



2013 Advanced Technology Workshop

November 5, 2013

Aalen, Germany

Dirk Apitz, Technical Committee Chairman

Lasers and Projector Components

Optical scanner theory and presentation of new scanners from ScannerMAX

Pangolin Laser Systems, Presenter: William R. Benner, Jr

William Benner will present the theory behind current and past optical scanners, including a discussion about mirror resonance and heat generation during scanning, and will also present the latest-generation of optical scanners from ScannerMAX, some of which allow scan speeds up to 90K.

Compact, low-cost, dual-axis, DSP-based servo driver from ScannerMAX

Pangolin Laser Systems, Presenter: William R. Benner, Jr

William Benner will present the new Mach-DSP amplifier which is especially designed to drive ScannerMAX scanners. This dual-axis amplifier is no larger than conventional dual-axis drivers, and yet it includes a 400MHz floating point DSP and 16-channels of 16-bit data acquisition. The amplifier can be connected to a PC via USB cable where users can access numerous adjustments per-axis, as well as a built-in four-channel digital oscilloscope and two-channel Dynamic Signal Analyzer. In addition to its high speed capability the amplifier features four separate user-addressable tunings.

Ladis - laser disable

LaserAnimation Sollinger GmbH, Presenter: Michael Sollinger

We present an Ethernet based protocol for the disable function of the laser output of laser-projectors and laser-controllers.

Wireless remote control of PHAENON X projectors

LaserAnimation Sollinger GmbH, Presenter: Michael Sollinger

We present an the wireless remote control of PHAENON X projectors by Iphone / Ipod devices.

Projectors

RaseR laser projector

LaserTech Canada, LaserAnimation Sollinger GmbH, Presenter: Derek Garbos, Claudette Linton, Michael Sollinger

We present a laser projector with best beam quality featuring the new directly modulated TEM00 RaseR-modules.

Infrastructure

StageFeed ISP and StageMate ISP, teleportation of waveforms

DexLogic, Presenter: Dirk Apitz

Replacing the ISP cable with a digital solution is one of the goals of the planned IDN protocol. Due to large interest, Dirk brought his prototype hardware to product level and will introduce his converters. This is the first packet oriented streaming solution for a digital ISP bridge. All analog channels (X, Y, Intensity, R, G, B and User1-4), the digital shutter signal and the DMX512 channel are transmitted transparently using an Ethernet link and UDP/IP protocols. Nominal sampling rate is 100kHz. The converters can further be used for delay and recording applications replacing the ADAT with USB thumb drives.

Realtime / Playback / Show Control

Early prototype implementation of a software-based ILDA Digital Network (IDN) sender

University of Bonn/Germany, Laser & Light Lab (Institute of ComputerScience 4), Presenter: Matthias Frank,

Matthias will give some technical information on an early prototype implementation of the sending side for sample streams for the planned ILDA Digital Network. The "relaxing" part of this ATW presentation will follow at the Lase-Off, where different scenarios of feeding live digital laser projection data over the network, originating from an interactive game and a show system, will be demonstrated on the central projector using an IDN to ISP converter provided by DexLogic.

Integrated laser show controller

Showtacle Ltd., Presenter: Michal Pokluda

In the presentation we'll describe all important benefits of the latest Moncha.NET hardware. It is an OEM laser show controller, which can be integrated into even a small laser show system. We'll describe advantages of laser show controller integrated into laser system. And we'll also present all important hardware features of the latest Display board for Moncha.NET, which make the laser show system production even easier.

Intro to Prolight Laser Harp Controller PRO

Prolight, Presenter: Hrvoje Simic

This presentation provides an introduction to the newly developed Prolight Laser Harp Controller PRO. A quick run through PRO Controller's hardware changes, improvements and its most important features.

Show Software

Introducing RayComposer

Robin Adams

RayComposer will give a short introduction of their brand-new software suite for laser show creation. It includes advanced frame creation tools, key frame based animation capabilities and a rich palette of timeline based effects. Also the associated hardware devices for laser projector control will be presented.

Lasershow Designer BEYOND

Pangolin Laser Systems, Presenter: William R. Benner, Jr

William Benner will make a presentation about some of the latest features in it's professional-class laser software, including a discussion of new timeline tools, new color effects, and "Emulaser".

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