

## Sixclear Lucid LabVIEW Fundamentals Two - Course Outline

Lucid Fundamentals Two, when delivered live in the classroom, is a two day course. When delivered with Lucid Fundamentals One, the entire course takes five days. The same curriculum is also available for unlimited access in our online, e-learning course. On-site delivery comes with a hard-copy of the exercise manual for each student. DAQ and Instrument Control topics can be delivered with hardware or by simulation. When the hardware (as opposed to simulation) option is selected, we bring NI USB-DAQ devices, serial RS-232 instruments, and signal boxes.

Each section shown below contains lecture, exercises, and solution videos with code.

A complete topics list can be found in the ["What Topics Are Covered"](#) document.

### Sixclear Lucid LabVIEW Fundamentals Two

#### Unit 1: Advanced Programming

- **Section 1:** Express VIs
- **Section 2:** Event Handling
- **Section 3:** Documentation
- **Section 4:** Advanced Data Types
- **Section 5:** Dynamic Data Types
- **Section 6:** File I/O APIs

#### Unit 2: Data Acquisition & Instrument Control

- **Section 1:** Data Acquisition
  - DAQ Hardware & Software
  - MAX
  - Analog Input
  - Analog Output
  - Digital I/O
- **Section 2:** Instrument Communication
  - Serial
  - GPIB (IEEE 488.2)
  - Instrument Drivers

#### Unit 3: LabVIEW in the Real World

- **Section 1:** Standalone Applications
- **Section 2:** Application Architectures (4 sub-sections)

Screenshots on next page / other side

### Sample Exercise VI

### Front Panel



### Block Diagram

