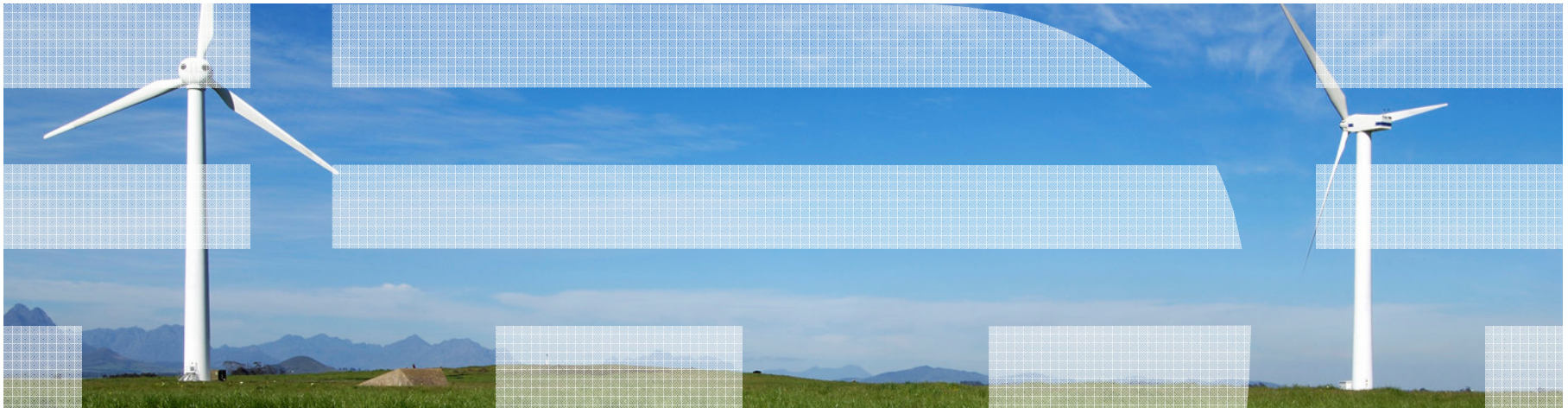


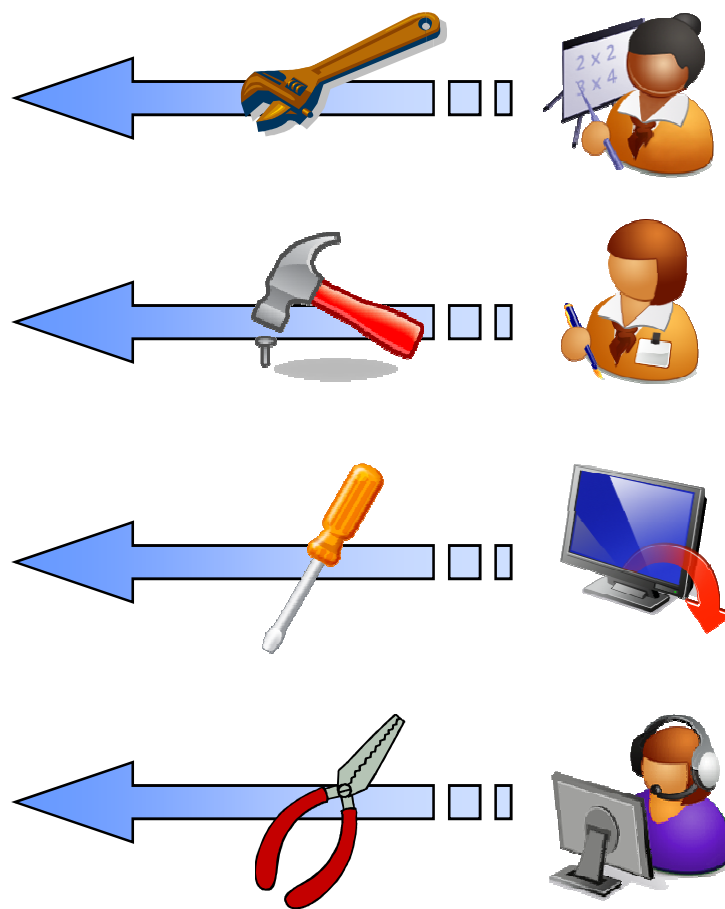
IBM Support Assistant 5 – Beta



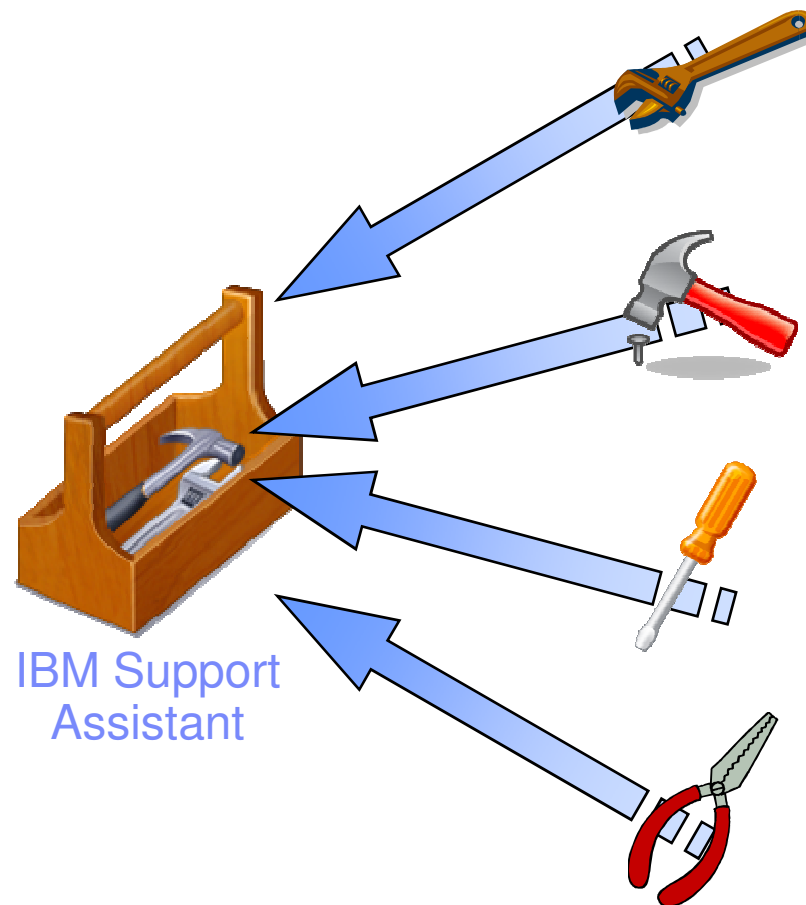
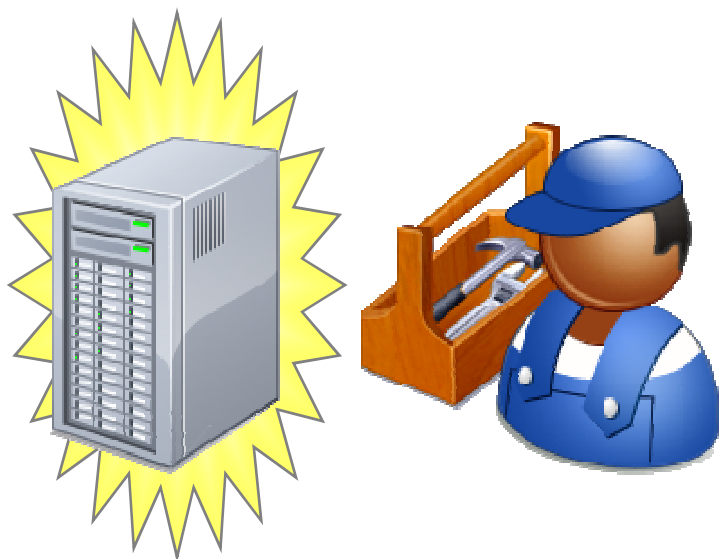
Agenda

- Mission / problem solved
- Accessing / installing / startup
 - EAR
 - Embedded runtime
- Key features
 - Case management
 - File Actions
 - Problem Determination Tools
 - Types of tools
 - Tool catalog
 - Reports view
- Feedback
 - Forum

Diagnosing problems



IBM Support Assistant – One-stop toolbox



IBM Support Assistant 5

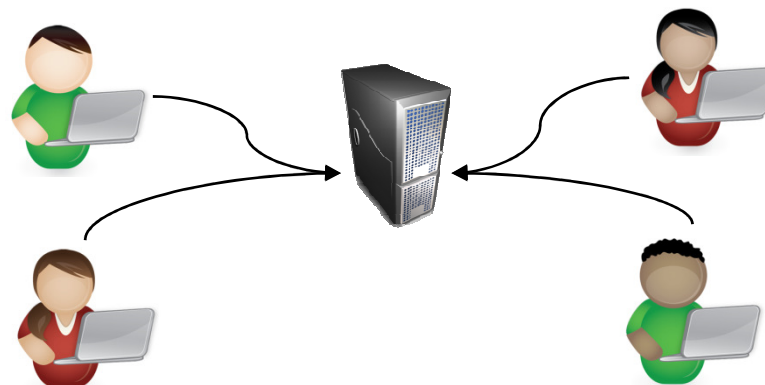
- **What is IBM Support Assistant 5?**

- Application targeted toward users responsible for diagnostics and root cause analysis
- A long-range strategy to produce a **collaborative problem determination platform**
- A **convergence** and **next generation** of several tools

- **Benefit Focus areas**

- **Cost avoidance** through reduction in time to resolution and PMR avoidance
- **Saves time** installing/updating client software: click “refresh” to get the latest version
- **Saves time, ensures completeness and consistency** when trudging through large volumes of diagnostic data to find that “needle in a haystack”
- **Saves desktop resources** by off-loading heavyweight tools to shared servers
- **Saves time** communicating with customers and collaborating between Support Engineers

IBM Support Assistant Overview



ISA 4.1 Workbench

- Single-user
- Individually installed on desktop
- Eclipse-based client

ISA 5

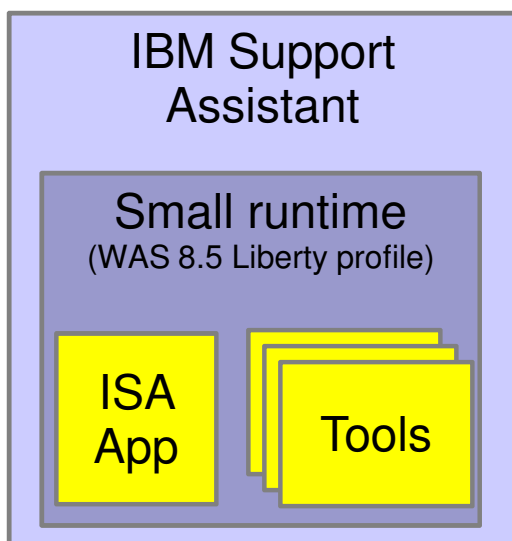
- Private Cloud
 - Server-based model
 - Install once
 - Shared by many team members via browser
- Web 2.0 browser interface
- Remote execution of PD tools
- Off-load analysis processing
- Collaboration on PD
- Case Management
- Installation Manager
 - All-in-one deployment
 - EAR deployment
- Single-user option

Tech Preview
 – Dec 2011
Beta 1
 – May 2012
Beta 2
 – October 2012

ISA 5 Beta – Install / Deploy

IBM Installation Manager

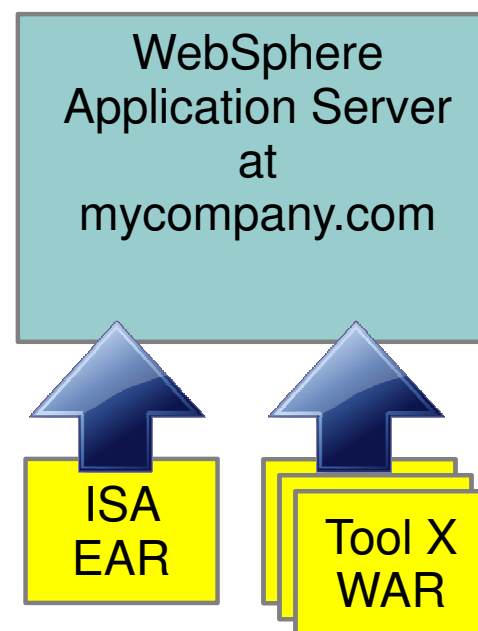
- *Managed install, uninstall and update*
- *Selective install of tools*
- *All-in-one solution – includes lightweight runtime*



optional

EAR:

- *Deploy into existing Application Server*
- *Tools deployed as JEE web modules*



Case Management

Case Management

Buttons: Add, Delete, Filter cases

Case ID	Summary
0001	DefaultCase

Case ID: [New]

Summary: Customers of the Plants by WebSphere app report timeout

Description:

The timeouts are occurring when adding items to shopping carts.

Need to generate java snapshots and analyze the application threads.

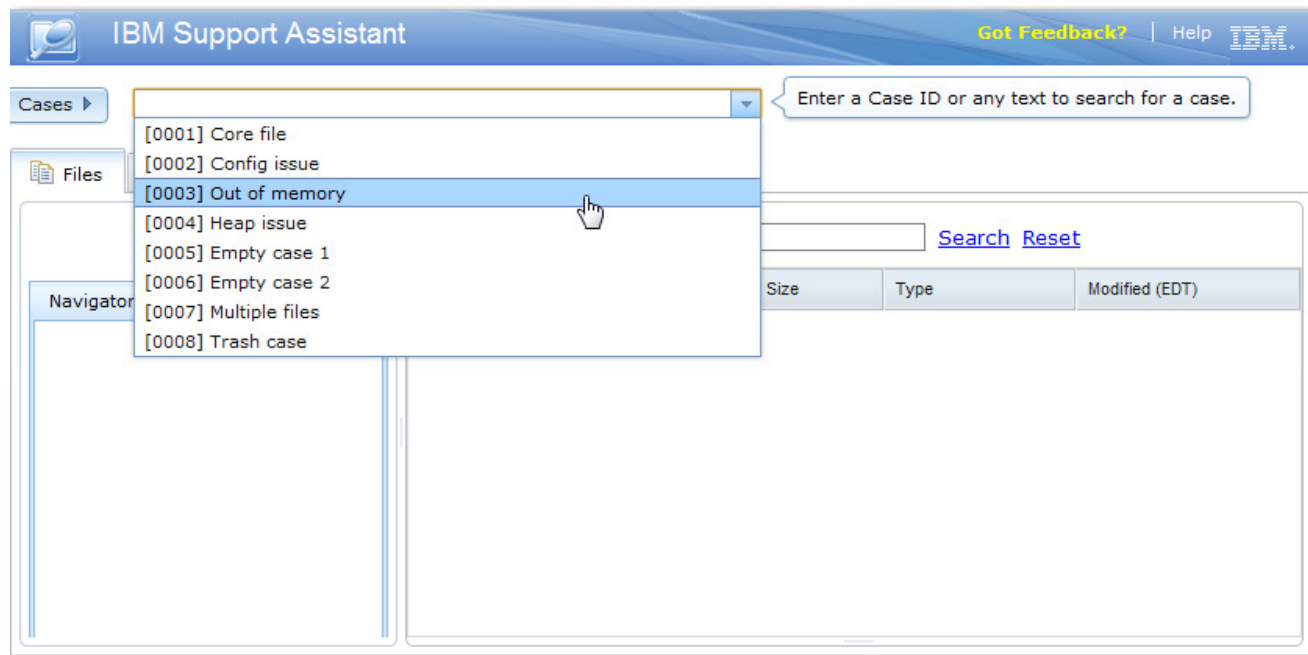
Buttons: Save

Size	Type	Modified (EDT)
0 KB	log	10/25/11 13:17:37
2376 KB	zip	10/20/11 21:41:31

Build ID: 5.0.0.X_M20111020-0858 © 2011 IBM Corp. All rights reserved | Terms of use

- Basic problem record capabilities
- Describe and capture notes about a symptom
- Container to organize problem determination efforts
- Share investigation with other team members

Case Management – getting started



Select a case to begin managing files associated with a problem determination investigation

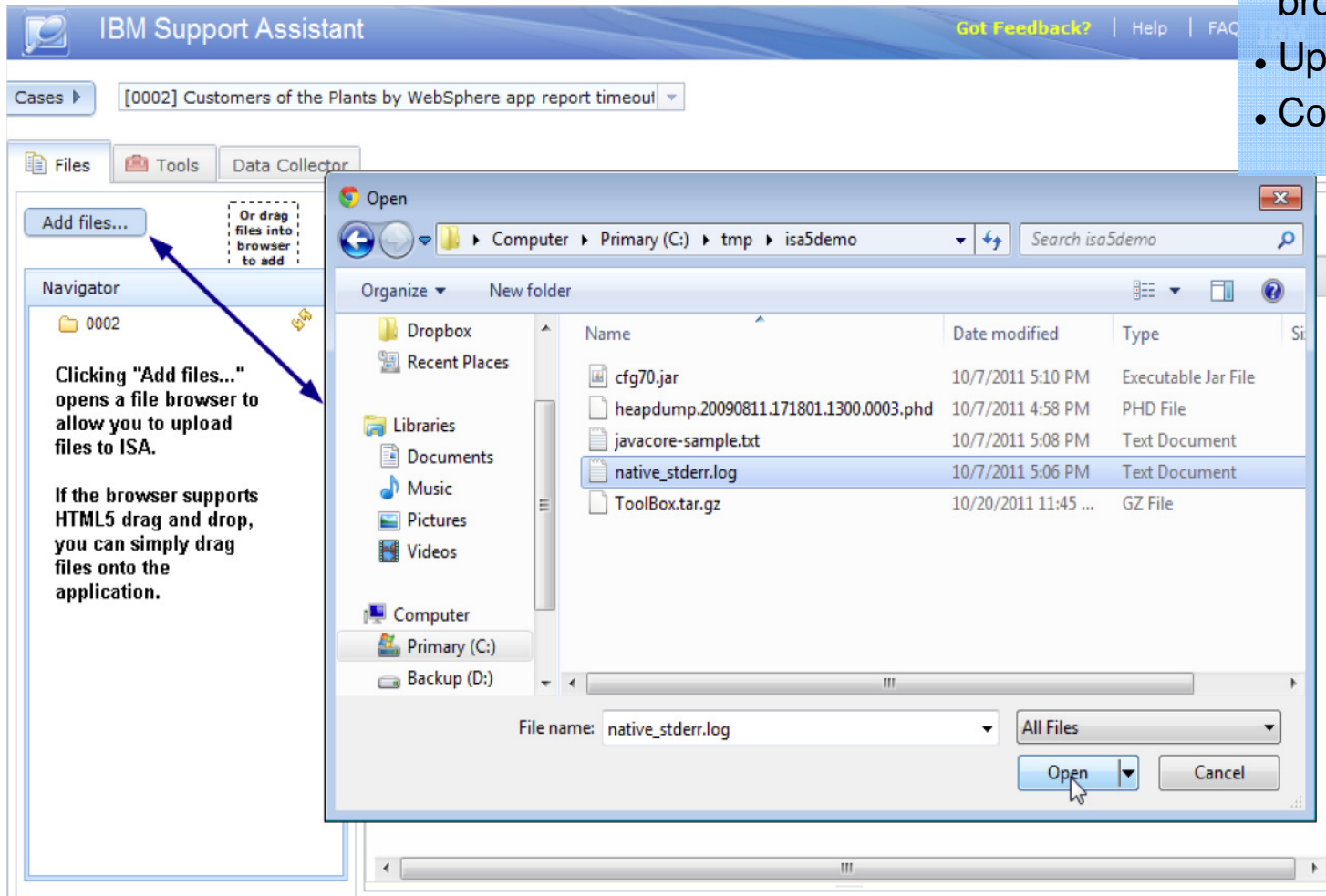
File Management

Name	Symptoms	Knowledge Ba	First Timestam	Last Timestam	Size	Type	Modified (EDT)
images					4 KB	directory	10/3/12 01:12:56 PM
pdtools					0 Bytes	directory	10/3/12 01:49:45 PM
heapdump.phd	1	10			20 MB	jvmHeapDump	10/3/12 03:19:22 AM
javacore.txt	0	0	03/22/11 22:29:47:000	03/22/11 22:29:47:000	2 MB	jvmJavacore.w	10/3/12 03:19:22 AM
native_stderr.log	0	0	08/20/12 09:45:02:000				10/3/12 03:19:22 AM
README.html	0	0					10/3/12 03:19:22 AM
SystemOut.log	12	90	06/08/10 13:54:52:500				10/3/12 03:19:22 AM

- Storage and organization of problem determination files
- Familiar file explorer interface
- Navigate, filter, and search across large numbers of files

File Management – adding files

- Drag and drop support in HTML5 enabled browsers
- Upload dialog
- Copy to filesystem



File Actions

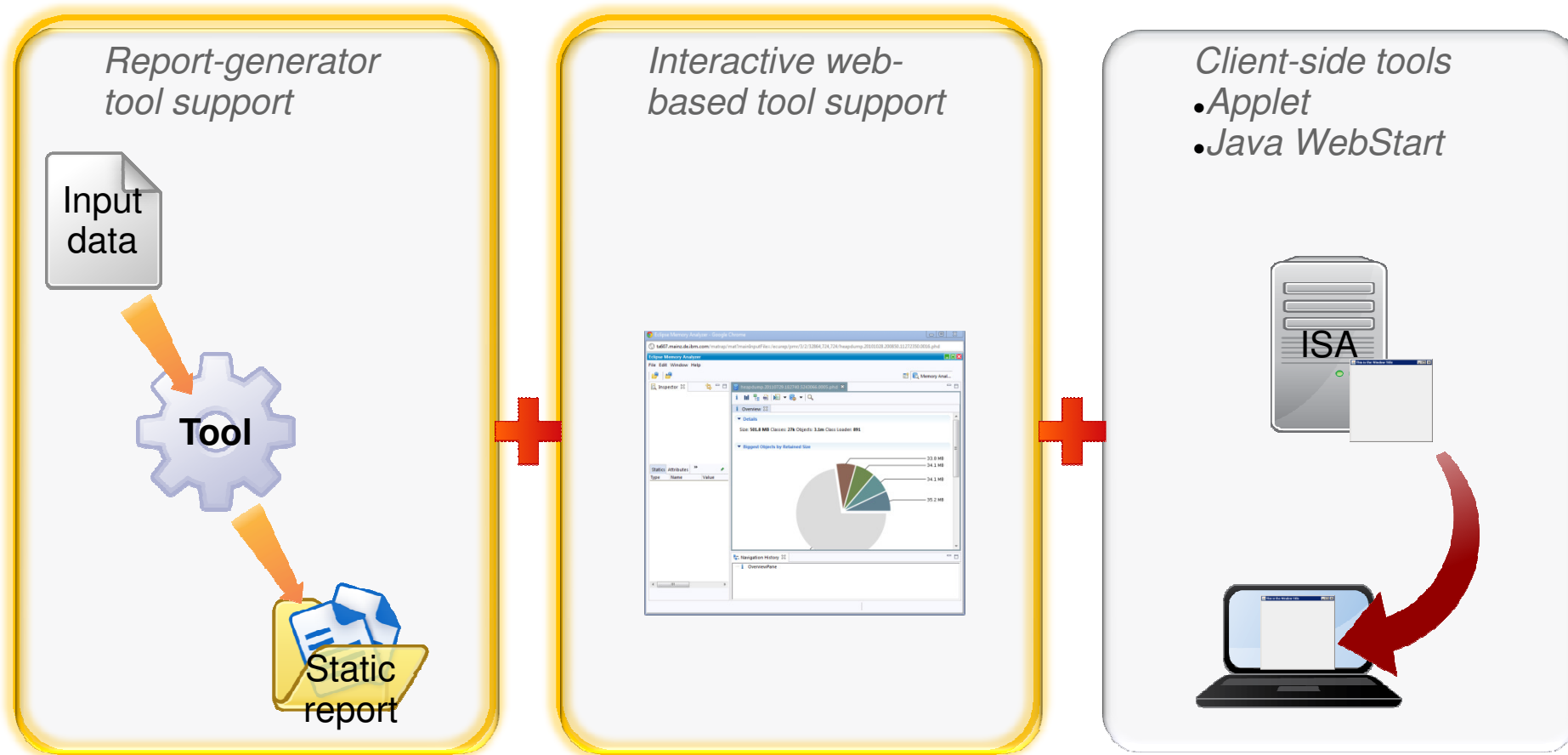
The screenshot shows the IBM Support Assistant interface. At the top, there's a header with the IBM logo and 'Got Feedback? | Help'. Below that, a 'Cases' dropdown shows '[0000] Example Case'. A navigation bar includes 'Files', 'Tools', 'Reports', 'Overview', 'Symptoms', 'Global Knowledge Base Matches', and 'Data Collector'. The main area is titled 'Tree View' and shows a folder structure for 'CASE:0000/*'. A search bar 'Search File Content' is on the right. On the left, a 'Navigator' shows a tree view with folders '0000', 'images', and 'pdtools'. The main file list shows several files, with 'javacore.txt' selected. A context menu is open over 'javacore.txt', listing actions: Download (Shift+D), Compress, Unpack (Shift+U), Rename File, Send to Trash, Problem Analysis, Transfer, and View. A table below the menu shows file details.

Name	First Timestam	Last Timestam	Size	Type	Modified (EDT)	
images			4 KB	directory	10/3/12 01:12:56 PM	
pdtools			0 Bytes	directory	10/3/12 01:49:45 PM	
heapdump.phd			20 MB	jvmHeapDump	10/3/12 03:19:22 AM	
javacore.txt	03/22/11 22:29:47:000	03/22/11 22:29:47:000	2 MB	jvmJavacore.w	10/3/12 03:19:22 AM	
native_stderr.log	08/20/12 09:45:02:000	08/21/12 10:47:36:000	387 KB	logfile.was.ser	10/3/12 03:19:22 AM	
README.html			14 KB	html	10/3/12 03:19:22 AM	
	12	90	06/08/10 13:54:52:500	06/08/10 14:03:00:812	66 KB logfile.was.ser	10/3/12 03:19:22 AM

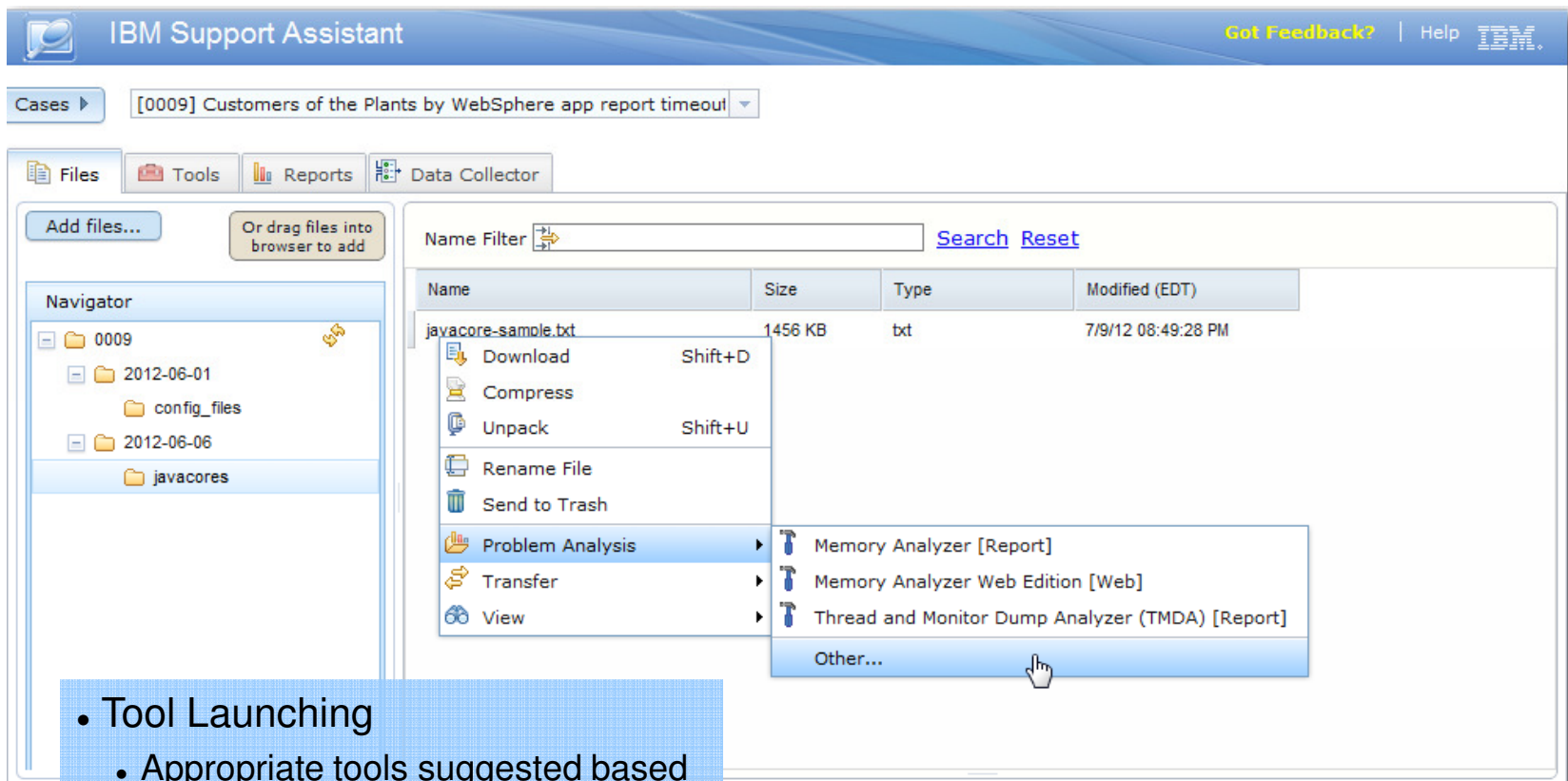
• Invoke common actions against files and directories

- Compress / Unpack
- Rename
- Move / Copy
- View
- Send to Trash

ISA 5 Beta - Tools



File Actions – Launch tools



- Tool Launching
 - Appropriate tools suggested based on file type
 - Automatically passes selected files to a tool
 - All tools available from the “Other...” menu

Tooling Platform – Tools View

Files Tools Reports Data Collector

Search Tool Help

Enter keyword Filter Reset

Sort By: a-z Tag: All Tags

- Garbage Collection and Memory Visualizer (GCMV) [Desktop] ✓
- Garbage Collection and Memory Visualizer (GCMV) [Report] ✓
- Health Center ✓
- Memory Analyzer [Desktop] ✓
- Memory Analyzer [Report] ✓
- Memory Analyzer Web Edition [Web]
- Pattern Modeling and Analysis Tool (PMAT)
- Portal Log Analyzer
- Profile Port Checker
- Thread and Monitor Dump Analyzer (TMDA) [Desktop]
- Thread and Monitor Dump Analyzer (TMDA) [Report]**
- WebSphere Application Server Configuration Visualizer

Thread and Monitor Dump Analyzer (TMDA) [Report]

Launch [Tool Help](#)

Description

IBM Thread and Monitor Dump Analyzer for Java (TMDA)

TMDA compares each thread dump and monitor dump and automatically detects hangs, resource contention, Java monitor ownership directional graph structure, and deadlocks.

This tool is provided in two versions:

- as a report generating version that reads javacore files and generates HTML reports.
- as an interactive GUI version running on the desktop

[More...](#)

Version
4.2.3

Tags
Report Generator Tool | As-is | Problem area: Java

Restrictions

File Types Hint
Java thread dump or javacore files

Execution History/Status

Status	Start Time	Input Files	Additional Input Parameters	Report Details
✓	4/23/12 19:26:15	/opt/ISA5/isa/cases/0001/javacore.txt		View report

Tools Tab

- Catalog of available tools
- Learn about and discover tools
 - Description
 - Version, Type, Restrictions
- Launch
- Tool Help
- Execution History

Tooling Platform – Reports View

The Reports Tab provides a single view into all reports generated by tools within a case

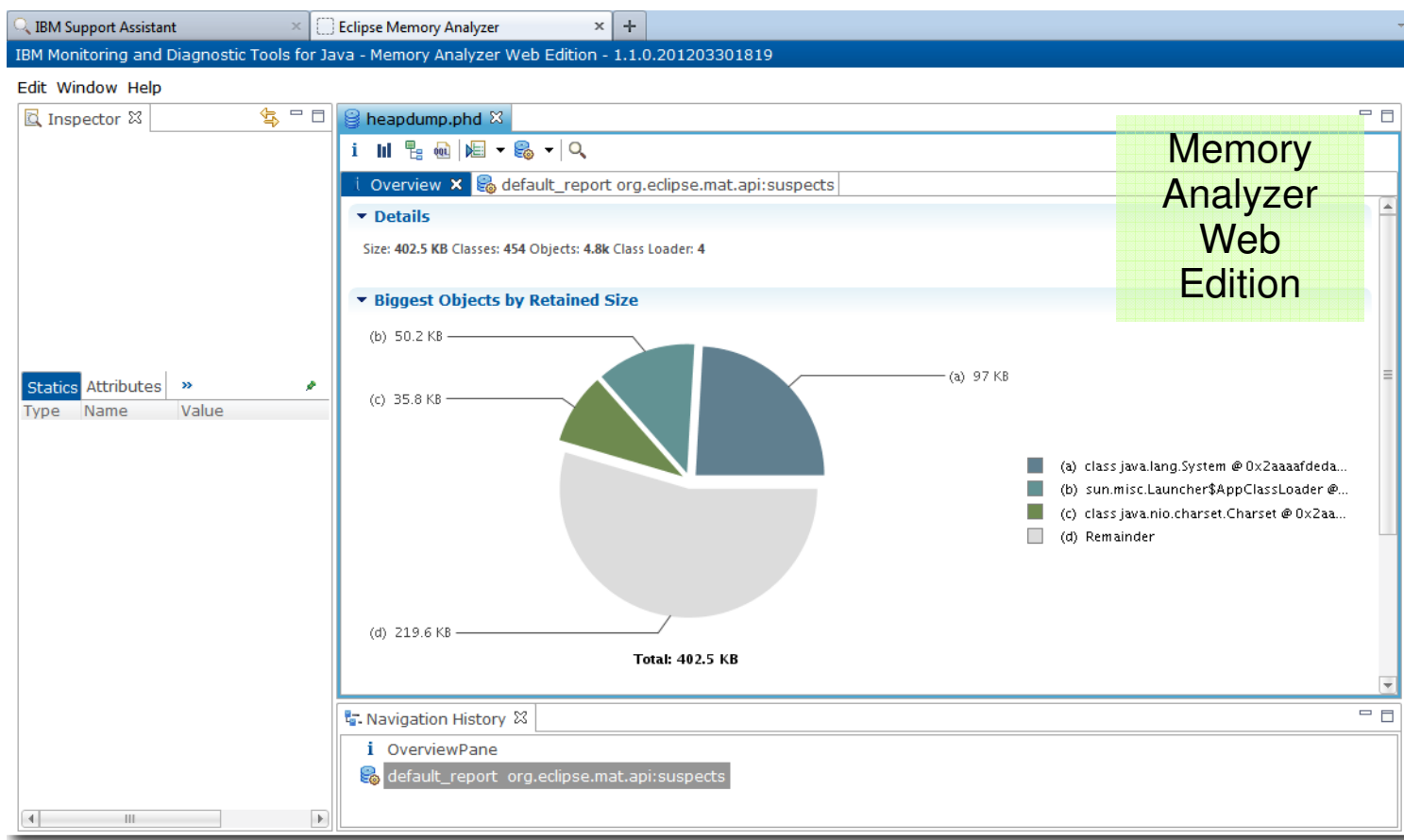
- 1) Full list of reports
- 2) Filter and sort to easily locate reports
- 3) View reports directly in IBM Support Assistant
- 4) Relaunch tools and navigate directly to the report's input and output

The screenshot displays the 'Reports' tab in the IBM Tooling Platform. The left pane shows a list of reports with columns for report name, status, and timestamp. The right pane shows the 'WebSphere Application Server Configuration Visualizer' for a specific report. The visualizer displays a configuration diagram for 'wst26Node01Cell' containing a 'server1' node and a 'Databases' section with configurations for 'DBA' and 'DBB'. A legend on the right identifies the symbols used in the diagram.

Report Name	Status	Timestamp	Output File
Garbage Collection and Memory Visualizer (GCMV) [Report]	Success	4/29/12 19:51:19	native_stderr.log
Pattern Modeling and Analysis Tool (PMAT)	Success	4/29/12 19:50:58	native_stderr.log
Pattern Modeling and Analysis Tool (PMAT)	Failure	4/29/12 19:45:09	native_stderr.log
Garbage Collection and Memory Visualizer (GCMV) [Report]	Failure	4/29/12 19:43:34	native_stderr.log
WebSphere Application Server Configuration Visualizer	Success	4/29/12 19:42:57	was7cfg.jar
Memory Analyzer [Report]	Success	4/29/12 19:42:11	heapdump.phd
Thread and Monitor Dump Analyzer (TMDA) [Report]	Success	4/29/12 19:26:15	javacore.txt

Web-based Tool Support

Tool processing runs on the server and the rich, interactive UI runs in the browser



Desktop Tool Support

Client tools can be launched directly from the browser in IBM Support Assistant through Java WebStart

- Garbage Collection and Memory Visualizer
- Health Center
- Memory Analyzer
- Thread and Monitor Dump Analyzer

Name	Timestamp	Runnable/Total T...	Free/Allocated He...	AF(SC)/GC Counter	Monitor
javacore-sample.txt	Oct 8 23:28:52.20...	8/53	611,480/61,566,9...	No info	Deadlock

Status	Number of Threads : 53	Percentage
Deadlock	2	4 (%)
Runnable	8	15 (%)

IBM Monitoring and Diagnostic Tools for Java™ - Garbage Collection and Memory Visualizer

Y Axis: heap (MB)

X Axis: time (seconds)

Legend: Used heap (after collect), heap

IBM Monitoring and Diagnostic Tools for Java - Memory Analyzer

Biggest Objects by Retained Size

Type	Name	Value
		230.4 MB
		273.7 KB
		139.9 KB
		25.2 MB

Total: 256 MB

IBM Monitoring and Diagnostic Tools for Java™ - Health Center

Health Center: Connection wizard

Enable an application for monitoring
(Select Cancel to import an existing file.)

This wizard guides you through connecting the Health Center to a currently running Java application.

NOTE: Your application must be enabled for monitoring before Health Center can be connected.

For instructions on how to setup an application to enable live monitoring, click on the link below before continuing.

[Enabling an application for monitoring](#)

< Back Next > Finish Cancel

Automated Analysis

- Common tasks performed during a “first look”
 - Scan logs and other files looking for anomalies – “What stands out?”
 - Mentally rank symptoms
 - Use keywords to search known repositories
 - Review search hits and decide which seem “most likely”

- IBM Support Assistant automates steps that would probably be done by hand
 - Faster
 - More thorough

- Simplify the process of getting to root cause

Global Sc	Type	Symptom	Symptom Oc
	Exception	Exception during user authentication: com.ibm.websphere.security.auth.WSLoginFailedException: Username and/or password is null. [variant=1]	1
	Exception	Exception during user authentication: com.ibm.websphere.security.auth.WSLoginFailedException: Username and/or password is null. [variant=2]	1
	ErrorMsg	SECJ0055E: Authentication failed for cn=UKLPP_WP_CellAdmin,ou=PRD,dc=e-commerce,dc=com. The user id or password might have been entered incorrectly or misspelled, the account could have expired or disabled. The password might have expired.	2
	ErrorMsg	EJPEI0096E	4

Knowledge Base Matches

Expand All

- ▶ APAR PK75163 WSLOGINFAILEXCEPTION SEEN WHEN COM.IBM.CSI.RMINBOUNDMAPPINGENABLED=TRUE [Wellspring]
- ▶ Technote: Search for LDAP based users or groups through TCR "Manage Users" GUI fails [Wellspring]
- ▶ PMR: Symptom found in PMR 66927.999.000 009/11/24 [Wellspring]
- ▶ PMR: Symptom found in PMR 87670.49R.000 011/02/13 [Wellspring]
- ▶ PMR: Symptom found in PMR 06621.227.000 009/01/23 [Wellspring]

Automated Analysis – Overview

The screenshot displays the IBM Support Assistant interface. At the top, the title bar reads "IBM Support Assistant" with a "Got Feedback?" link and a "Help" button. Below the title bar, there is a "Cases" dropdown menu showing "[0000] Example Case". To the right of the dropdown are buttons for "Scan this Case", a status indicator, and "Global Filter - Off". A navigation bar contains tabs for "Files", "Tools", "Reports", "Overview" (which is selected), "Symptoms", "Global Knowledge Base Matches", and "Data Collector".

The main content area shows a "Collapse All" button and a "Scan Coverage" progress bar. Below this is a section titled "General Information From a Scan of This Ticket" with a "Printable version" link. The text in this section reads: "The info in the following sections was found by scanning the files in this ticket, that match the current filter. Please click the links to see the containing files. Click [Scan this Ticket](#) if you wish to re-scan the ticket. **The most recent scan for this ticket contains information related to files uploaded up to: Wed Oct 03 13:49:48 EDT 2012**
Number of files included in the most recent scan: 17
Number of symptoms discovered in the most recent scan: 10
First Timestamp found in this PMR: 06/08/10 13:54:52:500
Last Timestamp found in this PMR: 08/21/12 10:47:36:000

Below this are several expandable sections:

- Product Versions:**
 - [J2RE 6.0 IBM J9 2.4 Windows XP x86-32 build iymwi3260-20080816 22093](#)
 - [WebSphere Platform 6.1 \[ND 6.1.0.21 cf210844.13\]](#)
 - [{unknown}](#)
- JVM Versions:**
 - [1.5.0, Java Compiler = i9iit23, Java VM name = IBM J9 VM](#)
 - [J2RE 6.0 IBM J9 2.4 Windows XP x86-32 build iymwi3260-20080816 22093](#)
 - [{unknown}](#)
- WebSphere Versions:**
 - [WebSphere Platform 6.1 \[ND 6.1.0.21 cf210844.13\]](#)
 - [{unknown}](#)
- OS Versions:**
 - [Windows Server 2003, version 5.2 build 3790 Service Pack 2](#)
 - [Windows XP 5.1 build 2600 Service Pack 3](#)
 - [{unknown}](#)
- iFix Information:**
 - [6.1.0-WS-WAS-WinX64-FP0000019 | 6.1.0-WS-WASSDK-WinX64-FP0000019 | 6.1.0-WS-WASWebSvc-WinX64-FP0000019 | 6.1.0.19-WS-WASFeature-FP0000019 |](#)

Overview Tab

- Review hundreds of files all summarized on a single page
- Data blocks organize information into useful chunks
- Drill down to individual files

Automated Analysis – Symptoms

IBM Support Assistant

Got Feedback? | Help IBM

Cases ▾ [0000] Example Case

Scan this Case [icon] Global Filter - Off ▾

Files Tools Reports Overview Symptoms Global Knowledge Base Matches Data Collector

Symptoms Filter Filter Reset | Scan Coverage [progress bar] | Showing 10 of 10 results Show All

Global Sc	Type	Symptom	Symptom Occu	Knowledge Ba	First Occurren	Last Occurren	ID
	ErrorMsg	SRVE0255E: A WebGroup/Virtual Host to handle /favicon.ico has not been defined.	2	10	06/08/10 14:02:18:843	06/08/10 14:02:21:843	11
	ErrorMsg	HMGRO028E: A duplicate DCS_UNICAST_ADDRESS port has been detected. Members bullisCell02\bullisNode02\nodeagent and bullisCell02\bullisNode02\server2 on host bullis.austin.ibm.com are both configured to use port 9356.	1	10	06/08/10 13:54:57:000	06/08/10 13:54:57:000	3
	ErrorMsg	SECJ0350E: Could not get the uniqueld of the user samples.	1	10	06/08/10 13:55:05:515	06/08/10 13:55:05:515	4
	ErrorMsg	SECJ0340E: Could not get the uniqueld for the group sampadmn.	1	10	06/08/10 13:55:05:609	06/08/10 13:55:05:609	5
	AdHoc	CWZZZ0002E: One or more heapdumps have been found. This may be an indication that memory issues are occurring	1	10			13
	ErrorMsg	DCSV1112W: DCS Stack {0} at Member {1}: Member {2} failed to respond to periodic heartbeats. Member will be removed from view. Configured Timeout is {3} milliseconds. DCS logical channel is {4}.	2	10	06/08/10 13:53:27:171	06/08/10 13:53:27:171	7

Knowledge Base Matches Symptom Occurrences Symptom Details Containing Files

Expand All

- ▶ APAR: PK85685: THE ERROR MESSAGE SRVE0255E RETURNS TO A CLIENT BROWSER IF THE APPLICATION IS DOWN [LocalKBSearch]
- ▶ APAR: PM27878: SRVE0255E: A WEBGROUP/VIRTUAL HOST TO HANDLE /IBM/IMAGES/ATTEND.GIF HAS NOT BEEN DEFINED. [LocalKBSearch]
- ▶ APAR: PK77176: WEBCONTAINER FAILS TO MAP REQUEST PROPERLY, IF THE HOST NAME IN ALIAS HAS FEWER THAN 404 [LocalKBSearch]
- ▶ APAR: PK65519: ADMINISTRATIVE CONSOLE SHOULD SUPPORT ENTRY OF [] BRACKETS AROUND IPV6 ADDRESS [LocalKBSearch]
- ▶ APAR: PM42174: AFTER MIGRATING TO V7, ERROR MESSAGE SRVE0255E WHEN ACCESSING THE ADMINISTRATIVE CONSOLE [LocalKBSearch]
- ▶ APAR: PM37645: PLUGIN THINKS APPLICATION SERVER IS DOWN WHEN USING EXTENDEDHANDSHAKE TO TRUE IN THE PLUGIN_CFG.XML [LocalKBSearch]
- ▶ APAR: PK74818: STARTING APPLICATION THROWS NULLPOINTER EXCEPTION. [LocalKBSearch]

Automated Analysis – Knowledge Base Matches

The screenshot shows the IBM Support Assistant interface. At the top, there's a search bar with "[0000] Example Case" and buttons for "Scan this Case" and "Global Filter - Off". Below the search bar are tabs for "Files", "Tools", "Reports", "Overview", "Symptoms", "Global Knowledge Base Matches" (which is selected), and "Data Collector".

The "Global Knowledge Base Matches" section shows a table with the following columns: Global Score, Type, Knowledge Base Entry, Symptom, Tool, and ID. The table contains several rows of matches, with the top row highlighted in blue. Below the table, there are tabs for "Knowledge Base Matches", "Symptom Occurrences", "Symptom Details", and "Containing Files". The "Knowledge Base Matches" tab is active, showing details for a specific match.

Knowledge Base Matches Tab

- Suggested solutions – front and center
- Recommended solutions float to the top and get better over time
- Details help you decide if this is the solution you're looking for

Match Details:

Type: APAR
Found by Tool: LocalKBSearch
Global Score: 2717
Label: PK75700: DCS_UNICAST_ADDRESS PORT CONFLICT RESULTS IN HMGR0028E, DCSV1036W AND EVENTUALLY JAVA OUTFORMEMORYERROR IN THE SERVER.
Match ID: 11
Symptom IDs associated with this Match: 3,6,10
Description:

Click on the link for more references:
<http://www.ibm.com/Search/?q=PK75700>

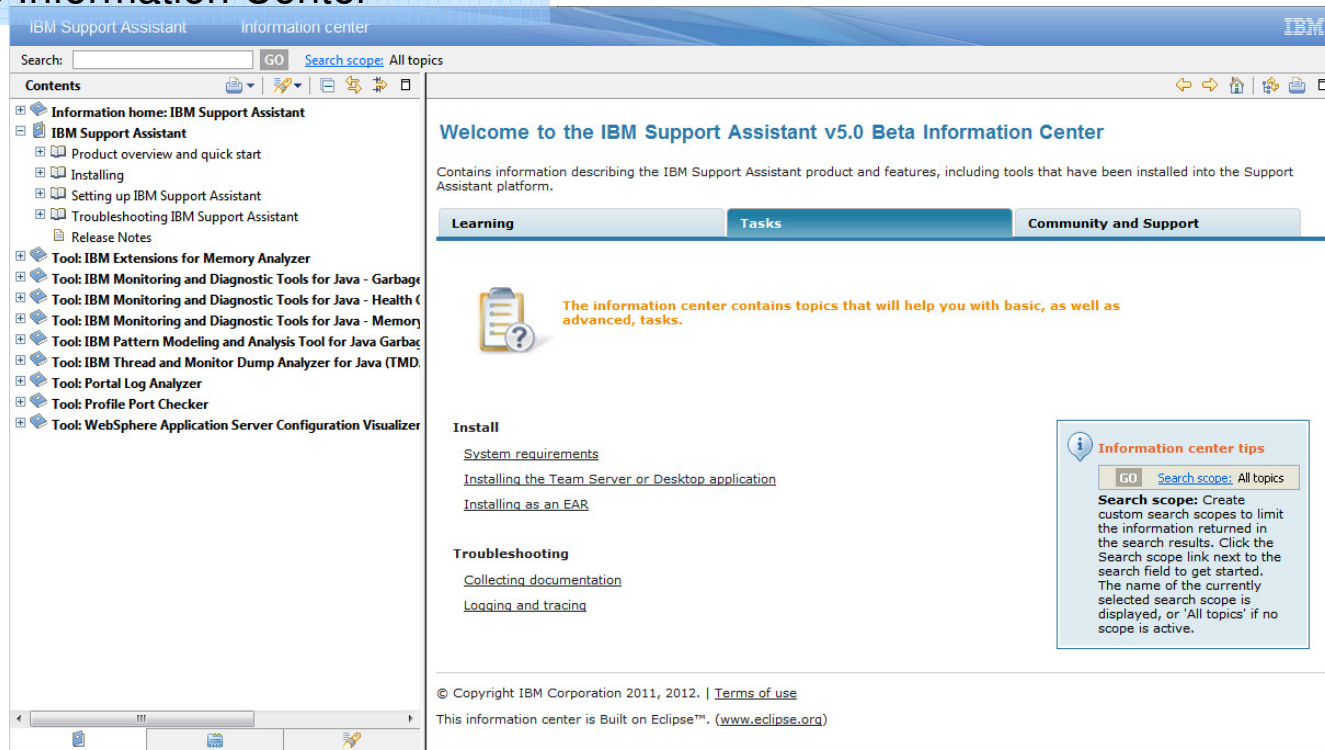
Abstract:
DCS_UNICAST_ADDRESS PORT CONFLICT RESULTS IN HMGR0028E, DCSV1036W AND EVENTUALLY JAVA OUTFORMEMORYERROR IN THE SERVER.

Error description:
When running a configured new server with an already 'in-use' port for the DCS_UNICAST_ADDRESS, the HA manager will detect the port conflict by issuing HMGR0028E messages.

User Assistance

Help System

- 1) Full help documentation available from banner
- 2) Search Tool help from Tools tab
- 3) Searchable Information Center



Contact Information



Support or questions about Beta

<http://www.ibm.com/developerworks/forums/forum.jspa?forumID=935>

IBM Support Assistant web page

<http://www.ibm.com/software/support/isa>

