

# NVAPI SDK - PUBLIC FOR DRIVER RELEASE 313

RN-06118-313-v01 | January 2013



# **DOCUMENT CHANGE HISTORY**

### RN-06118-313-v01

Version	Date	Authors	Description of Change
01	01/08/2012	AP/CC	Initial release

# **NVAPI RELEASE NOTES**

### INTRODUCTION

NVAPI is NVIDIA's core software development kit that allows direct access to NVIDIA GPUs and drivers on all windows platforms. NVAPI provides support for categories of operations that range beyond the scope of those found in familiar graphics APIs such as DirectX and OpenGL.

The following are the provided files:

- nvapi.h
- nvapi.lib (for 32-bit support)
- nvapi64.lib (for 64-bit support)
- NvAPIDriverSettings.h
- ► NvAPIDriverSettings.c
- NVAPI\_Reference\_Developer.chm

These release notes describe the changes made in the NVAPI public SDK for the Release 304 driver.

### CHANGES IN NVAPI FOR DRIVER RELEASE 304

- New Functions
- TCC SUPPORTED Added for the following APIs
- New Structures
- New Enums
- Deprecated NVAPI Functions
- NVAPIDriverSettings Changes

### **New Functions**

- ► NvAPI\_EnumTCCPhysicalGPUs
- NvAPI\_DISP\_GetTiming
- NvAPI\_DISP\_EnumCustomDisplay
- NvAPI\_DISP\_TryCustomDisplay
- NvAPI\_DISP\_DeleteCustomDisplay
- NvAPI\_DISP\_SaveCustomDisplay
- NvAPI\_DISP\_RevertCustomDisplayTrial
- NvAPI\_Mosaic\_SetDisplayGrids
- NvAPI\_Mosaic\_ValidateDisplayGrids
- NvAPI\_GSync\_EnumSyncDevices
- NvAPI\_GSync\_QueryCapabilities
- NvAPI\_GSync\_GetTopology
- NvAPI\_GSync\_SetSyncStateSettings
- NvAPI\_GSync\_GetControlParameters
- NvAPI\_GSync\_SetControlParameters
- NvAPI\_GSync\_GetSyncStatus
- NvAPI\_GSync\_GetStatusParameters
- NvAPI\_D3D9\_GetSurfaceHandle
- NvAPI\_D3D9\_VideoSetStereoInfo
- NvAPI\_SYS\_GetPhysicalGpuFromDisplayId

## TCC\_SUPPORTED Added for the following APIs

- ▶ NvAPI GPU GetFullName
- NvAPI\_GPU\_GetPCIIdentifiers
- NvAPI\_GPU\_GetGPUType
- NvAPI\_GPU\_GetBusType
- NvAPI\_GPU\_GetIRQ
- NvAPI\_GPU\_GetVbiosRevision
- NvAPI\_GPU\_GetVbiosVersionString
- NvAPI\_GPU\_GetPhysicalFrameBufferSize
- NvAPI\_GPU\_GetVirtualFrameBufferSize
- ► NvAPI\_GPU\_GetThermalSettings
- ► NvAPI\_GPU\_GetECCConfigurationInfo
- ► NvAPI\_GPU\_SetECCConfiguration

### **New Structures**

- ▶ NV VIEWPORTF
- added in NV GPU DISPLAYIDS added isWFD
- ► NV\_TIMING\_FLAG
- ► NV\_TIMING\_INPUT
- NV CUSTOM DISPLAY
- NV\_MOSAIC\_DISPLAY\_TOPO\_STATUS
- ► NV\_GSYNC\_CAPABILITIES
- ▶ NV\_GSYNC\_GPU
- ▶ NV GSYNC DISPLAY
- ▶ NV GSYNC CONTROL PARAMS
- ► NV\_GSYNC\_STATUS
- NV\_GSYNC\_STATUS\_PARAMS
- ▶ NV\_DX\_VIDEO\_STEREO\_INFO
- NV GPU PERF PSTATES20 INFO V2
- version field added to NV\_TIMING\_INPUT

### **New Enums**

- ▶ NV\_DP\_5\_40GBPS added in NV\_DP\_LINK\_RATE
- ▶ NVAPI\_GPU\_CONNECTOR\_VIRTUAL\_WFD added in NV\_GPU\_CONNECTOR\_TYPE
- ► NVAPI\_GSYNC\_GPU\_TOPOLOGY\_CONNECTOR
- ► NVAPI\_GSYNC\_DISPLAY\_SYNC\_STATE
- ► NVAPI\_GSYNC\_POLARITY
- ► NVAPI\_GSYNC\_VIDEO\_MODE
- ► NVAPI\_GSYNC\_SYNC\_SOURCE
- ► NVAPI\_GSYNC\_RJ45\_IO
- ► NV\_STEREO\_VIDEO\_FORMAT

# **Deprecated NVAPI Functions**

The following functions will be deprecated and replaced by new functions in coming releases:

Deprecated	Replaced By
N/A	N/A

## **NVAPIDriverSettings Changes**

- ▶ VSYNCSMOOTHAFR\_STRING added
- ▶ AUTO\_LODBIASADJUST\_STRING added
- ► LODBIASADJUST\_STRING
- ▶ VSYNCSMOOTHAFR\_ID added to ESetting enum
- ▶ AUTO\_LODBIASADJUST\_ID added to ESetting enum
- ▶ LODBIASADJUST\_ID added to ESetting enum
- ▶ PREFERRED\_PSTATE\_DRIVER\_CONTROLLED added to EValues\_PREFERRED\_PSTATE enum
- ▶ PS\_FRAMERATE\_LIMITER\_GPS\_WEB added to EValues\_PS\_FRAMERATE\_LIMITER
- ► EValues\_VSYNCSMOOTHAFR
- ► EValues\_AUTO\_LODBIASADJUST
- ► EValues\_LODBIASADJUST
- ▶ WKS\_FEATURE\_SUPPORT\_CONTROL\_WIN8\_STEREO\_EXPORT\_IF\_ENABLED added to EValues\_WKS\_FEATURE\_SUPPORT\_CONTROL enum

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