

# BES Technology Training Guide



Understanding Who Takes What



G4 Technology Partners

A BigFix Technology Partner

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## INTRODUCTION TO THE TRAINING GUIDE

The BES Technology Training Guide describes the various training program tracks that are available for the BigFix Enterprise Suite (BES) from BigFix®, Inc. It includes a complete description of the individual classes, as well as program layout to determine what type of IT Administrator should be taking with program tracks. This guide doesn't, however, discuss the installation of the software. For that information, see the BES Administrator's Guide or the BES Evaluation Guide.

## INTRODUCING BES TECHNOLOGY

The BigFix Enterprise Suite (BES) solves the increasingly complex problem of keeping your critical systems updated, compatible and free of security holes. The BES Console uses patented Fixlet® technology to identify vulnerable or aberrant computers on your network and then allows authorized personnel to correct these issues across any subset of the network with a few simple mouse-clicks.

Rolling out a security patch or a software update can be accomplished in minutes, allowing you to keep a step ahead of potential network problems while maintaining a standardized operating environment. You can track the progress of each computer as updates are applied, making it easy to gauge the level of compliance across your entire enterprise.

BES allows you to create and print an audit trail of each issue and its resolution to meet regulatory or policy guidelines. At any time and from any browser, you can view or print graphs and reports summarizing conditions across hundreds of thousands of networked computers.

Using an exhaustive library of Windows, Macintosh, Unix and Linux Inspectors, BES can retrieve useful computer properties from each of the BES Clients. These properties can be used to target your own Fixlet messages, tasks and actions. You can also use these retrieved properties to generate customized, continuously updated reports, graphs and 3D maps of your network.

Starting with version BES version 7.0, you can also communicate directly with all your networked users through a new BES Client interface. You can offer them a menu of authorized choices so they can customize their solutions within corporate guidelines. For instance, you might offer a collection of approved, compatible graphics programs and let your users choose the one that best suits their needs.

## TRAINING BENEFITS

- Achieve official recognition for knowledge and competence in all things BigFix
- Fill in knowledge gaps through the Knowledge acquisition process

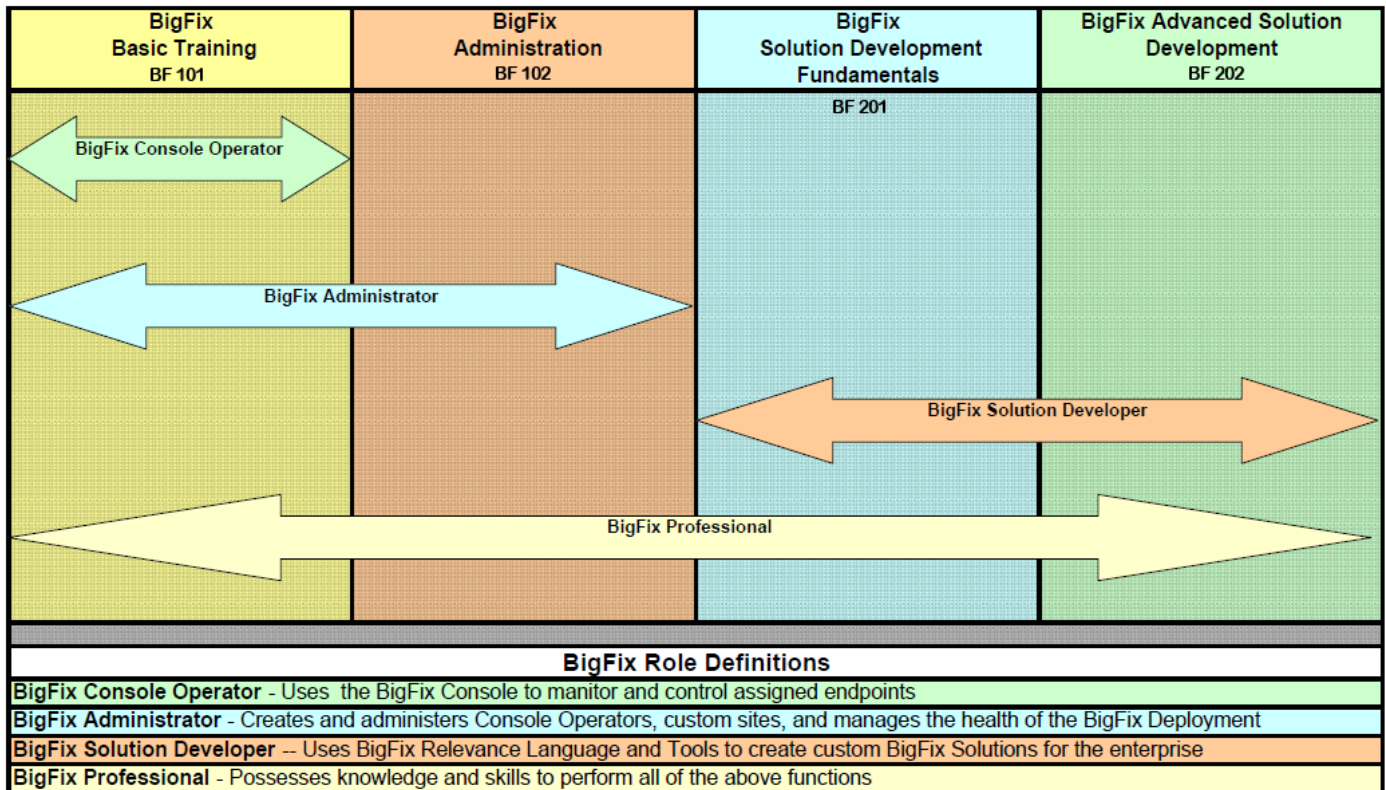
## 2009 BIGFIX BES TECHNOLOGY TRAINING OFFERINGS

Our mission is to provide the knowledge and skills needed to use BigFix effectively and efficiently. For optimal results, we employ instructor-led presentations and hands-on laboratory exercises. We offer both private and public training.

There are currently four generalized curriculums regarding BigFix Bes Technology.

1. Basic BigFix Training
2. BigFix Administration
3. Content Solutions Fundamentals
4. Advanced Solution Development

Curriculum tracks below suggest courses of education based on BigFix user role



## TRAINING PROGRAM TRACKS

### Console Operator Track

Console Operators deploy patches, enable analyses, and run web reports.

Recommended Curriculum:

- Introduction to BigFix (101) 1-day technical training course

### Master Operator Track

Master Operators manage BigFix infrastructure, console access, and content subscriptions. They monitor the BigFix environment and make adjustments to ensure smooth operation as conditions and usage patterns change over time.

Recommended Curriculum:

- Introduction to BigFix (101) 1-day technical training course
- BigFix Administration (201) 1-day technical training course

### Fixlet Developer Track

Fixlet Developers create custom content to do a wide variety of systems management and security tasks. They design Fixlets to install software, inspect client properties, and manipulate client files, processes, properties, configuration, and registry settings.

Recommended Curriculum:

- Introduction to BigFix (101) 1-day technical training course
- Content Development (202) 2-day technical training course

## TRAINING COURSES OVERVIEW

(Individual Training Course Syllabus Follow This Section)

<p><b>BigFix Basic Training (1 day)</b></p> <p>This course is designed for BES Console Operators, who are responsible for the administration of BigFix Enterprise Suite. At the end of this hands-on course, attendees will have mastered the following basic skills for operating the BES Console:</p> <ul style="list-style-type: none"> <li>• Understand the basic architecture, network topology, and relay structure used in BES deployment</li> <li>• Identify computers and the specific fixlets that are relevant to each of the computers</li> <li>• Deploy and monitor actions to single computers or to groups of computers</li> <li>• Create analyses that are used to track characteristics of computers</li> <li>• Create and execute standard and customized reports</li> <li>• Use Web Reports to disseminate enterprise status information</li> </ul>
<p><b>BigFix Administration (1 day)</b></p> <p>This course trains BES Administrators to effectively perform duties related to the administration of the BigFix Enterprise Suite. Attendees will participate in lectures and hands-on exercises that that will expose them to the following topics:</p> <ul style="list-style-type: none"> <li>• In-depth analysis of the BigFix Platform architecture and communications paradigm</li> <li>• Review of the Server, Client, Relay, and Console components</li> <li>• Discussion of workflows to deploy Solutions on the BigFix Platform</li> <li>• BES Relay Best Practices - Managing the BES Relay Structure</li> <li>• Creating, Managing, and Assigning Rights to Console Operators and Web Reports Users</li> <li>• Effective use of Custom Settings as a Management Tool</li> <li>• Creating and Managing Custom Sites</li> <li>• BES Troubleshooting Techniques and Best Practices</li> </ul>
<p><b>BigFix Solution Development Fundamentals (2 days)</b></p> <p>This course trains BES Console Operators to develop solutions using the BES Console. Attendees will participate in lectures and hands-on exercises that that will expose them to the following topics:</p> <ul style="list-style-type: none"> <li>• Planning and building custom Fixlets, Tasks, Analyses, and Baselines</li> <li>• Basic and advanced structure and syntax of the BigFix Relevance Language</li> <li>• Developing Relevance for targeting and success screening in Fixlets, Tasks, and Analyses</li> <li>• Developing Relevance for effective Analyses</li> <li>• Creating Actions in Task and Fixlets</li> <li>• Embedding Relevance in Actions</li> </ul>
<p><b>BigFix Advanced Solution Development (1 day)</b></p> <p>This course trains BigFix Developers, who already have skills in building BigFix Client Relevance, to use BigFix Session Relevance to build solutions. Attendees will participate in lectures and hands-on exercises that that will expose them to the following topics:</p> <ul style="list-style-type: none"> <li>• Client Relevance and Session Relevance: A Comparison</li> <li>• Session Relevance Debugging Tools</li> <li>• Accessing BigFix Session Relevance Inspectors</li> <li>• Session Set Inspectors (New in BigFix 7.0)</li> <li>• Web Reports Options for Presenting Session Data</li> <li>• Session Relevance for Alerts and Archive Reports</li> <li>• SOAP API Query</li> </ul>

## INTRODUCTION TO BIGFIX (101)

### Course Description

Day to day operations tasks utilizing the BigFix Enterprise Suite are carried out by Console Operators. Generally, these duties revolve around using BES to manage and report on specific groups of computers within an enterprise.

The BigFix Enterprise Suite Basic Training Course trains new Console Operators with little or no prior exposure to BES. . Through a combination of instructor-led lectures and hands-on exercises, students will gain exposure to tools, skills, and techniques that will help them to effectively perform these day to day tasks using the BES Console

### Audience

- Essential training for Console Operators
- Prerequisite training for Master Operators
- Prerequisite training for Fixlet Developers

### Requirements

- Proficiency as a Microsoft Windows user
- No BigFix experience necessary

### BigFix Platform

- Platform purpose, components, and features
- BigFix products that leverage the platform

### BigFix Console

- Console layout and organization
- Fixlets and deployment process

### Console Navigation

- Display Filters and Find feature
- Computer Document and Retrieved Properties

### Actions

- Action document, default action, deployment, status and state.
- Offers and use of Baselines to organize Actions

### Analysis and Computers

- Analysis, deployment, and viewing results
- Computer Groups and Computer Settings

### Web Reports

- Visualization Tool, Summary Reports, and Standard Reports
- Report Creation Wizard, Filters, and Drill-Down behavior
- Output Options, Routing, Scheduling, and Conditional Report Generation

## BIGFIX ADMINISTRATION (102)

### Course Description

This course of education focuses on how to manage the BigFix Environment. Instructor-led presentations and hands-on exercises teach skills needed to perform strategic and tactical administrative tasks. Students learn to manage BigFix infrastructure, console access, content service subscriptions, and to monitor health of the BigFix environment.

### Audience

- Essential training for Master Operators

### Requirements

- Windows or Unix/Linux administration skills
- Completion of Introduction to BigFix (101) or 6 months BigFix Console experience

### BigFix Platform, Server, and Database

- Platform overview, component communications, and system settings
- Security practices, masthead management, site-level and operator-level security files
- Server purpose, installation requirements, services, and subordinate components
- Download diagnostics, caching, and Distributed Server Architecture (DSA)
- Database requirements, security, connections, and replication with DSA implementation

### BigFix Client, Relays, and Utilities

- Client purpose, architecture, and troubleshooting
- Relay purpose, architecture, installation requirements and procedures
- Important Retrieved Properties, auto-selection and affiliation options
- Bandwidth Throttling, Relay Placement, and Relay Troubleshooting
- BigFix Utilities Overview

### Console and Console Operators

- Console Purpose, architecture, communications, and use in Distributed Server Architecture
- Creating Console Operators with Administration Tool
- Granting Management Rights to Console Operators

### Computer Groups and Data Customization

- Computer Group usage and types
- Customization of Retrieved Properties and Configuration Settings

### Content Site Administration

- Purpose, types, attributes, and how to subscribe to Content Sites
- Custom Sites purpose, properties, user roles, and how to perform actions

## CONTENT DEVELOPMENT (201) 2 DAY CLASS

### Course Description

This course of education focuses on how to develop custom content. Instructor-led presentations and hands-on exercises focus on how to create Fixlets. Students work with Relevance Language and Action Script to perform custom configuration management of BigFix Agents (client computers).

### Audience

- Essential training for Fixlet Developers
- Optional training for Platform Specialists

### Requirements

- System Admin knowledge (variables, file hierarchy, processes, file permissions, and registry).
- Understand Boolean Logic (AND-OR-NOT and use of parenthesis in evaluation of expressions).
- Introduction to BigFix (101), Platform Overview (103), or 6 months BigFix Console experience.
- No prior scripting or programming experience required

### Relevance Language

- Fixlet Creation process
- Relevance Debugger and Inspector Library
- Evaluation of Boolean expressions

### Forms of Relevance

- Property of Object Statement: Properties, objects, object types; and logical operators
- If/Then/Else Statements: Usage and casting; Adding a Retrieved Property
- Property Whose Condition Statement: Plural objects; Using Relevance to detect errors
- It of Property Statement: It without Whose clause; Formulating an It clause

### Popular BigFix Objects

- Popular object types; Manipulation of Strings, time, and date
- Registry Objects and WMI queries
- Environmental variables, client settings, and tuples,

### Action Script

- Purpose, capabilities, and common commands; Using Relevance to generate variables
- File manipulation, download, and prefetch; VB Script options; Flow Control
- Case study: Software deployment and removal

## ADVANCED SOLUTION DEVELOPMENT (202)

**PREREQUISITE: Completion of BigFix Solution Development Fundamentals Course OR 3 months experience writing BigFix Client Relevance.**

The BigFix Enterprise Suite platform provides a robust and powerful framework for managing large, heterogeneous groups of computers. BigFix's unique architecture empowers businesses with real-time visibility into the state of each computing asset managed by BigFix, and into the state of the computing enterprise as a whole.

The BigFix Advanced Solution Development Course trains BigFix Users, who already have skills in building BigFix Client Relevance, to retrieve aggregate data on the state of the computing enterprise that can be directly presented in Web Reports or Dashboards or shipped to other systems. Through a combination of instructor-led lectures and hands-on exercises, students will gain exposure to tools in the BigFix Console and the BigFix Web Reports interface to build and format effective session queries using BigFix Session Relevance inspectors.

This course covers the following Topics:

- Review
  - BigFix Architecture Review
  - Client Relevance Syntax Review
- Session Inspector Tools of the Trade
- Session Inspectors
  - Computers and Properties
  - Fixlets
  - Actions
- Creating and Inspecting Sets
- Approaches to Formatting Session Inspector Output
- Accessing Data through APIs
  - HTTP GET
  - SOAP

[NOTES]

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