DSP+DLP™ Technology: New Tools & Solutions for Optical Signal and Image Processing

Dr. Edd Zink, Staff Scientist, Productivity Systems, Inc.

Attendees will discover emerging applications based on Digital Light Processing ™ (DLP™) technology and DSP combined with DLP, and see the new DMD Discovery™ 1100 Evaluation platform and chipset. You will also learn what hardware, software and tools are available to use in designs employing these new technologies.

Attendees can expect to leave with an understanding of the options available for applying DLP technology in standalone or embedded systems and using DMD devices as memory-mapped peripherals of TMS320DM642 DSP (or other TMS320C64x™ DSPs) for OSP or imaging applications. Emerging applications will also be discussed.

Presentation Outline

- Hardware overview
    - DMD Discovery™ 1100 platform and options (PCI): features, capabilities, performance
    - DM642 DSP to Discovery 1100 daughtercard connector
    - Features, capabilities, and performance of OSP/Imaging Platform created by combining DM642 DSP with Discovery 1100
- Software environment and applications
- GUI overview
- Use with Code Composers Studio™ IDE
- Applications

Target Audience

Parties interested in developing OSP and imaging applications and/or software; existing DSP third parties looking to expand opportunities and services; potential developers of new DLP + DSP applications; and universities and researchers looking for new research platforms for IP development.

Attendee Prerequisite Knowledge or Experience

Some knowledge of DLP and optics (attendance at previous DLP sessions qualifies); some knowledge of DSP processors and CCS IDE (attendance at other relevant sessions qualifies).

Speaker Biography

Dr. Edd Zink, Staff Scientist, is Productivity Systems, Inc.'s (PSI) primary technologist in the design and development of complex, leading-edge software algorithms, as well as a co-founder of PSI. Dr. Zink actively manages research and development division and assists in all new business development and technical customer relations at PSI.

Employed by Texas Instruments from 1982 to 1985, Dr. Zink worked in the image processing laboratory on advanced image processing techniques for infrared trackers. He then joined Merit Technology, Incorporated, in 1985, where he developed an algorithm used for radar navigation for the U.S. Air Force. In addition, he developed the first Microsoft Windows-based mission planning software for the U.S. Army Special Forces. Working with All Source Processing, Incorporated (ASPI) from 1990 to 1993, Dr. Zink developed the first Microsoft Windows-based command and control console for the U.S. Army Special Forces which entailed some of the first 3D rehearsal capabilities on a PC.

Dr. Zink holds a B.S. degree in Electrical Engineering from the University of Nebraska, a M.S. degree in Electrical Engineering from Southern Methodist University, and a Ph.D. in Electrical

Engineering from Southern Methodist University. While working on his undergraduate degree, Dr. Zink developed a new 3D pattern technology for the sheet metal manufacturing industry.