SAMPLE

Capability Manager

1 Introduction

The purpose of this sample is to showcase the video decoder, video encoder, and video converter capabilities for a given device.

2 Using the sample

2.1 Location

$<*installDirectory*>\samples\amf\capabilityManager\

2.2 Contents

Package Contents

Folder:
$<*installDirectory*>\samples\amf\capabilityManager\src\

File name	Description
CapabilityManager.cpp	Source file for Capability Manager application

Folder:
$<*installDirectory*>\samples\amf\capabilityManager\build\windows\

File name	Description
CapabilityManagerVs10.sln	Microsoft Visual Studio 10 solution file
CapabilityManagerVs10.vcxproj	Microsoft Visual Studio 10 project file
CapabilityManagerVs10.vcxproj.filters	Microsoft Visual Studio 10 project filter file
CapabilityManagerVs12.sln	Microsoft Visual Studio 12 project solution file
CapabilityManagerVs12.vcxproj	Microsoft Visual Studio 12 project file
CapabilityManagerVs12.vcxproj.filters	Microsoft Visual Studio 12 project filter file

Folder:
$<*installDirectory*>\samples\amf\capabilityManager\docs\

File name	Description
MediaSDK_AMF_capabilityManager.pdf	Sample documentation

2.3 Compile

1. Ensure that the following tools and SDKs are present:
   - Microsoft Visual Studio 2010 or 2012
   - If Windows Software Development Kit (SDK) is not installed, install it from http://msdn.microsoft.com/en-us/library/windows/desktop/hh852363.aspx.
2. Open one of the following solution files:
   - `$<installDirectory>\samples\amf\capabilityManager\build\windows\capabilityManagerVs12.sln`
   - `$<installDirectory>\samples\amf\capabilityManager\build\windows\capabilityManagerVs10.sln`
3. Build the sample:
   - Open the `capabilityManagerVs10.sln` solution file with Microsoft Visual Studio 2010 Professional Edition or the `capabilityManagerVs12.sln` solution file with Microsoft Visual Studio 2012 Professional Edition.
   - To build all the solutions, select `Build > Build Solution`.
   - The executable `capabilityManager.exe` is created in the following folders for 32-bit builds and 64-bit builds:
     `$<installDirectory>\samples\amf\capabilityManager\bin\x86\`
     `$<installDirectory>\samples\amf\capabilityManager\bin\x86_64\`
   - Depending on the build (i.e. 32-bit or 64-bit), the custom build step copies the appropriate `.dlls` file from the `$<installDirectory>\dll\amf\` folder into the relevant `\bin\` directory.

3 How to Run

The sample can be executed on an AMD platform that includes the VCE and UVD hardware blocks.

On the command prompt, change to the directory that contains the executable, and execute the following command:

```
capabilityManager.exe
```

The application outputs video decoder, encoder and converter capabilities supported on the platform on which the application is executed.

- Video Decoder Capability
  - Is the Decoder supported or not?
  - If supported, then it lists the input and output supported parameters for each supported decoder
    - Decoder Input Parameters: Width, Height, Vertical Alignment, Interlaced support, Supported Pixel and Memory formats
    - Decoder Output Parameters: Width, Height, Vertical Alignment, Interlaced support, Supported Pixel and Memory formats

- Video Encoder Capability
  - Is the Encoder supported or not?
  - If supported, then it lists the input and output supported parameters for each supported encoder
    - Generic Parameters: Profiles, Levels, Rate Control Methods, Number of temporal layers, B Picture support, Max. number of streams supported
    - Encoder Input Parameters: Width, Height, Vertical Alignment, Interlaced support, supported Pixel and Memory formats
    - Encoder Output Parameters: Width, Height, Vertical Alignment, Interlaced support, supported Pixel and Memory formats
- Video Converter Capability
  - Is the Converter supported or not?
  - If supported, then it lists the input and output supported parameters
    - Converter Input Parameters: Width, Height, Vertical Alignment, Interlaced support, Supported Pixel and Memory formats
    - Converter Output Parameters: Width, Height, Vertical Alignment, Interlaced support, Supported Pixel and Memory formats

4 Known Limitations

The sample is currently supported on the following platforms:

- Windows 7 (DirectX 9)
- Windows 8.1 (DirectX 9 and DirectX 11.1)

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