



IBM Software Group

# WebSphere Collectors in ISA v4.0

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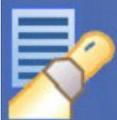
## Agenda

- What is IBM® Support Assistant (ISA)
- ISA V4 and WebSphere® Add-on
- WebSphere Automated Data Collectors Deep Dive
- Demo
- Questions



# What is the IBM Support Assistant?

- The **IBM Support Assistant** is a *free* application that simplifies and automates software support, and helps customers analyze and resolve questions and problems with IBM software products. The Support Assistant includes rich features and serviceability tools for quick resolution to problems.
- ISA Home Page (Download) - <http://www.ibm.com/software/support/isa/>



## Find Information

Easily find the information you need including product specific information and search capabilities.



## Analyze Problem

Diagnose and analyze problems through serviceability tools, collection of diagnostic artifacts, and guidance through problem determination.



## Manage Service Request

Effectively submit, view and manage your service requests enhanced with automated collection of diagnostic data.

## ISA V4 – Behind the scenes

- **ISA Workbench**
  - ▶ This is where user does most of the interaction with ISA.
  - ▶ Built on top of Lotus Expeditor.
- **ISA Agent/ Remote Agents.**
  - ▶ Code to be installed to enable remote data collection capabilities on target machine.
  - ▶ Leverages Tivoli's Common Agent Services (CAS) technology.
- **Other Features for WebSphere Add-on**
  - ▶ IGAA (IBM Guided Activity Assistant) Support included.
  - ▶ Portable Data collectors allows collections on machines that do not have ISA workbench installed.
  - ▶ Can download several tools like MDD4J, Log Analyzer, Dump Analyzer, GC Analyzer.
- **ISAv4 and Data Collection**
  - ▶ Good article on DeveloperWorks

[http://www.ibm.com/developerworks/websphere/techjournal/0809\\_supauth/0809\\_supauth.html?  
ca=drs-](http://www.ibm.com/developerworks/websphere/techjournal/0809_supauth/0809_supauth.html?ca=drs-)



# Automated Data Collectors for WebSphere

- Features

- ▶ Current support for Distributed environment only.
- ▶ Known as “Automated Data Collectors” or “Auto-PD scripts”.
- ▶ All collectors are based on Must gather Technotes.

<http://www-1.ibm.com/support/docview.wss?uid=swg21145599>

- ▶ Collectors guide user to a link for the Must gather TN for each problem selected
- ▶ Collectors guides user through several input dialogs gathering information about the WebSphere environment –
  - Determines WAS version
  - Checks for Cells, Nodes and Servers
  - Determines profiles (if applicable for version  $\geq 6.x$ )
  - Determines if security is enabled and prompt for credentials
- ▶ Most collectors prompts user to set traces dynamically, re-create the failing scenario, collect the requested logs and zips the logs to send to support
- ▶ Several of Runtime collectors generate javacores, heapdumps, garbage collections which could be useful to analyze
- ▶ Provides user option to FTP to Ecurep at the end of the collection
- ▶ Some Must gather TechNet's show a blurb as to how to automate data collectors with ISA



## Automated Data Collectors (Contd)

- Features (Contd)
  - ▶ The successful collection would include
    - Meta data file that lists the environment variables like profiles, cells, nodes, servers, connections, applications etc
    - Reports such as Version Report, History Information, Level Report, and Analysis Report.
    - Logs and trace files, as applicable.
    - Javacores, heapdumps, garbage collections if applicable
    - Any other configuration and property files mentioned in must gather technote.



## Tracing Module

- The script will determine the server status
  - ▶ Server Running
    - Prompt to set traces dynamically
    - Prompt to re-start the server with the new traces (static trace).
  - ▶ Server not running
    - Prompt to start server with new traces (static trace)
- Each collector will automatically set traces as per the must-gather.
- Set JVM Arguments, if needed.
- Prompts user if any additional tracestring needed to be appended.
- Will prompt the user if they want to set the number of historical traces to 5 and the size of each trace file to 100MB.
- Will run wsadmin scripts to set traces.
- User will then re-produce the problem
- Once the problem has been re-produced, the original state of server will be restored , i.e. logs will be set to original ones, and other things, if modified will be restored.
- If the server was started by the scripting tool, it will prompt the user if they want to stop the server at the end of script.



# Available Collectors for WebSphere

## General

1. General Problem
2. RAS Collector
3. Collect Product Information
4. Analysis Report
5. AST General Problem

## Security and Administration

1. Admin Console
2. Discovery on ND/NA
3. Security
4. Start Problem
5. Stop Problem
6. Synchronization Problem

## Runtime

1. Crash
2. DRS
3. EJB Container
4. Hang
5. High CPU
6. OOM
7. Enable/Collect Verbose GC (v5.1 and higher)
8. Enable/Collect HeapDump (v6.1 and higher)
9. Trigger/Collect SysDump (v7.0 and higher)
10. Trigger/Collect Javacores (v5.1 and higher)

## Connector

1. Database Connection Pooling
2. JMS
3. ORB
4. WebServices Engine/Tooling
5. WebServices Security





## ISA and “U”

### What can ISA do for you ?

- Helps you in day to day activity with Product Search, Information and ECUREP access
- Access to ESR/SR for updating PMRs.
- One stop shop for all your support needs
- Discover tools that help you work better
- Easy access to helpful relevant knowledge/education



# Questions

