

## Process Analyzers

# Maxum Operation with GCP Level 1

### General Information

Course Code: PIA-PAMAXGCP1  
Length: 4 Days

### Audience

This course uses Siemens Gas Chromatograph Portal (GCP) workstation software and is intended for individuals responsible for maintaining the Maxum Gas Chromatograph and for users who need to perform routine maintenance and calibration.

**STRONG PREREQUISITE: Basic Chromatography skills**

### Prerequisites

- Introduction to Process Gas Chromatography
- OR
- Online Instructor-led Training-Introduction to Process Gas Chromatography

### Profile

2.6 CEUs (Continuing Education Credits)

This course covers operations, setup, and calibration of the Maxum Gas Chromatograph, an overview of the Maxum GCP workstation software. (GCP replaces both System Manager and EZChrom).

This course can be taught at the customer's site and customized to meet the customer's needs. With advance notice, customer specific applications can be taught.

### Objectives

*Upon completion of this course, the student shall be able to:*

- Perform basic maintenance on the Maxum
- Balance the carrier gas flows.
- Setup the analyzer valve timing
- Setup the Electronic Pressure Controller (EPC)
- Access Maxums using GCP - Network View
- Adjust peak times with the GCP
- Calibrate the analyzer with GCP
- Backup and Restore the analyzer database

### Topics

1. Maxum System Overview
2. Maxum GCP Overview
3. Maxum Hardware Overview
4. Maxum Valve Maintenance
  - a. Model 50
  - b. Model 11
  - c. Liquid Inject
5. Maxum Detectors Maintenance
  - a. Flame Photometric
  - b. Flame Ionization
  - c. Thermal Conductivity
6. System Addressing
  - a. IP Addressing
  - b. SNE/Internal Bus Addresses
  - c. Add an I2C IO Card
7. Maxum Chromatograph Hardware
  - a. Oven configurations
  - b. Utility Requirement
  - c. Module Wiring/Connections
8. Parallel Chromatography
  - a. Applets
  - b. Hardware Timing
  - c. Flow Settings
9. GCP Method Software
  - a. Method Setup
  - b. Integration Options
  - c. Auto Gating
  - d. Named Peaks
  - e. Group Peaks
  - f. Sequences
  - g. Off Line Calibration
10. Color Touch Screen Control Interface Module (CIM)
  - a. HMI Menu
  - b. Menu Navigation
  - c. Alarms
  - d. Basic HMI Operations
  - e. Modify the Chromatograph Method
11. Labs
  - a. Save Database Tables
  - b. Analyzer Calibration using CIM
  - c. Analyzer Calibration with GCP
  - d. Modify Methods
  - e. Set Valve Timing
  - f. Run Setup and Main Detector Chromatograms
  - g. Set Flows
  - h. Perform Model 50 Valve Maintenance
  - i. Identify Maxum Hardware Components