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Technical Report

Get GPU and System Info

DEVELOPMENT

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Microsoft provides the IDXDiagContainer COM interface to query for graphics hardware and system properties. This demo provides a wrapper for the interface. The wrapper takes care of initialization and simplifies the query mechanism so that only a few lines of code are needed to retrieve specific properties. An IDirect3DDevice9 object is not needed to gather the information, so the interface is very easy to instantiate and use.

Most notable among the information that can be retrieved are the amount of physical memory on the video card, the amount of system memory, and whether or not AGP is enabled on the user's system. Microsoft has lumped PCI-Express status into the AGP information fields, and there is no way, through this interface at least, to determine whether a user has an AGP or PCI-Express system.

The wrapper class, DXDiagNVUtil, provides several built-in functions to query a few useful properties. All other properties can be queried using the various GetProperty(..) functions. Consult the supplied "IDxDiagContainerNames.txt" document for a list of typical IDXDiagContainer node and property names. In that list, for entries such as:

```
DxDiag_SystemInfo : prop "dwOSMajorVersion"
DxDiag_DirectSound.DxDiag_SoundDevices.0 : prop "szDriverDateEnglish"
```

You would use the wrapper interface like so:

```
wstring out_wstring;
DXDiagNVUtil::GetProperty( L"DxDiag_SystemInfo", L"dwOSMajorVersion",
                           &out_wstring );
DXDiagNVUtil::GetProperty( L"DxDiag_DirectSound", L"DxDiag_SoundDevices",
                           L"0", L"szDriverDateEnglish", &out_wstring );
```

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