# Render Ware Graphics

# Tool

# 2dconvert

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# 1.1 Introduction

2dconvrt is primarily an importer of Flash .swf files into the RenderWare Graphics .anm format. These files may then be played back with the 2dviewer viewer, which uses the Rt2dAnim library.

It can also separate out the different component files that make up the 2D content in a .swf file.

# 1.1.1 File types

It should be noted that the output files from <code>2dconvrt</code>, e.g. <code>.dff</code>, <code>.anm</code>, are considered to have legacy file types as of RenderWare Graphics 3.5. This does *not* mean that the data that these files contain is obsolete. RenderWare Graphics 3.5, and its respective viewers in the SDK, will continue to read the files as before, and there is no need to reconvert existing data.

#### 1.1.2 Other Documentation

- API Reference
  - Rt2d toolkit
  - Rt2dAnim toolkit (Maestro)
- 2d Graphics Toolkit Chapter in the User Guide

# 1.2 Operation

#### 1.2.1 File Locations

The 2dconvrt program is located in the RenderWare Graphics tools/2dconvrt directory. This directory contains the 2dconvrt executable, a data directory including some sample .swfs, a sample font directory and a fontalias.txt configuration file.

# 1.2.2 Basic Operation

The **2dconvrt** program may be run from the command line, or a windows shortcut could be set up to launch it in the correct directory.

It can be run on one or more .swf files. Wildcards may be used in the specification of which files are to be converted.

#### Examples:

2dconvrt dilbert1.swf

The result of this command will be a dilbert1.anm file in the same directory as the source .swf file.

2dconvrt \*.swf

The result of this command will be a .anm file for every .swf in the directory.

# 1.2.3 Help Message

If the converter is run with no parameters, or the **-h** parameter, the following help message is displayed.

```
2dconvrt : RenderWare 2D Animation File Importer
           (c) 2001 Criterion Software Ltd.
2dconvrt usage :
2dconvrt <misc options> <export options> <output files options>
<filename>.swf
<misc options>
  -h
                 : Display this help message
  -q
                 : Quiet mode : no message is output
  -fa <filename> : Use this file for font aliasing
                   the default file is fontalias.txt
<export options> - if none are specified, default options are xm
and xb
  -xo
                 : Export static objects
                 : Export scenes
  -xs
                 : Export maestro (default)
  -xm
                 : Export animations
  -xa
  -xh
                 : Export bitmaps out of given files (default)
  -r <instance> : Do not export objects called <instance>
<output files options>
The conversion process may generate .anm (maestro or animations),
.dff (2d object, eg shape, scene, or text strings) and .png
(bitmap) files.
Output files are named using the following scheme:
  <output filename><_type><_globalNum><_localNum>.<ext>
                 : Replace <filename> with <prefix>.
  -p cprefix>
  -t
                  : Fill <_type> and use it in the <output
                   filename>.
                 : Fill < globalNum> and use it.
  -g
                   < globalNum> is the file index if a
                   list of file is submitted or 0.
  -1
                 : Don't use < localNum>.
                   < localNum> is the object index in
                   the current swf file.
  -i
                 : use the object TagId for < localNum>.
                   In a flash file every object have its own tagId
                   a tagId is a unique number that identify this
                   object
2dconvrt supports wildcards in input filenames.
Examples:
  2dconvrt *.swf
      convert all .swf files in the current directory to .anm files
```

2dconvrt -xo test.swf
 extract all 2d objects as .dff files from test.swf

For more information on 2dconvrt please refer to the user guide.

## 1.2.4 Export Options

The default export option of **2dconvrt** is to convert the Flash .swf file to a RenderWare Graphics .anm file.

This may be changed through the export options. The -xo and -xs options save .dff files containing individual shapes and entire scenes from the animation respectively.

The -xb option is used to extract bitmaps in .png format from the .swf file.

The -xa option extracts lone animations (one for each movie clip including the main clip) that can be used in conjunction with the corresponding scene obtained with -xs.

The -r <instance> option stops objects with instance names of <instance> from being exported. This is a handy method of preventing the "virtual controller" used during development from being exported with production files. See the "Maestro" user guide chapter in UserGuideVol3.pdf and maestro1 example for more details of virtual controllers.

If any export option is chosen, the default (-xm) is not used.

## 1.2.5 Output Files Options

These options may be used to control the naming and numbering of the output files.

- -p specifies the prefix to be used in filename generation; the default is the same name as the input file.
- -t specifies that a file type be included in the filename of each file generated.

By default, the files are numbered in the order they appear in the .swf file.
-1 can be used to disable this numbering.

Inside the source file, objects have unique IDs. Sometimes it is convenient to name output files by the ID of the object that sourced it. The -i flag allows this to be done.

## 1.2.6 fontalias.txt

This configuration file specifies the location of fonts relative to where **2dconvrt** is run, and also mappings between fonts in Flash and fonts in RenderWare Graphics.

Care should be taken that if **2dconvrt** is run from a different directory than that where its executable is located, that directory should contain a valid **fontalias.txt** file.

# 1.2.7 Testing the Output

The output from the converter may be tested in the **2dviewer** viewer included with the RenderWare Graphics SDK. Files to be tested may be dragged into the **2dviewer** window.

Note that the viewer looks for all fonts in a single "font" directory below that of the 2dviewer executable. It searches for images (.pngs) in the same directory as the .anm being played.

The viewer may also be used to display scenes or shapes contained in .dffs.

# 1.3 Summary

This chapter has covered:

- purpose of the 2dconvrt program
- location of files involved in using the 2dconvrt program
- command line parameters
- testing the results of 2dconvrt