TWL-System

NITRO-Viewer Controller

2009/02/18

> **The content of this document is highly confidential
> and should be handled accordingly.**

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Revision History

Revision Date	Description
2009/02/18	Added explanation regarding ISTWL.dll.
2008/05/30	Made revisions in line with the NITRO-System name change (updating to TWL-System).
2007/04/20	Corrected typographical errors. Changed dates in Revision History to international format.
2005/01/18	Added, modified functionality: • Deleted support for IS-CGB/AGB-EMULATOR. Added, modified documentation: • Changed NITRO to Nintendo DS.
2004/12/02	Added, modified functionality: • Restored the window display location saved at time of previous startup.
2004/10/29	Added, modified functionality: • Changed the icon image. Added, modified documentation: • Added that it depends on ISNITRO.DLL.
2004/10/12	Added, modified functionality: • Added support for IS-NITRO-UIC.
2004/09/13	Added, modified functionality: • Added ensata mode.
2004/08/30	Added, modified functionality: • Created the English version of menu and dialog text. (Only manual changed.) • Expressions "Dedicated" mode and "Dual" mode changed to "2D/3D Concurrent Preview" mode and "Single Preview" mode.
2004/08/17	Added, modified functionality: • Revised the spelling of the cancel button in the "Allocate VRAM" dialog box. ("Allocating VRAM" image in the manual.) • Changed ISNITRO.dll version display from 3 to 4 digits.
2004/07/15	Initial release.

1 Introduction

The NITRO-Viewer Controller is a Microsoft Windows application that acts as an intermediary for data transfer between NITRO-Viewer running on either TWL or Nintendo DS, and 3D Material Editor or NITRO-CHARACTER running on a PC. NITRO-Viewer Controller also includes a function to allocate TWL and Nintendo DS resources used by NITRO-Viewer. The following sections provide details regarding the use of NITRO-Viewer Controller.

Figure 1-1 Overview
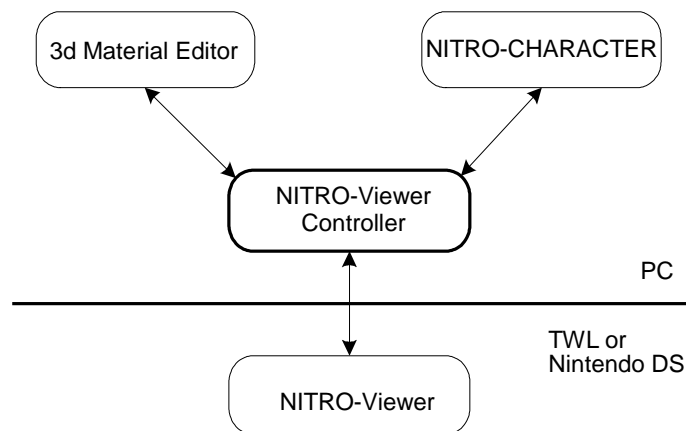
2 Using NITRO-Viewer Controller

2.1 Starting NITRO-Viewer Controller

2.1.1 NITRO-Viewer Controller Startup

The procedure for starting NITRO-Viewer Controller is as follows.

1. Double-click one of the `NITRO-Viewer_Controller` shortcut files in the
   `NitroSystem\tools\NitroViewer` folder.

Table 2-1 NITRO-Viewer Controller Startup Shortcut Files

Shortcut File Name	Use
TWL NITRO-Viewer Controller	For connections with IS-TWL-EMULATOR
TS NITRO-Viewer Controller	For connections with IS-NITRO-EMULATOR
UIC NITRO-Viewer Controller	For connections with a Nintendo DS using UIC
ensata NITRO-Viewer Controller	For connections with the Nintendo DS software emulator, ensata

A startup screen appears as shown in Figure 2-1. There are four shortcut files, as described in Table 2-1.

Figure 2-1 NITRO-Viewer Controller Startup Screen
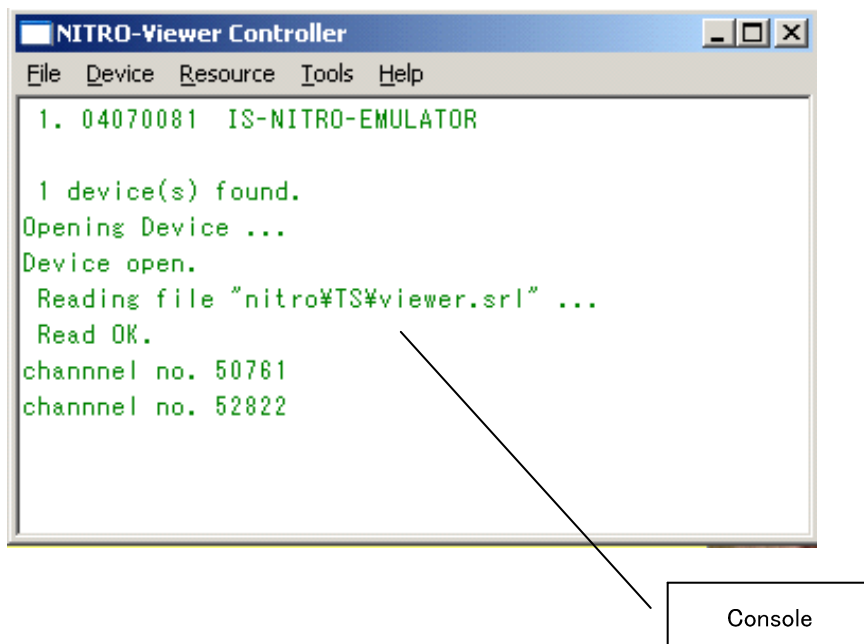
2. When the connected device is the IS-NITRO-EMULATOR, NITRO-Viewer will also start up on the Nintendo DS after a short interval.

Notes

- Generally speaking, you can disregard the content that is displayed on the console.

- To use IS-TWL-DEBUGGER, `ISTWL.dll` must be installed in the system. In addition, using IS-NITRO-EMULATOR or IS-NITRO-UIC requires `ISNITRO.dll`. `ISTWL.dll` is installed in the system when IS-TWL-DEBUGGER software is installed; `ISNITRO.dll` is installed in the system when the IS-NITRO-DEBUGGER software is installed.

2.1.2 Communication Between the Device and Other Windows Applications

While the NITRO-Viewer Controller is running, communication is not possible between the TWL or Nintendo DS and Windows applications, other than the 3D Material Editor and NITRO-Viewer. To use other Windows applications to communicate with the TWL or Nintendo DS, you must first close the NITRO-Viewer Controller.

2.2 Simultaneous 2D/3D Preview Mode and Single Preview Mode

When 3D Material Editor and NITRO-CHARACTER connect to NITRO-Viewer, there are two possible connection modes: the Simultaneous 2D/3D Preview Mode and the Single Preview Mode.

The primary difference between the two connection modes is that the Simultaneous 2D/3D Preview mode allows both 3D Material Editor and NITRO-CHARACTER to connect to NITRO-Viewer, while the Single Preview Mode allows only one application to connect at a time.

2.2.1 Simultaneous 2D/3D Preview Mode

In the Simultaneous 2D/3D Preview Mode, you can combine and simultaneously display preview screens for both NITRO-CHARACTER and 3D Material Editor. To display the preview screens of both applications properly, you need to decide how you want to allocate TWL or Nintendo DS resources. Resource allocation is described in Section 2.3.

2.2.2 Single Preview Mode

In the Single Preview mode, only one of the applications can connect to NITRO-Viewer at a time. Therefore, if 3D Material Editor is already connected, NITRO-CHARACTER cannot communicate with your Nintendo DS until you disconnect 3D Material Editor. The same restriction applies if NITRO-CHARACTER is already connected.

2.2.3 Switching Between Single Preview and Simultaneous 2D/3D Preview Modes

Switching between the Simultaneous 2D/3D Preview and the Single Preview modes is done using the NITRO-Viewer Controller. From the **Resource** menu, select or deselect **Share Mode**. NITRO-Viewer resets whenever you change modes.

- If the **Share Mode** item is selected, the mode is Simultaneous 2D/3D Preview.
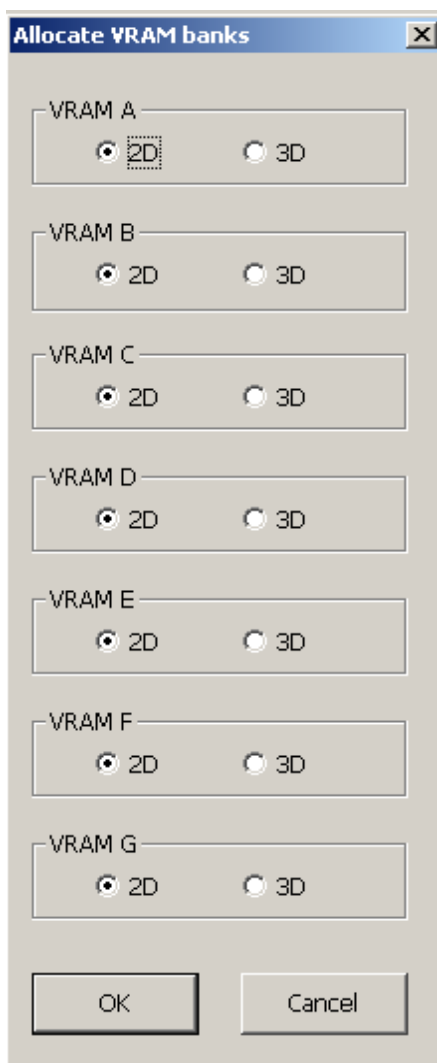- If the **Share Mode** item is not selected, the mode is Single Preview.

2.3 VRAM Bank Allocation Settings

The VRAM banks used by NITRO-Viewer can be allocated.

1. Select the **Resource** > **Allocate VRAM banks** menu option.
   The **Allocate VRAM banks** dialog box opens.

Figure 2-2 Allocate VRAM banks Dialog Box

2. Select either **2D** or **3D** for banks **A** through **G**.

3. Click **OK** to save your settings and close the dialog box.

3 Other Controls and Settings

3.1 Resetting the TWL or Nintendo DS

If a TWL or Nintendo DS system is connected to the PC through the IS-TWL-EMULATOR or IS-NITRO-EMULATOR hardware, you can reset it. The following indicates the procedure to follow.

1. From the **Device** menu, select **Reset**.
2. The TWL or Nintendo DS hardware will reset itself.

3.2 Disconnecting from the TWL or Nintendo DS

After NITRO-Viewer Controller starts and communication begins with the TWL or Nintendo DS hardware, Windows applications other than 3D Material Editor and NITRO-CHARACTER cannot communicate with the TWL or DS system. One way to allow other applications to communicate with the TWL or DS system is to exit NITRO-Viewer Controller. Another way is to disconnect the TWL or DS system from the NITRO-Viewer Controller by selecting **Disconnect** from the **Device** menu.

To resume communication with the TWL or Nintendo DS hardware, the hardware must be connected as follows: From the **Device** menu, select **Connect**.

3.3 Reading Nintendo DS ROM Files

If the connection between the Nintendo DS and the PC is through the IS-NITRO-EMULATOR hardware, you can read Nintendo DS ROM files by using the following procedure.

1. From the **File** menu, select **Open**. The standard **Open File** dialog box appears.
2. Highlight the ROM file that you want to read and click **Open**.
3. Once the ROM file is read, the Nintendo DS resets and launches the program.

3.4 Operating with ensata

It is possible to operate Nintendo DS programs in ensata, the Nintendo DS software emulator, instead of operating them in the Nintendo DS. To operate Nintendo DS programs on ensata when the Nintendo DS is not connected, select **ensata** from the **Device** menu.

3.5 Version Information

To view the version information for your NITRO-Viewer Controller and library module, select **About** from the **Help** menu. The **About NITRO-Viewer Controller** dialog box opens and displays the version numbers and release dates.

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