Configuration files can be used from SVN and required modifications for each scheme are presented in the following.

<http://mpeg3dv.research.nokia.com/svn/mpeg3dv/tags/3DV-ATMv8.0r1/configs/>

Test schemes are introduced and the criteria for each one is explained below:

* **Anchor:** To create the anchor we used the ATM v8.1 in the SVN using HP configuration and under CTC.
* **Tested EHP bitstreams with different depth resolutions:** For the results for the proposal you should use the software provided in this package.

<http://mpeg3dv.research.nokia.com/svn/mpeg3dv/tags/3DV-ATMv8.0r1/>

* **EHP ½:** CTC conditions with the following modification in the depth configuration files:

ViewSynRDO = 0

* **EHP ¼:** Just modify the depth config files as follows:

**XGA sequences:**

SourceWidth = 256

SourceHeight = 192

OutputWidth = 256

OutputHeight = 192

**HD Sequences:**

SourceWidth = 480

SourceHeight = 272

OutputWidth = 480

OutputHeight = 272

ViewSynRDO = 0

The downsampled depth YUVs can be created using JSVM software with default mode.

* **EHP 1/8:** Just modify the depth config files as follows:

ViewSynRDO = 0

NormalizeDepth = 0 (only for HD sequences as un-padding should be applied before using the depth maps for view synthesis)

**XGA sequences:**

SourceWidth = 128

SourceHeight = 96

OutputWidth = 128

OutputHeight = 96

**HD Sequences:**

SourceWidth = 240

SourceHeight = 144

OutputWidth = 240

OutputHeight = 144

You need to downsample the depth maps to 1/8 resolution using MAX value of each block of 8x8 for its downsampled presentation. Simple MATLAB code to perform such downsampling is provided in Downsample\_with\_max\_value\_TOOL.m. The downsampled YUVs are created in the same directory as the input adding a “\_downsampled” at the end of their names. Note that for HD sequences 1/8th resolution will be 240x136. However, since the encoder doesn’t support such resolution (not divisible by 16), a padding process should be applied on the downsampled depth maps. So, prior to encoding, the original depth maps should be padded with 16 lines at the bottom and in the vertical direction. Similar un-padding should also be applied after decoding and on the decoded/reconstructed depth YUVs.

Matlab code for (un)padding process are provided in this software package. Padd\_HD\_Sequences\_TOOL.m and UN\_Padd\_HD\_Sequences\_TOOL.m are the files that should be used and only one line should be modified setting your local address to original depth YUVs.

Base\_Address = 'YOUR LOCAL ADDRESS';

Please contact Payman Aflaki ([ext-payman.aflaki-beni@nokia.com](mailto:ext-payman.aflaki-beni@nokia.com)) if there is any problem using the MATLAB codes.

**EHP 1/16:** Just modify the depth config files as follows:

ViewSynRDO = 0

**XGA sequences:**

SourceWidth = 64

SourceHeight = 48

OutputWidth = 64

OutputHeight = 48

**HD Sequences:**

SourceWidth = 128

SourceHeight = 80

OutputWidth = 128

OutputHeight = 80

Similar downsampling using MAX value should be applied here too. You can use the same previous MATLAB script to do the process changing the resolution to 16 (Just comment/uncomment the 1/8 initialization, 1/16 initialization lines, respectively). Following this similar padding process as EHP 1/8 should be applied here too, as 1/16 resolution of HD sequences will be 120x68. Here you have to uncomment and comment the 1/16 and 1/8 initialization lines, respectively (in the Padd\_HD\_Sequences\_TOOL.m)

No view synthesis for this scheme is required.

**GDV:** Mean value of each frame in each depth component is used instead of the original depth map. Simple MATLAB script to create the required GDV YUVs is provided in create\_GDVs\_TOOL.m The GDV YUVs are created in the same directory as input adding \_GDV at the end of their name.

The YUVs are created with half resolution of input (i.e. Full resolution) in both directions and therefore can be used under CTC without any changes.

No need to run VS for this test scheme.