GE Energy offers its customers a full array of training courses for standard Smallworld products and many of its “out-of-the-box” applications.

A regular schedule for most of these courses is offered at several of our training facilities. Please check with your regional office for a schedule or check the online website: www.GEDigitalEnergy.com/Geospatial/ProductTraining.htm.

Sessions in any of the courses can also be arranged on demand both in your training facility and at customer sites.

The standard Smallworld training courses are built on the functionality of the standard products Smallworld Core Spatial Technology. Courses are based around the example applications and demonstration databases provided with these products, without the addition of any customer-specific functionality.

For local training requests, customers can contact their regional offices, listed in the Smallworld Regional Offices section (back cover page).
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## Training paths

Smallworld training courses can be arranged in a number of training paths, which would typically correspond with the intended functions of your trainees. The following training paths are available for managers, end users, application administrators, system analysts, application developers and configuration specialists:

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<td>End user</td>
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</tr>
</tbody>
</table>
Core Spatial Technology

Foundation

What will I learn from this course?
The Foundation Training course provides a general overview of various parts of Smallworld Core Spatial Technology. Most of the topics described in this course are covered in much greater depth in other specific training courses.

Who Should Attend?
Anyone who requires an overview of Smallworld Core, such as users, configurers, database administrators, data modellers, developers of Smallworld applications, managers and prospective Smallworld customers

Prerequisites
Basic computing skills

Course Duration
3 Days

Course Objectives
- Become familiar with using Smallworld Core as a user
- Gain a basic knowledge of how to configure the user environment for Smallworld applications
- Understand the main functions of database administration
- Explore some basic Smallworld Magik commands, and create some Magik objects
- Gain experience of remote access to a Smallworld application server, through use of Smallworld Spatial Intelligence and/or Smallworld Internet Application Server

Course Agenda
- Welcome
- Introduction
- Using Smallworld Core Spatial Technology
  - Getting started
  - Objects and geometry
  - Queries and analyses
  - Layouts
- Configuring the user environment
- Database administration
- Data modelling
- Introduction to Magik
- Smallworld Spatial Intelligence
- Smallworld Internet Application Server

Example Cambridge Database Application
Example Administration Application
Using Core Spatial Technology

What will I learn from this course?
The Using Smallworld Core Spatial Technology Training course teaches new users how to use Smallworld Core Spatial Technology

Who Should Attend?
New users of Smallworld Core

Prerequisites
Basic computing skills

Course Duration
3 Days

Course Objectives
- Start and end a session
- Display and navigate views
- Create objects and edit object geometry by using the trail and snapping
- Understand topology, and check and edit topological connections
- Use the Explorer and scrapbook
- Query and analyse data
- Produce layouts
- Managing versions
- Options
- The trail
- Drafting and dimensions
- Editing objects
- Transforms
- Joins between objects
- Topology
- Explorer
- Queries
- Analysis
- Layouts

Magik Programming

What will I learn from this course?
Smallworld Core Spatial Technology is written in the powerful Smallworld Magik language. The Magik Training course provides an introduction to the Magik language and some of the system objects defined in Smallworld Core. It introduces the structure of an installed product and the customisation of an application — that is, making small changes in existing functionality and user interface.

Who Should Attend?
Software engineers who are following the full Smallworld customisation programme

Prerequisites
- Smallworld Core Spatial Technology Foundation Training
- A minimum of two years’ experience with a procedural or object-oriented programming language such as C++ or Java

Course Duration
4 Days

Course Objectives
- Learn Magik syntax
- Understand the concepts underlying object-oriented programming
- Write, compile and debug Magik code
- Use the GNU Emacs editor and the Class Browser
- Classify methods and classes using pragma statements
- Gain knowledge of the physical architecture of the Smallworld system and key objects
- Understand how resources are used in a session to provide all text and buttons seen by an interactive user, and how to provide additional resources to customise a user interface

Course Agenda
- Introduction
- System rationale
- The Magik language
- Magik Objects
- Collection classes
- Object inheritance
- Graphical classes
- Accessing the database
- Product structure
- Debugging
- Topology
- Conclusion
Application Development

What will I learn from this course?
The Application Development Training course provides an introduction to the development of customised applications based on Smallworld Core Spatial Technology.

Who Should Attend?
Application developers who are following the full Smallworld customisation programme

Prerequisites
• Smallworld Core training courses: Foundation, Magik, Data Modelling (or equivalent experience of using Magik and the Case Tool)
• A minimum of two years’ experience with a procedural or object-oriented programming language such as C++ or Java

Course Duration
5 Days

Course Objectives
• Develop an application based on Smallworld Core, with interactive access to the functionality
• Configure the user interface to an application, to include providing alternative ways of accessing existing functionality and providing access to new functionality
• Learn advanced aspects of the Magik language necessary for controlling an application
• Use the Case Tool to define the data model for a Smallworld dataset, including custom behaviour for user objects
• Learn advanced techniques for accessing datasets in a Smallworld database, including loading data, creating geometry and storing it in a dataset
• Use and configure tools such as the Editor Manager and Smallworld Explorer which are integral parts of Smallworld Core
• Customise the Style system for user objects and geometry types

Course Agenda
• Introduction
• Products, images and sessions
• Application framework architecture
• GUI configuration
• Viewing and managing maps
• Spatial contexts
• GUI containers and controls
• Creating a database
• Magik control statements
• XML data loader
• Database operations
• Core plugins
• Debugging
• Topology
• Conclusion

GUI Framework Architecture

[Diagram of GUI Framework Architecture]

Actions

Plugin

Databus (producers, consumers)

Editor/Dialog (GUI Framework)

Actions

.databus Plugin

.my_databus Plugin
Data Modelling

What will I learn from this course?
The Data Modelling Training course provides an introduction to data modelling using Smallworld Core Spatial Technology, which is an extension of conventional relational database design. Geometry is introduced as an additional data type, and spatial and topological relations are added to the familiar cardinal relations. The course uses the Smallworld Case Tool, which is the recommended user interface for the system designer. The practical sessions gradually build up a simple Water Data Model, to demonstrate specific aspects of data modelling.

Who Should Attend?
- System Analysts and Programmer Analysts who will be following the full Smallworld software development program
- System Architects and Designers who need to know what can be accomplished within Smallworld Core

Prerequisites
- Smallworld Core Spatial Technology Foundation Training
- Basic computing experience at design or programming level

Course Duration
3 Days

Course Objectives
- Understand the key concepts of designing a database within the Smallworld environment
- Become familiar with the Case Tool
- Gain experience of GIS data modelling as an extension of conventional database design

Course Agenda
- Introduction and overview
- The Case Tool
- Smallworld architecture
- User objects
- User interface

The three facets of a GIS

Real World

Real World seen by a GIS User

Building Objects

Road Objects

Electricity Objects

Underlying Data Model using Attributes, Alphanumeric Geometry and Relationships to Other Objects
Fast Track

What will I learn from this course?
This two-week intensive course is intended to cover the three training modules necessary for application developers. It encompasses the Foundation, Magik and Application Development courses.

See the descriptions for these individual courses for details.

Who Should Attend?
Software engineers who will be following the full Smallworld customisation programme

Prerequisites
Those who want to attend the course should be experienced software engineers with a strong programming background, preferably including an object-oriented language such as C++, Java or Smalltalk

Course Duration
10 Days

Course Objectives
Achieve the objectives of the three standard courses (Foundation, Magik, Application Development)

Course Agenda
Most of the modules included in the Foundation, Data Modelling, Magik and Application Development courses will be covered in this fast-track course

System Administration

What will I learn from this course?
To realise the full performance that users expect, installations of Smallworld Core Spatial Technology require regular maintenance. The System Administration Training teaches students how to administer a Smallworld Core installation.

Who Should Attend?
Personnel responsible for performing Smallworld system administration tasks

Prerequisites
There are no mandatory prerequisites. Ideally, students should have experience of:

• Using Smallworld applications, such as the example Professional and Administration applications delivered with Smallworld Core
• System administration (Windows or UNIX)
• Smallworld Magik

Course Duration
3 Days

Course Objectives
• Install Smallworld products
• Configure a Smallworld Core installation
• Build and maintain images
• Manage access to Smallworld databases
• Back up Smallworld databases

Course Agenda
• Introduction
• Product installation
• Product configuration
• User configuration
• Emacs and Magik
• Loading products and modules
• Applications and user interfaces
• Images
• Dataset Controller
• Security
• Releases, upgrades and patches
• Plotting
• Other facilities
• Images for application servers
• Authorisation
• Backup and integrity
• Problem solving and disaster recovery
4.2 Update

What will I learn from this course?
A 3 day course, divided into three sections: User, Administrator and Developer, illustrating changes, improvements and new functionality introduced between CST 4.1 and 4.2.

Who Should Attend?
This course is intended for Users, Administrators and Developers of CST.

Prerequisites
- Previous experience using, administering or developing CST
- Administrators MUST have attended the User section, and Developers MUST have attended the User and Administrator sections of this course

Course Duration
3 Days

Course Objectives
Following the course, students will be able to:
- Understand the changes to the user functionality of CST
- Understand the changes to conflict resolution
- Understand the benefits of heterogeneous joins and how to use them
- Administrators will understand the changes to the Case Tool
- Administrators and developers will understand the new upgrade framework and Image Builder functionality

Course Agenda
User:
- User interaction
- Conflict Viewer
- Heterogeneous joins
- Other enhancements

Admin:
- Installation and image building
- Conflict resolution
- Case tool
- Datamodel Tools

Developer:
- Image builder
- Conflict resolution
- Case Tool & Heterogeneous joins
- Datamodel Tools
Database Administration

What will I learn from this course?
The Database Administration Training course explains the concepts of a Smallworld database, and reinforces database administration (DBA) skills through lessons, discussion tasks and hands-on exercises.

Who Should Attend?
- Database Administrators (DBAs)
- Other personnel responsible for performing the Smallworld DBA function

Prerequisites
- Smallworld Core Spatial Technology System Administration Training
- Practical experience of performing DBA tasks
- A basic knowledge of Smallworld Magik is also useful

Course Duration
5 Days

Course Objectives
- Understand how a Smallworld database operates
- Plan strategies for maintaining a database
- Perform core DBA activities such as backing up, compressing and restructuring a database, to ensure data is maintained and optimised

Course Agenda
- Introduction
- Version managed datastore
- Multi-user working
- Smallworld Datastore Server
- Managing the database
- Monitoring performance
- Backup and integrity
- Problem solving and disaster recovery
- Superfiles
- Working top
- Persistent cache
- Managing remote data
- Extracts
- Replicas
- Planning, strategies and recording
- External databases
- Rasters
- Managing large databases
- Data model evolution

Three-tier architecture caching
Administration

What will I learn from this course?
The Administration Training course covers fundamental architectural concepts of Smallworld databases, through to the main steps necessary to perform regular database, application and software installation maintenance, through lessons and hands-on exercises.

Who Should Attend?
- Smallworld System Administrators
- Smallworld Database Administrators (DBAs)

Prerequisites
- Smallworld Core Spatial Technology Foundation, or equivalent practical experience of using Smallworld software
- Basic knowledge and experience with the Magik programming language
- Practical experience of performing system and database administration tasks

Course Duration
3-5 days, depending on required modules

Course Objectives
- Install Smallworld products
- Configure a Smallworld Core installation
- Build and maintain images
- Manage access to Smallworld databases
- Back up Smallworld databases
- Understand how a Smallworld database operates
- Plan strategies for maintaining a database
- Perform core DBA activities such as backing up, compressing and restructuring a database, to ensure data is maintained and optimised

Course Agenda
- Product installation
- Product configuration
- User configuration
- Loading products and modules
- Applications, user interfaces and images
- Dataset Controller
- Releases, upgrades and patches
- Plotting
- Security and Authorisation
- Version managed datastore
- Smallworld Datastore Server
- Managing the database
- Monitoring performance
- Backup and integrity
- Problem solving and disaster recovery
- Superfiles, working top, and managing large databases
- Persistent cache
- Remote data, extracts and replicas
- Planning, strategies and recording
- External databases
- Data model evolution
Configuration

What will I learn from this course?
The Configuring Smallworld Core Spatial Technology training course illustrates all configuration aspects of Smallworld Core Spatial Technology.

Who Should Attend?
Configurers of Smallworld Core

Prerequisites
• Smallworld Foundation
• Basic Magik programming

Course Duration
4 Days

Course Objectives
After the course, students shall have understanding and practical experience of:
• Working with application framework images
• Configuring an application using tools such as the ACE and XML configuration files
• Configuration of multiple object visualisation through the use of the ACE, the Style System, system resource files
• Configuration of tables, alphanumeric and geometric attribute through the Authorisation System
• Aspects of an application which are configurable via XML
• Building image and application modules
• Configuring an application
• Analysing an application configuration
• Configuration troubleshooting
• Adapting existing applications to different user requirements

Course Agenda
• Introduction
  • Overview and definitions
  • ACE, including
    - Display styles
    - Style groups
    - Object configuration
    - System Bookmarks
    - System Themes
  • Extensible enumerators
  • Style System and the Style Designer
  • Authorisation System
  • XML, including
    - Basic XML introduction
    - Application configuration
    - Plugins
    - Object Editor
    - Explorer
    - Core Plugins
    - Layouts, printing and plotting
    - Spatial contexts
    - Base Applications
    - Special Applications
    - Keyboard configuration

Object properties
 Coordinate system
 Authorisation System
 Scale configuration
 System Themes
 Object configuration
XML and Configuration

What will I learn from this course?
The XML Configuration in Smallworld Core Spatial Technology training course illustrates all possibilities of through XML in Smallworld Core Spatial Technology.

Who Should Attend?
Configurers of Smallworld Core

Prerequisites
- Smallworld Foundation
- Basic Magik programming

Course Duration
3 Days

Course Objectives
After the course, students shall have understanding and practical experience of:
- Aspects of an application which are configurable via XML
- Building image and application modules
- Configuring an application
- Analysing an application configuration
- Configuration troubleshooting
- Adapting existing applications to different user requirements

Course Agenda
- Installation and database upgrade
- SWAF user interface in CST
- Overview and definitions
- Products and modules
- Brief overview of XML
- Applications
- Plugins
- Core plugin: Editor Manager
- Core plugin: Explorer
- Core plugin examples
- Layouts
- Spatial context
- Keyboard configuration
- Help system
- Using base applications
- Special applications
### What will I learn from this course?
This course is designed to instruct end users on how to use Smallworld Design Manager in performing their jobs. The course covers the creation and management of jobs and designs, as well as the use of design layout tools to create and edit the network assets stored in a Smallworld database. Use of these tools is illustrated in relation to process flows and scenario based workflows as found in distribution centres.

### Who Should Attend?
The course is designed for end users, typically engineers and designers, who are responsible for designing and updating utility network and work management systems.

### Prerequisites
There are no mandatory prerequisites for this course. Ideally students should have experience of:
- Smallworld Core functionality
- Experience of using a GIS
- Experience in engineering and/or distribution design

### Course Duration
2-3 days

### Course Objectives
Following the course, students should have:
- Familiarity with Design Manager concepts.
- A basic knowledge of the available manipulation tools
- An understanding of the use of designs and jobs
- The use of Design Layout Tools
- The use of these facilities in conjunction with typical work flows

### Course Agenda
- Introduction to Design Manager
- Starting Design Manager, and Overview of Main GIS Window
- Smallworld functionality embedded in Design Manager
- Creating and Managing Jobs and Designs
- Design Layout Tools (DLT)
- Using the Design Browser
- Compatible Units
- AWA's
- Point Span Editor
- Using the Analysis menu
- Condition Factors
- Work Scenario exercise
- Plotting Options
- Help
Administration

What will I learn from this course?
This course is designed to instruct end users on how to configure Smallworld Design Manager for use in an operational environment. The course focuses on the configuration of Design Manager and Design Layout tools parameters. Smallworld Core configuration issues are also covered.

Who Should Attend?
The course is designed for administrators and developers who will be involved in configuring Design Manager for use in a working environment.

Prerequisites
Design Manager User

Course Duration
2-3 days

Course Objectives
Following the course, students should have:
- Familiarity with Design Manager concepts.
- A knowledge of how to configure Design Manager.
- The ability to create and modify Design Layout Tools (Wizards).
- An understanding of how to configure compatible units and condition factors.

Course Agenda
- Introduction
- Configuration Assistant
- Sidebar Tabs
- Job Scheduler
- CASE apply
- Wizard Configuration
- Compatible Units
- Job Settings
- Default Attributes
- Condition Factors
- WMS Administration
GeoSpatial Server

Administration

What will I learn from this course?
This course is designed to instruct students in installing, managing and monitoring a GeoSpatial Server installation, including the facilities of the GeoSpatial Server Administration console. The course covers common administration tasks such as creating new GeoSpatial Server users along with less common tasks such as configuration of map layer and cache settings.

Who Should Attend?
This course is intended for system administrators who are responsible for providing service-based access to a Smallworld installation.

Prerequisites
- Familiarity of Smallworld Core Spatial Technology
- Familiarity with configuring and using a J2EE application server such as JBoss
- Smallworld system administration experience, including setup of ACE and Authorisation databases
- Some familiarity with controlling a Smallworld session from the command line

Course Duration
4 days

Course Objectives
Following the course, students will be able to:
- Install GeoSpatial Server and run a demo system
- Understand how to build and configure a system for your own database
- Create and configure users
- Monitor your system and perform admin tasks
- Configure layers in the database and create cached maps
- Understand server farms and use GeoSpatial Server in more complex environments

Course Agenda
- Introduction to the course
- Smallworld GeoSpatial Server administration
- Installing Smallworld GeoSpatial Server
- Connector and Agents
- Configuring the database
- Roles and users
- Configuring Plotting and Resources
- Tasks, Monitors and Alerts
- Caching and rollforward
- Localisation
- Server farms and complex environments
- Dimensioning Configuration
What will I learn from this course?
This course is designed to instruct students developing a custom business service and providing web services to access existing business services. The addition of new services in the EIS and middle tiers is covered, using example services delivered in the GeoSpatial Server Development Examples layered product.

Who Should Attend?
This course is intended for application developers who will provide new business services to access new or existing functionality in the EIS tier, or who will provide new web services to access existing business services in the middle tier.

Prerequisites
- GeoSpatial Server Administration course
- Smallworld system administration experience, including setup of ACE and Authorisation databases
- Familiarity with Java, configuring and using a J2EE application server such as JBoss, experience with a J2EE development environment such as Eclipse
- Familiarity with application development in Core Spatial Technology, including Magik programming experience

Course Duration
4 days

Course Objectives
Following the course, students will be able to:
- Add new business services to the middle and EIS tiers of a GeoSpatial Server installation
- Access a database:
  - Use URNs for accessing database objects
  - Return records as a service result
- Interact with standard GeoSpatial Server services and state of user’s session
- Add web service access to an existing business service, using code-first or contract-first development

Course Agenda
- Introduction to the course
- GeoSpatial Server for developers
- Introduction to GeoSpatial Server EJB Service Development
- Exploring the GeoSpatial Server Development Environment
- The Message EJB Service
- Service writing topics
- Service chaining
- Geometric input to the EIS tier
- Introduction to web services
- Writing simple web services
- Web service topics
Internet Application Server

Client

What will I learn from this course?
The Internet Application Server Client training course illustrates all user aspects of the client application delivered with Smallworld Internet Application Server.

Who Should Attend?
- Internet Application Server Users
- Internet Application Server Administrators

Prerequisites
Basic computing skills

Course Duration
1 day

Course Objectives
After the course, students shall have understanding and practical experience of:
- Working with the Smallworld Internet Application Server Client application
- Using the display controls to decide which objects are displayed in the map, and save custom settings
- Using the SIAS Client different operational modes
- Browse database tables using the Query Tool
- Trace network assets through the Network Tracing Tool
- Use the trail to spatially restrict your queries
- Display object attributes
- Exporting records to other applications
- Printing and plotting
- Troubleshooting

Course Agenda
- Introduction
- Overview and definitions
- Maps and Tools
- Network Trace Tool
- Working with object data
- Printing maps
- Searching
- Troubleshooting
Smallworld Training

Administration

What will I learn from this course?
The Internet Application Server Administration Training course provides an introduction to the Smallworld Internet Application Server product, covering its principal features, architecture, installation and the configuration of the system, including configuring and building map caches to support client applications.

Students will install their own Smallworld Internet Application Server product, and build a Service Provider image against the training database.

Who Should Attend?
System administrators, who will install, maintain and monitor installations of Smallworld Internet Application Server based applications

Prerequisites
To obtain maximum benefit attendees need to have knowledge of the following:
- Smallworld Database Administration
- XML
- Prior knowledge of J2EE application servers such as JBoss is also useful
- Some knowledge of the Smallworld Magik programming language, and basic system administration tasks such as building images, is required

Course Duration
3 days

Course Objectives
Following the course, attendees should have:
- Knowledge of Smallworld Internet Application Server architecture
- A knowledge of administrative tasks required to support a Internet Application Server installation
- An understanding of configuration and maintenance of Internet Application Server map caches
- An understanding of the different types of client solutions that can be developed, and the suitability of each type for particular applications

The attendee will be able to:
- Configure a Internet Application Server system, including both Application Server and EIS tiers
- Install and configure the Smallworld Internet Application Server product

Course Agenda
- Introduction to Internet Application Server Administration
- Installation
- Configuring the Agents and Connector
- Configuring the Database for Internet Application Server
- Internet Application Server System Configuration Overview
- Users and Roles
- Tasks and Monitors
- Caching and Rollforward
- Searching and Locators
- Plotting and Resources
- Locale
- Server Farms and Complex Environments

The SIAS Client application in full screen mode

The Administration Console
Developer

What will I learn from this course?
The Smallworld Internet Application Server Developer training course provides an introduction to extending a standard Smallworld Internet Application Server product. This is effected by adding custom business services, by configuring the standard Internet Application Server Client to modify the appearance and behaviour of the user interface and by adding new user interface modules to the standard Internet Application Server Client.

Who Should Attend?
The course is intended for software developers who will add new services or user interface features to a standard Internet Application Server system.

Prerequisites
Those attending the course must have:
- a minimum of two years’ experience with an object oriented programming language such as C++, Java or similar, or with a procedural programming language such as C
- experience of installing, setting up and using a standard Internet Application Server system
- Java programming knowledge
- JBoss application server knowledge
- basic knowledge of JavaServer Faces (JSF) and JavaServer Pages (JSP), together with HTML and JavaScript
- specific trainings:
  - Smallworld Internet Application Server Administration
  - Smallworld Core Spatial Technology Magik Programming

Course Duration
4 days (combined service and client threads)

Course Objectives
- After following the course, service developers shall be able to:
  - Add new business services to an Internet Application Server installation
  - In their Magik service, access the database of the session, use URNs for database objects and return records in a service response
  - Interact with standard Internet Application Server services, and with the state of the user’s session
  - Return results to the client application, including records from the database, an updated map and additions to the state of the user’s session
- After following the course, client developers are able to:
  - Make changes to the appearance and behaviour of the standard Internet Application Server Client
  - Add new user facilities, to interact with the modules of a standard client and to access a new business service
Who Should Attend?
The course material is intended for the following audience:
• users
• configurers
• database administrators
• data modellers
• managers

Prerequisites
Basic computing skills

Course Duration
3 days

Course Objectives
Following the course, students should have:
• Familiarity with Physical Network Inventory concepts
• A basic knowledge of the available manipulation tools
• An understanding of database queries
• Logical Network Inventory overview

Course Agenda
• Introducing Physical Network Inventory
  • Overview
  • Getting started
  • Work orders
  • Changing the view
  • Objects and geometry
  • The trail and geometry
  • Information retrieval
  • Manipulating and creating objects
• Bill of Materials
• Specifications
• Schematics
• Plotting
• Conflict detection and resolution
• Land Base
• Introducing Logical Network Inventory
  • Introducing Telecommunications (optional)

What will I learn from this course?
The Physical Network Inventory & Logical Network Inventory Overview Course provides a general overview of Physical Network Inventory and Logical Network Inventory. It forms a prerequisite for all other Physical Network Inventory courses.
Using Smallworld Physical Network Inventory

What will I learn from this course?

The course normally includes the following four modules: Introducing Physical Network Inventory; Cable Routing; Rack Mounted Equipment; Fibre Optics. Some additional modules are also available for coaxial cable, copper cable and the line of count mechanism. The introduction provides a general overview of PNI functionality.

The cable routing module teaches how to route any type of overhead and underground cable structure. The RME module teaches how to plan, design and maintain inside-plant rack mounted equipment. Subsequent modules model and maintain various network types.

Who Should Attend?

- Users (All modules)
- Configurers (Introduction)
- Administrators (Introduction)
- Data modellers (Introduction)
- Managers (Introduction)

Prerequisites

Initially no experience of Smallworld Core product or any application is required. After the introduction all subsequent modules require the introduction. All modules related to cable media require knowledge of the introduction and cable routing modules.

Course Agenda

- Introducing Physical Network Inventory
  - Introduction
  - Overview
  - Getting started
  - Design Jobs
  - Changing the view
  - Objects and geometry
  - Trail and geometry
  - Information Retrieval
  - Manipulating objects
  - Design Reports
  - Specifications
  - Schematics
  - Plotting
  - Conflicts
  - Landbase

- Cable Routing
  - Introduction
  - Strand and structure
  - Viewing strand and structure
  - Conduits and ducts

- Rack Mounted Equipment
  - Introduction
  - Suggested RME Implementation
  - Managing hubs
  - Managing MDU's
  - Managing terminal enclosures
  - Placing RME
  - RME Templates
  - Creating equipment connections
  - Managing RME records
  - Viewing RME installations
  - RME specifications

- Fibre Optics
  - Introduction
  - As Built placement
  - Placing a hub
  - Placing fibre routing
  - Figure of eight / slack loop
  - Optical splice closure
  - Optical node
  - Fibre connections
  - Understanding optical internals
  - Splice closure internals

- Optical node internals
- Fibre bundle networks
- Fibre bundle number schemes
- Fibre bundle and sheath specifications
- Fibre equipment specifications
- Optical node specifications
- Optical property specifications
- Additional exercises

- Coaxial Cable
  - Introduction
  - Managing Segmentation
  - As-Built Drafting and association conventions
  - Posting RF as-built Equipment
  - Network Tracing
  - Specification Management
  - Amplifier Specifications
  - Distribution Equipment Specifications
  - Optical Node Specifications
  - Coaxial Power and Monitor Specifications
  - Coaxial Specifications Setup
  - Basic Coaxial device Specifications
  - Making Port Associations

- Copper Cable
  - Introduction
  - Placing copper cable
  - Copper splice setup
  - Placing copper cable related objects
  - Copper line of count
  - Throws and ripples
  - Managing in-line equipment
  - Terminal enclosures placement
  - Creating interface groups
  - CRV setup
  - Telephone number assignment
  - Port association setup
  - Copper connections
  - Tracing the Network
  - Generating copper reporting
  - Copper specifications

- Optional parts
  - Line of Count
  - Schematics
  - Radio transmission

Course Duration

5 days

Course Objectives

After the courses, the student will be able to:

- Construct aerial and underground routing conduits, ducts and manholes
- Route and connect cables
- Place buildings and equipment
- Enter specifications
- Associate specifications
- Assemble and place RME templates
Using Logical Network Inventory

What will I learn from this course?
The Using Logical Network Inventory training course teaches students how to use Logical Network Inventory to create a logical model of a telecommunications network and how to route logical circuits over the given facilities. Planning and administration of logical connections are also covered. Students will be taught how to use Logical Network Inventory in a variety of situations.

During this course, they will build simple telecommunications networks based on PDH, SDH, ATM and DWDM technologies, and route circuits across these network. The starting point is a preconfigured but empty Logical Network Inventory database.

Who Should Attend?
New users of Logical Network Inventory

Prerequisites
There are no mandatory requirements for this course. Ideally students should have experience of:
- Core Spatial Technology
- Physical Network Inventory
- Telecommunications industry

Course Duration
4 days

Course Objectives
- Create the network infrastructure for a synchronous or asynchronous network using service ports, network elements, facilities, rings and subnetworks
- Associate network elements and service ports with rack mounted equipment (RME) in physical locations, both manually and automatically
- Route simple and complex circuit paths over the network, making use of existing 'bearer circuits' where appropriate
- Build resilient circuits using the protection and diversity mechanisms
- Create graphical representations of the network as geographical schematics and circuit path schematics as a routing aid
- Use various administrative features of Logical Network Inventory
- Recognise and resolve typical troubleshooting issues

Course Agenda
- Introduction
- Introducing telecommunications (optional)
- Introducing Logical Network Inventory
- Network Elements and Service Ports
- Associating NE’s and SP’s with RME
- Router and Viewer
- Creating facilities
- Geo schematics
- Creating rings
- Creating subnetworks
- Creating circuits
- Circuit path schematics
- Protection
- Diversity
- Batch operations
- Advanced troubleshooting (optional)
- Circuit administration
Logical Network Inventory Configuration

What will I learn from this course?
The Logical Network Inventory Configuration course teaches students how to configure Logical Network Inventory. The training also contains some tasks that involve using Logical Network Inventory to route circuit paths. Students will learn how to configure an empty Logical Network Inventory database; they will then be able to diagnose and overcome problems that relate to configuration settings.

Who Should Attend?
Configurers of Logical Network Inventory

Prerequisites
There are no mandatory requirements for this course. Ideally students should have experience of:
- Core Spatial Technology
- Physical Network Inventory
- Telecommunications industry

Course Objectives
By the end of the course, students will be able to:
- Plan a network configuration that models the real world rules used by their organisation
- Implement that network configuration
- Test the Logical Network Inventory configuration by routing circuit paths

Course Agenda
- Introduction
- Introducing telecommunications (optional)

Course Duration
3 days

Network Inventory Gateway: Physical Browser

What will I learn from this course?
The Network Inventory Gateway Physical Browser training course illustrates all user aspects of the web interface to Physical Network Inventory.

Who Should Attend?
- Network Inventory Gateway Users
- Physical Network Inventory Users

Prerequisites
Those attending the course should have some previous experience of Physical Network Inventory

Course Duration
1 day

Course Objectives
After the course, students shall have understanding and practical experience of:
- User interface and the help system
- Using the menu and toolbar, selecting objects, zooming and panning the map
- Using and saving bookmarks
- Using the object lister, selecting objects, finding objects, exporting to external applications, viewing object details, highlighting, go to, internal views
- Using the overview tab
- Using the object view tab, display location, displaying internals, send to map
- Trail tab interface, multiple trail points
- Using the find tab and the query wizard
- Using the connectivity diagram, examining structures and connectivity, viewing fibre connectivity and tracing
- Printing and plotting

Course Agenda
- The User Interface and Online help System
- The menu and Toolbar
- Using and saving bookmarks
- Object Lister and Object Details
- Overview and Object View
- Trail tab
- The Find tab and Query Wizard
- Connectivity and Tracing
- Printing and Plotting
- Tasks and Redlining
Wireless Network Inventory User

What will I learn from this course?
Wireless Network Inventory (WNI) enhances the functionality of Physical Network Inventory (PNI) to provide for in-depth modelling of wireless transmission equipment.

The course focuses on using Wireless Network Inventory and Internal Capacity Management for managing physical space and capacity thresholds.

Who Should Attend?
The course will be of interest to users and configurers of Wireless Network Inventory and Internal Capacity Management.

Prerequisites
- Course is aimed at users who are competent with Physical Network Inventory, so the Physical Network Inventory User Course is a pre-requisite for this course
- Ideally students also should have experience of:
  - Smallworld Core Spatial Technology
  - Telecommunications industry

Course Duration
2 days

Course Objectives
By the end of the course, students will be able to:
- Plan a wireless network that models the real world
- Analyse line of sight between transmitter locations
- Ascertain optimal positions for point-to-multi-point transmitters
- Define wireless routes
- Manage physical telecoms capacity and set thresholds on available space

Course Agenda
- Introduction
- Buildings and Towers
- Platforms and Mounting Frames
- Mounting Poles and Pole Spaces
- Cable management
- Radio Systems
- Coverage, Cell and Fault Objects
- Microwave Radio Routes
- Profiler Tool
- PTMP Transmitter Search Wizard
- Floor and Rack Space Management
- New Inventory Objects (Co-locations, Suites, Air-conditioning and power units)
- Power Consumption
- Thresholds
- Reporting
- Specifications and configuring thresholds
What will I learn from this course?

This course is designed to instruct end users in using EO to add, correct, analyse, report and plot geospatial electrical distribution and transmission network data.

The delivery model is an instructor led hands-on course and as such requires a classroom environment suitable to support the number of users attending the training, with one individual per workstation.

Who Should Attend?

Anyone who requires a thorough understanding of the Smallworld Electric Office functionality, such as EO users, configurers, database administrators, data modellers and managers, and for prospective Smallworld customers.

Prerequisites

- Basic computing skills
- Ideally students also should have experience of:
  - Smallworld Core Spatial Technology
  - Electricity Industry

Course Duration

4 days

Course Objectives

- Become familiar with Smallworld Electric Office as a user
- Insert new Electric facilities into the GIS
- Modify existing GIS data while maintaining network connectivity
- Build new Electric networks
- Test integrity of Electric networks
- Update Phasing of conductors
- Create analysis reports based on Electric data

Course Agenda

- Welcome and Introduction
- Project and Design Concepts
- Data Model Concepts for Energised Objects
- Electric Office 4.2 Data Model for Energised Objects
- Object Editors
- Circuit Topics
- Object Control Visualisation Tools
- Energised Equipment and Structures
- Locator Quickfind
- Advanced Trail Topics
- Network Tracing
- Bulk Update
- Area and Line Length in Area Calculator
- Rephase, Reposition & Reconductor
- Transformer Load
- Circuit Reports
- Transmission Circuit Inventory & Operations
- Thematic Mapping
- Inventory Reporter
- Map Grid Plotting
- QA/QC
- Audit History
- Other features
Electric Office: Administration

What will I learn from this course?
This course is designed to instruct students in the use of the configuration modules included with the Electric Office product. These modules are used to modify or enhance the client’s EO implementations.

The delivery model is an instructor led hands-on course and as such requires a classroom environment suitable to support the number of users attending the course, with one individual per workstation.

Who Should Attend?
This course is intended for power users or Smallworld administrators, who are responsible for modifying and enhancing the configuration (including business rules, annotation, additional tables and stored paths for multiple applications) of the client Electric Office implementations.

This training may also be applicable to IT personnel if they are tasked with Smallworld configuration.

Prerequisites
- Familiarity with Core Spatial Technology and / or EO recommended
- Understanding of Smallworld CASE tool, including how to perform CASE Applies
- Smallworld system administration experience, including setup of ACE, Style and Authorisation databases
- Some Magik programming experience
- Familiarity with Electric industry business rule requirements

Course Agenda
- Welcome
- Installation
- Business Rule Manager
- Annotation Manager
- QA/QC Administration
- Linear Geometries
- Audit History Archive
- Data Model
- Other Features
- Design Layout Tools (DLT) Configuration
- Other Design Manager (DM) features

Course Objectives
Following the course, students will be able to:
- Install the EO application
- Query Alternative changes
- Create / modify object annotation
- Create / modify business rules and understand how these rules influence other functions such as annotation
- Set up Quality Control Rules

Global Transmission Office: User

The Global Transmission Office – User training course provides instruction in all of the modules included in the Global Transmission Office product.

Who Should Attend?
Users who are responsible to maintain Global Transmission information in the Smallworld GIS

Prerequisites
Using Smallworld Core Spatial Technology

Course Duration
3 days

Course Objectives
- Use High Consequence Area analysis to run what-if scenarios
- Use Dynamic Segmentation
- Use Linear Referencing
- Use Alignment Sheets
- Use the Productivity Pack modules

Course Agenda
- HCA Analysis
- Alignment Sheets
- Linear Referencing
- Pipe Segment Station Viewer
- Auto Stationing
- Lifecycle Status – Pipe
- Facility Management
- CIS Viewer
- Cathodic Protection Manager
- Enhanced Editor Functionality
- Quickfind
- Audit History
- Templates and Configuration
- Multimedia Viewer
- Batch Update
- Map Grid Plotting
- Version Management add-ons
- Network Trace
- Network Builder
- Layout Enhancements
Global Transmission Office: Administration

What will I learn from this course?
The Global Transmission Office – Administration training course provides instruction on maintaining and configuring the Global Transmission Office image in a production environment, including training in PODS.

Who Should Attend?
Administrators who are responsible to maintain Global Transmission Office images in a production environment.

Prerequisites
- Global Transmission Office User training
- Smallworld System Administration
- Smallworld Database Administration
- Recommended: Magik programming language

Course Duration
1 day

Course Objectives
- Configuring and maintaining Global Transmission Office images
- Creating Themes
- Using the Annotation Manager
- Using the Business Rule Manager
- Building Networks
- Using PODs

Course Agenda
- Survey Point Manager
- Annotation Manager
- Business Rules Manager
- Application Variables
- Table Code Lookup
- Version Management Additions
- PODS Interface Administration
- Alignment Sheet Configuration

Gas Distribution Office: User

What will I learn from this course?
This course is designed to instruct end users in using Gas Distribution Office to add, correct, analyse, report and plot Gas Distribution GIS data.

Who Should Attend?
This course is intended for end users who are responsible for creating Gas distribution designs, correcting existing Gas information, verifying network connectivity and creating gas outage scenarios including information on affected customers.

Prerequisites
- Using Smallworld Core Spatial Technology course
- Knowledge of Gas Distribution industry procedures

Course Duration
3 days

Course Objectives
Following the course, students will be able to:
- Insert new Gas facilities into the GIS
- Modify existing GIS data while maintaining network connectivity
- Build new Gas networks
- Build Cathodically Protected areas
- Quickly analyze outages and locate valves to be closed
- Prepare compliance-related reports
- Maintain leak status, history and query tools
- Plan routes for inspections, meter readings
- Import survey data

Course Agenda
- Introduction to Gas Distribution Office
- Object Editors
- Theme Displays
- Cathodic Protection
- Gas Outage Analysis
- Survey Point Manager
- Route Manager
- Customer Usage Reporter
- QA/QC
- Inventory Reporter
- Leak Analysis
- Network Builder
- Network Trace
- Bulk Update
- Event and Audit History
- Map Grid Plotting
Gas Distribution Office: Administration

What will I learn from this course?
This course is designed to instruct students in the use of the configuration modules included with the Gas Distribution Office product. These modules are used to modify or enhance the client’s Gas Distribution Office implementations.

Who Should Attend?
This course is intended for power users or Smallworld administrators, who are responsible for modifying and enhancing the configuration (including business rules, annotation, additional tables and stored paths for multiple applications) of the client Gas Distribution Office implementations.

This training may also be applicable to IT personnel if they are tasked with Smallworld configuration.

Prerequisites
- Familiarity with Core Spatial Technology and/or Gas Distribution Office recommended
- Some Magik programming experience
- Familiarity with Gas Distribution industry business rule requirements

Course Objectives
Following the course, students will be able to:
- Query Alternative changes
- Create / modify object annotation
- Create / modify business rules
- Set up application variables for multiple implementations (e.g. testing, production, etc.)
- Add custom tables to datasets

Course Agenda
- Introduction to GDO Administration
- Annotation Manager
- Business Rule Manager
- Application Variables
- Table Code Lookup
- Version Management

Course Duration
1 day
Smallworld Field Information System

What will I learn from this course?
The Designing and Managing Smallworld Field Information System training course provides:
• An overview of Smallworld Field Information System
• Guidance on how an organisation can implement a field system using the software
• Instructions on how to install, administer and maintain a field system
• Instructions on how to customise and distribute client field applications

The course also covers the installation, administration and maintenance of Smallworld Task Management, specifically how it is used as part of a Smallworld Field round trip system.

Who Should Attend?
• Database administrators (DBAs)
• Personnel responsible for customising and configuring field applications
• GIS analysts, administrators and developers
• IT managers
• Business analysts

Prerequisites
• Smallworld Core Spatial Technology Foundation Training
• Some experience with XML, and ideally some experience of Java

Course Objectives
• Customise field applications
• Build data server and extract server images, and configure extract servers
• Build profiles based on user requirements
• Use the Profile Builder and Extract Manager tools
• Schedule extraction and design effective extract deployment strategies
• Create and use tasks, and import them into Smallworld Task Management
• Implement round trip data flow between the main database and field computers

Course Agenda
• Welcome
• Introduction to Smallworld Field Information System
• Installing Smallworld Field Information System
• Looking at profiles and extracts
• Designing profiles for users
• Designing field applications
• Database administration 1
• Task management
• Database administration 2

Course Duration
4 days
Workforce Management

Field Force Automation Overview

Systems & Solutions

Course Duration
1 day

Who Should Attend?
This class should be taken as an introduction to FFA Systems and Solutions. You should take this course if you will be involved at a high level with the implementation of a FFA System or if specific detailed training on FFA Solution components will be taken. This course is frequently given as a system introduction prior to the Implementation Configuration Workshops, and serves as a first time introduction to FFA Systems and Solutions to customers and partners.

If you will be involved in the implementation of a FFA system, or define or manage end-user

Course Objectives
This course presents an high level overview of the components of a FFA Systems and solutions, including:

- Field Force Automation
  - Service Portal
  - Service Intelligence
  - Service Gateway
  - Service Workflow
  - Integration Server
- FFA Application Products
  - Wireless Workforce Management
  - eRepair
  - Service Scheduler
  - Service Supply Chain
  - Contract

Wireless Workforce Management: Introduction

Course Duration
1 day

Who Should Attend?
This course is designed to provide only a brief introduction to FFA Wireless Workforce Management Components and Solutions. It is not recommended for any individuals who will either directly use or be involved in the implementation of a FFA System and Solution. This course might be appropriate for customer personnel not directly impacted by FFA Solution implementation.

Course Objectives
This course provides an overview of the FFA Wireless Workforce Management product. Topics include:

- Wireless Workforce Management
  - Introduction
  - Administration
- Mobile Field Engineer [FE]
- Dispatch Board
- Service Scheduler
Service Portal

Course Duration
0.5 day

Who Should Attend?
This course is designed to provide only a brief overview to FFA Service Portal. It is not recommended for any individuals who will either directly use or be involved in the implementation of a FFA Service Portal Solution. This course might be appropriate for customer personnel not directly impacted by FFA Service Portal implementation.

Course Objectives
This course provides an overview of the FFA Service Portal product. Topics include:

- Interfaces
- Environment

Service Workflow

Course Duration
1 day

Who Should Attend?
This course should be taken by anyone who needs an overview of FFA Service Workflow solutions and implementations. All FFA Technical resources and Business Analysts should take this course.

Course Objectives
This course provides an overview of the FFA Service Workflow. This course serves as a detailed introduction to the FFA Service Workflow system. Topics include:

- Service Workflow Editor
- Service Workflow Monitor
- Executing and Debugging Workflow Implementations

DocuShare

Course Duration
0.5 day

Who Should Attend?
This course is designed to provide only a brief overview and introduction to DocuShare. For detailed training, Xerox (the DocuShare vendor) should be contacted. All FFA resources should take this course. This course might also be appropriate for customer personnel who will be accessing documentation using DocuShare.

Course Objectives
This course presents an overview of the Xerox DocuShare product that is used internally by ViryaNet, and can be configured to provide documentation access and archives through the FFA Service Portal. Topics include:

- Collections
- Files
- Permissions

Mobile Computing Platform

Course Duration
0.5 day

Who Should Attend?
Business Analysts, Technical Consultants, and Customers should take this course. Anyone who will be involved in defining and/or implementing a FFA MCP implementation will require this background.

Course Objectives
This course provides an overview of the functionality and architecture of the FFA Mobile Computing Platform (MCP). Topics include:

- MCP Architecture
- MicroServer
- Connection Server
- ChannelServer
- ApplicationServer
- MCP Process Flow
Field Force Automation Overview (continued)

**eContract:**

**Course Duration**
1 day

**Who Should Attend?**
Business Analysts, Technical Consultants, and Customers should take this course. Anyone who will be involved in defining and/or implementing a FFA eContract implementation will require this background.

**Course Objectives**
This course provides an overview of the functionality and architecture of the FFA eContract System. The eContract Overview provides a Web based Contract Management and Entitlement System. Topics include:

- eContract Architecture
- eContract Process Flow
- eContract User Interfaces

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**eRepair**

**Course Duration**
0.5 day

**Who Should Attend?**
Business Analysts involved in implementing Field Force Automation eRepair Supervisor functions should take this course.

**Course Objectives**
This course describes the set-up and functionality of the FFA eRepair System. Topics include:

- eRepair Process Workflow
- eRepair Process setup (statuses, events, workstations)

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**eAsset**

**Course Duration**
1 day

**Who Should Attend?**
Business Analysts, Technical Consultants, and Customers should take this course. Anyone who will be involved in defining and/or implementing a FFA eAsset implementation will require this background.

**Course Objectives**
This course provides an overview of the functionality and architecture of the FFA eAsset System. The eAsset Overview provides a Web based Asset Management System. Topics include:

- eAsset Architecture
- eAsset Data Structure
- eAsset Process Flow
- eAsset User Interfaces
Field Force Automation Business

These courses are intended primarily for Business Analysts who will be involved in the implementation of a Field Force Automation system. Certain courses may require Overview level classes, but otherwise it is assumed that Business Analysts resources will meet any other necessary prerequisite as a function of their job assignment.

Service Workflow: Implementations

Course Duration
3 days

Who Should Attend?
This course requires O - 211 as a prerequisite.

This training will include significant hands-on exercises and requires all participants have access to a FFA System, including the Workflow Editor, Java Administration Tool the FFA Service Portal, and Call / Action / Event processing. A Java background, and knowledge of the FFA Object Model may prove helpful. The course will develop an "English Version" of a new workflow.

This course should be taken by anyone who will implement a FFA Service Workflow solution, or who will use one. All FFA Technical resources and Business Analysts should take this course

Course Objectives
This course provides the development and implementation details necessary to use the FFA Service Workforce) product to build and execute a process workflow template. Topics include:

- Service Workflow Editor
  - Workflow Steps
  - Initiation of a Workflow Process
  - Workflow Tokens
  - Building a English workflow template
- Service Workflow Monitor
- Workflow process initiation, debug, and execution

Service Intelligence: KPI Set-Up

Course Duration
1 day

Who Should Attend?
This course should be taken by anyone who will be involved with the implementation of FFA System Service Intelligence Key Performance Indicators. Note that this class and B - 222 are usually given as a 2-day class.

Course Objectives
This course will present an overview of the architecture and components of the FFA Service Intelligence Solution including:

- Using Key Performance Indicator (KPI) Templates
- Defining KPI Display Prototypes and Displays
- KPI Alerts and Messaging
- User Personalization of KPIs

Service Intelligence: KPI Definitions

Course Duration
1 day

Who Should Attend?
This course should be taken by anyone who will need to design new FFA Service Intelligence KPIs. Note that this class and B – 221 are usually given as a 2-day class.

Course Objectives
This course will present the methods and implementations required to define Key Performance Indicators templates, prototypes, and user displays. Topics include:

- Defining dimensions and alerts
- Building KPI Templates
- Building KPI Displays
- Implementing KPIs
Field Force Automation Business (continued)

Integration Server: Business, Implementations

Course Duration
1 day

Who Should Attend?
Anyone who will be involved in defining a FFA Integration Server interface to a legacy or third party software system will require this background.

Course Objectives
This course covers the basic components of the FFA Integration Server. This course serves as a detailed overview of the FFA Integration Server (API Server). Topics include:

- Integration Server Services
- Integration Server Adaptors
- Architecture
- Defining New Integration Server Services
- Developing New Integration Server Interfaces

Alerts: Standard and Configured Alerts

Course Duration
1 day

Who Should Attend?
Business Analysts involved in designing and specifying implementing FFA Service Portal Alerts should take this course.

Course Objectives
This course will present the basic Field Force Automation Alert functionality, including the configuration using the Field Force Automation Java GUI tools, and the FFA Service Portal and access of alerts. Topics include:

- Defining KPI Alerts
- Defining Service Portal Alerts
- Configuring Call / Action Alerts
- Configuring Alerts on the My-News Channel

This training will include significant hands-on exercises and requires all participants have access to a FFA System, including the KPI Java Administration Tools and the FFA Service Portal.


Service Portal: Implementations

Course Duration
1 day

Who Should Attend?
Business Analysts involved in designing and specifying implementing FFA Service Portal implementations should take this course.

Course Objectives
This course will present on overview of the configuration and set up of the FFA Service Portal. This information is critical in the initial design and implementation of a Field Force Automation solution. Topics include:

- Accessing Service Portal
- User Groups
- Configuring Users
- Authentication Profiles
- Parameter Rules
Alerts: Standard Workforce, Management System, Alerts

Course Duration
1 day

Who Should Attend?
This course should be taken by FFA and customer technical resources who are involved with a development and / or deployment of a Field Force Automation System that includes Alerts that require customization. Business Analysts involved in implementing Field Force Automation eRepair Supervisor functions should take this course.

Course Objectives
This course will provide the processes and procedures that will enable the propagation of the standard Field Force Automation Alerts that are defined and propagated based on Workforce Management Service Request Status and Service Level Agreements. It is recommended that the FFA Global Education Training Course S – 100 Service Client Fundamentals is attended prior to taking this course. Topics include:

- Defining Workforce Management Alerts Referencing:
  - Service Request Status
  - SLA's
- Alert Receivers
- Dispatch Board Updates

This training will include significant hands-on exercises and requires all participants have access to a FFA System, including the FFA Service Portal and the Field Force Automation Client.

User Defined

Course Duration
1 day

Who Should Attend?
Business Configuration users who will be involved in designing additional Field Force Automation interfaces. Although some knowledge of JSP is recommended, this course is NOT a JSP form design course.

Course Objectives
Capabilities: Fields and Interfaces
This course provides the details required to define, design, and implement Custom User Fields and Interfaces that can be accessed utilizing the FFA Service Portal. Topics include:

- Defining Form Data Input Fields
- Defining Form Structure
- Integration of User Defined Interfaces into Service Portal and Mobile Environments.

Wireless Workforce

Course Duration
1 day

Who Should Attend?
Business Analysts involved in implementing Wireless Workforce Management Dispatch functionality should take this course.

Course Objectives
Management (WWfM): Dispatcher
This course describes the set-up and functionality, which enables Service Company dispatchers to use FFA Wireless Workforce Management Dispatch functionality. Topics include:

- Manual and automatic selection of technicians for assignments
- Assignment of calls to a technician
- Cancel and redirecting assignments
- Track and progress assignments
Field Force Automation Business (continued)

Wireless Workforce Management: Customer RMA

Course Duration
1 day

Who Should Attend?
Business Analysts involved in implementing the Return Materials Authorization functionality of the FFA Wireless Workforce Management (WWM) product should take this course.

Course Objectives
This course describes the set-up and functionality for the FFA Wireless Workforce Management Customer Service Representative functions should take this course.

Course Objectives
This course describes the set-up and functionality for the FFA Wireless Workforce Management Customer Service Representative functions should take this course.

Course Objectives
This course describes the set-up and functionality enabling Service Company customers to use the Service Portal process Return Materials Authorization (RMA) functionality. Topics include:

• Logging Return Materials Authorizations with the Service Company for parts requiring depot repair
• Tracking the progress of RMAs

Scheduler Optimizer: Configuration and Execution

Course Duration
1 day

Who Should Attend?
Business Analysts who will be involved in implementing the FFA Service Scheduler application should take this course.

Course Objectives
This course describes the set-up and functionality for the FFA Advanced Manpower Scheduling System. This product enhances the scheduling capabilities of Wireless Workforce Management by providing algorithm-based solutions that can be optimized based on many different constraints. The Service Scheduler application is linked to the Service Portal Dispatch Board. Topics include:

• Scheduling Optimization Process Overview
• Executing the Optimizer
• Mini-Optimizations
• Defining Zone Profiles
• On-Line Scheduling

Wireless Workforce Management: Customer Service Representative

Course Duration
1 day

Who Should Attend?
Business Analysts who will be involved in implementing the FFA Wireless Workforce Management Customer Service Representative functions should take this course.

Course Objectives
This course describes the set-up and functionality enabling Service Company Customer Service Representatives to use the FFA Wireless Workforce Management Service Portal user interfaces. Topics include:

• Logging service calls
• Updating a Call
• Warranty Lookups

Wireless Workforce Management: Mobile Field Engineer

Course Duration
1 day

Who Should Attend?
Business Analysts who will be involved in implementing Wireless Workforce Management Mobile Field Engineer functions using the FFA MCP Solution should take this course.

Course Objectives
This course describes the set-up and functionality enabling Service Company technicians to use the FFA Wireless Workforce Management Mobile Field Engineer (FE) user interfaces as implemented using the FFA Mobile Computing Platform (MicroServer) Interfaces. Topics include:

• MicroServer Overview and Functionality
• Using MicroServer Icons
• Workforce Management Using eAccess, including:
• Logging service calls
• Acknowledge/reject assignments
• Report call activity
• Managing Technician Calendar
Wireless Workforce Management: Messaging

Course Duration
0.5 day

Who Should Attend?
Business Analysts involved in implementing Wireless Workforce Management solutions that will require the use of internal messaging should take this course.

Course Objectives
This course describes the set-up and functionality enabling Wireless Workforce Management Messaging through the Service Portal and Mobile enabled devices. Topics include:

- Messaging Overview and Functionality
- Using FFA Messaging
- Wireless Workforce Management Messaging:
- Service Portal Access
- Mobile Field Engineer Access
- Setup and Administration

Depot Repair: Supervisor

Course Duration
0.5 day

Who Should Attend?
Business Analysts involved in implementing Field Force Automation eRepair Supervisor functions should take this course.

Course Objectives
This course describes the set-up and functionality enabling Service Company Customer Repair Supervisors to use the FFA Field Force Automation eRepair system. Topics include:

- eRepair Process Monitor
- Canceling
- Jobs On-Hold

Depot Repair: Employee

Course Duration
0.5 day

Who Should Attend?
Business Analysts involved in implementing FFA eRepair Depot-Repair Employee functions should take this course.

Course Objectives
This course describes the set-up and functionality enabling Service Company Depot Repair employees to use the FFA eRepair user interfaces. Topics include:

- Logging RMA's
- Receiving RMA's
- RMA Tracking
- Job reporting and closing
- Shipping
- Using Service Portal To-Do-List

Train-the-Trainer

Course Duration
0.5 day

Who Should Attend?
Customer Trainers who will be involved in the development and execution of Customer Field Force Automation training should take this training.

Course Objectives
This course presents an introduction to Field Force Automation Training. It is usually provides as a component of specific customer based Field Force Automation training that is initially prepared based on standard FFA Service and is "customized" for the application details. The provided training is designed to be used as the basis for specific customer developed training materials for their employees. This training class ONLY refers to the "Train-the-Trainer" component, and does not provide estimates for the development and delivery of the specific customer training.
Field Force Automation Technology

These courses are intended primarily for technical resources that will be involved in the implementation of a Field Force Automation system. Certain courses may require ‘O’ (Overview) level classes, but otherwise it is assumed that technical resources will meet any other necessary prerequisite as a function of their job assignment. For some classes, additional experiences (for example relational databases) may be suggested.

Technologies Overview

Course Duration
0.5 day

Who Should Attend?
This course should be taken by anyone who will be involved with the implementation of a FFA System (both internal and external)

Course Objectives
This course presents a technical overview of the implementation of FFA Systems, and identifies the solution technical implementation mechanisms and structure. Topics include:

- Architecture
- Underlying Technologies
- Development Tools

Installations and Configurations

Course Duration
1 day

Who Should Attend?
To complete their understanding of FFA Technical Foundations. All internal FFA technical staff should take this training.

Course Objectives
This course presents a technical overview of the major components of a FFA system and solution. Included are:

- Interface Customization
- System Installation

This course should be taken by anyone who will need to customize any component of a FFA solution to provide a custom solution. It is strongly recommended that attendees to this training also take:

- Integration Server Overview (IS)
- Wireless Workforce Management (WWfM)

System Administration

Course Duration
2 days

Course Objectives
This course is a combination of courses T-102, T-103, and T-104 that are grouped for convenience.
Technical Administration

Course Duration
0.5 day

Who Should Attend?
This course should be taken by anyone who will be responsible for the Technical Administration of any component of a Field Force Automation System.

All internal FFA technical staff should take this training.

Course Objectives
This course presents an overview of technical administration functions for the major components of a FFA system and solution. Included are:

• System Components
• Patches / Bug Fixes
• Log Files
• Troubleshooting

Object Model

Course Duration
0.5 day

Who Should Attend?
Technical resources that will be implementing FFA applications where interactions from Java code to the foundation database structures will need this course.

Course Objectives
This class provides an overview of the FFA Object Model.

Included are examples of the Java packages, classes, and methods, which are implemented as components of the FFA Object Model.

Service Workflow: Implementations

Course Duration
3 days

Who Should Attend?
This course should be taken by anyone who will implement a FFA Service Workflow solution, or who will use one. All FFA Technical resources and Business Analysts should take this course.

Course Objectives
This course provides the development and implementation details necessary to use the FFA Service Workflow product to build and execute a process workflow template. Topics include:

• Service Workflow Editor
  - Workflow Steps
  - Initiation of a Workflow Process
  - Workflow Tokens
  - Building a English workflow template
• Service Workflow Monitor
• Workflow process initiation, debug, and execution

This course requires O - 211 as a prerequisite.

This training will include significant hands-on exercises and requires all participants have access to a FFA System, including the Operational Database, Workflow Editor Java Administration Tool, FFA Object Model, and the FFA Service Portal. The course will develop and execute a workflow based on a DSL installation.
Field Force Automation Technology (continued)

Service Intelligence: Advanced KPI Definitions

Course Duration
3 days

Who Should Attend?
This course should be taken by anyone who will be involved with the definition of the infrastructure and data necessary to implement KPIs. At a minimum, B-221 and B-222 are pre-requisites of the class, and database expertise is assumed. FFA Integrations Server, Used Defined Fields, and Service Portal Administration are recommended.

Course Objectives
This course has been designed to cover the detailed extensions of the FFA KPI definition process. It assumes in-depth knowledge of the KPI Process, IS Service and Batch Definition, and User Defined Capabilities. The course will be primarily “Hands-On” exercises, with minimal presentations. This course is primarily a mentoring call on the details of KPI definitions. Topics include:

- Field Force Automation Infrastructure for KPIs
- Building New Data For KPIs
- Building New KPIs Based on New Information

Wireless Workforce Management: JSP Customization Overview

Course Duration
0.5 day

Who Should Attend?
This course should be taken by anyone who is involved with FFA WWfM will require JSP customization.

Course Objectives
This course provides an overview of the processing required to provide customized WWfM interfaces. This course has been replaced (in most cases) by the User Defined Capabilities included in Field Force Automation and beyond systems. This course provides examples of how to customize WWfM interfaces that may not have already been implemented using the Screen Designer process.

Alerts: Customized Workforce Management System Alerts

Course Duration
1 day

Who Should Attend?
This course should be taken by FFA and customer technical resources who are involved with a development and/or deployment of a Field Force Automation System that includes Alerts that require customization.

Course Objectives
This course will provide the processes and procedures that will enable the propagation of Field Force Automation Alerts that cannot be supported using the standard, configurable alert definitions. This course is technical, and requires both SQL and Java knowledge. It is recommended that the FFA Global Education Training Courses B – 237 Field Force Automation Alerts: Standard and Configured Alerts or B – 238 Field Force Automation Alerts: Standard Workforce Management System Alerts, and O – 211 Service Workflow Overview be taken prior to tasking this course. Topics include:

- Customizing Alerts Definition Alerts using SQL
- Using Service Workflow to Develop Customized Alerts

This training will include significant hands-on exercises and requires all participants have access to a FFA System, including the Operational Database, Workflow Editor Java Administration Tool and the FFA Service Portal.
Mobile Computing Platform

Course Duration
1 day

Who Should Attend?
This course should be taken by anyone who is involved with a development or deployment of a FFA MCP implementation.

This course is an aggregate of the individual Mobile Computing Platform Courses (O-241 Mobile Computing Platform (MCP):


Course Objectives
This course provides a comprehensive overview and implementation details of the FFA Mobile Computing Platform (MCP). Topics (MCP) Solutions include:

- Mobile Computing Platform Overview
- MCP Architecture and Technical Overview
- MCP Process Flow
- Component Functional Details
- Mobile Computing Platform Installation and Administration

User Defined Capabilities: User Defined Queries

Course Duration
1 day

Who Should Attend?
Technical Screen designers who will be involved in implementation of advanced features for User Defined Interfaces forms should take this course. Although some knowledge of JSP is required, this course is NOT a JSP form design course. Knowledge of database structures and data access is required.

Course Objectives
This course provides the details required to define, design, and implement Custom User defined Queries that can be accessed utilizing the FFA Service Portal. These capabilities extend the User Fields and Interfaces capabilities. Topics include:

- System Query Templates
- Integrating User Defined Queries into Service Portal and Mobile Environments
- Personal User Defined Queries

User Defined Capabilities: User Defined Lists

Course Duration
0.5 day

Who Should Attend?
Technical Screen designers who will be involved in implementation of advanced features for User Defined Interfaces forms should take this course. Although some knowledge of JSP is required, this course is NOT a JSP form design course. Knowledge of database structures and data access are required.

Course Objectives
This course provides the details required to define, design, and implement Custom User defined Lists that can be accessed utilizing the FFA Service Portal and MCP Application User Defined Interfaces. These capabilities extend the User Fields and Interfaces capabilities. Topics include:

- User Defined Lists
- Embedding User Defined Lists in User Defined Fields
Field Force Automation Technology (continued)

Service Scheduler Technical Overview

Course Duration
1 day

Who Should Attend?
Technical resources who will be involved in implementing the FFA Service Scheduler application should take this course.

Course Objectives
This course describes the underlying technology and processes implemented by the FFA Advanced Manpower Scheduling System. This product enhances the scheduling capabilities of Wireless Workforce Management by providing algorithm-based solutions that can be optimized based on many different constraints. The Service Scheduler application is linked to the Service Portal Dispatch Board. Topics include:

- Scheduling Optimization Process
- Locking Assignments
- Selecting Tasks and Technicians
- Scheduling Constraints
- Target Functions
- Post Scheduling Processing

Appointment Booking Configuration

Course Duration
0.5 day

Who Should Attend?
Technical resources who will be involved in implementing the FFA Appointment Booking process should take this course

Course Objectives
This course describes the set-up and functionality enabling Service Company Customer Service Representatives to use the FFA Wireless Workforce Management Service Appointment Booking interfaces. Topics include:

- Appointment Booking Overview
- Appointment Booking Configuration
- Logging Service Calls requiring appointments
- Appointment Booking Process

eRepair Configuration and Customization

Course Duration
2 days

Who Should Attend?
Technical users who will be involved in implementing specific customer requirements using the eRepair System and Customer / Partners who will be updating an eRepair implementation should take this course. Knowledge of the FFA Service Workflow, the Object Model, and JavaScript is required.

Course Objectives
This course describes the configuration and customization of the FFA eRepair System to meet specific customer Repair Depot requirements. Topics include:

- eRepair Process Workflow
- Modifying Service Workflow Templates
- eRepair Configurations

UI Customization, Localization, and Business Language

Course Duration
1 day

Who Should Attend?
This course should be taken by anyone who is involved with FFA implementation that will require localization.

Course Objectives
This course provides an overview of the processing and methodology required to localize a FFA application. Topics include:

- JSP Customization
- Multi-Lingual Capabilities
- Using the FFA Business Language
- Multi-Currency
- Multi-Time Zones
- Date Formats
- Address Formats
Field Force Automation Administration

These courses are intended primarily for customer administration personnel who will be responsible for the day-to-day administration of an implemented Field Force Automation system. Certain courses may require Overview level classes, but otherwise it is assumed that assigned administrative resources will meet any other necessary prerequisite as a function of their job assignment.

Application Monitoring

Course Duration
0.5 days

Who Should Attend?
All Business Analysts involved in implementation of a FFA MCP Mobile solution should take this course, as well as Customers who will be maintaining a Field Force Automation installation.

Course Objectives
This course provides a guide to the understanding of the FFA Application Monitoring processes. Topics include:

- Monitoring Field Force Automation Components
- Monitoring Field Force Automation Functionality
- Configuring Monitoring Alerts and Messaging

Mobile Computing Platform

Course Duration
0.5 days

Who Should Attend?
All Business Analysts involved in implementation of a FFA MCP Mobile solution should take this course. Customers who will be maintaining a FFA MCP Solution should also take this course.

Course Objectives
This course provides a guide to the understanding of the FFA MCP Administration. Topics include:

- Mobile Installations (Windows and Windows CE)
- MCP Configurations
- MCP Server Administration

System Administration

Course Duration
2 days

Course Objectives
This course is a combination of courses T-102, T-103, and T-104 that are grouped for convenience.
Field Force Automation Administration (continued)

Purging and Archiving

Course Duration
0.5 days

Who Should Attend?
All Business Analysts involved in implementation of a FFA MCP Mobile solution should take this course. Customers who will be maintaining a FFA MCP Solution should also take this course.

Course Objectives
This course provides a guide to the understanding of the Field Force Automation Purging and Archival Capabilities. Topics include:

- Purging / Archive Mechanisms
- Purging / Archive Configurations
- Purging / Archive Rules
- Standard Purge / Archive Tables

eAsset

Course Duration
0.5 days

Who Should Attend?
All Business Analysts involved in implementation of a FFA eAsset system should take this course. Customers who will be maintaining a FFA eAsset Solution should also take this course.

Course Objectives
This course provides a guide to the understanding of the FFA eAsset System administration. Topics include:

- eAsset Administration Overview
- Service Portal Administration in Support of eAsset
- Field Force Automation Client Administration in Support of eAsset

eContract

Course Duration
0.5 days

Who Should Attend?
All Business Analysts involved in implementation of a FFA eContract system should take this course. Customers who will be maintaining a FFA eContract Solution should also take this course.

Course Objectives
This course provides a guide to the understanding of the FFA eContract System administration. Topics include:

- eContract Administration Overview
- Service Portal Administration in Support of eContract
- Field Force Automation Client Administration in Support of eContract

Service Portal

Course Duration
1 day

Who Should Attend?
All Business Analysts involved in implementation of a FFA Portal solution should take this course. Customers who will be maintaining a FFA Portal Solution should also take this course.

Course Objectives
This course provides a guide to the understanding of the FFA Portal System and Company Administration functionality. Topics:

- Administrative Functions (System and Company)
- User and Group Maintenance
- Maintaining Environmental Elements
- Personalization
eRepair

Course Duration
0.5 days

Who Should Attend?
Customer and Partner Administrators who will be responsible for Field Force Automation installations which include an eRepair solution should take this course. Service Workflow Overview and eRepair Overview should be taken prior to taking this course.

Course Objectives
This course describes the administration processes required for the FFA eRepair System. It is not designed to provide information on the implementation of an eRepair System. Topics:

- Defining eRepair Employees and Service Portal Users
- Repair Centers and Warehouses
- Monitoring eRepair Service Workflow Process
Field Force Automation Client

These courses are designed for resources that will be using the GE Field Force Automation Client product. These courses have not been grouped into disciplines. The courses in this catalogue have been listed according to this hierarchy.

**Access and Navigation**

**Course Duration**
0.5 days

**Who Should Attend?**
This course is intended for customers whose implementations will rarely use the capabilities of the Field Force Automation Client, and who only require a brief introduction to the functions and capabilities.

**Course Objectives**
This course will provide an overview of the processes and functionality of the Field Force Automation Client.

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**Fundamentals**

**Course Duration**
2 days

**Who Should Attend?**
This course should be taken by anyone who will require information and implementations that will involve Workforce Management (Call) and Contract. All internal FFA employees should complete this course.

**Course Objectives**
This course will provide the participant with an overview of the capabilities and functionality of the Field Force Automation Client product. Included will be initialization and data setup of the following Field Force Automation Client components:

- Workforce Management
- Contract

Additionally, an overview Supply Chain functionality will be presented.

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**System Administration**

**Course Duration**
2 days

**Who Should Attend?**
Those individuals whose responsibility is to manage and administer Field Force Automation Client should take this course.

**Course Objectives**
This course provides a guide to the understanding of Field Force Automation Client System Administration functionality. Topics include:

- System Access and Navigation
- Data Set-up and Maintenance
- Fields and Field Properties
- Users, and User Configurations
- Set-up and execution of reports, printers, and batch processing
- System Housekeeping
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