



NV1TM

WINDOWS 95 MULTIMEDIA ACCELERATOR
CUSTOMER EVALUATION KIT

CEK 1.22
Release Notes

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CHAPTER 1

Introduction

Purpose of the Release Notes

This document describes key features and summarizes known bugs of the 1.22 release of the NV1 Windows 95 Multimedia Accelerator Customer Evaluation Kit. Complete instructions on installing and using the NV1 board and software are available in the companion document, *Installation Guide*.

The Customer Evaluation Kit software includes the DOS and Windows 95 drivers for the NV1 Windows 95 Multimedia Accelerator and demonstration programs.

This document is available online using Adobe Acrobat reader. Information about Adobe Acrobat reader is located in the *Installation Guide*. The online file (*RELEASE.PDF*) is located in the *NV\DOCS* directory on the CEK CD-ROM.

Requirements for Running 1.22

You may run this revision of the software with a Rev E board, an evaluation board containing a Rev. B03 NV1 chip. You must be using a Rev. 26 or

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Requirements for Running 1.22

higher NV1 BIOS with your board.

- Chip: Rev. B03
- BIOS: Rev. 26 or higher

If you have been shipped the CEK as an upgrade for an existing board, a new ROM containing the 26 BIOS should also have been provided.

See "*Checking NV1 Chip Revision Number*" in the *Installation Guide* if you don't know what revision of the NV1 chip you have.

If any elements of your kit are missing, please contact NVidia support (support@nvidia.com).

CHAPTER 2

Features of this Release

Windows 95 Display and Multimedia Extension Support

The NV1 software provides the following capabilities under Windows 95.

Display:	Pixel Depths:	8, 15, 24 bits per pixel
	Resolutions:	640x400
		640x480
		800x600
		1024x768
		1152x864
		1280x1024
		1600x1200

Not all resolutions are supported with all pixel depths or refresh rates; evaluation cards with more memory allow more configurations.

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MS-DOS Support

	Refresh Rates:	60 Hz
		72 Hz
		75 Hz
		85 Hz
		100 Hz
		120 Hz
Wave Out:	All uncompressed sample formats and frequencies are supported.	
Wave In:	All uncompressed sample formats and frequencies are supported.	
Joystick:	The joystick is supported.	
MIDI Out:	General MIDI wavetable output is supported.	
Mixer:	Microsoft Sound System-compatible mixer controls with extended functionality, including full volume controls, recording controls, and monitor controls are supported.	

MS-DOS Support

This release is compatible with major DOS audio and display standards.

Display:	VGA Modes:	1, 2, 3, 4, 7, d, e, f, 10, 11, 12, 13 are supported (CGA modes 4, 5, and 6 are not currently supported).
	SVGA Modes:	100, 101, 102, and 103 are supported at this time.
	Audio:	Register-compatible with the Roland MPU-401 MIDI Interface (UART Mode).

CHAPTER 3

Known Bugs in this Release

The following known bugs are present in this release. Bugs are organized into categories and listed by NVidia-internal Bug ID—reference the Bug ID when talking to Customer Support (support@nvidia.com).

*Board-Level Issues***950611-2248****Audible pops when entering/exiting Windows, entering/exiting DOS box**

Audio DAC generates audible pops during system startup, when entering and exiting Windows, and when entering and exiting an MS-DOS box.

Workaround: Turn down speakers at initialization.

System Compatibility Issues

For more information about system compatibility, see "*System Configuration and Troubleshooting*" in the *Installation Guide*.

950610-1601**Memory managers cause VGA corruption when privileged MDA space is used**

Some memory managers, most notably Quarterdeck's QEMM, try to use the MDA (Monochrome Display Adapter) area required by the Real Mode TSR,

Applications

causing VGA corruption.

Workaround: Exclude this area (0xB0000-0xB7FFF) from use by memory managers.

950719-2028

Sony 17sf: Loses synch intermittently when restarting Windows

The Sony 17sf intermittently loses synch and both the power and power-saving LED's blink when Windows is restarting.

Workaround: Power the monitor off, then on, to regain synch.

950728-1033

ASUS 486: Playing multiple .WAVs causes system stop and start, hard drive errors

The ASUS 486 built-in IDE interface does not separate PCI devices. It multiplexes the PCI bus with the on-board hard drive controller causing IRQ collision between the NV1 board and the hard drive.

Workaround: Use an ISA IDE controller.

950816-1448

Dell Poweredge 90: NV1 board won't boot

The NV1 board won't boot in this system. Problem is thought to be an interrupt assignment and sharing issue particular to the Dell Poweredge 90.

950825-2055

Dell XPS P-90: Windows hangs in NV direct modes NV+Adaptec 2950

System hard locks when launching Windows with this combination of hardware. The Dell system does not allow PCI cards to have separate IRQs and it causes problems to share.

950829-0945

Gateway: System speed is impacted by TSR

System speed is greatly reduced when power management TSRs (loaded from the *AUTOEXEC.BAT*) are enabled.

Workaround: Disable any power management TSRs.

Applications

950922-1308

Doom: Running in DOS full-screen mode hangs some systems

Adapters with the Crystal series of audio chips virtualize the Microsoft Sound System environment using an IRQ. Systems using the same IRQ as the NV1 card hang when Doom is run in full-screen mode. Does not occur when booting to a Windows 95 command prompt or restarting in DOS mode

since virtualization only occurs when Windows is loaded on the system.

Workaround: Ensure Microsoft Sound System emulation is not assigned the same IRQ as the NV1 card.

951010-1021

Al Unser, Jr.: Displays help file images as mostly black

Help file images display incorrectly (mostly black) in Al Unser, Jr. game.

Installation Issues

950612-2122

Uninstall feature doesn't work

The uninstall feature is not implemented at this time.

950822-1151

Triton motherboard with AWE 32 locks after Windows 95 opening sound

Using a Triton motherboard with Windows 95 VGA driver, AWE 32 drivers, and NV1, VGA causes lockup after Windows opening sound.

Workaround: Microsoft provides an updated VGA driver which works around this problem in the Supplementary Drivers section of the Windows 95 CD-ROM. Installation instructions are covered in a *README.TXT* file packaged with this driver.

950824-1751

MSGSV32 error—NVMM.DRV illegal operation

Upgrading from Windows 3.1 to Windows 95 uses existing Windows 3.1 drivers. MSGSV32 error occurs when entering Windows 95.

Workaround: Boot in safe mode.

951025-1456

Boot file line added by application causes corrupt display after install

Applications that use the Windows VDD driver to map MDA space for use as RAM (for example, certain games by Humongous Entertainment), cause corrupt display after installing the NV1 board.

Workaround: Comment out the line in the boot file that maps the MDA space. In the case of Humongous Entertainment, comment out the line `DualDisplayMonitor=no` located in the Windows *SYSTEM.INI* file. See *"Running a Monochrome Display Adapter"* in the *Installation Guide*.

Windows 95 Issues

xxxxxx-xxxx

Mixer does not control output; MIDI sounds bad; Preferred device incorrect

With a third-party sound card in the system, applications written for Windows 3.x that do not make generic calls to the MCI device handlers for .WAV and .MID output can produce these results.

Workaround: Remove the third-party sound card audio driver in Windows.

xxxxxx-xxxx

QEMM can conflict with Windows 95

With QEMM and Windows 95 loaded, Windows 95 displays splash screen then exits.

Workaround: Disable QEMM.

950725-1507

Mode mono fails

Mode mono fails on single-headed system. Dual-headed system with ACCESS_MDA disabled works.

950727-0926

VidEdit: In 8 bpp, colors are wrong in clipboard

While in VidEdit with an .AVI video loaded, selecting **Edit-Copy** causes the copied image to have incorrect colors when viewed from Clipboard. Problem is due to the 24 bpp color source conversion to 8 bpp (actually 4 bpp). Color quality is good with an 8 bpp source because no data compression is needed. Problem continues to exist and cannot be fixed.

950815-0803

Display Settings panel does not fit entirely on the screen in 640x400

When running 640x400 resolution, the **OK**, **Cancel**, and **Apply** buttons at the bottom of the panel aren't visible. The Display Settings panel is more than 400 scanlines high and is fixed in size. The panel was designed assuming that 640x480 is the lowest resolution mode which will be run with Win95.

Workaround: Use keyboard commands; **Enter** to accept/apply changes, **F4** to cancel/exit screen without saving changes.

950815-0847

Quadtex gets colored polygons in window randomly when resizing

When resizing Quadtex, polygons can be drawn at different places and colors in the window; does not occur under Windows 3.x.

950815-1146

3DView doesn't correctly repaint when covered by another application

951003-1148

NV Direct Apps leave portion of window in background

NV Direct Apps do not always correctly repaint.

- 950815-1158 Media Player corrupts when opened over ROTAVI**
Opening a Media Player window over a ROTAVI window can cause a portion of the .AVI image to transpose into Media Player. Closing or minimizing Media Player or forcing another repaint on top of Media Player is required to clear the video.
- 950817-0216 MS DCT fails disptest VDD/Grabber**
When running the smoke test, disptest fails in VDD/Grabber. Some modes generate an error stating the mode will not run windowed.
- 950905-1308 Sizing down to 640x400 cuts off bottom of display properties page**
When sizing down to 640x400 from any other resolution, the bottom portion of the Display Settings-Property page gets cut off. Close and reopen the page to display correctly.
- 950908-0907 Full screen .AVI freezes on one frame while video continues**
When playing an .AVI file in full-screen mode, stopping and starting causes one frame to freeze followed by a long delay, then audio continues while frame remains on the screen.
- 950908-1036 Unknown error in MMTASK while playing MIDI file**
"Unknown error: CLOSE or IGNORE" in MMTASK caused by playing a MIDI file through Media Player; intermittent. Choosing **Close** can reinstate Windows. Choosing **Ignore** leaves Windows semi-functional with MMTASK hung.
- 950908-1804 Screen savers launch while running games**
PC Joystick is a polled device, not an interrupt-driven device like mouse and keyboard. As a result, joystick input is received only when it is explicitly read from the PC port.

Workaround: NVidia recommends disabling the screen saver function when using any application that uses a joystick or Sega game pad.
- 950914-1436 NV1 drivers display incorrect File Version information**
In Windows 95 Explorer-Properties-Version and Control Panel-System Properties-Device Manager, the version information displayed for some NV1 driver files, such as *NVAPI.DLL*, *NVRM.EXE*, and *NVMM.DRV*, under File Version is incorrect; correct version information is displayed under File Description.

VGA Issues

- 950914-1505 Quicktime 2.0.1 player does not use preferred multimedia device**
The Quicktime for Windows player 2.0.1 does not use the preferred multimedia device setup in Windows 95; it has some other method of determining what it uses for .WAV output, causing it to play through the embedded SoundBlaster 16 PNP.

Workaround: Remove the SoundBlaster drivers from the system.
- 950921-1954 Colored cursors do not function properly**
Colored mouse cursors appear black and white.
- 950927-1444 Opening full screen DOS session causes audio to skip**
Audio skips when playing an .AVI or MPEG file and a DOS full screen is opened.

VGA Issues

- 950603-2252 VGA scrambled running DOS V applications**
We have seen VGA failures in the Japanese version of MS-DOS and in a very few applications.
- 950613-2357 MS DCT Fails disptest (VDD/DOS box test)**
Interrupt 10h modes 14, 16, 17, and 18, and full screen CGA modes 4, 5, and 6 will not display correctly when running this test.
- 950710-0942 VESATEST hangs when trying to do Get/Set Display Start**
950710-0954 VESATEST fails Return Current Video Mode
950805-1537 QAFE.EXE fails character test mode 7 (MDA)
Character test with mode 7 gives a blank screen.
- 950805-1652 Check It: Diagnostic fails**
While modes 4, 5, and 6 fail as expected (not supported), modes 7 and F also fail.
- 950822-1034 Paranoid: Diagnostic fails visually**
Although these diagnostics show failures, we have not seen related failures in any application code tested.

Audio Issues

950817-0146

1MB board with 640x400x32k double buffer: Loses notes

With a 1MB board, polyphony is reduced at this resolution due to graphics memory usage.

MS-DOS Issues

xxxxxx-xxxx

DOS TSR cannot be unloaded

The DOS TSR cannot be unloaded, so any changes to the MPU-401 address made by modifying the `NVMIDI` variable in `AUTOEXEC.BAT` will require a reboot of the system.

950512-0438

Some games using UNIVBE incorrectly identify NV1 card

Some games automatically default to use the UNIVBE (Universal VESA BIOS Extension) driver. UNIVBE incorrectly identifies the NV1 card and loads an unknown driver. As a result, the screen may blank and/or the system hang. Generally, you can work around the problem by not installing UNIVBE or removing it from your path.

Workarounds:

- In the installation program for Flight Unlimited from Looking Glass, do not install the UNIVBE driver.
- In Panzer General from SSI, edit the file `PG\PB.BAT` and comment out the third line (UNIVBE).

The NV1 supports VESA directly in its BIOS.

950702-1411

Hammer of The Gods: Chopped VESA 640x480 screen

950705-1753

Heimdall: Video scrambled at hog-wrestling game

950825-2241

Oxyd: Corrupted display and system hangs

Requires EGA planer mode emulation of offset register.

950706-1727

QEMM and RM loaded high, system hangs after warm boot

950706-1726

QEMM and RM loaded high, QEMM QuickBoot doesn't refresh the screen

With QEMM 7.5 installed and RM loaded high, a warm boot causes Windows launch to hang.

Workaround: As documented in the QEMM manual (Appendix A, page 179), Quickboot may be incompatible with some hardware and/or software. Quickboot can and should be disabled using the QEMM option `BOOTENABLE : N` when running the NV1 TSR.

950709-1804

Both Bus Logic SCSI and MIDI sound driver use I/O=330h, system hangs

Bus Logic assigns the I/O port (330h) automatically and NVidia uses 330h as default for MIDI sound; system hangs or is unable to use any devices which connects to SCSI card.

Workaround: Reset MIDI I/O port address using the `NVMIDI` variable in *AUTOEXEC.BAT*.

950711-1953

Games have no sound in Windows 95 DOS full-screen mode

There is no support planned for digital audio emulation in a DOS box.

950713-1209

Older mouse drivers loading after RM causes some games to hang

Use a current mouse driver or load mouse drive v7.x before RM.

950815-1721

1Mb bankfile in Extended memory and 8Mb DOS games

In a system with 8MB RAM running the 1MB NV1 board, games that require 8MB RAM can't load. Bankfile is taking 1MB. Games affected: Dark Forces, Magic Carpet, Wing Commander 3, MechWarrior 2.

Workaround: Do not use `NVMIDI`. Set `NVMIDI=OFF` in *AUTOEXEC.BAT*. **950819-1547**

Treehouse: Cursor does not function in this game

950819-1554

Treehouse: Drawings fail to display in this game

Cursor fails to function; drawings using chalk on the board do not display.

950821-1045

DOS gameport calibration with some applications

NBA Live 95, MechWarrior 2, Raptor: Joystick drifts.

950826-2131

DOS: Hatswitch calibration on Thrustmaster joystick.

MechWarrior 2 and Flight Unlimited: Hatswitch calibration is off.

950827-1702

DOS gameport: Thrustmaster F-16 FLCS joystick and NV

F-16 Thrustmaster Flight Control System doesn't function with the NV gameport. Thrustmaster recommends a dual-gameport card. The Thrustmaster software utility hangs when the joystick is connected.