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| **Joint Collaborative Team on Video Coding (JCT-VC)**  **of ITU-T SG16 WP3 and ISO/IEC JTC1/SC29/WG11**  8th Meeting: San José, CA, USA, 1–10 February, 2012 | Document: JCTVC-H0389 |

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| *Title:* | **New Class E videoconferencing source content** | | |
| *Status:* | Input Document to JCT-VC | | |
| *Purpose:* | Information | | |
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| *Source:* | Vidyo, Inc. | | |

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# Abstract

Some concerns have been raised about vertical trembling in the current Class E video sequences in the common test conditions. As requested at the last meeting in Geneva, Vidyo is making available some new videoconferencing test sequences, for consideration to replace the Class E sequences. 3 sequences at 1280x720 resolution and 60 fps are provided.

Vidyo donates the sequences to the public domain.

# Proposed test sequences

The sequences were captured using a Sony EVI-HD7V model camera. All sequences are 1280x720 at 60 fps. All sequences are 600 frames long.

Sample still images from each of the sequences are shown below.

1. Johnny\_1280x720\_60  
   
2. KristenAndSara\_1280x720\_60  
   
3. FourPeople\_1280x720\_60



# Encoding Results

A table of encoding results using HM 5.0 is shown below, to compare with the current Class E sequences.

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| --- | --- | --- | --- | --- | --- |
| **AI-HE** | | | | | |
|  | QPISlice | kbps | Y psnr | U psnr | V psnr |
| Johnny | 22 | 20485.81 | 44.14 | 48.24 | 48.85 |
|  | 27 | 11347.23 | 41.99 | 46.46 | 47.04 |
|  | 32 | 6478.12 | 39.67 | 44.64 | 45.25 |
|  | 37 | 3763.34 | 37.09 | 43.23 | 43.88 |
| KristenAndSara | 22 | 22578.48 | 44.52 | 47.68 | 48.43 |
|  | 27 | 13444.23 | 42.26 | 45.72 | 46.60 |
|  | 32 | 8119.34 | 39.68 | 43.85 | 44.84 |
|  | 37 | 4927.93 | 36.83 | 42.46 | 43.46 |
| FourPeople | 22 | 30714.96 | 43.98 | 47.10 | 48.22 |
|  | 27 | 18764.23 | 41.48 | 44.83 | 46.05 |
|  | 32 | 11505.15 | 38.65 | 42.89 | 44.08 |
|  | 37 | 7016.50 | 35.54 | 41.56 | 42.64 |
| Vidyo1 | 22 | 21465.29 | 44.95 | 47.63 | 48.58 |
|  | 27 | 12545.44 | 42.53 | 45.89 | 46.59 |
|  | 32 | 7473.71 | 39.83 | 44.20 | 44.77 |
|  | 37 | 4490.20 | 36.91 | 42.96 | 43.40 |
| Vidyo3 | 22 | 22292.51 | 44.91 | 48.87 | 48.86 |
|  | 27 | 13548.89 | 42.49 | 47.09 | 46.42 |
|  | 32 | 8360.97 | 39.71 | 45.80 | 44.27 |
|  | 37 | 5006.85 | 36.58 | 44.75 | 42.72 |
| Vidyo4 | 22 | 23685.42 | 44.92 | 48.98 | 49.18 |
|  | 27 | 13629.03 | 42.15 | 46.86 | 47.08 |
|  | 32 | 7781.89 | 39.31 | 45.04 | 45.21 |
|  | 37 | 4403.11 | 36.49 | 43.59 | 43.76 |

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| **LB-HE** | | | | | |
|  | QPISlice | kbps | Y psnr | U psnr | V psnr |
| Johnny | 22 | 1543.04 | 43.02 | 48.06 | 48.59 |
|  | 27 | 426.43 | 41.25 | 46.48 | 47.08 |
|  | 32 | 190.18 | 39.21 | 44.90 | 45.49 |
|  | 37 | 99.72 | 36.80 | 43.57 | 44.16 |
| KristenAndSara | 22 | 2030.78 | 43.30 | 47.22 | 48.05 |
|  | 27 | 713.72 | 41.23 | 45.40 | 46.35 |
|  | 32 | 322.75 | 38.89 | 43.65 | 44.61 |
|  | 37 | 165.58 | 36.27 | 42.34 | 43.38 |
| FourPeople | 22 | 2280.42 | 42.66 | 46.46 | 47.71 |
|  | 27 | 887.66 | 40.39 | 44.44 | 45.77 |
|  | 32 | 435.96 | 37.80 | 42.65 | 43.92 |
|  | 37 | 226.96 | 34.94 | 41.48 | 42.62 |
| Vidyo1 | 22 | 2032.81 | 43.69 | 47.09 | 48.06 |
|  | 27 | 736.80 | 41.41 | 45.72 | 46.36 |
|  | 32 | 355.04 | 38.89 | 44.37 | 44.76 |
|  | 37 | 188.64 | 36.14 | 43.26 | 43.49 |
| Vidyo3 | 22 | 2712.95 | 43.56 | 48.67 | 48.36 |
|  | 27 | 885.95 | 41.24 | 47.17 | 46.42 |
|  | 32 | 417.61 | 38.66 | 45.96 | 44.42 |
|  | 37 | 222.81 | 35.70 | 45.12 | 43.01 |
| Vidyo4 | 22 | 2328.03 | 43.44 | 48.46 | 48.70 |
|  | 27 | 735.13 | 41.04 | 46.55 | 46.74 |
|  | 32 | 323.80 | 38.46 | 44.90 | 44.95 |
|  | 37 | 167.91 | 35.77 | 43.54 | 43.54 |

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| **AI-LC** | | | | | |
|  | QPISlice | kbps | Y psnr | U psnr | V psnr |
| Johnny | 22 | 22398.99 | 44.13 | 48.13 | 48.60 |
|  | 27 | 12144.76 | 41.93 | 46.29 | 46.81 |
|  | 32 | 6927.78 | 39.63 | 44.39 | 44.91 |
|  | 37 | 4039.33 | 37.14 | 42.93 | 43.38 |
| KristenAndSara | 22 | 24489.21 | 44.48 | 47.57 | 48.31 |
|  | 27 | 14207.38 | 42.13 | 45.55 | 46.33 |
|  | 32 | 8563.39 | 39.52 | 43.62 | 44.47 |
|  | 37 | 5216.17 | 36.73 | 42.15 | 42.97 |
| FourPeople | 22 | 32993.13 | 43.88 | 46.93 | 47.92 |
|  | 27 | 19688.59 | 41.27 | 44.63 | 45.69 |
|  | 32 | 12081.87 | 38.44 | 42.68 | 43.76 |
|  | 37 | 7402.44 | 35.44 | 41.31 | 42.29 |
| Vidyo1 | 22 | 22722.23 | 44.60 | 47.40 | 48.25 |
|  | 27 | 13275.23 | 42.14 | 45.86 | 46.49 |
|  | 32 | 7981.06 | 39.47 | 44.46 | 44.96 |
|  | 37 | 4837.26 | 36.62 | 43.45 | 43.76 |
| Vidyo3 | 22 | 23532.83 | 44.60 | 48.63 | 48.44 |
|  | 27 | 14383.61 | 42.14 | 47.08 | 46.40 |
|  | 32 | 8988.78 | 39.36 | 45.95 | 44.60 |
|  | 37 | 5458.04 | 36.26 | 45.05 | 43.30 |
| Vidyo4 | 22 | 24821.18 | 44.61 | 48.68 | 48.86 |
|  | 27 | 14270.80 | 41.85 | 46.89 | 47.05 |
|  | 32 | 8226.37 | 39.05 | 45.30 | 45.42 |
|  | 37 | 4732.80 | 36.26 | 44.13 | 44.17 |

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| **LB-LC** | | | | | |
|  | QPISlice | kbps | Y psnr | U psnr | V psnr |
| Johnny | 22 | 1430.19 | 42.83 | 47.64 | 48.20 |
|  | 27 | 421.27 | 41.03 | 46.11 | 46.60 |
|  | 32 | 187.75 | 38.85 | 44.48 | 44.97 |
|  | 37 | 97.61 | 36.41 | 43.18 | 43.45 |
| KristenAndSara | 22 | 1974.47 | 43.05 | 46.80 | 47.60 |
|  | 27 | 707.73 | 40.89 | 45.05 | 45.75 |
|  | 32 | 321.49 | 38.46 | 43.25 | 44.20 |
|  | 37 | 164.82 | 35.79 | 42.00 | 42.77 |
| FourPeople | 22 | 2242.21 | 42.35 | 46.01 | 47.16 |
|  | 27 | 895.94 | 40.07 | 44.08 | 45.19 |
|  | 32 | 435.59 | 37.40 | 42.34 | 43.46 |
|  | 37 | 224.72 | 34.53 | 41.15 | 42.02 |
| Vidyo1 | 22 | 2142.52 | 43.35 | 46.79 | 47.78 |
|  | 27 | 788.16 | 41.11 | 45.53 | 46.25 |
|  | 32 | 383.42 | 38.62 | 44.33 | 44.81 |
|  | 37 | 211.74 | 35.91 | 43.33 | 43.61 |
| Vidyo3 | 22 | 2847.73 | 43.12 | 48.34 | 47.98 |
|  | 27 | 952.87 | 40.82 | 47.05 | 46.28 |
|  | 32 | 453.18 | 38.31 | 45.92 | 44.67 |
|  | 37 | 247.76 | 35.46 | 45.02 | 43.55 |
| Vidyo4 | 22 | 2419.55 | 43.11 | 48.16 | 48.42 |
|  | 27 | 785.52 | 40.77 | 46.52 | 46.79 |
|  | 32 | 352.19 | 38.27 | 45.06 | 45.14 |
|  | 37 | 190.42 | 35.66 | 43.87 | 43.84 |

# Access information

The sequences have been uploaded to the University of Hannover ftp site, [ftp.tnt.uni-hannover.de](ftp://ftp.tnt.uni-hannover.de/) , in the NewClassE directory, and can be accessed using the same login and password as for the other HEVC source sequences.

# Patent rights declaration(s)

**Vidyo, Inc. does not have any current or pending patent rights relating to the technology described in this contribution.**