

Extended UWP Samples

Overview

Extended UWP Samples solution (InteropSamples.sln) contains 3 projects:

- MSDKInterop – DLL providing classes for between MSDK and UWP applications
- EncoderSample – sample showing how to encode raw stream (YUV) into elementary encoded stream (AVC, HEVC)
- PlayerSample – sample showing how to use MSDK for decoding compressed streams and render decoded frames using MediaElement and MediaStreamSource classes.

Hardware Requirements

PC with Intel Core CPU of 6th generation (SKL) or higher.

Software Requirements

- Windows 10 RS5 installed MSDK DFP Package
- Microsoft Visual Studio 2017
- Windows 10 SDK build 10.0.17763.0
- Optional: FFmpeg package (for MP4 muxing support).

Note: if you have previously installed version of MSDK DFP, before installing newer one you have to uninstall previous version and all dependent apps. You may do it using these powershell commands:

1. Uninstall all previous instances of UWP apps that have DFP dependency

```
Get-AppxPackage | %{$package=$_; $manifest=$(Get-AppxPackageManifest $package); $isDep=$False; $manifest.package.dependencies.packageDependency.name | %{$if($_ -like "*AppUp.IntelMediaSDKDFP*") {$isDep=$True;}}; if($isDep -eq $True) {$package;}}
```
2. Uninstall previous instances of DFP:

```
Get-AppxPackage *mediasdk* | Remove-AppxPackage
```

How to Build the Application

Open and build samples solution: samples\ExtendedUWPSamples\InteropSamplesWithDispatcher.sln

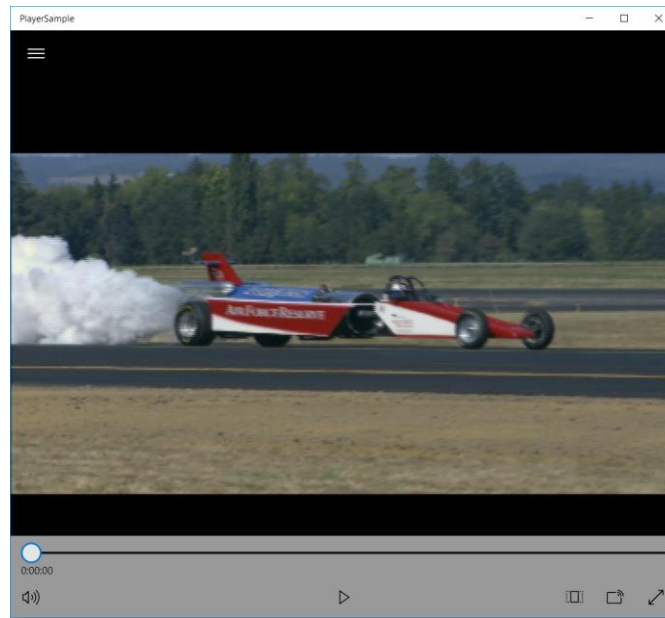
For “WithExtras” configuration you need to copy built FFmpeg libraries into samples\ExtendedUWPSamples\ffmpeg folder.

NOTE: Samples’ manifest files contain optional dependency to MSDK DFP package. Using optional dependency is required to pass WACK tests.

Running the Software

Run samples from Visual Studio or build Store Package using Visual Studio and install them using generated PowerShell script. Both methods use sideloading, so you have to enable Developer Mode in Windows settings to run samples.

After launching PlayerSample use popup menu to open elementary stream file (codec type is determined by file extension) and use player control buttons to play/paus.



After launching EncoderSample please provide required information about files into corresponding fields (in and out file names, frame size, frame rate, color format) and fill in encoding parameter or use default values. Codec type is determined by file extension of output file.

EncoderSample

Encode

Play Encoded Stream

Source and Destination

Source

Select Input file with YUV content

...

Width

Height

FPS

30

FCC

I420(YUV)

Output

Videos\output.h264

...

Encoding Settings

Target Usage

Balanced (4)

Codec: AVC

Bitrate Control

VBR

Bitrate (Kbps)

Auto If Empty

Max Kbps

Default

Low Delay BRC

☐

Max Frame Size

Default

GOP Ref Distance

Default

Win BRC Size

Disabled

Win BRC Max Avg

Default

Number of Slices

Default

Max Slice Size

Default

Intra Refresh

No Refresh

0

Encode

Known Limitations

- MP4 files (MP4 container) cannot be played out.

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