

Testing 3DTV capabilities

Overview

Current 3D support in the Reference Implementation includes the ability for applications to use `org.ocap.media.VideoFormatControl` to query the `S3DConfiguration` and register a `VideoFormatListener` that will be notified of changes in 3D video format.

The Reference Implementation also provides the ability to simulate both supported and unsupported format changes. Unsupported format changes result in transitions to presenting alternative content and the posting of an `AlternativeContentErrorEvent` to `ServiceContextListeners`, as well as a notification of the specific format change to registered `VideoFormatListeners`.

The implementation supports three parameters variables which describe the format of the 3D video stream. This information is normally acquired from an MPEG table in the stream. On set top boxes this information is configured and 3D rendering is done at the platform level.

The initial 3D format settings are specified in `$PLATFORMROOT/platform.cfg`. Example settings:

```
RI.Platform.3dtv.format=0
RI.Platform.3dtv.payloadtype=0
RI.Platform.3dtv.payload=01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E
```

Format:

Value	Format Type
0	2D
3	3D (side by side)
4	3d (top and bottom)

Payload type:

Value	Payload type
7	MPEG
45	AVC

Simulating format changes

Configuring logging and starting Tune Test

On-screen status messages

At run time you can see the current testings by running the integration test named `TuneTest`.
`% cd $PLATFORMROOT`
`% ./runRI.sh -deletestorage -setup -tunetest`

After the emulator starts press the MUTE button on the remote control. In the top left corner of the simulator TV screen you should see the current settings.

Log messages

Change logging settings to display logging messages in the simulator's console area. Edit the file `$PLATFORMROOT/log4crc`

to include the line `<category name="RI.Stack.StdOut" appender="socket" />`

and all `System.out.println()` messages are shown on the emulator.

For more information on RI logging capabilities, see: [RI PC Platform Logging - Controlling and Understanding RI Logging Messages](#).

Simulating format changes

Format changes are simulated using the Platform's telnet interface support. See [Telnet Test Interface](#).

- Initiate a telnet session to port 23000
- Navigate the high level menus to select the type of presentation currently active (MPEOS Media for broadcast-point presentation, MPEOS TSB for buffered playback, MPEOS HN for remote service presentation and MPEOS recording for recorded service presentation)
- Select various options to exercise supported and unsupported format transitions, resulting in `AlternativeContentErrorEvent` or `NormalContentEvent` notifications as well as `VideoFormatEvent` notifications