SAMPLE

Playback with video quality improvement

1 Introduction

This sample demonstrates how to build the playback pipeline using AMD's hardware-accelerated Media Foundation Transforms (MFTs). This sample also demonstrates how to use AMD's video quality filter to enhance the video quality in the playback pipeline.

2 Using the sample

2.1 Location

`$<installDirectory>\samples\mediaFoundation\playbackVq\`

2.2 Contents

Package contents

Folder:
`$<installDirectory>\samples\mediaFoundation\playbackVq\src\`

File name	Description
`PlaybackVqApp.cpp`	Playback application file
`PlaybackVqDlg.cpp`	Contains Playback dialog class
`PlaybackSession.cpp`	Contains playback topology

Folder:
`$<installDirectory>\samples\mediaFoundation\playbackVq\inc\`

File name	Description
`PlaybackVqApp.h`	Header file for playback application
`PlaybackVqDlg.h`	Header file which contains playback dialog class definition
`PlaybackSession.h`	Header file for playback session class

Folder:
`$<installDirectory>\samples\mediaFoundation\playbackVq\res\`

File name	Description
`PlaybackVQ.ico`	Icons file
`PlaybackVQ.rc`	GUI window
`PlaybackVQ.rc2`	GUI window
`resource.h`	Resource file

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Folder:
`$<installDirectory>\samples\mediaFoundation\playbackVq\build\windows\`

File name	Description
`playbackVqVs10.sln`	Visual Studio 10 solution file
`playbackVqVs10.vcxproj`	Visual Studio 10 project file
`playbackVqVs10.vcxproj.filters`	Visual Studio 10 project filter file
`playbackVqVs12.sln`	Visual Studio 12 project solution file
`playbackVqVs12.vcxproj`	Visual Studio 12 project file
`playbackVqVs12.vcxproj.filters`	Visual Studio 12 project filter file

Folder:
`$<installDirectory>\samples\mediaFoundation\playbackVq\docs`

File name	Description
`MediaSDK_MFT_playbackVq.pdf`	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 two following solution files:
   - `<installDirectory>\samples\mediaFoundation\playbackVq\build\windows\playbackVqVs12.sln`
   - `<installDirectory>\samples\mediaFoundation\playbackVq\build\windows\playbackVqVs10.sln`
3. Build the sample:
   - Open the `playbackVqVs12.sln` solution file using Microsoft Visual Studio 2012 Professional Edition or the `.playbackVqVs10.sln` solution file using Microsoft Visual Studio 2010 Professional Edition.
   - To build all solutions, select `Build > Build Solution`.
   - In Solutions Explorer, select the project file.
     The executable `playbackVq.exe` is created in the following folder for 32-bit builds:
     `<installDirectory>\samples\mediaFoundation\playbackVq\bin\x86\`
     The executable `playbackVq.exe` is created in the following folder for 64-bit builds:
     `<installDirectory>\samples\mediaFoundation\playbackVq\bin\x86_64\`
     Depending on the build (i.e. 32-bit or 64-bit), the post build step copies the appropriate Video Quality (VQ) MFT `.dll` file from the `$<installDirectory>\dll\videoQualityMFT\windowsClassicDesktop\` folder into the relevant `\bin\` directory.

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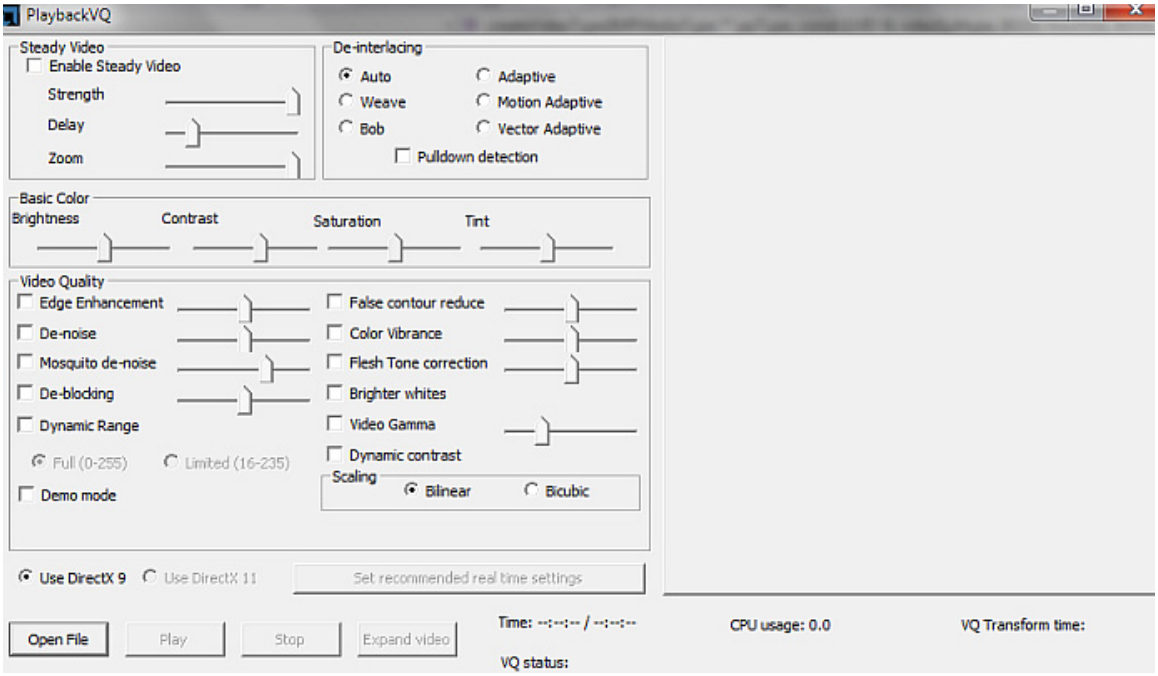
3 Run

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

To run the sample, press Ctrl+F5.
The following screen is displayed.



- `Open File`: Use this option to browse an input media file (for e.g. AVI, MP4, WMV, ASF, MPG, MPEG)
- `Play`: Use this option to play the input media file.
- `Stop`: Use this option to stop the playback.
- `Set recommended real time settings`: This option sets the filters depending on whether it is supported on the GPU/APU that the application is running on.

The remaining settings can be used for enhancing the video quality during playback. For details about the video quality filter settings, see:
`<installDirectory>\docs\videoQualityMft\MediaSDK_MFT_VideoQualityAPI.pdf`.

4 Implementation Details

The sample implements the following playback pipeline:

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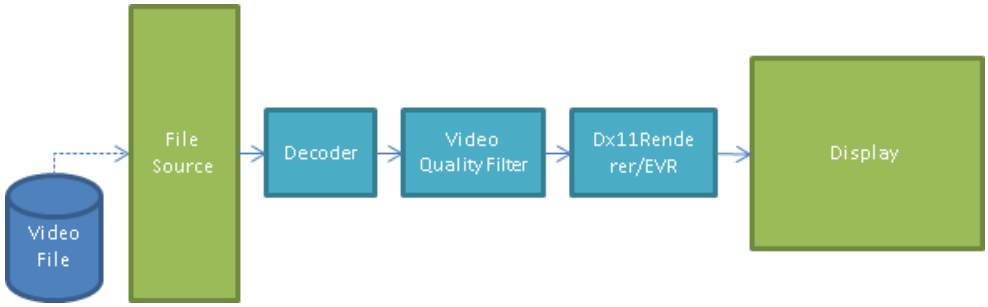

Note: The Video Quality filter is supported on only the Southern Islands (SI) and later GPU families. If a different platform/family is used, then the output of the decoder is directly connected to the renderer, bypassing the Video Quality filter.

5 Supported formats

The following file formats are supported:

- Input file/container formats: .avi, .mp4, .wmv
- Video decoders supported: H264, MPEG4 part II ,VC1

6 Known limitations

The sample is currently supported on the following platforms:

- Windows 7
- Windows 8
- Windows 8.1

Contact

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