A Multimedia Example

(Please Click on Icons – Visit: http://www.ieee-uffc.org/tr/; Updated August 29, 2006)

Abstract - **This page shows some examples of multimedia files. It is also available at: http://www.ieee-uffc.org/tr/mexample.pdf. For submission of multimedia manuscripts to TUFFC, please follow "Information for Contributors" at: http://www.ieee-uffc.org/tr/contrib.pdf.**

1. Color Figure: The IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control (TUFFC) now accepts color figures online with corresponding grayscale figures in print without additional charges if authors follow the multimedia manuscript submission procedure in the "Information for Contributors". The "color figures" icon below indicates in the print that a color version of the figure is available online. It also links to the color figure submitted originally by the authors for viewing details. Because of the sizes of color figures and the additional editorial work such as making two sets of PostScript files in which they remain identical after replacing grayscale with color, authors should request color figures online only when it is necessary. The color figure must be in JPEG (Joint Photographic Expert Group) or GIF (Graphics Interchange Format) format to reduce file size and to decrease the bandwidth usage on the TUFFC server.

[File size: 180KB; Format: JPEG; Color 24 bits; Resolution: 1024X777 pixels]

Fig. 1. An eight-layer printed circuit board (PCB) used primarily for multi-channel ultrasound signal reception and storage. The board was designed in the Ultrasound Lab at The University of Toledo, led by Dr. Jian-yu Lu. It is one of the many PCBs designed for a high-frame rate medical ultrasound imaging system [1], which consists of 128 linear, ±144V peak, 0.05-10MHz, and 12-bit arbitrary waveform generators for the production of ultrasound signals or for other research purposes.

2. Movies: Please click on the movie icon to see a movie. The two movies below give you an idea on the file size versus movie quality. "VCD quality" here means 1150kbits/s for video and 224kbits/s for 16-bit MP2 stereo audio at 44.1KHz sampling rate.

Movie
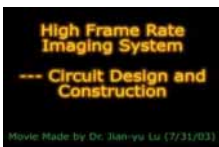[File size: 1130KB; Format: MPEG1; Resolution: 320X240; Duration: 13 seconds]

Movie
[File size: 2290KB; Format: MPEG1 at VCD quality; Resolution: 320X240; Duration: 13 seconds]

Fig. 2. An introduction to the Ultrasound Lab at The University of Toledo.

3. Movies and Animations: Please click on the movie icons to see movies or animations.

Movie
[File size: 808KB; Format: MPEG1; Resolution: 320X240; Duration: 9 seconds]

Movie
[File size: 1585KB; Format: MPEG1 at VCD quality; Resolution: 320X240; Duration: 9 seconds]

Fig. 3. Circuit design and construction of the imaging system.

Animation
[File size: 739KB; Format: GIF; Color: 32 bits; Resolution: 360X240; Number of slides: 16]

Animation
[File size: 289KB; Format: GIF; Color: 32 bits; Resolution: 180X120; Number of slides: 22]

Multimedia Example Created by Jian-yu Lu, Editor-in-Chief, 07/07/2003

4. Movies and Animation: Please click on the movie icons to see movies or animation.

Movie
[File size: 785KB; Format: MPEG1; Resolution: 320X240; Duration: 9 seconds]

Movie
[File size: 1548KB; Format: MPEG1 at VCD quality; Resolution: 320X240; Duration: 9 seconds]
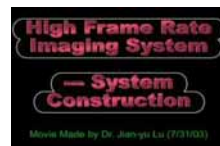
Fig. 4. Software development for the imaging system.

Animation [File size: 222KB; Format: GIF; Color: 32 bits; Resolution: 360X240; Number of slides: 8]

5. Movies and Animation: Please click on the movie icons to see movies or animation.

Movie
[File size: 796KB; Format: MPEG1; Resolution: 320X240; Duration: 9 seconds]

Movie
[File size: 1635KB; Format: MPEG1 at VCD quality; Resolution: 320X240; Duration: 9 seconds]

Fig. 5. Construction of the imaging system.

Animation [File size: 225KB; Format: GIF; Color: 32 bits; Resolution: 360X240; Number of slides: 5]

6. Movies and Animation: Please click on the movie icons to see movies or animation.

Movie
[File size: 715KB; Format: MPEG1; Resolution: 320X240; Duration: 8 seconds]

Movie
[File size: 1408KB; Format: MPEG1 at VCD quality; Resolution: 320X240; Duration: 8 seconds]

Fig. 6. Test of the imaging system.

Animation [File size: 551KB; Format: GIF; Color: 32 bits; Resolution: 360X240; Number of slides: 11]

7. Sound Only: Please click on the sound icon to hear greetings from Dr. Jian-yu Lu, the Editor-in-Chief of the IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control.

[File size: 98KB; Format: MP3; Bit rate: 96kbits/s (radio quality); Duration: 8 seconds]

8. Other Animations: An IEEE TUFFC letter animation and an icon animation can be viewed by clicking on the movie icons:

Animation [File size: 188KB; Format: GIF; Color: 32 bits; Resolution: 231X130; Number of slides: 13]

Animation [File size: 17KB; Format: GIF; Color: 32 bits; Resolution: 100X100; Number of slides: 3]

REFERENCES

[1] Jian-yu Lu, Jiqi Cheng, and Jing Wang, "High frame rate imaging system for limited diffraction array beam imaging with square-wave aperture weightings," *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, vol. 53, no. 10, pp. 1796-1812, October, 2006.