# NVAPI SDK – Public for Driver Release 460

Release Notes

RN-06118-460-001 | December 2020

# Document History

RN-06118-460-001

| Version | Date | Authors | Description of Change |
|---|---|---|---|
| 01 | 12/14/2020 | 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 455 driver.

# Changes in NVAPI for Driver Release 460

## New/Updated Functions

- ** Added NvAPI_D3D_GetSleepStatus
- ** Added NvAPI_D3D_SetSleepMode
- ** Added NvAPI_D3D_Sleep
- ** Added NvAPI_D3D_GetLatency
- ** Added NvAPI_D3D_SetLatencyMarker

TCC Support added to the following functions:

- N/A

## New/Updated Structures

- ** Added NV_GET_SLEEP_STATUS_PARAMS_V1
- ** Added NV_SET_SLEEP_MODE_PARAMS_V1
- ** Added NV_LATENCY_RESULT_PARAMS_V1
- ** Added NV_LATENCY_MARKER_PARAMS_V1

## New Enums

- ** Added values to enum NV_GPU_WORKSTATION_FEATURE_TYPE
- ** Added values to enum NV_LICENSE_FEATURE_TYPE
- ** Added enum NV_LATENCY_MARKER_TYPE

## New Unions

- None

## New Defines

- None

## New Errors

- ** Added NVAPI_RESOURCE_IN_USE

# Deprecated NVAPI Functions

The following functions are deprecated:

| Deprecated | Replaced By |
|---|---|
| NvAPI_GPU_GetQuadroStatus | N/A |
| | |

The following enum values are deprecated:

| Deprecated | Replaced By |
|---|---|
| NV_GPU_WORKSTATION_FEATURE_TYPE_QUADRO_VR_READY | N/A |
| NV_LICENSE_FEATURE_QUADRO | N/A |

# NVAPIDriverSettings Additions/Removals

- ** Removed setting AUTOFL
- ** Removed setting PS_FRAMERATE_LIMITER
- ** Removed setting PS_FRAMERATE_LIMITER_2_CONTROL
- ** Removed setting PS_FRAMERATE_LIMITER_GPS_CTRL
- ** Removed setting PS_FRAMERATE_MONITOR_CTRL

# 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
- Sync_Configuration

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