



Savvy Optics Corp Seminar Advanced Surface Inspection Workshop

Summary

Understanding the correct way to inspect optical surfaces is one of the most important skills anyone working with or around optics can have, including technicians, material handlers, engineers, managers, and buyers. While understanding the specifications is the first step, learning how to actually perform the inspection is just as important. This hands-on workshop will allow attendees to learn the "Best Practice" for inspecting optical surfaces. The course has many demonstrations and labs and gives attendees lots of practice handling and inspecting optics with the oversight of a trained master inspector.

During the course we will begin with a brief review of the surface imperfection specifications in use today, and a quick overview of good cleaning and handling practices. Next we will practice appearance comparison inspection for MIL and ANSI scratch and dig visibility specifications. Then we will conduct dimensional comparison inspections and use a loupe and a stereo microscope for ISO and ANSI dimensional inspections. Finally we will review the accumulation rules for acceptance or rejection of optics. The course is based on the concept of learning by doing, with many hands-on labs. As a result, class size is limited.

Learning outcomes

This course will enable you to:

- perform a visual review of the surface
- create a surface map
- conduct a visual inspection according to MIL-PRF-13830B and ANSI OP1.002
- conduct a visual inspection according to ISO 10110-7 and ISO 14997
- conduct a microscope inspection according to ANSI OP1.002 and ISO 10110-7 standards
- evaluate a surface map and determine if a surface passes or fails

Target Audience

This intermediate level course is designed for all optical practitioners who need to handle and evaluate optics or optical assemblies. Other suggested attendees include mechanical engineers, purchasing agents, quality assurance personnel and other persons working around optical components. SC01 or SC700 Understanding Scratch and Dig is a required prerequisite class.

Course Length

Half-day (3.5 hours)

Instructor

Dave Aikens is known throughout the industry as the foremost expert on scratch and dig specifications and their interpretation. He has been involved in surface quality specifications for more than 30 years. Dave is President and founder of Savvy Optics Corp., is the head of the American delegation to ISO TC 172 SC1, and is the Secretary of the American Standards Committee for Optics, OEOSC.