

Playback Encrypted DivX Dstream (exoDivX)

NDK 5.7/MPTK 2.4

Application Note, 12 December 2007

Overview

This example program demonstrates the use of the tmVdecDivx component. It also uses AviRead and DrmDivx, AdecMp3 and AdecAc3 components. This application decodes DivX 3.11, 4.12 and 5.05 streams. Streams may be encrypted or located on a HTTP server.

Usage for compilation

```
build_exe apps/exoDivx.
```

Description

The application builds the following TSSA chain:

```
tmAvi read <-|-> tmDrmDivx <--> tmVdecDivx <--> tmVrendGfxVo
      |---| -- tmAdecMp3 -----|
      | -- tmAdecAc3 -----| --- <--> tmArendAo
```

Use the build option `V_OUTPUT=VREND` to create this TSSA chain in makefile. `V_OUTPUT=FILE` replaces the `tmVrendGfxVo` with the `FwriteVideo` component to write the video output to a remote file. If `V_OUTPUT` is not set in the environment, makefile will use the `VREND` value as default.

Instructions

The sample application is configured to decode and render local files and files from HTTP.

You only have to specify the location of the resource you want to play using the command argument `-url`.

The naming convention used is the convention defined in RFC 1738.

Examples:

```
-url <optional path>/<myfile.avi>
```

User Options

When the output is set to rendering, the application accepts the following command line arguments:

`[-url <url>]`

With this command, the location of the resource is set. You must specify the location of a resource in order to use the sample application. The syntax of the URL has to be compliant with RFC 1738.

If no input url is specified the application look for file "default.avi" in the local directory.

`[-avilist <url>]`

The url contains a list of avi files, separated by a comma and ending with a semicolon

`[-startstop x]`

How long to play stream before the playback will be stopped automatically (it is playing till end of file). "x" specifies how many seconds the file should be played.

`[-showAvi HeaderInfo]`

Displays the information that is extracted from the header of the avi file.

`[-mode|vi deoOutMode|vi deooutmode <valid mode>]`

format: <width>x<height>x<framerate><scantype>

Example: 720x480x60p

Example: 720x576x25i (PAL)

`[-vi deoOutScalingMode <asIs//fullScreen>]`

asIs: render as is, no scaling (default)

fullScreen: full screen, not respecting aspect ratio

`[-fullScreen|letterbox]`

Set the proportions of output video:

fullScreen - full screen, not respecting aspect ratio

letterbox - stretch window without changing aspect ratio

`[-filmDetectionMode <none|trustFlags>]`

none - The operating & deinterlacing modes are set in the command line by the user. Alternatively, the default values will be used.

trustFlags - The operating & deinterlacing modes are controlled by the scan type flags found in the stream (examples, vdfInterlaced, vdfProgressive). Therefore the `-operatingMode` and `-deinterlaceMode` options are ignored.

[-operatingMode <field|frame>]

field - The operating mode of the video renderer will be set to field based.

frame - The operating mode of the video renderer will be set to frame based.

[-deinterlaceMode|deinterlacemode <valid mode>]

mode:

none|median|majorty2|majorty3|majorty3enh|majorty3dyn|majorty3dynenh|auto

[-eddiLevel|eddiLevel <valid level >]

level: off|NMcLowNoiseSafe|NMcLowNoiseNormal|NMcLowNoiseAggressive|NMcSafe|NMcNormal|NMcAggressive|McLowNoiseSafe|McLowNoiseNormal|McLowNoiseAggressive|McSafe|McNormal|McAggressive

[-enablegracefuldegradation]

Enabling graceful degradation allows the application to skip decoding some of the video frames and thus ensure that video decoding completes in real-time.

[-outputwindow <ul.x ul.y lr.x lr.y>]

Specifies the dimensions of the output video window using four integer values: x coordinate of upper left corner, y coordinate of upper left corner, x coordinate of lower right corner, y coordinate of lower right corner. Can be used instead of -videoOutScalingMode, -fullscreen and -letterbox switches.

[-trickmode]

Enables usage of trick modes (jump, gettime, stop, (re)start, pause and resume).

The menu that will pop up is pretty straightforward, so no further explanation here.

[-UseSemiplanar]

Use semiplanar output to renderer iso. planar output.

[-UsePostprocessing <level >]

Use postprocessing level as defined by DivX. Level 0 means no postprocessing, level above 49 means full postprocessing.

[-operatingMode | operatingmode <field | frame >]

If FilmDetectionMode is set to FilmDetectionModeTrustFlags then this option will set video renderer in following operating mode:

field - field mode

frame - frame mode

