



WebSphere Problem Determination and Serviceability improvements

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Enhancements introduced in 3.5.2

- RAS infrastructure for logging
 - ▶ Standard Error Record
 - ▶ Activity.log: binary file in <install>/logs directory
 - ▶ Showlog utility for ASCII formatting
 - ▶ Supports JSR47 - JLOG
- LogAnalyzer
 - ▶ GUI to format and view activity.log
 - ▶ Introduced as a technology preview [web download]
 - ▶ Includes error analysis capability
 - ▶ Symptom database is used as input.
 - ▶ Symptom database is kept up-to-date by IBM support
 - ▶ One button download of symptom database from IBM
 - ▶ View filtering and sort function. Sort by severity etc.



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Enhancements introduced in 3.5.2 cont'd

- Runtime message enhancements
 - ▶ Component IDs created and assigned to identify source of message
 - ▶ Unique number and ID per message
 - ▶ Severity assigned to each message
 - ▶ Message Format = CCCCNNNN[S]
 - CCCC = Component ID
 - e.g. ADMS = Admin Server, SRVE = Servlet Engine
 - NNNN = Message number
 - e.g. 0034
 - S is severity
 - I=Informational (Sev 3), W=Warning (Sev 2), E=Error (Sev 1)
 - ▶ Example message:
 - SRVE0052E: Unable to load specified configuration file

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4.0 Enhancements

- **Structured Problem Determination Guide**
 - ▶ Chapter 8 of InfoCenter
 - ▶ Reworked for 4.0
 - ▶ Starts with a symptom and remedy tree
 - ▶ Leafs of tree also contained in a table for reference
 - ▶ Contains all runtime messages

- **Message Rework**
 - ▶ Hundreds of new messages added
 - ▶ Most messages reworded and enhanced
 - ▶ About 50% of messages now have an explanation and user action documented in PDGuide (Chap 8)

4.0 Enhancements - Cont'd I

■ LogAnalyzer

- ▶ Officially part of product
- ▶ Documented in PDGuide (Chap. 8)
- ▶ Tested for international language support

■ E-fix installer

- ▶ Similar to FixPack installer but installs e-Fixes
- ▶ Eliminates error prone manual application of e-Fixes
- ▶ Updates product.xml to track level of FixPack and e-Fixes
- ▶ Makes back-ups required for easy uninstall of e-Fix
- ▶ Allows FixPack installer to uninstall e-Fixes prior to FixPack install - Obsoletes manual uninstall of e-Fixes

4.0 Enhancements - Cont'd II

- Increased Focus on serviceability
 - ▶ Team education and focus
 - ▶ Usability assessments and reviews: messages, GUI
 - ▶ Expanding LogAnalyzer symptom database
 - ▶ Reviews of problems and defects from serviceability standpoint.



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Future Outlook

■ **Collector**

- ▶ Tool that gathers all data required for problem analysis. Produces one JAR file.
- ▶ No user intervention required besides tool invocation
- ▶ activity.log, stdout, stderr, product.xml, trace files, file sizes, installed software, etc.

■ **First Failure Data Capture - FFDC**

- ▶ Provide means for automatically and comprehensively capturing data associated with runtime errors
- ▶ Eliminate or reduce the need to request traces and problem reproduction
- ▶ Does not affect runtime or production performance
- ▶ Data Capture occurs after error occurrence



Q & A

- Questions and Answers...

