



NVAPI Developer Open-Source Interface for Driver Release 530

Release Notes

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NVAPI Developer Open-Source Interface Release

NVAPI is NVIDIA Corporation's core software development kit that allows 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.

This release contains a version of nvapi.h, provided under MIT license, to enable open-source re-implementations of NVAPI for Windows emulation environments.

For those interested in developing applications using the NVAPI Developer SDK on Windows Platform, NVIDIA recommends using the NVAPI Developer SDK available at

<https://developer.nvidia.com/nvapi>.

File List

The following files are provided as a part of the NVAPI Open-Source SDK:

nvapi.h

This file contains the interface constants, structure definitions and function prototypes for NVAPI interface.

nvapi_interface.h

This file is a reference for mapping the NVAPI identifiers to functions (more on this below).

NvApiDriverSettings.h

NvApiDriverSettings.c

These files are used to query and change driver settings. For more details, please see:

http://developer.download.nvidia.com/NVAPI/PG-5116-001_v01_public.pdf

NVAPI Runtime

The NVAPI runtime, nvapi.dll, provides the following key functions.

nvapi_QueryInterface() : maps a 32-bit identifier to a function pointer:

```
void *nvapi_QueryInterface(NvU32 id);
```

The NVAPI application will call nvapi_QueryInterface() to get individual NVAPI function pointers from nvapi.dll.

Please consult nvapi_interface.h for a mapping of identifiers to NVAPI function names.

NvAPI_Initialize()

```
NvAPI_Status __cdecl NvAPI_Initialize()
{
    return NVAPI_OK;
}
```

NvAPI_Unload()

```
NvAPI_Status __cdecl NvAPI_Unload()
{
    return NVAPI_OK;
}
```

Release Notes

New Functions

- Added NvAPI_Disp_GetDisplayIdInfo
- Added NvAPI_Disp_GetDisplayIdsFromTarget
- Added NvAPI_Disp_GetVRRInfo
- Added NvAPI_D3D12_QueryWorkstationFeatureProperties
- Added NvAPI_D3D12_CreateCommittedRDMABuffer

New/Updated Structures

- Added currentlyCapableOfVRR to struct NV_MONITOR_CAPS_GENERIC
- Added NV_DISPLAY_ID_INFO_DATA_V1
- Added NV_TARGET_INFO_DATA_V1
- Added NV_GET_VRR_INFO_V1
- Added NV_GSYNC_CAPABILITIES_V3
- Added NV_GSYNC_CONTROL_PARAMS_V1
- Added NV_GSYNC_CONTROL_PARAMS_V2
- Added NV_D3D12_WORKSTATION_FEATURE_RDMA_PROPERTIES
- Added NVAPI_D3D12_WORKSTATION_FEATURE_PROPERTIES_PARAMS_V1

New/Updated ENUMS

- Added NV_MONITOR_CAPS_TYPE_GENERIC to enum NV_MONITOR_CAPS_TYPE
- Added NVAPI_GSYNC_MULTIPLY_DIVIDE_MODE
- Added NV_D3D12_WORKSTATION_FEATURE_TYPE

NVAPI Security Info

- None

New Errors

- N/A

NVAPIDriverSettings additions/removals

- N/A

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