



# NVAPI SDK – Public for Driver Release 465

Release Notes

# Document History

RN-06118-465-001\_v01

Version	Date	Authors	Description of Change
01	04/05/2021	CC	Initial release

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# 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 files are provided by NVIDIA:

- ▶ nvapi.h
- ▶ nvapi\_lite\_common.h
- ▶ nvapi\_lite\_d3dext.h
- ▶ nvapi\_lite\_salend.h
- ▶ nvapi\_lite\_salstart.h
- ▶ nvapi\_lite\_sli.h
- ▶ nvapi\_lite\_stereo.h
- ▶ nvapi\_lite\_surround.h
- ▶ NvApiDriverSettings.c
- ▶ NvApiDriverSettings.h
- ▶ nvHLSLExtns.h
- ▶ nvHLSLExtnsInternal.h
- ▶ nvShaderExtnEnums.h
- ▶ \x86\nvapi.lib
- ▶ \amd64\nvapi64.lib
- ▶ \doc\NVAPI\_Reference\_Developer.chm
- ▶ \doc\NVAPI SDKs Samples and Tools License Agreement (Public).pdf

These release notes describe the changes made in the NVAPI NDA SDK for the Release 465 driver.

# Changes in NVAPI for Driver Release 465

## New/Updated Functions

- ▶ Added `NvAPI_GPU_GetVRReadyData`
- ▶ Added `NvAPI_D3D12_CreateHeap2`
- ▶ Added `NvAPI_D3D12_QueryCpuVisibleVidmem`

TCC Support added to the following functions:

- ▶ N/A

## New/Updated Structures

- ▶ Added `NV_GPU_VR_READY_V1`
- ▶ Added `NV_HEAP_PARAMS_V1`
- ▶ Added `NV_GAZE_HANDLER_INIT_PARAMS_V2`
- ▶ Added field `bUseMarkersToOptimize` to `NV_SET_SLEEP_MODE_PARAMS_V1`

## New Enums

- ▶ Added enum `NV_D3D12_HEAP_FLAGS`
- ▶ Added `NV_D3D12_RESOURCE_FLAG_CPUVISIBLE_VIDMEM` to the enum `NV_D3D12_RESOURCE_FLAGS`

## New Unions

- ▶ None

## New Defines

- ▶ None

## New Errors

- ▶ None

## Deprecated NVAPI Functions

The following functions are deprecated:

Deprecated	Replaced By
N/A	N/A

The following enum values are deprecated:

Deprecated	Replaced By
N/A	N/A

## NVAPIDriverSettings Additions/Removals

- ▶ Added setting LATENCY\_INDICATOR\_AUTOALIGN
- ▶ Added enum EValues\_LATENCY\_INDICATOR\_AUTOALIGNNone

## HLSL Extension Additions/Changes

- ▶ None

## NVAPI Security Information

User administrator privilege is required to access certain driver features, as per NVIDIA's overall security vision. This helps mitigate the impact of malware.

Each API that requires the administrator access, will return `NVAPI_INVALID_USER_PRIVILEGE` error, when run with standard user privilege. The application will require Administrator privileges to access this API, which can be elevated to a higher permission level by selecting "Run as Administrator" in Admin approval mode.

## About the Sample Code

Sample code is provided with the SDK package that demonstrates the following features:

- ▶ Custom Timing
- ▶ Display Color Control
- ▶ Display Configuration
- ▶ I2C
- ▶ QSYNC Event Registration
- ▶ Sync\_Configuration



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