

Troubleshooting Methods

This two-day course teaches the fundamentals of troubleshooting to technicians. It covers the areas which are common to most problems encountered in industry, and how to approach these problems with a systematic approach to troubleshooting. This course is split between classroom and hands-on troubleshooting.

I. Troubleshooting Documentation

II. Seven-Step Troubleshooting Philosophy

- Step 1 - Symptom Recognition
- Step 2 - System Elaboration
- Step 3 - Listing of Probable Faulty Functions
- Step 4 - Localizing Faulty Function
- Step 5 - Localizing Fault to a Component
- Step 6 - Failure Analysis
- Step 7 - Retest Requirements

III. Troubleshooting With Flowcharts

- Typical Troubleshooting Process
- The Flowchart Model

IV. Five Action Steps for Systematic Troubleshooting

- Step 1: Verify That a Problem Actually Exists
- Step 2: Isolate the Cause of the Problem
- Step 3: Correct the Cause of the Problem
- Step 4: Verify That the Problem Has Been Corrected
- Step 5: Follow Up to Prevent Future Problems

V. Deriving Logical Troubleshooting Flowcharts and Strategies

- Deriving Your Own Troubleshooting Strategy
- Steps for Troubleshooting Intermittent Failures
- Identifying All Possible Causes of Trouble

VI. Cause and Effect Diagrams

- Constructing a Cause and Effect Diagram