HELIOS® Primary Interface Software

Built on the Integral® API Foundation with a LabVIEW™ User Interface

HELIOSense Software is the primary interface for HELIOS components and systems. It is a flexible architecture where any hardware built into the Labsphere API (LSAPI) can be recognized and used in HELIOS systems.

Software Features

• “State” functions that can be set up for system configurations, saved and re-accessed or password protected
• Scripting functions for simple programs inside and outside HELIOSense GUI
• TCP enabled scripting and communication functions
• Hunt & Seek functions using attenuators, detectors and spectrometers
• Continuous real-time asynchronous data logging with time stamps on all data parameters
• “Infinite” scrolling Display & Data session logging
  – Access to control settings and measured parameters
• SQLite database with export functions
• Calibration data interface for loading characterization files
• User-definable non-linear detector response tables for external Devices Under Test (DUTs)
**HELIOSense LOCAL and REMOTE Interfaces for D, A, L, V & S System Families**

- **LOCAL System Interface Options**
  - Cube computer embedded in system rack for turn-key system performance
    (customer provides keyboard, video and mouse)
  - Installation of HELIOSense on any customer computer with single USB connection for system control

- **REMOTE System Control Options**
  - Networked HELIOSense software installation (Ethernet) using API Over-The-Wire Architecture
  - TCP scripting interface via Ethernet

**HELIOSense SDK**

Engineering and software access based on the LSAPI infrastructure, the Software Development Kit (SDK) for HELIOSense opens programming and control in the following languages

- **Engineering-friendly LabVIEW Instrument Driver and code access**

- **Software interface and code access for languages listed below**
  - C and C++
  - C# and .NET
  - MATLAB® Toolbox
    - Programming documentation and Example Code provided for all language types

- **Customer has to have an existing IDE for the chosen language/environment**

- **Requires existing HELIOSense Software installation**

- **Customer needs to supply their own PC with the installed IDE**