options	<p>Performance Analyzer supports three (3) audio options in Flash. They include:</p> <ul style="list-style-type: none"> • Recording sound on a frame using the Sound Recorder. • Assigning an audio file to a frame using the “Audio File Name” frame property. • “Background Sound Settings” option on the Preferences menu. <p>Here are some things to note:</p> <ul style="list-style-type: none"> • For the “Background Sound Settings” option, the Fade In and Fade Out settings are not supported in Flash. • The second and third audio options support audio files in the following formats: WAV, MP2, MP3, AU, ASF. 	

Additional Notes About Flash Support in Performance Analyzer v3.0

The following conditions also apply to Performance Analyzer v3.0 objects in Flash:

- AVI, .MOV, .MPEG, and .MPG video files with sound are supported. However, .ASF video files are not currently supported in Flash.
- For the **Play RBX** event of a wait object (such as a **Hyperlink**, **Validation Field**, etc.) to work, the SWF file in which Play RBX event is assigned and the assigned RBX file's exported .SWF file should both be present in the same folder. For example, if the file C:/MyDocuments/Test.rbx is assigned to a file D:/My Folder/Launch.rbx, then Launch.swf and Test.swf should both be in the same folder.
- For **Instruction Boxes** and **Text Fields**, the following conditions apply:
 - Only True Type fonts are supported. If a font other than True Type is selected, it will show the default font (Arial).
 - Certain fonts (such as Impact) do not support Italics.
- For any object with playback settings (e.g., **Video Stage**), the playback will occur according to the frame rate that was specified in the **Flash Export Settings** dialog box.

NOTE: The exception to this rule is video files with sound. These files will play synchronously with the sound.
- In the runtime performance evaluation report, in order to read all of the text present in the Report Feedback column, the user must click the column and then use the Left and Right Arrow Keys to scroll down. Text wrapping will not work.

Required Virtual Memory

Due to limitations of Flash SDK, the Virtual Memory* on the user's machine must be increased according to the number of Performance Analyzer frames the user wishes to export to Flash format.

***NOTE:** Virtual Memory, also known as a swap file (.SWP file), is a portion of the hard drive set aside to use when more random access memory (RAM) is needed. When a file or program is too big for the computer to work within its physical memory, part of the data is stored in the swap file. This virtual storage is divided into segments called pages; each page is correlated with a location in physical memory. When an address is referenced, the page is "swapped" into physical memory; it is sent back to virtual memory when other pages must be called. The file or program runs as if all the data is in physical memory. A hardware device called a memory management unit (MMU) is used to manage virtual memory.

The amount of virtual memory required for Flash exporting is outlined below.

Number of Frames to be Exported to Flash	Required Virtual Memory
1 – 100	150 – 200 MB
100 – 300	350 – 400 MB
300 – 400	500 – 550 MB

Validation Keys Not Supported in Browser Playback

In a Flash file played through a browser (e.g., Internet Explorer), certain keys are not supported for use as validation keys (i.e., captured keystrokes, frame validation keys, and Validation Field keys) because of browser limitations.

The following key combinations cannot be used as validation keys within a Flash file played through a browser:

- <ALT> + any key
- <ALT> + <SHIFT> + any key
- <ALT> + <CTRL> + any key
- <ALT> + <CTRL> + <SHIFT> + any key
- <CTRL> + any key
- <CTRL> + <SHIFT> + any key

Limitations in Macromedia Flash Player 8

The following limitations exist for Flash files played using Macromedia Flash Player 8:

- The corresponding HTML file (which is generated along with the Flash file during exporting) will display a security message dialog box when played in Flash Player 8. Once this dialog box is displayed, the **Open URL** and **Run an External File** events will not work in an HTML browser.
- The <F5> validation key will not work in an HTML browser.
- The **Single Right Click** and **Double Right Click** actions will not work.

NOTE: The above limitations can be overcome by creating a .CFG file containing the currently exported Flash file path. This .CFG file must be copied to the following path:

***boot disk*Documents and Settings\<UserName>\Application Data\Macromedia\F
lash Player\Security.**

Optimizing Flash File Size and Clarity

The “**Flash Export Settings**” dialog box contains two options for optimizing the file size or clarity of the generated Flash file. Prior to exporting the Performance Analyzer file to Flash, the developer may select one of the following radio buttons:

- **Optimize for File Size** – Minimizes the size of the generated Flash file. This option works best where typed text is not being played back.
- **Optimize for Clarity** (the default option) – Maximizes and sharpens the clarity of the generated Flash file, but the size of the file will be slightly increased.

NOTE: If the Performance Analyzer file that you are exporting contains deleted frames (marked with red X's), the size of the exported Flash (.SWF) file will be slightly increased. To minimize the size of the .SWF file, it is recommended that you purge the deleted frames (by selecting **Edit | Purge Frames** on the **Menu Bar**) before exporting the Performance Analyzer file to Flash format.

(If you wish, you can preserve the Performance Analyzer file with the deleted frames by creating a backup copy before purging).

“Global Settings” Option for Area Selection

The “**Flash Export Settings**” dialog box contains a “**Global Settings**” radio button under **Area Selection**. If the “**Global Settings**” radio button is selected prior to exporting the Performance Analyzer file to Flash format, each frame in the generated Flash file will be cropped according to the dimensions (i.e., height and width) specified in the “**Window Size Horizontal**” and “**Window Size Vertical**” properties within the **Global Properties** window.

NOTE: Because capturing cannot be performed for an .RPE file, the “**Global Settings**” area selection option will always be used (rather than the “**Frames with Background**” or “**Selected Area Only**” options).

“Publish HTML” Option

In Performance Analyzer, when exporting to Flash (SWF), there is a “**Publish HTML**” option (selected by default) available in the “**Flash Export Settings**” dialog box. By default, when the exporting process begins, Performance Analyzer will create an HTML file in the same directory where the SWF file is created. The HTML file will contain code to launch the Flash file that is created.

By default, the “**Publish HTML**” option specifies an HTML file name that is the same as the file name the developer enters for the SWF file.

NOTE: The first character in the HTML name cannot be a numeric character or any other special character. If the first character in the HTML name is anything other than a letter, it will cause a runtime error during playback in the browser. Accordingly, if an invalid HTML file name is entered in the “**HTML Name**” text box, an “**Invalid File Name**” error message will be displayed.

Browser Playback Options

The “**Flash Export Settings**” dialog box contains a couple of available settings to customize the playback of the Flash file in the browser window:

- **View Playback in Full Screen** – If this option is selected, the playback of the resulting Flash file will take place in the full screen view of the browser window. The full screen view will be applied in the browser only for the duration of Flash file playback. This option is selected by default.
- **Center Playback in Browser Window** – If this option is selected, the browser window containing the Flash file playback will appear in the center of the screen (rather than the top-left corner of the screen). This option is useful for a Flash file that was created in a low resolution and will be played back in a higher resolution. This option is deselected by default.

Text Fields and Instruction Boxes Exported to Flash as Images

Performance Analyzer includes the option of exporting **Text Fields** and **Instruction Boxes** to Flash as images (instead of regular objects). This exporting option will produce sharper, smoother text (displayed with picture-like quality) within the exported Flash file.

The “**Flash Export Settings**” dialog box contains **Text Field** and **Instruction Box “Display as Image”** options, which may be selected in order to export all **Text Fields/Instruction Boxes** within the Performance Analyzer file as images.

NOTE: In a **Text Field** or **Instruction Box** exported to Flash as an image, the text will not support scrolling.

Flash-based SCORM Courses Created with Performance Analyzer v3.0

In Performance Analyzer, developers may save performance evaluations as SCORM 2004, v1.2, or v1.1 courses. The **Sharable Content Object Reference Model (SCORM)** is an XML-based framework (developed by various international standards organizations) used to develop, package, and deploy online courses in a universally accessible format. A course that complies with the SCORM 2004, v1.2, or v1.1 specifications can be easily shared with any **Learning Management System (LMS)** that supports the equivalent SCORM standard.

A SCORM course contains learning content in the form of a **Sharable Content Object (SCO)**, which is a modular object that can be reused in any SCORM course. The SCO consists of an .HTM file (for accessing the SCO functionality), a Performance Analyzer .RPE/.SWF file and associated task files (containing the actual learning content), and a metadata .XML file (containing information for developers’ reference).

A SCORM course created with Performance Analyzer may contain an RPE-based SCO or Flash-based SCO.

Tracking Flash (SWF) Files with XStream RapidShare LMS

Administration and tracking of Flash (.SWF) files may be accomplished with **XStream RapidShare Learning Management System (LMS)**, which is XStream’s secure, wide-ranging and completely web-based LMS module within the XStream RapidShare hosted web environment and digital workspace.

XStream RapidShare LMS works with XStream’s RapidBuilder, RapidExam, Performance Analyzer, and RapidGuide technologies. The LMS includes full capabilities for registering, tracking, and reporting on learning content files created with RapidBuilder, RapidExam, Performance Analyzer, and RapidGuide. The LMS module can also schedule, track, and report on Offline Events of all types (such as instructor-led training sessions, meetings, workshops, seminars, conferences, trade shows, etc.), and it provides many other features and capabilities, including e-mail notifications, extensive reporting capabilities, self-registration capabilities, learning paths, course catalogs, prerequisite definitions, bookmarking capabilities, offline exam generation, interface customization, archiving capabilities, 508 compliance, multi-language support, optional communication and collaboration capabilities, and more.

XStream RapidShare LMS includes the capability of tracking Flash (.SWF) files that have been generated from performance evaluation (.RPE) files in Performance Analyzer.

NOTES

- The information tracked for Flash (.SWF) files is the same as that tracked for evaluation (.RPE) files.
- Scoring, tracking, logins, and logouts are only supported on Flash (.SWF) files that are launched via an associated HTML file. Accordingly, when exporting an .RPE file to Flash format in Performance Analyzer, the developer must select the **Publish HTML** option in the **Flash Export Settings** dialog box.
- To enable proper updating of progress information, the browser should be configured to check for newer versions of stored pages whenever the file is played. (In **Internet Explorer**, select **Tools | Internet Options**. In the **Internet Options** dialog box, on the **General** tab, click the **Settings** button. In the **Settings** dialog box, under **Check for Newer Versions of Stored Pages**, select the **Every Visit to the Page** option. Click **OK** to close the **Settings** dialog box, and then click **OK** to close the **Internet Options** dialog box).