

“Hands-on Measurement” Advanced User Practicum

Overview

The "Hands-On Measurement" Advanced User Practicum is specifically constructed to provide attendees with hands-on experience using Smaart measurements to make standard verification and alignment decisions. This practicum utilizes multiple, diverse measurement examples and allow attendees to perform many of the measurement tasks covered in Day 3 of the Smaart Operator Fundamentals class and make system adjustments using their own Smaart rigs.

Topics Covered Include:

Smaart Rig Set-up, Verification and Calibration

- Acquiring measurement signals - patching in basic and multi-channel measurement rigs
- Verifying your equipment – measuring your mics and IO's
- Calibrating for SPL measurements

Configuring Basic and Multi-Channel Measurement Set-Ups

- Minimizing brain-drain and confusion – Making intuitive configurations
- Use Global control settings or not? What are the benefits of varying control parameters within a measurement Group
- Room – EQ – Resultant: A classic configuration case

Managing Simultaneous Multi-Mic Measurements

- Tips for organizing and controlling multi-mic set-ups
- Using live averaging measurement engines
- Multi-mic placement strategies
- Calibrating multiple mics for equal sensitivity
- Combining Systems – Managing the Interaction of Multi-Channel Systems & Stepping through the classic RLTC (Response-Level-Time-Combine) process
- Examining “Lobe Studies”

Setting System Timing

- Setting Delays for Support Systems (Fills and Delays)
- Setting Mains to Sub timing

Measuring Outside! (*Weather and venue allowing*)

- Measuring at longer distances (and why we love wireless)
- Strategies for dealing with wind.

Prerequisites:

The Advanced User Practicum **requires** the prior attendance of a Smart Operator Fundamentals course. Students who wish to attend this Practicum course but do not meet this prerequisite must obtain Instructor approval prior to registration. This session also assumes a working knowledge of professional sound system engineering practices and basic audio fundamentals.

Required Equipment:

Students will need to bring their own basic measurement rigs (computer, IO and Mics) and should have the latest version of Smart and Dante Virtual Soundcard (DVS) installed. Some measurement configurations will require attendees to use their own Smart rigs, while other applications will use equipment provided by Rational Acoustics. In the cases where students are required to use their own rigs, measurement signals will be accessible either via analog XLR connections or Dante.