

Custom Training Institute

9085 Coyote Springs Road
 Prescott Valley, AZ 86315
 (928) 772-3811
 FAX (928) 441-6444

OSGI (CTI 328)

OSGI, or the Open Software Gateway Initiative, is a framework for creating dynamic, reusable software using Java. Students will learn how to use the framework's service-oriented architecture to dynamically instruct software components to discover each other for collaboration, resulting in improved time-to-market, reduced development and maintenance costs and more robust software.

Prerequisites: *One year of programming experience with Java. Experience with Java 2, Enterprise Edition.*

Minimum hardware requirements: *PC or Mac at 1 Ghz with 20 GB free hard disk space before installation. Internet access.*

Software requirements: *Current release of Windows XP or Vista; Mac OS X; or Linux OSGI Bundle Repository (freely downloadable from www.osgi.org), Eclipse development environment (freely downloadable from www.eclipse.org). Java 2 Software Development Kit (SDK) Release 5.0 or later.*

Microsoft PowerPoint and Internet access installed at instructor's workstation for presentation purposes.

Module 1: Understanding OSGI

- What is OSGI?
- OSGI in Enterprise Applications
- Support for OSGI
- OSGI Open Source Containers

Module 2: OSGI Bundles

- What is a Bundle?
- Installing the OSGI Framework
- Creating a Bundle
- Executing a Bundle
- Lab: Developing and Executing a Bundle*

Module 3: Bundle Dependencies

- Dependencies and Classes
- Exporting Dependencies from One Bundle
- Importing Dependencies into Another Bundle
- Using the Console to Track Dependencies
- Dependencies and Packages
- Lab: Working with Dependencies*

Module 4: Bundles and Services

- OSGI and Service-Oriented Architecture
- Using Bundles to Implement a Service-Oriented Architecture
- Exporting Services
- Importing Services
- Lab: Working with Services*

Module 5: Using a Service Factory

- How to Service Factories Simplify Bundle Management?
- Creating a Service Factory
- Tracking the Service in the Service Factory
- Lab: Implementing the Service Factory*

Module 6: Review and Summary