



Plazmic Content Developer's Kit for BlackBerry Smartphones

Transcoding User Guide

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Transcoding SVG content

About the SVG Transcoding Utility
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About the SVG Transcoding Utility



Prerequisite: This section applies to .svg files. Read this section if you created mobile media content in a graphical authoring tool and exported it as a .svg file, or if you hand-coded SVG content.

The SVG Transcoding Utility is a command-line tool that converts a .svg file to a binary .pme file format for display on BlackBerry devices.

SVG is a text-based markup language similar to HTML that represents 2D graphics, animation, and interactivity. The .pme file format is a binary representation of SVG content. With .pme files, you can perform the following tasks:

- Play and test content using the Media Engine Simulator or the BlackBerry device simulator
- View content on a BlackBerry device.



Note: Refer to the *SVG for BlackBerry Reference Guide*, which is available with the Plazmic Content Developer's Kit for BlackBerry Smartphones, for information on the supported SVG elements and attributes.

To reduce network transmissions, the SVG Transcoding Utility supports .pmb files, which comprise a .pme file and its accompanying resource files.

Preparing your SVG content

Setting processing instructions

In order to process your SVG, the SVG Transcoding Utility must know which output format you want to produce. By adding the Plazmic processing instruction to the .svg file itself, you can specify whether the .svg content will be transcoded to without using the command line.

To use the Plazmic processing instruction, add the following line beneath your XML declaration:

```
<?plazmic pmeVersion="pme_version" pmb="true|false" ?>
```

where

- `pmeVersion` specifies which output version the SVG Transcoding Utility will convert the SVG content to. Values for this property can be one of 0.2 or 1.2. If any other value is provided, The SVG Transcoding Utility will produce an error.



Note: Depending on the output format you are transcoding to (.pme Version 1.2 or .pme Version 0.2), either namespaces or Document Type Definitions (DTDs) are used to specify these definitions. You must use the correct method for the output format you select. See "Validating your SVG" on page 4 for more information.

- `pmb` specifies whether the SVG Transcoding Utility will convert the SVG content to .pmb content bundles or flat .pme files. Valid values are `true` or `false`.

When you set this value to `true`, the SVG Transcoding Utility creates a content bundle. When you set it to `false`, the SVG Transcoding Utility produces only .pme files.

Validating your SVG

During transcoding, the SVG Transcoding Utility attempts to validate your SVG content against the XML definitions of each element used in your file(s). These definitions specify the acceptable SVG elements and attributes and any conditions for usage. Depending on the output format you are transcoding to (.pme Version 1.2 or .pme Version 0.2), either namespaces or Document Type Definitions (DTDs) are used to specify these definitions.

Refer to the W3C web site for more information about SVG DTDs and namespaces. Refer to the *SVG for BlackBerry Reference Guide* for information on the elements and attributes that display on BlackBerry devices.

Targeting .pme version 1.2 output

If you are transcoding to .pme version 1.2 (supported by BlackBerry devices running BlackBerry Device Software Version 4.1 or later), the SVG Transcoding Utility uses namespaces to identify the definitions of multiple locations of the files that you want to use to validate your SVG content. Namespaces must be identified in the outermost `<svg>` tag in your SVG file using the `xmlns` attribute.

For example:

```
<svg height="260" width="240" xmlns:"http://www.w3.org/2000/svg"
      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xsi:schemaLocation="http://www.w3.org/2000/svg http://www.plazmic.com/
      svg/schema/svg.xsd">
```

At minimum, you must include the following namespaces:

```
xmlns="http://www.w3.org/2000/svg"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.w3.org/2000/svg http://www.plazmic.com/svg/schema/
svg.xsd"
```

The following table outlines other possible namespace references that you might require, depending on the functionality your document contains.

Feature set	Namespace reference
Hyperlinks	<code>xmlns:xlink="http://www.w3.org/1999/xlink"</code>
Plazmic extensions	<code>xmlns:pz="http://www.plazmic.com/plazmic_extents"</code>
XForms	<code>xmlns:xforms="http://www.w3.org/2002/xforms"</code>

Targeting .pme version 0.2 output

If you are transcoding to .pme version 0.2 (supported by BlackBerry devices running BlackBerry Device Software Version 3.7 or later), the SVG Transcoding Utility validates your SVG content against a DTD file. This file specifies the acceptable SVG elements and attributes and any conditions for usage.

The doctype declaration element must specify the Uniform Resource Indicator (URI) of the DTD that you want to use to validate your SVG content. For example,

```
<!DOCTYPE svg PUBLIC "-//W3C//DTD SVG 1.0//EN" "http://www.plazmic.com/dtd/<version>/svg.dtd">
```

where `<version>` is the version of the content specification that the BlackBerry Browser supports.

The following list describes how the SVG Transcoding Utility uses DTDs:

- If you do not specify a DTD, the SVG Transcoding Utility analyzes the SVG content and produces errors.
- If the DTD is supported by the SVG Transcoding Utility, the SVG Transcoding Utility uses a local version to reduce the processing time. The SVG Transcoding Utility supports version 1.0 of the `svg.dtd` file. This file is available at http://www.plazmic.com/dtd/1_0/svg.dtd.
- If the DTD is not supported by the SVG Transcoding Utility, the SVG Transcoding Utility will proceed and validate against the specified DTD, but you should be aware that several warning messages will appear.
- If you specify a DTD for a later version of the product, an error will result.

If you use a content creation tool such as the Composer, the DTD information is included automatically when you export the content. Similarly, if you use the SWF Conversion Utility to create SVG content from a .swf file, the DTD information is included automatically.

Transcoding .svg files

You can transcode a single .svg file or multiple specified files. Also, you can apply specific transcoding options at the command line. When you transcode a .svg file, the SVG Transcoding Utility replaces existing .pme or .pmb files with the same file name. If the transcoding stops, due to an error in the file, any existing .pme or .pmb files are deleted.

Transcode one or more files

- > Perform one of the following actions:

Action	Procedure
Transcode a single .svg or .svgz file.	<ol style="list-style-type: none"> 1. At the command prompt, switch to the folder that contains the .svg file. 2. Type the following: <pre>svgc <input file>.svg.</pre> <p>For example, if you type svgc mycontent.svg, the SVG Transcoding Utility creates the mycontent.pme file.</p>
Transcode multiple files.	<ol style="list-style-type: none"> 1. At the command prompt, switch to the folder that contains the .svg files. 2. Type the following: <pre>svgc <filename1>.svg <filename2>.svg <filename3>.svgz</pre> <p>Note: If any file fails, transcoding stops. The remaining files are left untranscoded.</p> <p>If you specify a log file, the SVG Transcoding Utility appends the output from each transcoded file to the log file by default. See "Viewing the SVG Transcoding Utility output" on page 14 for more information.</p>

Setting the output format

The SVG Transcoding Utility supports content written for BlackBerry devices running BlackBerry Device Software version 4.2 or later, which supports .pme Version 1.2. However, if desired, you can output to a format that is compatible with BlackBerry devices running BlackBerry Device Software Version 3.7, which supports .pme Version 0.2.



Notes:

1. You can also specify the output format using the Plazmic processing instruction in the .svg file. See "Setting processing instructions" on page 3 for more information.
2. The Media Engine Simulator can only simulate .pme version 0.2. To simulate .pme version 1.2, use the BlackBerry device simulator, available with the BlackBerry Java Development Environment.

Specify the output format

1. At the command prompt, switch to the folder that contains the .svg file.
2. Type `svgc -pme <version><input file>.svg`. The SVG Transcoding Utility creates an output file that targets the specified .pme version.

For example, if you type `svgc -pme 02`, the SVG Transcoding Utility creates a .pme file that is compatible with BlackBerry devices running BlackBerry Device Software Version 3.7 or later. If you specify `svgc -pme 12`, it creates a .pme file that is compatible with BlackBerry devices running BlackBerry Device Software Version 4.1 or later.

Creating content bundles

To speed network transmission time, you can bundle a .pme file and its accompanying sound and images into a single file. The resulting .pmb file will send images and sounds inline with the media content. You create content bundles from .svg files.

i **Note:** You can also instruct the SVG Transcoding Utility to create a content bundle using the Plazmic processing instruction in the .svg file. See "Setting processing instructions" on page 3 for more information.

Create a content bundle

1. At the command prompt, switch to the folder that contains the .svg file.
2. Type `svgc -pmb <input file>.svg`. The SVG Transcoding Utility creates the file `<input file>.pmb`.

For example, if you type `svgc -pmb mycontent.svg`, the SVG Transcoding Utility creates the `mycontent.pmb` file.

When you use the `-pmb` option, a .pme file is not created.

Transcoding complex shapes

The SVG Transcoding Utility has a command-line option that splits complex polygons into simple polygons. You can use this option if your content has complex polygons that might not display as intended on the BlackBerry device. The following diagrams show examples of complex polygons that the SVG Transcoding Utility `splitcomplex` option supports. The figure on the left is a self-intersecting polygon while the figure on the right is a polygon with a hole.



Complex polygons

Split complex polygons

1. At the command prompt, switch to the folder that contains the .svg file with the complex polygons.
2. Type `svgc -splitcomplex <input file>.svg`

i **Note:** For self-intersecting polygons, you should specify the center point in the source .svg file. If the center point is not specified, an error occurs and transcoding fails. See "SVG Transcoding Utility output" on page 17 for more information on triangulating errors.

Setting the background color

If your content is smaller than the handheld screen size dimensions, the BlackBerry Browser renders the content centered on the screen. By default, if you do not specify a background color, the SVG Transcoding Utility adds a background to the content. The default background color is transparent.

To use a different color, you can do one of the following:

- For .pme 0.2 format you can set a background color for the outer region of the content. The background color frames the content and appears as a background layer for transparent content. See "Set a background color" on page 8 for more information.
- For .pme 1.2 format, you can set the background color in the .svg source using the `background-fill` attribute on the outermost `<svg>` element.

Setting the background color provides a uniform background color; unfilled, transparent objects will inherit the background color.

i **Note:** If your content is the same size as the handheld screen dimensions, the background color might not be visible.

Set a background color

- > To set a background color for your content, when you transcode your SVG content use the `bgColor` command-line option. For example:

```
svgc -bgColor <color> <input file>.svg;
```

where `<color>` is the background color, for example `#0099ff`. Note that this option is case-sensitive.

The `bgColor` command-line option and property support the following color formats:

- **color name:** `blue`
- **hexadecimal:** `#0000FF`
- **RGB:** `rgb(0,0,255)`

i **Note:** You can also use a properties file to specify the background color. See "Setting the SVG Transcoding Utility properties" on page 9 for more information.

Setting the encoding

The BlackBerry Browser supports a variety of character encodings, including UTF-8 and UTF-16. The following list describes how the SVG Transcoding Utility uses character encodings:

- If you specify a character encoding in your .svg file, the SVG Transcoding Utility will use this encoding in the generated output file.
- If you specify a character encoding by using the `outputencoding` command-line option, the SVG Transcoding Utility uses the command-line character encoding when generating the output file, and it ignores any encoding in the .svg file.
- If you do not specify a character encoding in either the .svg file or at the command line, the SVG Transcoding Utility uses UTF-8 as the default output encoding; when an alternate encoding is not provided, UTF-8 is the default encoding in the input file.

Set the encoding

> Perform one of the following actions:

Action	Procedure
Set a character encoding in your .svg file.	> Type <code><? xml version="1.0" encoding="encoding" ></code> ; where <i>encoding</i> is the type of character encoding, for example, UTF-16.
Set a character encoding during .svg transcoding.	<ol style="list-style-type: none"> 1. At the command prompt, switch to the folder that contains the .svg file. 2. Type <code>svgc -outputencoding <encoding> <input file>.svg</code> where <i>input file</i> is the name of the .svg file and <i>encoding</i> is the type of character encoding, for example, UTF-16.

Setting the SVG Transcoding Utility properties

Properties files are text files that the SVG Transcoding Utility reads when transcoding a file. They are useful for setting transcoding options to be used each time you transcode.

Transcoding properties automate the following manual tasks during SVG content deployment:

- parsing your .svg file for sound files and changing the file extensions; for example, you can set a property to translate .mid extensions to .mld extensions
- parsing your .svg file for image files and changing the file extensions; for example, you can set a property to translate .jpg extensions to .gif extensions
- parsing your .svg file for links to other files and changing the extensions; for example, you can set a property to translate extensions in links from .svg to .pme
- adding a default background color to your .svg file



Note: Properties are case sensitive.

Property	Description	Default
<code>svgc.supportedImageExtensions</code>	<p>Use this property to set supported image extensions. Consider changing this property when you are deploying content to handhelds that support specific image types. For example, monochrome BlackBerry Wireless Handhelds support .gif, .png, .wbmp, and .bmp images; jpeg image files are not supported. For example, to limit image files to .gif format, specify this property as follows:</p> <pre>svgc.supportedImageExtensions=gif</pre> <p>When you set this property, the SVG Transcoding Utility generates a warning when it encounters an image file that does not end with the specified extensions.</p>	All extensions are supported.

Property	Description	Default
<code>svgc.supportedAudioExtensions</code>	<p>Use this property to set supported audio extensions. The Media Engine Simulator supports .mid files only.</p> <p>Consider modifying this property when you are deploying content to handhelds that support specific sound types. For example, to limit sound files to the .mid and .mld formats, specify this property as follows:</p> <pre>svgc.supportedAudioExtensions=mid,mld</pre> <p>When you set this property, the SVG Transcoding Utility displays a warning when it encounters a sound file that does not end with the specified extensions.</p>	All extensions are supported.
<code>svgc.supportedHyperLinkExtensions</code>	<p>Use this property to set supported extensions in links in the SVG content. By default, the SVG Transcoding Utility supports hyperlinks to all extensions. Specify this property as follows:</p> <pre>svgc.supportedHyperLinkExtensions=pme,pmb,html,wml</pre> <p>When you set this property, the SVG Transcoding Utility displays a warning when it encounters a link to a file that does not end with the specified extensions.</p>	All extensions are supported.
<code>svgc.translateExtension</code>	<p>Use this property to translate file extensions whenever they are encountered in the .svg file. For every file extension that you want to translate, create one <code>translateExtension</code> property line. For example, you can use this property to enable extension translation in the SVG Transcoding Utility to map all .svg files to .pme extensions during transcoding.</p> <p>Specify this property as follows:</p> <ul style="list-style-type: none"> <code>svgc.translateExtension.jpg=gif</code> <code>svgc.translateExtension.png=gif</code> <code>svgc.translateExtension.mid=mld</code> <code>svgc.translateExtension.svg=pme</code> <p>Note: This property only translates the file extensions in the .svg file. The corresponding file format must exist on the file system.</p>	Extensions are not translated.
<code>svgc.bgColor</code>	<p>Use this property to set the default background color for .svg files. You can specify colors in color-name format, in hexadecimal format, or as RGB values. For example:</p> <ul style="list-style-type: none"> <code>svgc.bgColor=black</code> <code>svgc.bgColor=#ffffff</code> <code>svgc.bgColor=rgb(100,0,10)</code> 	black
<code>svgc.splitcomplex</code> <code>svgc.nosplitcomplex</code>	<p>Use this property to specify whether complex polygons are split into non-complex polygons. The BlackBerry Wireless Handheld supports complex polygons.</p>	<code>svgc.nosplitcomplex</code>

Property	Description	Default
<code>svgc.pmeVersion</code>	Use this property to specify which output version the SVG Transcoding Utility will convert the SVG content to. Values for this property can be one of 0.2 or 1.2. Specify this property as follows: <code>svgc.pmeVersion=1.2</code>	1.2
<code>svgc.pmbOutput</code>	Use this property to specify whether the SVG Transcoding Utility will convert the SVG content to .pmb content bundles or flat .pme files. Specify this property as follows: <code>svgc.pmbOutput=true false</code> When you set this value to <code>true</code> , the SVG Transcoding Utility creates a content bundle. When you set it to <code>false</code> , the SVG Transcoding Utility produces only .pme files.	<code>false</code>



Note: When specifying file extensions in the properties files, omit the preceding period, for example, `gif`.

About translating extensions

The following table provides examples of different file extensions that the SVG Transcoding Utility can translate when the `translateExtension` property is set:

Property	Description
<code>svgc.translateExtension.jpg=gif</code>	Input: <code><image id="image" x="-18" y="-53" width="64" height="16" xlink:href="Images/image.jpg"/></code> Output: <code><image id="image"#x="-18" y="-53" width="64" height="16" link:href="Images/image.gif"/></code>
<code>svgc.translateExtension.mid=mlt</code>	Input: <code><audio xlink:href="sounds/applause.mid" loop="no" begin="applause_link.activate"/></code> Output: <code><audio xlink:href="sounds/applause.mlt" loop="no" begin="applause_link.activate"/></code>
<code>svgc.translateExtension.svg=pme</code>	Input: <code><loadScene xlink:href="graphics.svg" begin="Graphics_link.activate"/></code> Output: <code><loadScene xlink:href="graphics.pme" begin="Graphics_link.activate"/></code>

When translating extensions in links, verify that the corresponding file format exists in the file system.

Transcoding with properties

During transcoding, the SVG Transcoding Utility uses the default property values if no value is specified. To override the default properties, you can create your own properties file and specify it by using the `-p` option at the command line. If the SVG Transcoding Utility cannot read a properties file, it stops processing and issues an error. See "Viewing the SVG Transcoding Utility output" on page 14 for more information.

Create a properties file

- > Perform one of the following actions

Action	Procedure
Transcode by using the sample properties file.	<ol style="list-style-type: none"> 1. At the command prompt, switch to the folder that contains the .svg file. 2. Type <code>svgc -p svgc.properties <yourfile>.svg</code>. <p>Note: If you specify a property value that conflicts with a default property value, the SVG Transcoding Utility applies the value that you specify.</p>
Create a properties file.	<ol style="list-style-type: none"> 1. In Windows Explorer, switch to the resources folder available by default at <code><install_folder>\Plazmic CDK 4.2\resources</code>. 2. Open <code>svgc.properties</code>. 3. Save the file with a new name and a .properties extension in one of the following locations: <ul style="list-style-type: none"> • your current folder (for example, the folder from which you type your transcoding commands) • your home folder (for example, <code>c:\Documents and Settings\<your_name></code>) 4. Specify the properties to configure. Properties are case sensitive. 5. To list more than one extension, include a comma between each value. 6. Save and close the file. <p>Save the file as any name, for example, <code>my.properties</code>.</p> <p>Note: To retain the default properties, use a different file name than the default (<code>svgc.properties</code>). To override the default properties, use the <code>-p</code> option at the command line and type the name and path of your custom properties file. If you specify a property value that conflicts with a default property value, the SVG Transcoding Utility applies the custom property.</p>

Where the SVG Transcoding Utility looks for properties

The SVG Transcoding Utility scans the following folders for properties files in this order:

1. your current folder (for example, the folder from which you type your command-line options)
2. your home folder (for example, `c:\Documents and Settings\<your_name>`)

Alternatively, specify the path to the properties file. If the SVG Transcoding Utility does not locate a properties file, it uses the default settings.



Note: If you specify a custom property that conflicts with a default property, the SVG Transcoding Utility applies the custom property.

Specify properties

1. Create a properties file.
2. Verify that your custom properties file is saved to your current or home directory.
3. At the command prompt, type the following command, replacing the placeholders with actual file names:

```
svgc -p <custom>.properties <myfile>.svg.
```

The custom properties are applied to the transcoding of the .svg file.



Note: If the properties file is located in a folder other than your home folder or a folder that is relative to the current working directory, type the absolute path to the properties file, for example, `svgc -p c:\test\test.properties myfile.svg`.

Transcoding with options

Various command-line options provide greater control over how your SVG content is transcoded to .pme or .pmb format. Precede options with a dash (-).

Option	Description	Default
-help	Set this option to display a help message that lists the available command-line options.	–
-version	Set this option to display the version number of the SVG Transcoding Utility.	
-outputFileAbsolute <outputfile>	Set this option to specify the complete path and output filename of the .pme or .pmb file to produce. You can specify only one input file with this option, for example: <pre>svgc <input> -outputFileAbsolute <output></pre> Note: You must specify the absolute path to the output file. If you do not specify the path, you may experience unexpected results.	Name of the input file, for example, if the input file is mycontent.svg, the output file is mycontent.pme.
-bgcolor <color>	Set whether a background color appears. You can specify colors in color-name format, in hexadecimal format, or as RGB values. For example: <ul style="list-style-type: none"> -bgColor black -bgColor #ffffff -bgColor rgb(100,0,10) See "Setting the background color" on page 7 for more information.	black
-errorlevel errors warnings messages	Set the type of troubleshooting information to display: <ul style="list-style-type: none"> Errors: contain critical information that cause transcoding to stop Warnings: contain medium-priority information that does not prevent transcoding; use this option to display both errors and warnings Messages: contain low-priority information; use this option to display errors, warnings, and messages See "Troubleshooting" on page 17 for more information.	errors
-splitcomplex -nosplitcomplex	Set whether complex polygons are split into non-complex polygons. See "Transcoding complex shapes" on page 7 for more information.	-nosplitcomplex
-outputencoding <encoding>	Set the type of encoding for the output file, for example: <pre>svgc -outputencoding UTF-16 myfile.svg</pre> See "Transcoding complex shapes" on page 7 for more information.	The SVG Transcoding Utility uses the encoding specified in the .svg file.

Option	Description	Default
-p <propertyfile>	Set the property file that the SVG Transcoding Utility reads when it transcodes .svg files. Some of the properties specified in this file include the background color and extension mapping. You can use the command line to override the properties specified in the default properties file (svgc.properties). For example: svgc -p my.properties myfile.svg	none
-pme 02 12	Set this option to target this content to a specific version of .pme.	If this option is not specified, the SVG Transcoding Utility outputs content to .pme 0.2.
-pmb	Set this option to bundle a .pme file and its accompanying image and sound files into a single .pmb file; a .pme file is not created.	If this option is not specified, the SVG Transcoding Utility creates a .pme file.



Tip: If you often use a particular set of transcoding options, record them in a properties file, which is read each time .svg files are transcoded. See "Setting the SVG Transcoding Utility properties" on page 9 for more information.

Viewing the SVG Transcoding Utility output

During transcoding, the SVG Transcoding Utility generates errors, warnings, and informational messages. Set the output information level by specifying the `errorLevel` option in a properties file or on the command line. See "Transcoding with options" on page 13 for more information on command-line options.

Refer to "SVG Transcoding Utility output" on page 17 for a list of the SVG Transcoding Utility output.

You can specify errors, warnings, and messages to appear on the console screen or to print to a specified log file. By default, errors appear on the console screen.



Note: When you do not specify a log file, this information appears on the console screen.

View SVG Transcoding Utility output

> Perform one of the following actions:

Action	Procedure
View messages on the console screen.	<ol style="list-style-type: none"> At the command prompt, switch to the folder that contains the .svg file. Type <code>svgc <input file>.svg -errorLevel <errors warnings messages></code>. There are three available output levels: <ul style="list-style-type: none"> <code>error</code>: displays errors <code>warnings</code>: Displays errors and warnings. <code>messages</code>: Displays errors, warnings and messages. <p>Note: Errors that prevent the SVG Transcoding Utility from locating the input file, the output file, or the properties file always appear on the console screen.</p>

Action	Procedure
Print transcoding information to a log file.	<ol style="list-style-type: none"> <li data-bbox="505 232 1115 256">1. At the command prompt, switch to the folder that contains the .svg file. <li data-bbox="505 262 1285 430">2. Type the following: <pre data-bbox="582 291 1279 340">svgc -errorlevel <errors warnings messages> <input_file>.svg > <log filename.log></pre> <p data-bbox="539 348 1175 373">For example, <code>svgc -errorlevel errors myfile.svg > output.log.</code></p> <p data-bbox="539 383 1285 430">The SVG Transcoding Utility saves the log file to the current folder and overwrites existing log files with the same name.</p>
Append log information to an existing log file.	<ol style="list-style-type: none"> <li data-bbox="505 446 1115 470">1. At the command prompt, switch to the folder that contains the .svg file. <li data-bbox="505 475 1285 546">2. Type the following: <pre data-bbox="582 505 1265 553">svgc -errorlevel <errors warnings messages> <input_file>.svg >> <log filename.log></pre>
Print the SVG Transcoding Utility help information to a log file.	<p data-bbox="539 562 1285 609">> At the command prompt, type <code>svgc -help > help.log</code>. The help.log file appears in the current folder.</p>

Troubleshooting

About output information
 SVG Transcoding Utility output
 General issues

About output information

Errors, warnings, and information messages might appear on the console or in the Logging Window when you perform the following tasks:

- convert .swf files
- transcode SVG content
- use the BlackBerry Device Simulator

Errors contain critical information. Warnings contain medium-priority information. Messages contain low-priority information.

SVG Transcoding Utility output

Errors

Errors contain information about what causes transcoding to fail. When the SVG Transcoding Utility encounters an error, transcoding stops and no .pme or .pmb file is produced. The following information can guide you through errors that might be generated by the SVG Transcoding Utility. These errors might appear in the console.

Error	Possible problem	Possible solution
A parse error has occurred at line <n> column <nT> (<error>).	An error in the SVG code occurred at a particular line number and character position.	Check the syntax. Use the message in brackets to determine the cause of the error.
A value of "<x>" was encountered for a field that must be between <y> and <z>.	The value might exceed the limits that the .pme file allows.	Verify that the <code>keyTimes</code> , <code>keyValues</code> , <code>coordinate</code> , <code>currentChild</code> , <code>visualnode</code> , <code>loopcount</code> , <code>width</code> and <code>height</code> attributes do not exceed 65,000. Supply a correct value for the attribute.
An internal error was encountered while transcoding this file (<fileName>).	An internal error was encountered during transcoding of the source file.	To isolate the last element that was processed, set the error level to <code>message</code> . Also, verify that your hard disk is not full or write-protected. If the error persists, examine the source code for errors.

Error	Possible problem	Possible solution
Could not create the PMB file.	<ul style="list-style-type: none"> A .pmb file with the same name already exists. The disk drive is full. You do not have write permissions for the directory. 	<ul style="list-style-type: none"> Use a different file name or directory. Verify that the disk drive contains sufficient free space and that you have write permission for the directory.
Element <code><elementName></code> named " <code><id></code> " is invalid. Attributes "fill" and "stroke" cannot both be "none".	The SVG Transcoding Utility requires either a fill or a stroke for each object.	Specify a value for either the fill or stroke.
The content version " <code><versionNumber></code> " is not supported.	The DTD version number specified in the .svg file is not supported by this version of the Plazmic Content Developer's Kit for BlackBerry Smartphones.	Use a supported DTD version number, or use a newer version of the SVG Transcoding Utility. Refer to page 3.
The error message " <code><error_content></code> " may not be correct. The actual error may be that the source file has been saved as an encoding type that is different than the encoding type specified in the file.	The encoding type specified in the .svg file does not match the encoding type of the source file.	Change the encoding type to match the source file. Refer to page 8.
The <code><animate></code> element with id " <code><id_name_1></code> " references the id " <code><id_name_2></code> " which is the cause of a circular dependency.	Several animations are dependant on each other. Therefore, the animations cannot start or end because they are dependent upon one animation starting or ending, and that animation is already dependant on another.	Remove the dependency, or add another <code>animate</code> element.
The <code><attributeName></code> attribute of <code><elementName></code> elements cannot be animated. The element <code><elementName></code> named " <code><id1></code> " is targeted by the <code><animate></code> element named " <code><id2></code> ".	The attribute cannot be animated.	Remove the animation of the attribute.
The <code><attributeName></code> attribute of <code><rect></code> elements cannot be animated if <code>rx</code> or <code>ry</code> is greater than 0. The element <code><rect></code> named " <code><id1></code> " is targeted by the <code><animate></code> element named " <code><id2></code> ".	This error pertains to rounded rectangles. Animation of rounded rectangle width and height is not supported.	Remove the animation of the attribute.
The argument " <code><argumentName></code> " is not recognized.	A command-line argument is not recognized.	Try executing the command line without the argument.
The element " <code><element1></code> " must be defined before it is used by element " <code><element2></code> ".	Element 1 (<code><name1></code>) was referenced in the <code>begin</code> field of element 2 (<code><name2></code>); however, element 1 appears in the file after element 2.	Define element 1 in the file before element 2. The <code>xmlns:href</code> attribute might be necessary.
The element <code><elementName></code> named " <code><id1></code> " has a reference to " <code><id2></code> " which is not found.	The referenced element <code>id</code> could not be found in the .svg file.	Remove the reference or verify the <code>id</code> that is referenced.
The input file " <code><input_file_name></code> " cannot be read.	The source file cannot be read; it might not exist or it might be in use by another application.	Verify that the file exists, is not being used by another application, and that you have write permission. Also verify that the source file name is specified correctly.
The output encoding " <code><encoding></code> " is incorrect or unsupported by this compiler.	The specified output encoding is incorrect.	Specify a valid output encoding. Refer to page 8.
The PME file " <code><fileName></code> " cannot be written.	The source file cannot be transcoded into a .pme file. The .pme file is not transcoded.	Verify that your hard disk is not full or write-protected.

Error	Possible problem	Possible solution
The property file <fileName> cannot be opened.	The property file was not found.	Verify that you have read permission for the properties file. Also, make sure that the svgc.properties file is created. Refer to page 11.
The attribute "<x>" is a required attribute for <elementName> elements but is missing for the <elementName> elements named "<id>".	An attribute that is required for the named element was not specified.	Specify the required attribute with a valid value.
The .svg content will cause the maximum .pme file size limit to be exceeded. No .pme generated.	The file is too large and cannot be displayed.	Try creating a smaller file. You can also override the handheld constraints and continue to load the file.
The URL "<URL>" is malformed.	When creating .pmb files, the SVG Transcoding Utility validates references to external resources. The relative path or URL is incorrect.	Correct the URL.
The value "<x>" of element "<y>" named "<id>" is an unsupported rule for attribute "<z>".	The d attribute of the path element describes the path points. This particular path element contains an unsupported path operation.	Correct the syntax.
The value "<x>" for the attribute "<y>" of element <elementName> named "<id>" is invalid. "<xlink:href value>" either does not exist or is not a visual element.	This error occurs with the animate element when using begin or end attributes that reference another visual element, except that the element id does not reference a visual element.	Change the referenced id to a visual element.
The value "<x>" for the attribute "<y>" of element <elementName> named "<id>" is invalid. It must contain <n> values.	The list of values contains more or fewer entries than the list of keyTimes.	Add or remove entries to either the values or the keyTimes lists until the number of entries is the same. Make sure keyTimes is "keyTimes" not "keytimes".
The value "<x>" for the attribute "<y>" of element <elementName> named "<id>" contains equivalent or exceedingly close values.	The specified value for the attribute of the named element has an unsupported value.	Remove the unsupported attribute. Refer to the BlackBerry Wireless Handheld SVG Reference.
The value "<x>" for the attribute "<y>" of element <elementName> named "<id>" is invalid.	The specified value for the attribute of the named element has an unacceptable value.	Supply a correct value for the specified attribute.

Error	Possible problem	Possible solution
The value "<x>" for attribute "<d>" of element <path> named "<id>" is invalid. The "y" path command is not supported.	This error applies to the d attribute in the path element, for example, <pre><path d=" " /></pre> <p>The following are the valid values for the d attribute:</p> <ul style="list-style-type: none"> • move to ("M" or "m") • line to ("L" or "l") • cubic curve to ("C" or "c") • smooth cubic curve to ("S" or "s") • horizontal line ("H" or "h") • vertical line ("V" or "v") • quadratic curve to ("Q" or "q") • smooth quadratic curve to ("T" or "t") • elliptic arc to ("A" or "a") • close path ("Z" or "z") <p>If the d attribute contains an unsupported value, this error occurs.</p>	Change the unsupported path command to a supported path command. Refer to the BlackBerry Wireless Handheld SVG Reference.
The value "<x>" is an unrecognized command-line option.	The command-line option is incorrect.	Remove the command-line option or specify a valid command-line option. Refer to page 13.
When triangulating, the <elementName> element named "<id>" cannot specify points with edges that intersect itself.	This error applies to complex polygons with intersecting points that use the polygon, polyline, or path elements.	<ul style="list-style-type: none"> • Remove the intersection. • Add a point at the intersection. • Convert the complex polygon to a simple polygon.

Warnings

When the SVG Transcoding Utility encounters a warning, it continues transcoding and produces a .pme or .pmb file. Warnings might contain medium-priority information, such as conflicts with external file dependencies or ignored attributes.

Use the following information to understand warnings you might encounter when using the SVG Transcoding Utility or the BlackBerry Smartphone Simulator. These warnings might appear in the console.

Warning	Possible problem	Possible solution
Attribute "<attributeName>" of element "<elementName>" named "<id>" represents a polygon which may not be rendered properly.	The polygon cannot be displayed on the handheld. The SVG Transcoding Utility might have split the complex polygon, but cannot arrive at a configuration that can be rendered properly on all handhelds.	Consider replacing the complex polygon with a simple polygon.
The "<x>" attribute in the <elementName> element named "<id>" is deprecated.	The named attribute is no longer supported.	Remove the unsupported attribute. Refer to the BlackBerry Wireless Handheld SVG Reference.
The attribute "<attributeName>" of element "<elementName>" named "<id>" is unsupported.	The named element contains an unsupported attribute.	Remove the unsupported attribute. Refer to the BlackBerry Wireless Handheld SVG Reference.

Warning	Possible problem	Possible solution
The <code><elementName></code> element named " <code><id></code> " for attribute " <code><attributeName></code> " of value " <code><z></code> " uses old syntax which is deprecated.	For the <code>switchGroup</code> element, the <code>currentChild</code> attribute was previously an integer; now the value of the <code>currentChild</code> attribute is an <code>id</code> . Content that uses integers for the <code>currentChild</code> attributes will perform as expected.	Change <code>currentChild</code> attribute values from integers to <code>ids</code> . Refer to the BlackBerry Wireless Handheld SVG <i>Reference</i> .
The element " <code><elementName></code> " is unsupported in this release.	The named element is not supported.	Remove the unsupported attribute. Refer to the BlackBerry Wireless Handheld SVG <i>Reference</i> .
The <code><elementName></code> element named " <code><id></code> " was truncated from " <code><y></code> " to " <code><z></code> " (length of <code>n</code> characters).	The <code>title</code> element has a maximum of 16 characters. The <code>desc</code> element has a maximum of 256 characters. Additional characters will be truncated.	Rephrase the element contents to fit the maximum character limitation.
The value " <code><x></code> " for attribute " <code><attributeName></code> " of element " <code><elementName></code> " contains a backslash (" <code>\</code> ").	A URL contains a backslash.	Change the backslash to a forward slash (<code>/</code>).
The value " <code><x></code> " for attribute " <code><attributeName></code> " of element " <code><elementName></code> " has been changed to " <code><y></code> ".	When the SVG Transcoding Utility translates extensions during transcoding, the translated extensions are listed.	–
The value " <code><x></code> " for the attribute " <code><attributeName></code> " of element " <code><elementName></code> " named " <code><id></code> " is an unsupported attribute value.	Correct the value.	Refer to the BlackBerry Wireless Handheld SVG <i>Reference</i> .
The value " <code><x></code> " for the attribute " <code><attributeName></code> " of element " <code><elementName></code> " named " <code><id></code> " is being rounded.	Objects might appear different when displayed since all values are mapped to integers.	–
Unable to retrieve URL " <code><URL></code> ".	When creating a <code>.pmb</code> file, a URL to a sound, image, or other scene could not be found.	Verify that links to external resources are correct.

Messages

Messages contain non-urgent and non-critical information generated by the SVG Transcoding Utility. Use the following information to understand messages you might encounter when using the SVG Transcoding Utility or the BlackBerry Smartphone Simulator. These messages might appear in the console.

Message	Description
<code><n></code> error(s) were encountered.	This message lists the number of errors that were encountered during transcoding.
<code><x></code> warnings and <code><y></code> messages were generated during compilation of this file.	This message lists the number of warnings and messages generated.
An element of type " <code><elementName></code> " named " <code><id></code> " was found.	During transcoding, the SVG Transcoding Utility located the element with the named <code>id</code> in the source file.
Transcoding has completed successfully.	The source file(s) were successfully transcoded to <code>.pme</code> format.
Transcoding <code><sourceFile></code> to <code><outputFile></code>	This message appears during transcoding.

Message	Description
Element <i><elementName></i> named " <i><id></i> " contains a reference to an external resource " <i><resourceName></i> ".	An external resource (for example, a sound or image file) that is contained in the content file is listed.
http://www.plazmic.com	The URL of the Plazmic web site is displayed.
No background color was specified for this scene, the default value will be used.	By default, if you do not specify a background color, the SVG Transcoding Utility adds a black background to the content. To use a different color, you can set a background color. Refer to page 7.
SVG Transcoding Utility 2.0.0.<x>	The version number of the SVG Transcoding Utility software appears.

General issues

Issue	Possible cause	Possible solution
An audio file does not play correctly.	The BlackBerry Browser supports single channel .mid files.	Verify that the audio file conforms to the BlackBerry Browser standards.
Content that is exported from the CDK is too large.	The animation of certain attributes will produce an image for each frame of animation.	To reduce the size of your content that is exported from Composer, minimize the following types of animations: <ul style="list-style-type: none"> • animated rotation of images • animated scaling of images • animated filters and effects • animated opacity • animated non-handheld font attributes (for example, color, skew, or size) Also, keep objects in their vector graphics form instead of rasterizing them; rasterizing objects produces images on export.
Images appear too large or overlap other content.	The SVG <code>image</code> element has <code>width</code> and <code>height</code> attributes. These attributes enable you to scale images to any width and height you choose. The BlackBerry Browser does not support scaling of images, so pixel width and height is used; the width and height values defined in SVG are ignored.	Scale the image to the appropriate size. If you set the <code>height</code> and <code>width</code> attributes, set them to the same size as the image dimensions. Note: If you do not specify these attributes, the default height and width is 0 in most SVG viewers.
Invalid id message appears in the Logging Window.	All ids in your .svg file must have a unique name; for example, you cannot have two ids called "x" in the same file.	Use unique ids in your .svg file.
Links break when moving files from the test environment to the production environment.	The content files contain absolute URLs.	To make sure that the content creation environment is the same as the content deployment environment, use relative URLs when linking to other scenes, images, or sounds. This guideline enables you to move entire directories from one location to another.
Links to .avi and .qt files do not work.	The BlackBerry Browser does not support .avi or .qt files.	–
Some image types do not display correctly in the BlackBerry Browser.	The BlackBerry Browser supports the .gif and .png image formats. <ul style="list-style-type: none"> • The .gif format is a CompuServe® image format that supports 256 colors and one color transparency. • The .png format can be encoded with a single alpha color, with a full alpha channel, or with paletted alpha information. 	Convert the unsupported image to a .gif or .png file.

Issue	Possible cause	Possible solution
The background color appears black.	By default, the background is set to black.	To specify the background color of a scene, set the color using the <code>background-color</code> attribute in the outermost <code><svg></code> element. You can also set the background color with the <code>-bgcolor</code> command-line option while transcoding the .svg file with the SVG Transcoding Utility. Refer to page 7.
The error "unrecognized content" appears when accessing deployed content from a web application server.	Your web server is not configured to support mobile media content files, such as .pme or .pmb files.	Verify that the web server has the following MIME types: <ul style="list-style-type: none"> • <code>application/x-vnd.rim.pme .pme</code> • <code>application/x-vnd.rim.pme.b .pmb</code>
Unable to load some .pme and .pmb files in the BlackBerry Browser.	The BlackBerry Browser version 4.1 has a 64 KB file size limit.	To provide the best possible mobile user experience, optimize your content. <ul style="list-style-type: none"> • Use small resolution images. • Use polygons wherever large amounts of color are required, and images where lots of data is required. • Use the <code>rect</code> and <code>poly</code> elements. • Reduce the number of images in your content (tiling images is another method). • Place all your images in a single large image and translate the large image making only portions of it visible when required. • Reduce the number of colors in your content and in your images. • Split content into smaller files where possible.
Unable to play SVG content in the BlackBerry Browser.	The BlackBerry Browser supports .html, .wml, .pme, and .pmb files; .svg files are not supported. The .pme and .pmb file formats, binary representations of .svg files, are more compact than the .svg file format.	Use the SVG Transcoding Utility to transcode your .svg files to .pme or .pmb files.
Unable to start the Mobile Data Service Simulator.	The Mobile Data Service Simulator requires the Sun Java Development Kit to run.	Verify that the Sun Java Runtime Environment version 1.4 or later is installed on your system.
Unable to turn sound off while playing content.	You cannot play or mute sound while playing content.	In the content file, start or stop a sound on any of the <code>begin</code> criteria supported by an <code>animate</code> element. Note that each time the sound starts it will start from the beginning.

