NintendoWare Overview

Dylan Rhoads

Software Development Support Group

Nintendo of America Inc.

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What is NintendoWare?

- Collection of tools & runtime libraries
  - Used for Wii sound & graphics development
  - Includes Windows and command-line tools
- Developed and maintained by Nintendo
- Used in many Nintendo 1st party titles
  - Wii Sports
  - Wii Play
- Used in many 3rd party titles also

Why use NintendoWare?

Reason #1: **Save Time**

- Streamline content creation -> visualization flow
- Includes plug-ins for common development tools
- NDEV Viewer & PC Viewer
  - ➢ Designers & artists can preview data quickly
  - ➢ Removes need for programmer assistance
  - ➢ Frees programmers to work on other tasks

Why use NintendoWare?

Reason #2: **It can save you money**

- Integrated with NDEV development hardware
- Includes PC Viewer
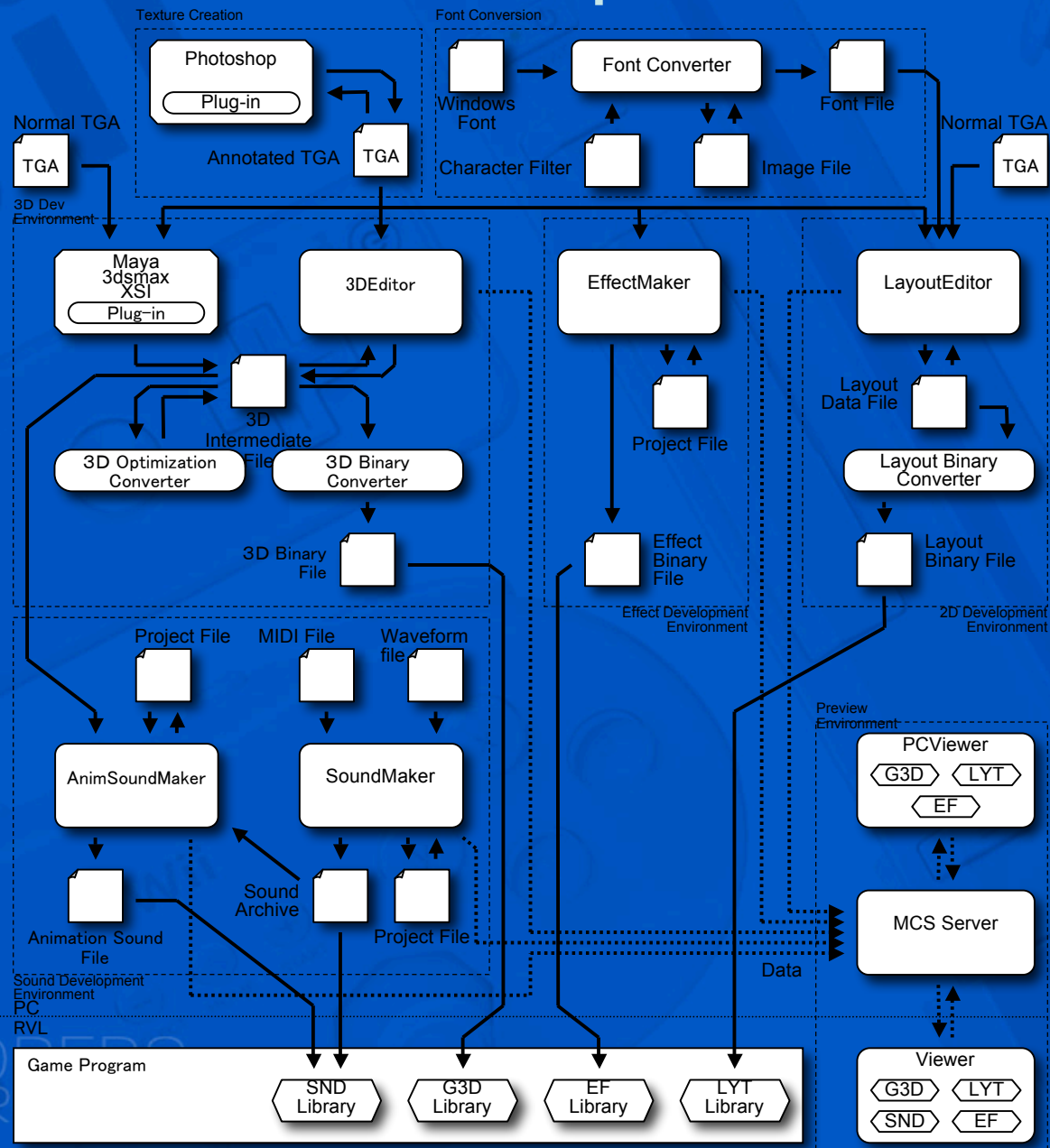 - ➤ Pre-visualization without need for an NDEV!

...and NintendoWare is **FREE**.

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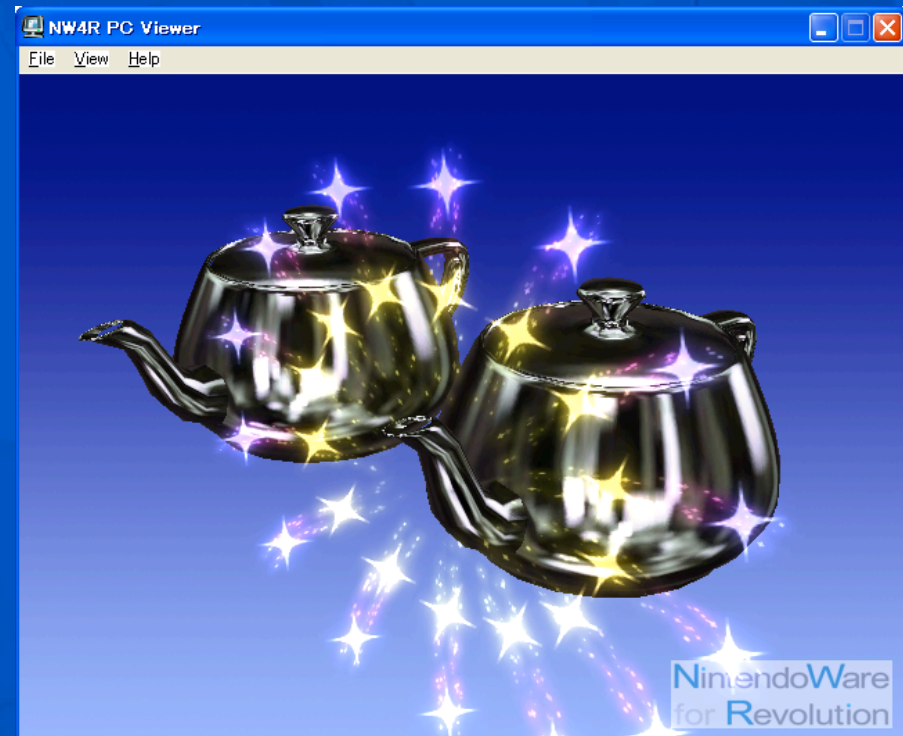# NintendoWare Development Environments

- 3D
- 2D
- Effect
- Sound

Nintendo Confidential
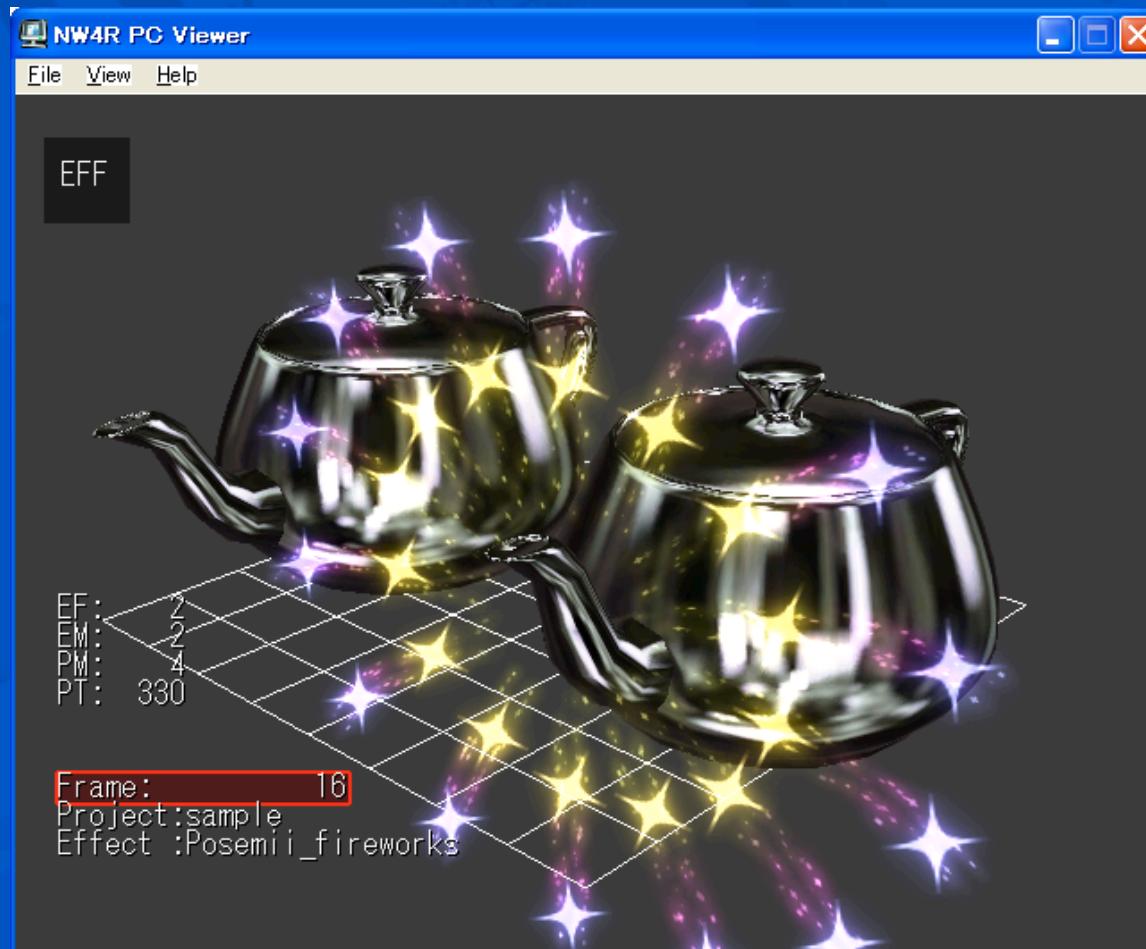
NintendoWare Development Environments

NintendoWare Tools

- 3D Graphics Tool Plug-ins
- Photoshop Plug-ins
- 3DEditor
- Layout Editor
- Fontcvtr
- EffectMaker
- SoundMaker
- AnimSoundMaker
- NDEV Viewer
- PC Viewer
- MCSServer

NintendoWare PC Viewer

NintendoWare PC Viewer

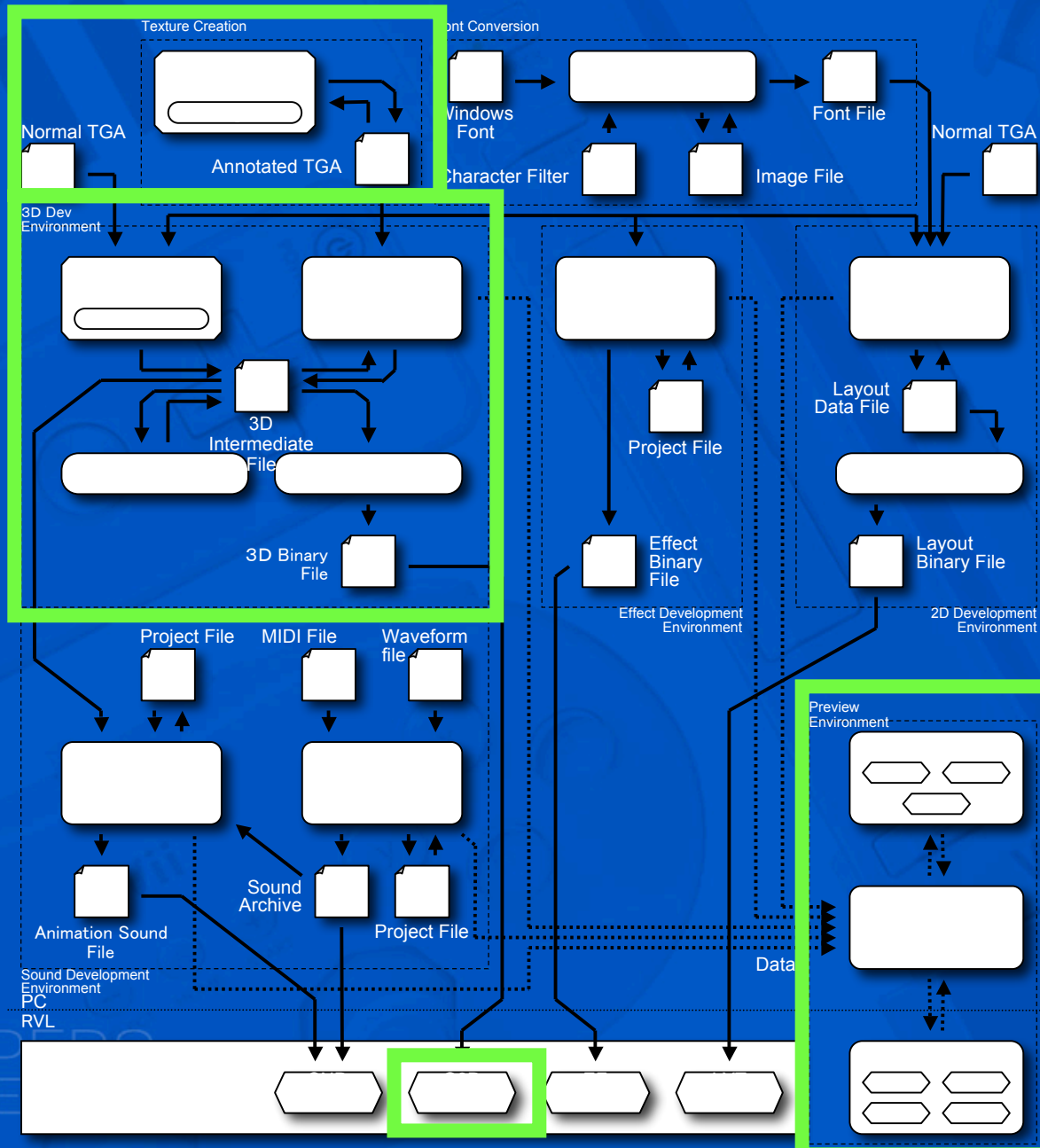Preview 3D, 2D, & Effect data without an NDEV

NintendoWare Runtime Libraries

- SystemLib
- GraphicsLib
- LayoutLib
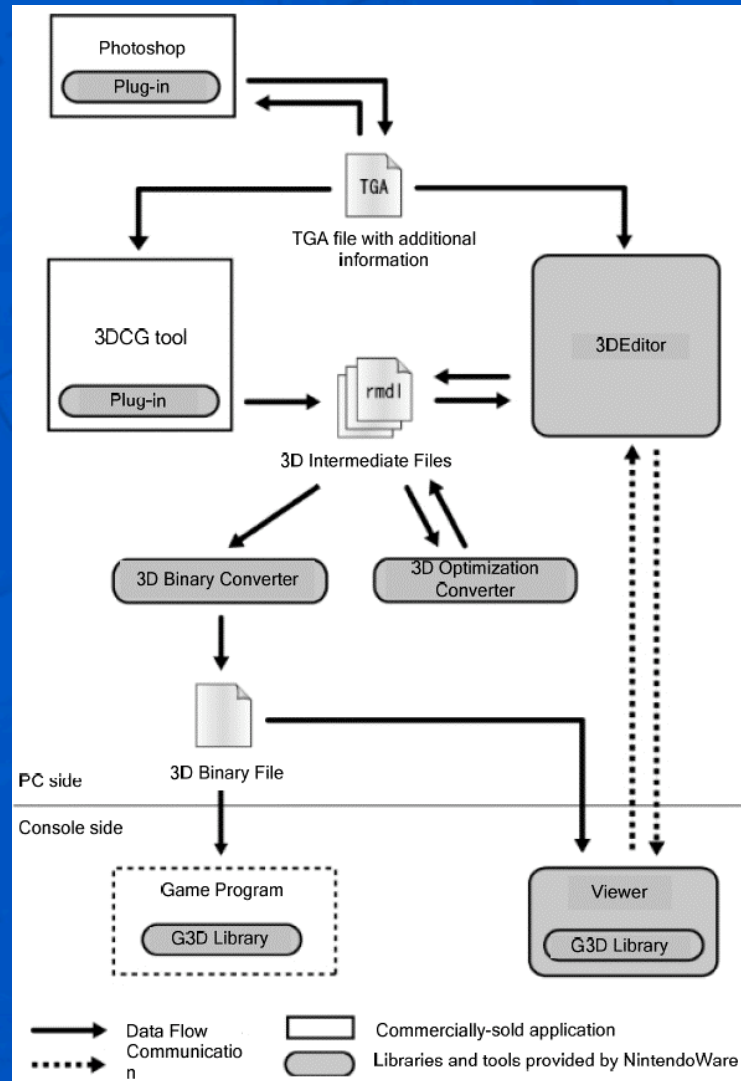- EffectLib
- SoundLib

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3D Development Environment

- 3D
- 2D
- Effects
- Sound

Texture Creation

Normal TGA

Annotated TGA

Font Conversion

Windows Font

Font File

Normal TGA

Character Filter

Image File

3D Dev Environment

3D Intermediate File

3D Binary File

Project File

MIDI File

Waveform file

Sound Archive

Project File

Animation Sound File

Sound Development Environment

PC

RVL

Project File

Effect Binary File

Effect Development Environment

Layout Data File

Layout Binary File

2D Development Environment

Preview Environment

Data

3D Development Environment

3D Development Components

- Photoshop Plug-ins
- 3DCG Tool Plug-ins
  - Maya, 3dsmax, SOFTIMAGE|XSI
- 3DEditor application
- 3D Binary Converter
- 3D Optimization Converter
- G3D Graphics Library (GraphicsLib)
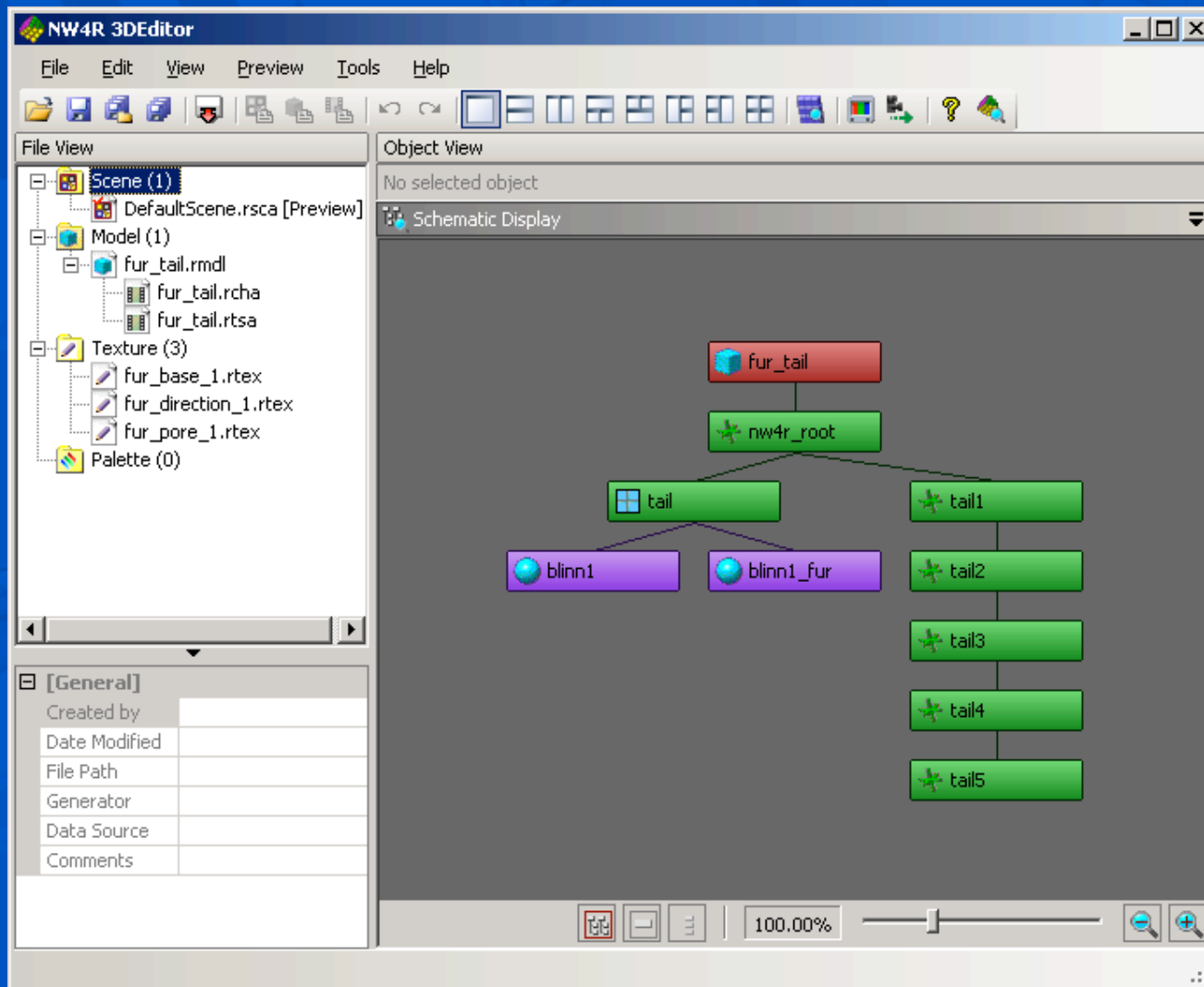- NDEV Viewer & PC Viewer

3D Data File Types

- 3D Intermediate Files
  - Exported from 3D graphics tools using NintendoWare plug-ins
  - XML-based text files
    - Store 3D models and animation data
  - Associations using node & material names
    - Associate materials & textures
    - Associate models & animations
    - Allows data sharing among multiple models

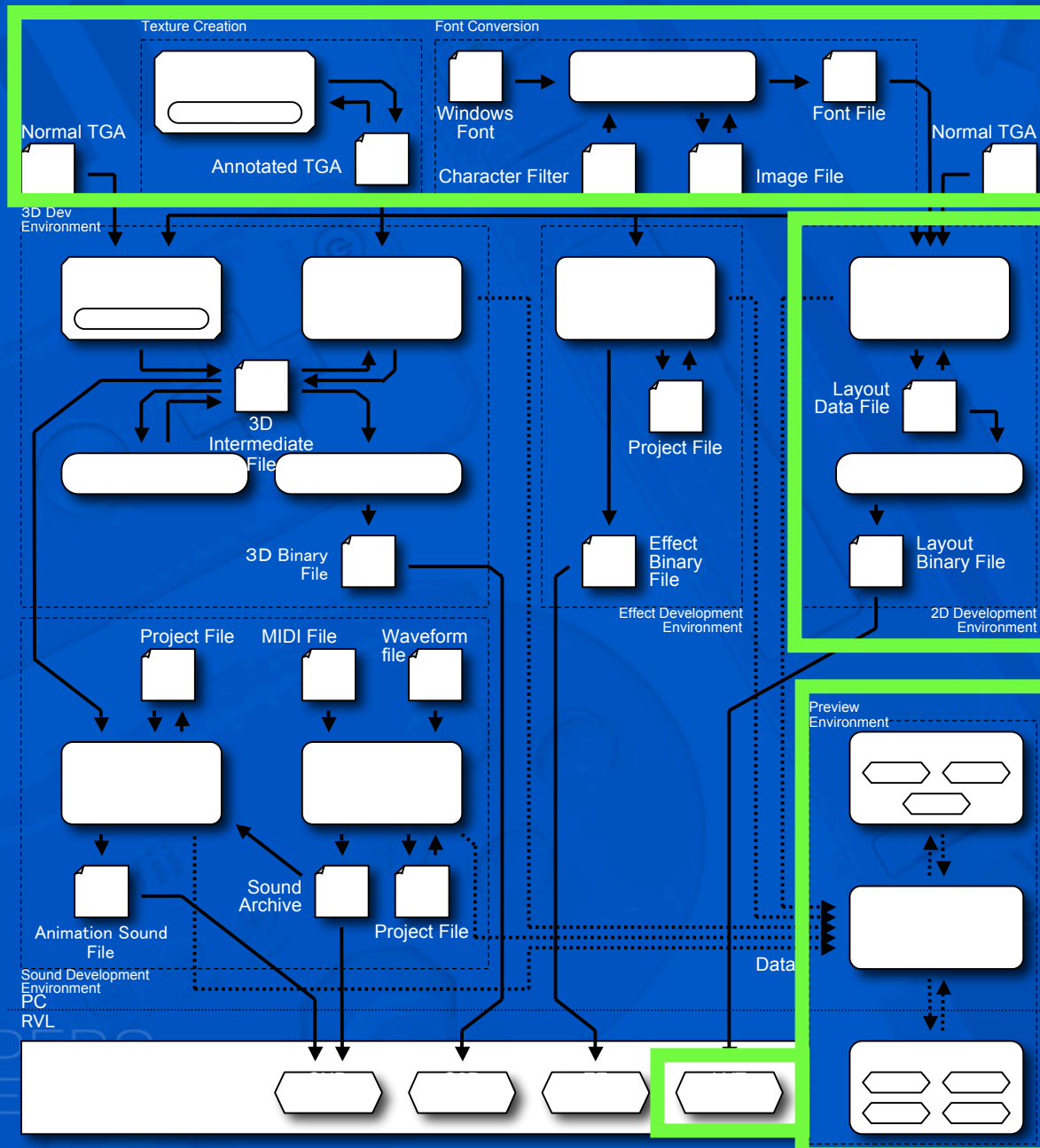Nintendo Confidential

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3D Data File Types

- ## 3D Binary Files
  - Created from 3D Intermediate Files using the 3D Binary Converter
  - Can by displayed using G3D library
  - Node, material, texture, and palette information can be accessed by name
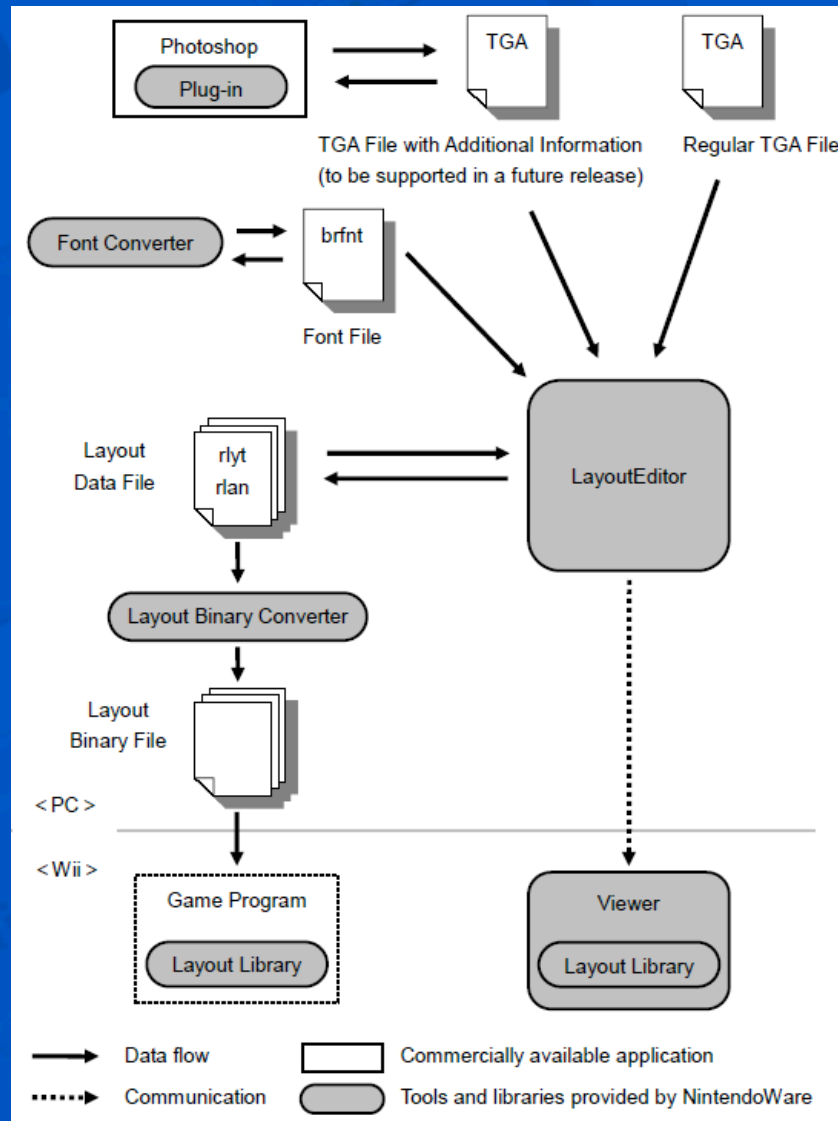
NintendoWare 3DEditor

2D Development Environment

- 3D
- 2D
- Effects
- Sound

Texture Creation

Font Conversion

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Annotated TGA

Windows Font

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Image File

3D Dev Environment

3D Intermediate File

Layout Data File

Project File

3D Binary File

Effect Binary File

Layout Binary File

Effect Development Environment

2D Development Environment

Project File

MIDI File

Waveform file

Preview Environment

Animation Sound File

Sound Archive

Project File

Data

Sound Development Environment

PC

RVL

2D Development Environment

2D Development Components

- Photoshop plug-ins
- Font Converter (fontcvtr)
- LayoutEditor application
- Layout Binary Converter
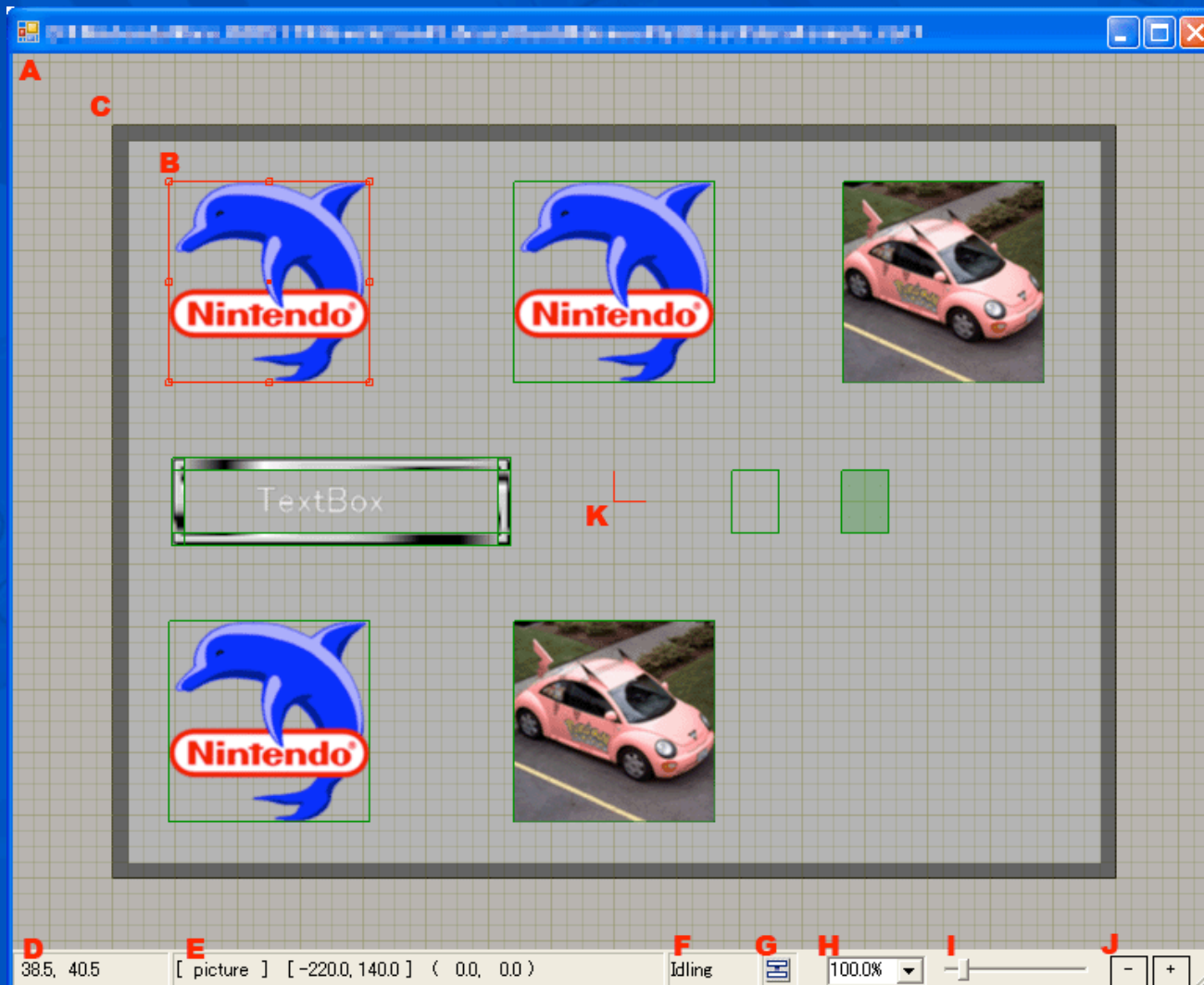- Layout Library (LayoutLib)
- NDEV & PC Viewer

2D Data File Types

- Layout Data Files
  - XML-based text format
  - Used to store layout data and associated animation data
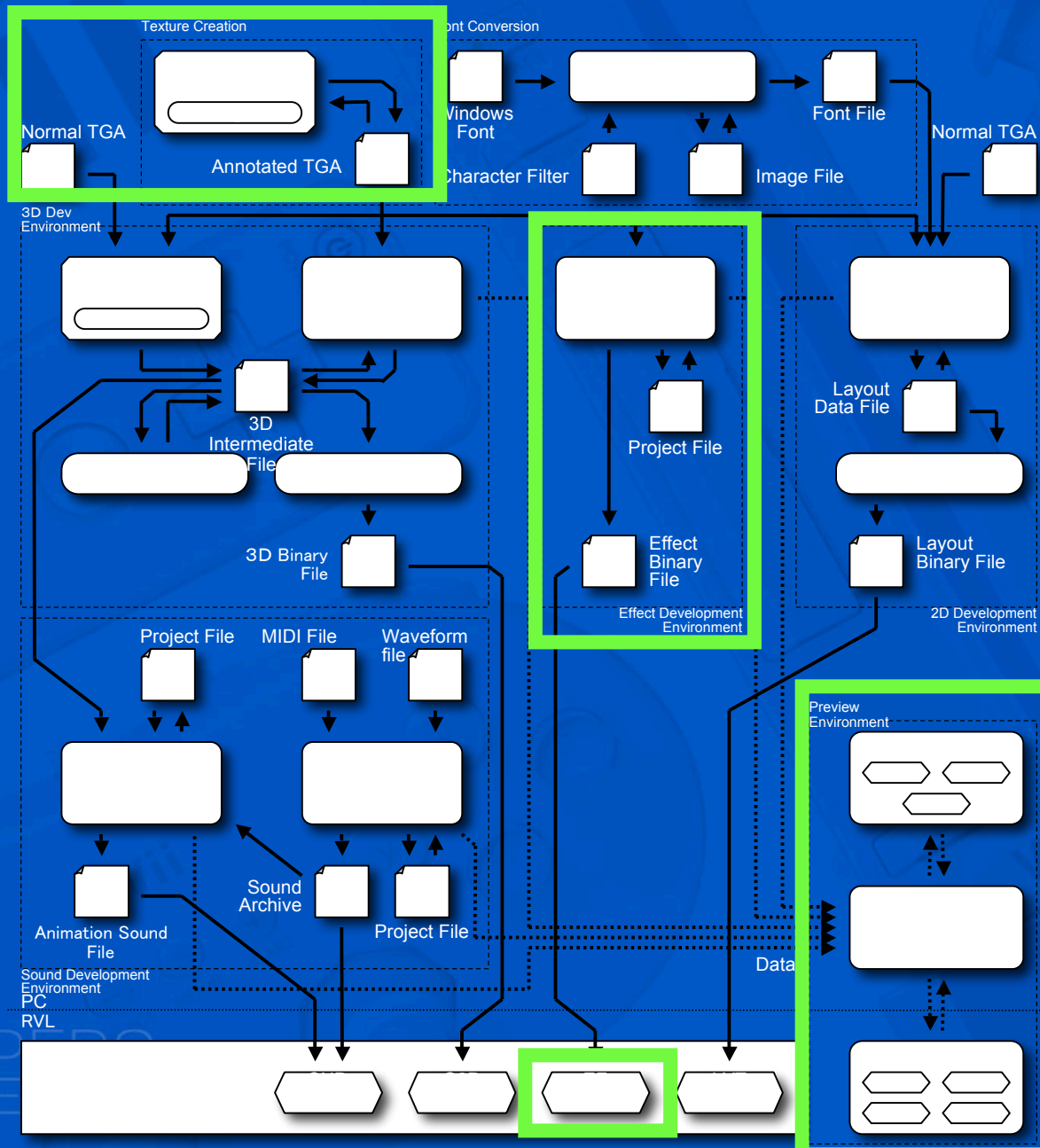 - Also used for Icons and Banners

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2D Data File Types

- Layout Binary Files
  - Created from Layout Data Files using Layout Binary Converter
  - Displayed using layout runtime library (LayoutLib)

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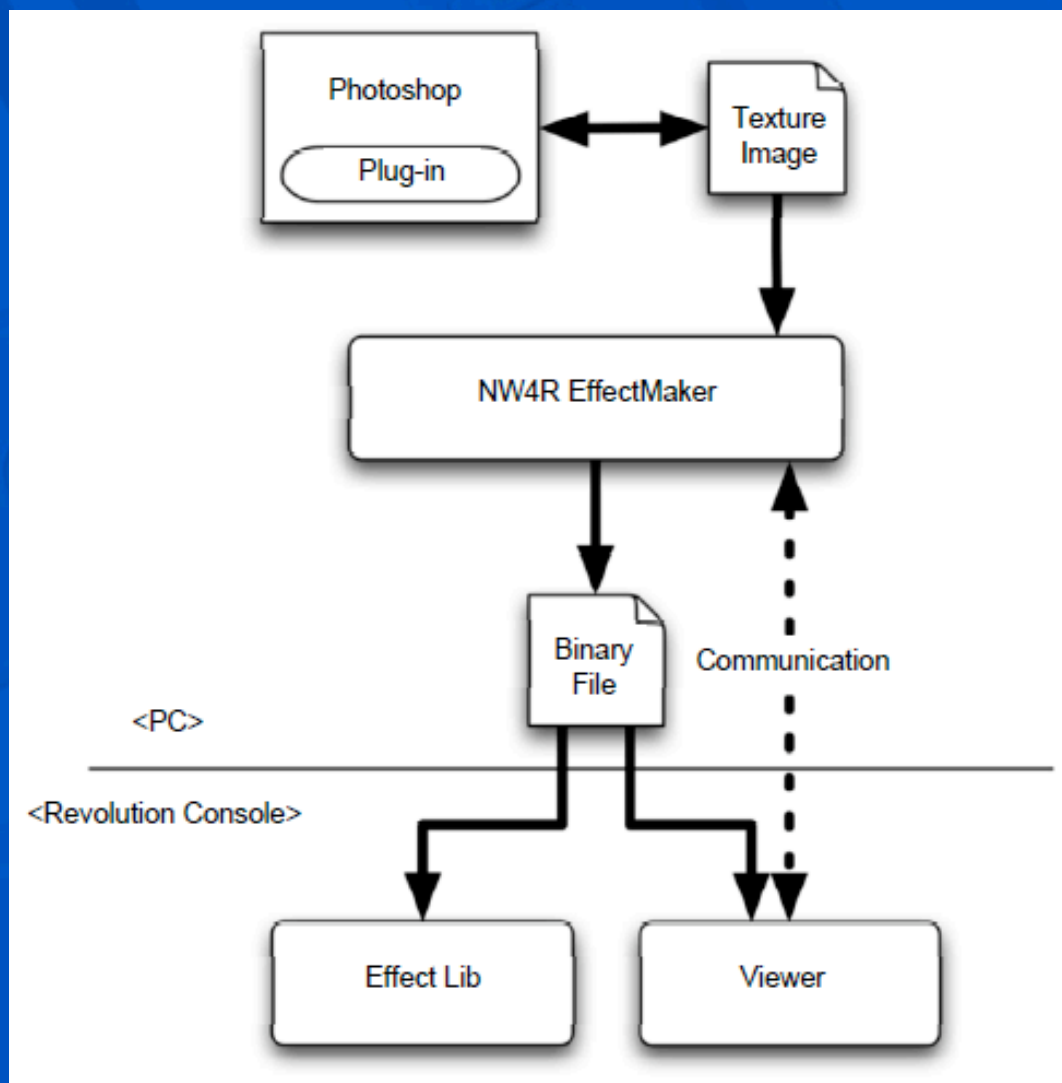**Nintendo**®

NintendoWare LayoutEditor

Effect Development Environment

Texture Creation
Font Conversion

Normal TGA

Annotated TGA

Windows Font

Font File

Normal TGA

Character Filter

Image File

3D Dev Environment

- 3D
- 2D
- Effects
- Sound

3D Intermediate File

Project File

Layout Data File

3D Binary File

Effect Binary File

Layout Binary File

Project File

MIDI File

Waveform file

Effect Development Environment

2D Development Environment

Preview Environment

Animation Sound File

Sound Archive

Project File

Data

Sound Development Environment

PC

RVL

Effect Development Environment

Effect Development Components

- Photoshop Plug-ins
- EffectMaker application
- MCS Server
- Effect Library (EffectLib)
- NDEV & PC Viewer

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NintendoWare EffectMaker
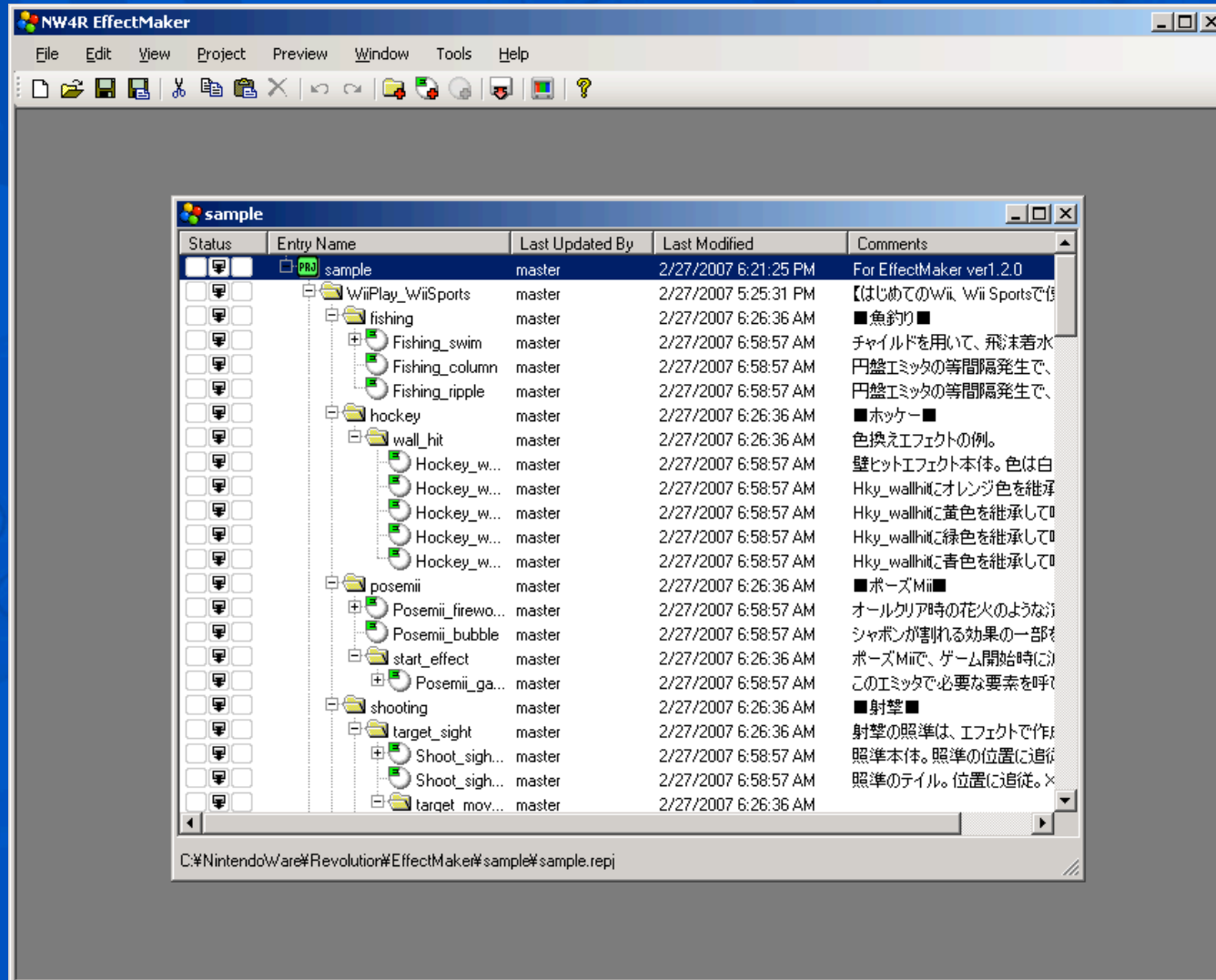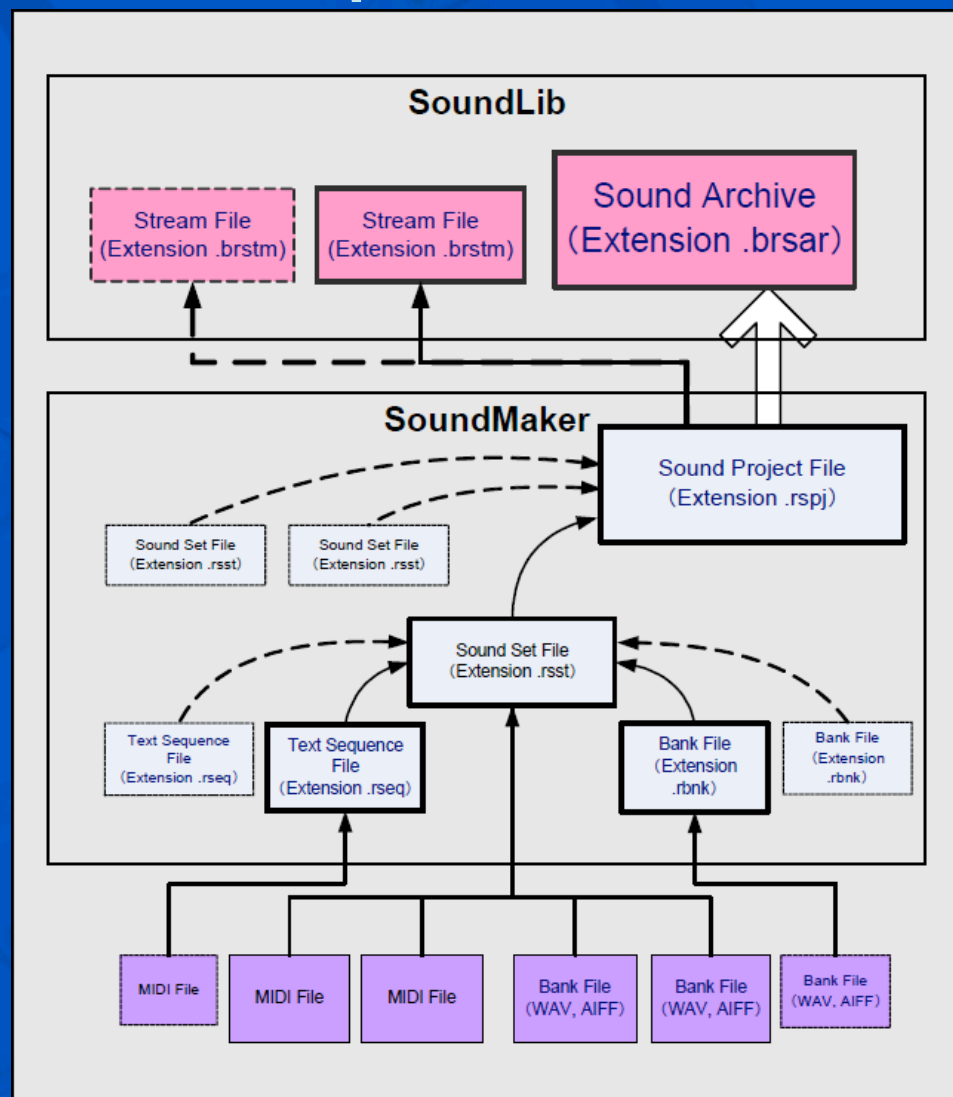
Sound Development Environment
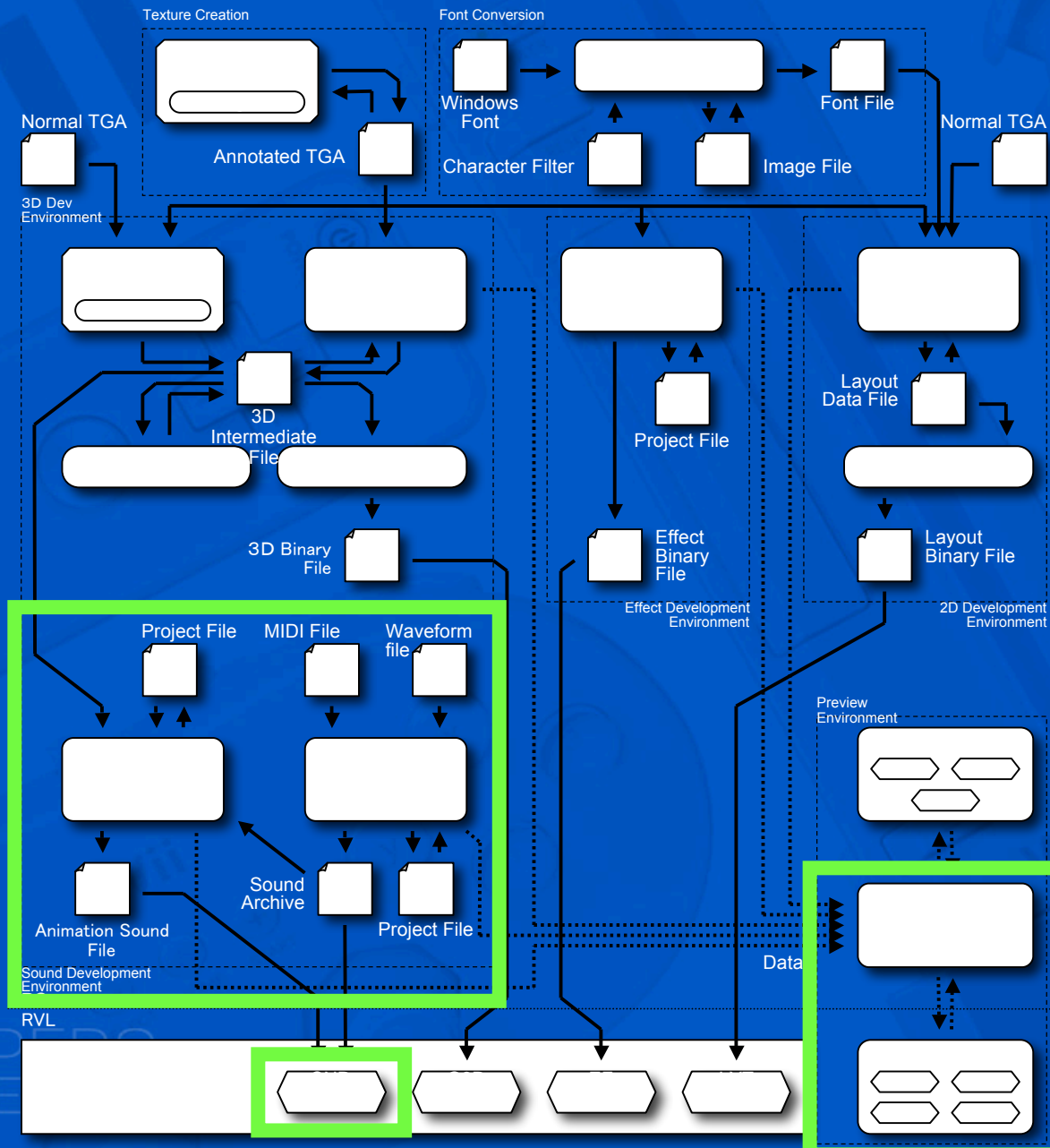
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3D Dev
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Effect Binary File

Effect Development Environment

Layout Data File

Layout Binary File

2D Development Environment

Preview Environment

Data

Sound Development Environment

RVL

Sound Development Environment

Sound Development Components

- SoundLib runtime library

- SoundMaker application

- AnimSoundMaker application

- Command-line data conversion tools

- NDEV Viewer (in sound mode)

NintendoWare SoundMaker

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NDEV Viewer (sound mode)

Coming to NintendoWare: Fur!

- Part of NintendoWare 3D Development Environment

- July 2007 release planned

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NintendoWare Fur Creation

1. Use 3DCG tools to model as normal
   - Maya, 3dsmax, or SOFTIMAGE|XSI
2. Run the fur attribute settings plug-in
   - Hair thickness & length mapping possible
3. Export to .rmdl file
4. Use 3DEditor to adjust fur attributes
5. See results in Viewer in real time

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NintendoWare Fur Demo

- Visualize an animated object using 3DEditor & PC Viewer
- Modify fur length, color, layers, lighting & other attributes
- View the results in real time
- Possible with or without NDEV

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Fur Demo
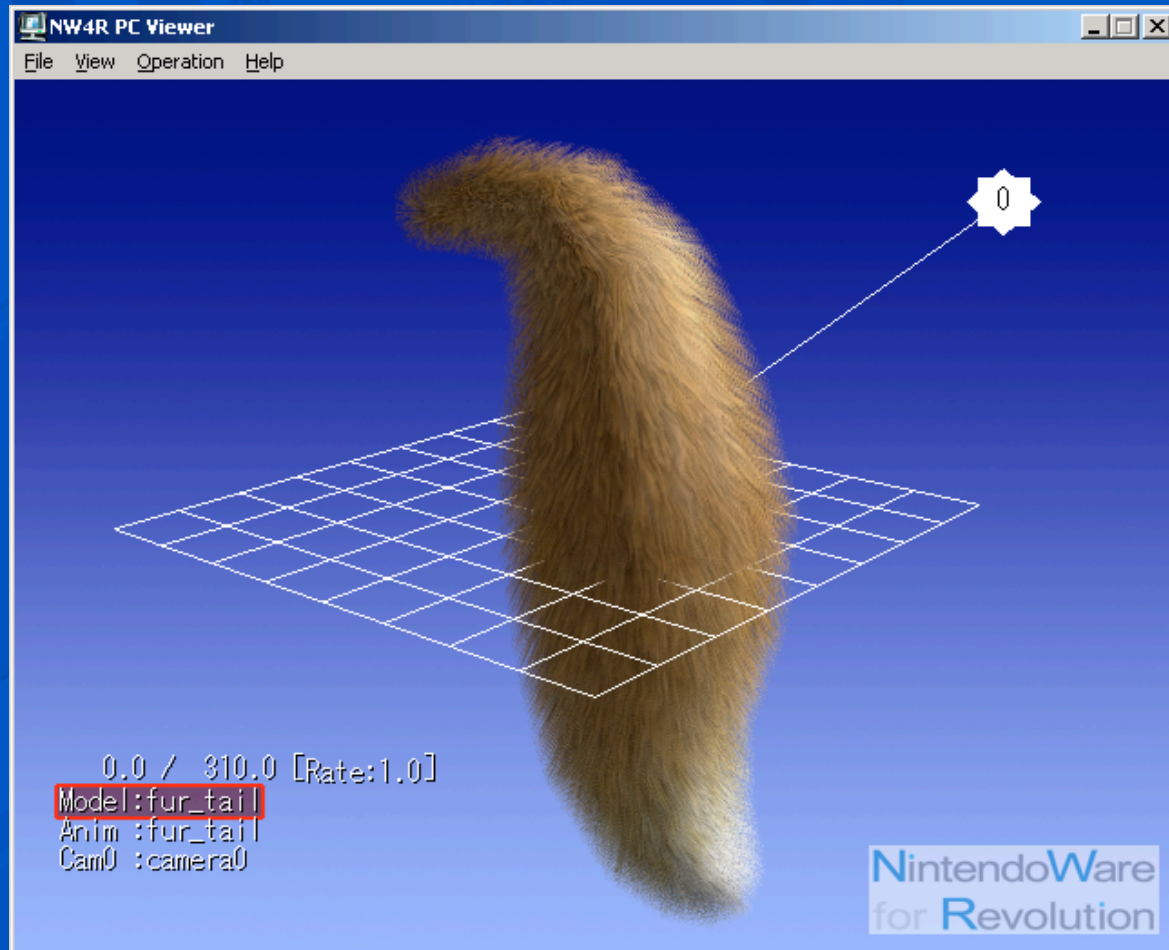
PC Viewer rendering fur on animated model in real time

Questions?

- Support E-mail:
  - support@noa.com

- Support Newsgroups:
  - rvl.nintendoware.audio
  - rvl.nintendoware.general
  - rvl.nintendoware.graphics

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