THE NEW POWER EQUATION

Integrated Web Application Server for IBM i

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THE NEW POWER EQUATION

IBM i integrated Web application server

the 'on-ramp' to the Web

Agenda – Integrated Web Application Server

- **Introduction**
  - What is 'it'
  - Why did we add this
  - Why not just use WebSphere Application Server?
- **How do I create one**
  - Simply of course
- **Application deployment**
  - What is supported
  - What is not supported
  - How do I get my app deployed
- **Database**
  - What is supported
  - How do I use the support

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Introduction

- **IBM i integrated Web application server**
  - Goals
    - IBM ifunctional enhancement
    - The Web container in integrated into the operating system
    - Easy to use
    - Simplified access, deployment and management
    - Small, less resources
    - Positioned as 'on-ramp' to the Web
    - Replacement for AFS Tomcat

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Introduction

- **IBM i integrated Web application server**
  - What is it?
    - Web container
    - Based on the OSGI framework
    - Supports application packaged in a WAR
    - Runs IBM Technology for Java (32 –bit)
    - Supports Java Toolbox and Native DB drivers
    - Web container for 'simple' applications

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Why is this important to IBM i?

- It runs on our smallest boxes
- Simple to use
- Easy to install – part of the operating system (already included!)
- Easy to maintain - PTFs
- Starts very quickly (seconds)
- IBM admin interfaces have a place run
  - No Tomcat
  - No WAS system instance
- Replacement for Tomcat
- Allow us to do things like
  - Web Services Server
  - Web Query
 - IBM Systems Director Navigator for i
  - Generates new excitement for i

New stuff – Integrated Web Services Server

```
FTestFile  UF A E        Disk
D ErrMsg01      S          20   Inz('End of file reached')
D ErrMsg02      S          22   Inz('Error! File closed')
D ErrMsg03      S          26   Inz('Unexpected error')
D  Status03              5S 0
          :          :
* Read file and check for status codes
C                Read(E)   TestFile
C                Select
C                When      %Error
C                If        %Status(TestFile) = 01211
C     ErrMsg02   Dsply
C                Else
C     ErrMsg03   Dsply
C                EndIf
* Test for the end of file
C                When      %EOF(TestFile)
C     ErrMsg01   Dsply
C                EndSl
```

RPG

COBOL
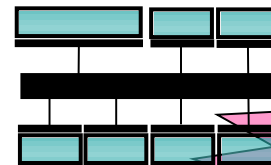
Web Service Consumer

Web

IBM Web Administration for i5/OS

Setup | **Manage** | Advanced | Related Links

All Servers | HTTP Servers | **Application Servers** | ASF Tomcat Servers

● Running   Server: WSERVICE2 - V1.3 (web services)

▼ Common Tasks and Wizards
  Create Web Services Server
  Create HTTP Server
  Create Application Server
  Migrate Original to Apache
  Create WebSphere Portal
  Create IBM Workplace

▼ Web Services Wizards
  Deploy New Service

▼ Server Properties
  Properties
  Server Tracing
  View HTTP Servers

▼ Services
  Manage Deployed Services

▼ Problem Determination
  View Logs
  View Create Summary

WSERVICE2

Manage Web Services Server
Server: WSERVICE2

No description for server WSERVICE2

The Web services server provides a convenient way to externalize existing programs running on i5/OS, such as RPG and COBOL programs, as Web services. Web service clients can then interact with these i5/OS program based services from the Internet or intranet using industry stand communication protocols such as SOAP. Clients can be implemented using a variety of platforms and programming languages such as C, C++, Java and .NET. An easy to use wizard is provided to configure the Web services server and the services for i5/OS program objects. Other management functions such as starting, stopping and deleting services are also provided.

Manage Deployed Services	Server: "WSERVICE2"
	● ConvertTemp
	● STOCKQ

Web Services Server

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New Stuff – IBM DB2 Web Query for i

## Powered By Information Builder's WebFocus

- **What we had**
  - Query/400 (Query for iSeries)
    - Green screen report builder
    - Not updated (much) in ~10 years
- **NOW we have**
  - Web Enabled Query/400 reports
  - Simple, web based report builders
    - Advanced capabilities in a web based report builder
  - Multiple output formats (pdf, xml, html, etc)
  - Excitement from
    - Business Partners
    - Customers
    - ISVs
  - 6000+ orders in 5 months
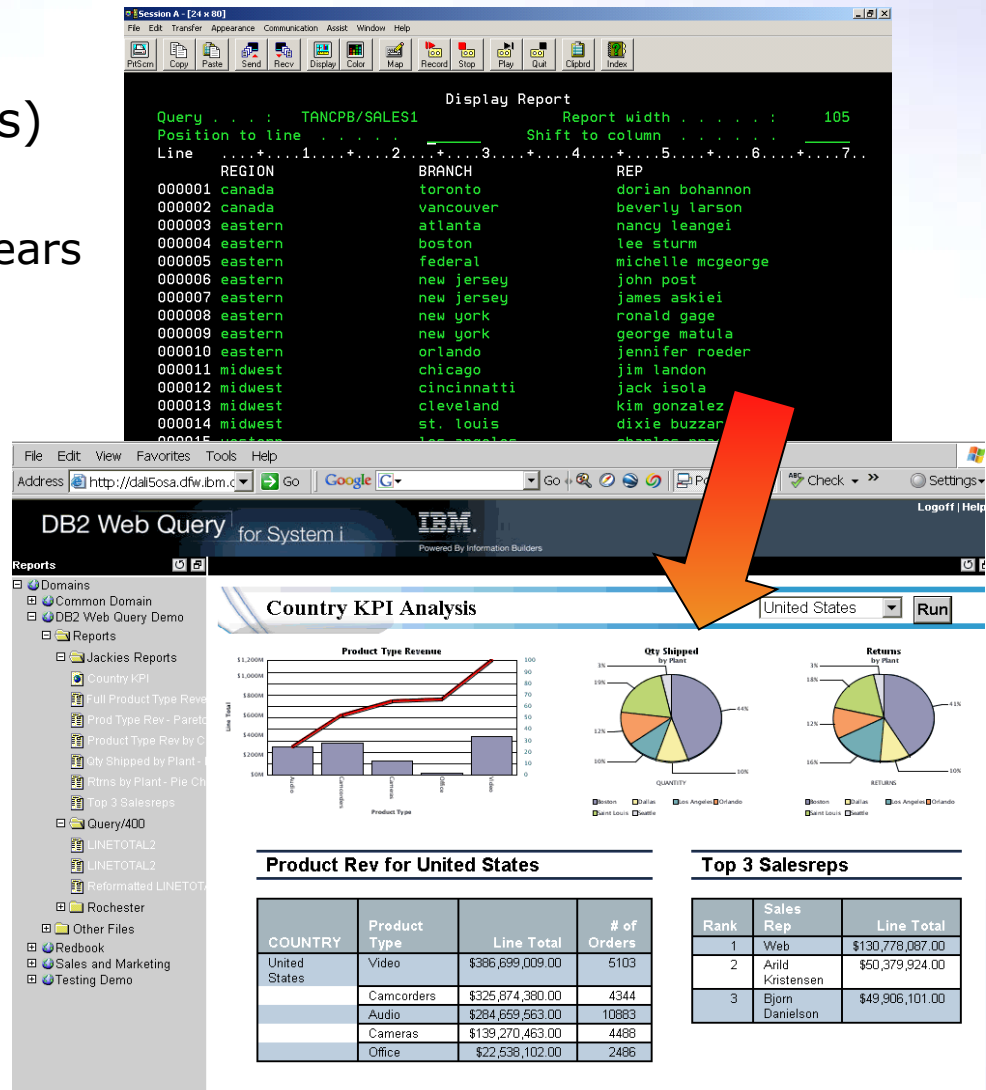
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New Stuff – IBM Systems Director Navigator

• New Web Console for IBM i

• Available in 6.1 on every IBM i partition

• Over 300 tasks have been enabled for the Web

• New function only available in Web console
  • BRMS
  • HA
  • Performance
    • Job Watcher
    • Disk Watcher

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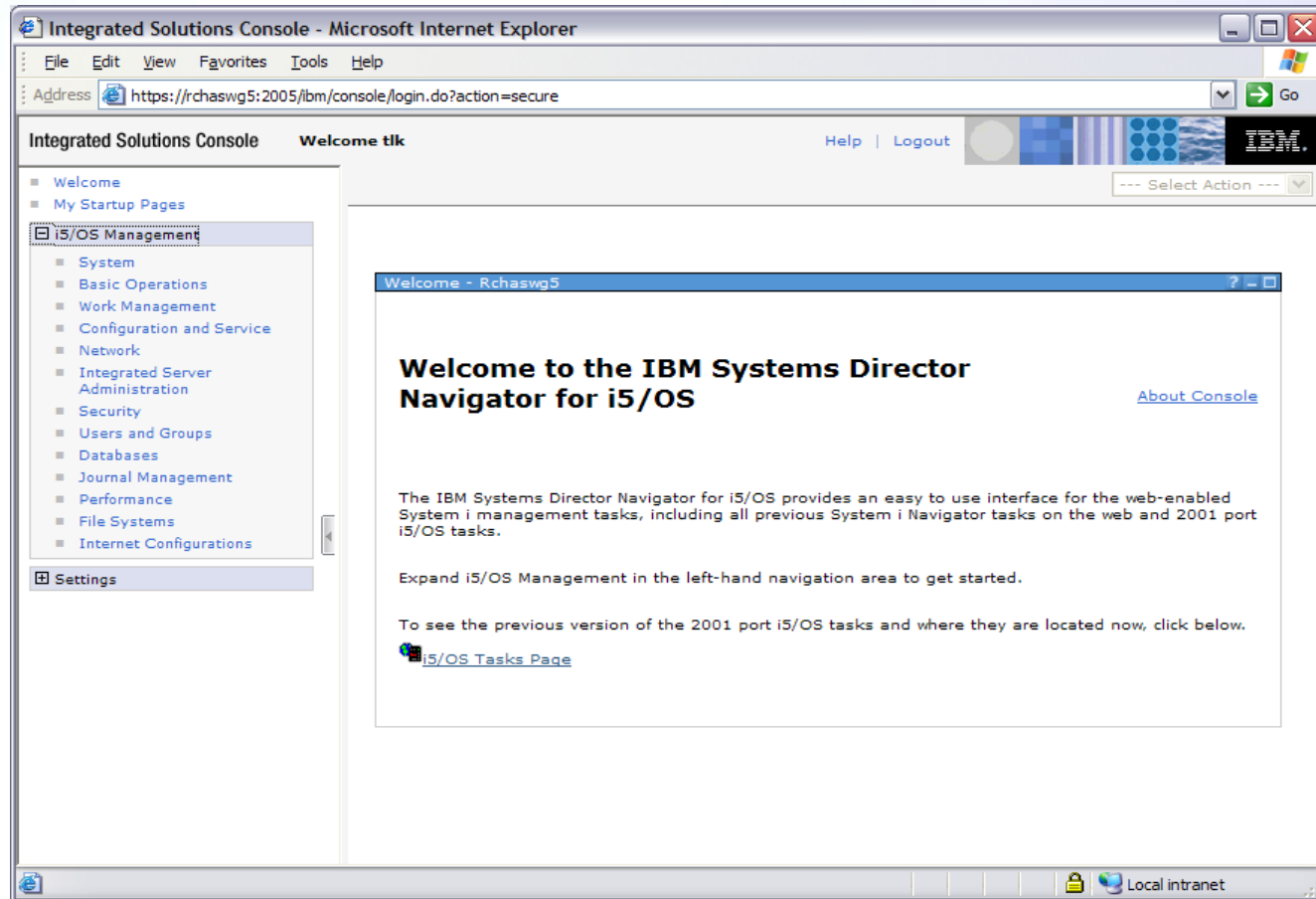
Why WebSphere Application Server vs IAS

- **Why use WebSphere Application Server**
  - Express V6.1 is still shipped with the operating system on 6.1
  - Express runs on both the 64 bit and 32 bit JVMs
  - Need EJB Support
  - Full J2EE architecture
  - Heavy database usage
  - High Availability

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Web Application Servers on IBM i

	Integrated Web Application Server	WebSphere Application Server Express	WebSphere Application Server Network Deployment
Cost	Integrated	Entitled	Fee
Packaging	Integrated with i5/OS V5R4	Ships with Web Enablement for i5/OS	Separate product
Fixes	i5/OS PTFs	WebSphere iFix	WebSphere iFix
Access to DB2 for i5/OS	Yes	Yes	Yes
Supports JSF, JSP, & servlets	Yes	Yes	Yes
Multiple Instances	Yes	Yes	Yes
JNDI name space connection	One	Multiple	Multiple
Full J2EE Support	No	Yes	Yes
Java Based Messaging Engine	No	Yes	Yes
Cross Platform	No	Yes	Yes
Advanced performance, management & high-availability	No	No	Yes
Memory requirements	~40% less		

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Web Application Servers on IBM i

	Integrated Web Application Server	WebSphere Application Server Express	WebSphere Application Server Network Deployment
J2EE application packaging	Partial (WAR or WAB files)	Full (WAR and EAR files)	Full (WAR and EAR files)
Web Service	Yes	Yes	Yes
Web-services engine Axis2 V1.3	Yes	Yes	Yes
Administration and configuration	IBM Web Administration for i5/OS, Qshell	IBM Web Administration for i5/OS, Qshell, WebSphere Administrative Console	IBM Web Administration for i5/OS, Qshell, WebSphere Administrative Console
Horizontal growth and automatic failover for high availability	No	No	Yes
Connection pooling - datasources	Apache commons database-connection pooling	WebSphere connection pooling	WebSphere connection pooling

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How do I get to it

- **V5R4**
  - 5722SS1   30   Qshell
  - 5722SS1   33   Portable App Solutions Environment
  - 5722DG1   *BASE   IBM HTTP Server for i5/OS
    - Group PTF SF99114 Level 12
  - 5722JV1   8   J2SE 5.0 32 bit
    - Group PTF SF99291 Level 12

- **6.1**
  - GA Cumulative PTF Package

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How do I get to it

Port 2001 interface – http://*hostname*:2001/HTTPAdmin

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Create Application Server

- Step a: Intro page

Create Application Server

Welcome to the Create Application Server wizard. This wizard creates a new application server to run Web applications with dynamic content, updates the Web server plugin configuration for an associated external HTTP server, and creates all necessary database providers and connections required for the Web applications you choose to install.

- **Configure Host Routing**

  An application must be mapped to a host in order to be accessed. A host is defined by the host name or IP address, and a port number. By default, the application is configured to be accessible through a default list of hosts defined for the application server. If you wish for more granular control, you can restrict access to your application by configuring it to specific hosts.

- **Install Application**

  Applications must be installed onto the application server to be accessed by your customers. The Install New Application wizard takes your archive file that contains the application and deploys the application on the server.

- **Setup Database Connection**

  Many applications need to access databases to retrieve and store data. Database providers and connections are the vehicle used to tell the server how to access the database, what database to access, and where the database is located.

Back | Next | Cancel

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Create Application Server

- Step b: Select the type and version of application server to create

Create Application Server

Select Application Server Version and Type

Your system has more than one version and type of application server installed.

Choose the type of application server to create

i5/OS integrated Web application server:

⦿ V7.1   *The i5/OS integrated Web application server is a new minimal footprint, easy to configure, secure environment for hosting dynamic Web applications. The application server is built on an infrastructure that leverages the Open Services Gateway initiative (OSGi) and Eclipse platforms.*

WebSphere Application Server:

◯ V6.1 Express

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Create Application Server

- Step 1: Specify the name of the application server

Create Integrated Web Application Server, V7.1

Specify Application Server Name - Step 1 of 6

Specify a unique name for the application server. ❓

Application server name:	INTAPPSVR2
Server description:	i5/OS integrated Web application server create

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Create Application Server

- Step 2: Specify Port range

Create Integrated Web Application Server, V7.1

Specify Internal Ports Used by the Application Server - Step 2 of 6

The application server uses several internal services such as internal HTTP transport service to perform its processing . In order for these services to be configured, you must provide a block of 10 consecutive ports that are currently not in use on your system. Specify the first TCP port number in the range and the wizard assigns the ports that are to be used by each internal service. For example, if 10000 is entered as the first port in the range, then ports 10000 to 10009 will be configured.

First port in range: 10074 ❓

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Create Application Server

- Step 3: Specify HTTP Apache server info

Create Integrated Web Application Server, V7.1

Create a new HTTP server (powered by Apache) - Step 3 of 6

A new HTTP server (powered by Apache) will be created and configured to be used by this application server. ❓

HTTP server name: INTAPPSVR2

HTTP server description: HTTP server created by the Create Application

Your HTTP server may listen for requests on a specific IP address or on all IP addresses of the system.

On which IP address and TCP port would you like your HTTP server to listen?

IP address: All IP addresses ▾

Port: 10084

Note: Most browsers make requests to port 80 by default.

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Create Application Server

- Step 4: Specify User server will run under

Create Integrated Web Application Server, V7.1

Specify User ID for this Server - Step 4 of 6

The integrated Web application server requires an i5/OS user ID. This user ID is used to run the server job and has authority to server objects. It is recommended that a special user ID be specified whose only purpose is to run the server job. This prevents the server from being associated with a specific user whose user ID might be removed from the system in the future.

Specify user ID for this server: ❓

🔘 User **default** user ID

   Note: The default server user ID is QLWISVR

⚪ Specify an **existing** user ID

⚪ Create an **new** user ID

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Create Application Server

- Step 5: Sample applications

Create Integrated Web Application Server, V7.1

Sample Applications - Step 5 of 6

The i5/OS integrated Web application server ships with sample applications that allow the user to easily verify that the server is running and can be accessed correctly. These applications will automatically be deployed for you.

The following applictions will be installed:

✓ Eclipse Help - The Eclipse help application is a framework that allows you to easily add dynamic help

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Create Application Server

- Step 6: Summary - Application Server tab

Create Integrated Web Application Server, V7.1

Summary - Step 6 of 6

When you click **Finish** this i5/OS integrated Web application server will be created.

| Application Server | HTTP Server |

Application server version:	7.1
Application server name:	INTAPPSVR2
Server description:	i5/OS integrated Web application server created by the Create Application :
Internal port range:	10074 - 10083
Instance root:	/www/intappsvr2
Application server home directory:	/www/intappsvr2/lwi
External HTTP server association:	INTAPPSVR2
Server URL:	http://rchaswg2:10084
Sample applications:	

Application name	URL to test the server
Eclipse Help	http://rchaswg2:10084/help

Note: To access the sample application(s), verify that both the application server and HTTP server are started, then enter a URL from the table above.

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Create Application Server

- Server creating

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Manage Server

Start, Stop, Properties, Applications, and Database

Manage Server - Properties

- Version of server

- i5 specific info

- Subsystem

- Job Name

- JVM

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Manage Server – Server Tracing

Trace your application using normal Java tracing

Trace the entire server & application

-.level=FINER

Trace specific – package name

- com.ibm.class.level=INFO

IBM Web Administration for i5/OS

Setup | **Manage** | Advanced | Related Links

All Servers | HTTP Servers | **Application Servers** | ASF Tomcat Servers

DANAPPSVR - V7.1 (int app svr)

DANAPPSVR > Server Tracing

Server Tracing

Startup Tracing

Trace specification:

```
com.ibm.rcp.core.internal.logger.boot.RCPTraceHandler.level=FINER
com.ibm.rcp.core.internal.logger.frameworkhook.level=FINER
java.util.logging.ConsoleHandler.level=FINER
com.ibm.rcp.core.internal.logger.boot.RCPLogHandler.level=FINER
.level=FINER
```

Trace output file name: /www/danappsvr/lwi/logs/trace-log-0.xml

Note: When you click **Apply**, you will need to restart the application server in order for the changes to take effect.

▼ Server Properties
  Properties
  Server Tracing
  View HTTP Servers

▼ Applications
  Manage Installed Applications

▼ Resource Configuration
  Manage Database Connections

▼ Problem Determination
  View Logs
  View Create Summary

OK | Apply | Cancel

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Manage Server – View HTTP Server

- **Work with the HTTP server associated with this app server**
- **Start/Stop**
- **Direct link to manage the server**

Manage Server – View Logs

IBM Web Administration for i5/OS

Setup | **Manage** | Advanced | Related Links

All Servers | HTTP Servers | **Application Servers** | ASF Tomcat Servers

● Running ▶ ■ ↻ Server: DANAPPSVR - V7.1 (int app svr)

▼ Common Tasks and Wizards
  🗋 Create Web Services Server
  🗋 Create HTTP Server
  🗋 Create Application Server
  🗋 Migrate Original to Apache
  🗋 Create WebSphere Portal
  🗋 Create IBM Workplace

▼ Application Server Wizards
  🗋 Create Database Connection
  🗋 Install New Application

▼ Server Properties
  🗋 Properties
  🗋 Server Tracing
  🗋 View HTTP Servers

▼ Applications
  🗋 Manage Installed Applications

▼ Resource Configuration
  🗋 Manage Database Connections

▼ Problem Determination
  🗋 View Logs
  🗋 View Create Summary

DANAPPSVR > View Logs

View Logs

Data current as of Mar 21, 2008 9:11:55 AM.

Application Server Logs

Log files for server "DANAPPSVR": ❓

	Log file name	
○	/www/DANAPPSVR/lwi/logs/error-log-0.xm	
○	/www/DANAPPSVR/lwi/logs/error-log-1.xm	
○	/www/DANAPPSVR/lwi/logs/trace-log-0.xm	5945565
○	/www/DANAPPSVR/lwi/logs/trace-log-1.xml	4000364
○	/www/DANAPPSVR/lwi/logs/lwipid.txt	5
○	/www/DANAPPSVR/logs/prelwistdout.txt	196
○	/www/DANAPPSVR/logs/prelwistderr.txt	0
○	/www/DANAPPSVR/logs/lwistderr.txt	4156568
○	/www/DANAPPSVR/logs/lwistdout.txt	388
○	/www/DANAPPSVR/logs/plugin.log	26240
○	/www/DANAPPSVR/logs/maint.log	1786

[View]

Log Viewer - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Google [G▼] [Go] 🔄 ☆ Bookmarks▼ ABC Check ▼ AutoLink ▼ AutoFill » ⚙ Settings▼

Log Viewer

Viewer Preferences

Time	Severity	Message	Subsystem
2008-03-21T09:12:26.309-05:00	FINER	IBM HttpSession : com.ibm.ws.webcontainer.httpsession.SessionContext : SessionContext.tableRemove s7bU63GGGGKJqC3whllGGGG Thread[Timer-10,5,main]	com.ibm.ejs.ras
2008-03-21T09:12:26.314-05:00	FINER	IBM HttpSession : com.ibm.ws.webcontainer.httpsession.SessionContext : SessionSimpleHashMap.remove() - key=s7bU63GGGGKJqC3whllGGGG Thread[Timer-10,5,main]	com.ibm.ejs.ras
2008-03-21T09:12:26.315-05:00	FINE	IBM HttpSession : com.ibm.ws.webcontainer.httpsession.SessionContext : SessionSimpleHashMap.remove() - key removed from HashMap Thread[Timer-10,5,main]	com.ibm.ejs.ras
2008-03-...		IBM HttpSession : com.ibm.ws.webcontainer.httpsession.SessionContext :	

Done 🖳 Local intranet
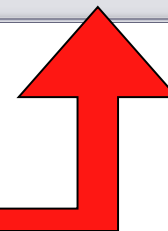
Click to launch new window for error log

Notice new format!

Common Base Event - CBE

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Applications

- Install applications

Click the 'Install' button to launch the install application wizard

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Applications

- Must be in a Web Application Bundle (WAB)
- Using the Web Admin GUI, we will support both WAB files and the more common WAR file
- Servlet, JSP & JSF based applications
- Most all ASF Tomcat applications, will run on IAS
- Reasons an application will not run on IAS
  - Some WebSphere based applications use WebSphere specific functions and classes – will not run on IAS
  - WebSphere Host Access Transformation Services (HATS)
  - Full J2EE support
- Note: Application dependencies need to be included in the bundle

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Applications

- When the application is deployed, the WAR file is converted into a WAB – a WAB is basically a WAR with a manifest file

– MANIFEST.MF contains data that the framework needs to correctly install and activate the bundle

– The MANIFEST.MF is located in the META-INF directory of the bundle project.

```
Browse : /www/EGL011/lwi/apps/eclipse/plugins/MyProj/META-INF/MANIFEST.MF
Record :        1    of        18 by  18                      Column :     1
Control :   _

....+....1....+....2....+....3....+....4....+....5....+....6....+....7....
 ************Beginning of data**************
Manifest-Version: 1.0
Bundle-SymbolicName: MyProj; singleton=true
Import-Package: org.osgi.framework,org.osgi.service.webapplication,com
 .ibm.ws.jsp.runtime,javax.servlet,javax.servlet.http,javax.servlet.re
 sources,javax.servlet.jsp,javax.servlet.jsp.el,javax.servlet.jsp.reso
 urces,javax.servlet.jsp.tagext,org.apache.jasper,org.apache.jasper.ru
 ntime
Bundle-ManifestVersion: 2
Bundle-Activator: org.osgi.service.webapplication.WebApplicationActiva
 tor
Bundle-Name: Web application MyProj
Class-Path:
Bundle-Version: 1.0.0
Bundle-ClassPath: WEB-INF/classes/,WEB-INF/lib/fda7.jar,WEB-INF/lib/js
 f-ibm.jar
Require-Bundle: com.ibm.pvc.servlet.jsf,org.apache.commons.logging,com
 .ibm.rcp.servlet.jsf.ext,com.ibm.rcp.servlet.jwl;resolution:=optional
```

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Install Application

- Install application – specify location

Use Browse to navigate to the location of
your application!

INTAPPSVR2 > Install New Application

Install New Application

Specify Application Location

Welcome to the Install New Application wizard. This wizard installs an application into this
Web application server. The archive file containing the application must already exist on th
an integrated file system directory.

Specify the location of the archive file containing the application ⓘ

Path of application archive file: [   ] [Browse]

http://rchaswg2:2001/HTTPAd...

/QSYS.LIB/IWSRII.LIB/NFS400_THR.SRVPGM

📁 /
  📁 bin
  📁 dev
  📁 etc
  📁 home
    📁 dhiebert
    📁 QNOTES
    📁 QNOTESDB2
    📁 swai
    📁 timmr
      📄 **MyJ2EEApp.war**
      📄 simplewebapp.war
  📁 InstallShield
  📁 lib
  📁 QFileSvr.400
  📁 QIBM

/home/timmr/MyJ2EEApp.war

[OK] [Cancel]

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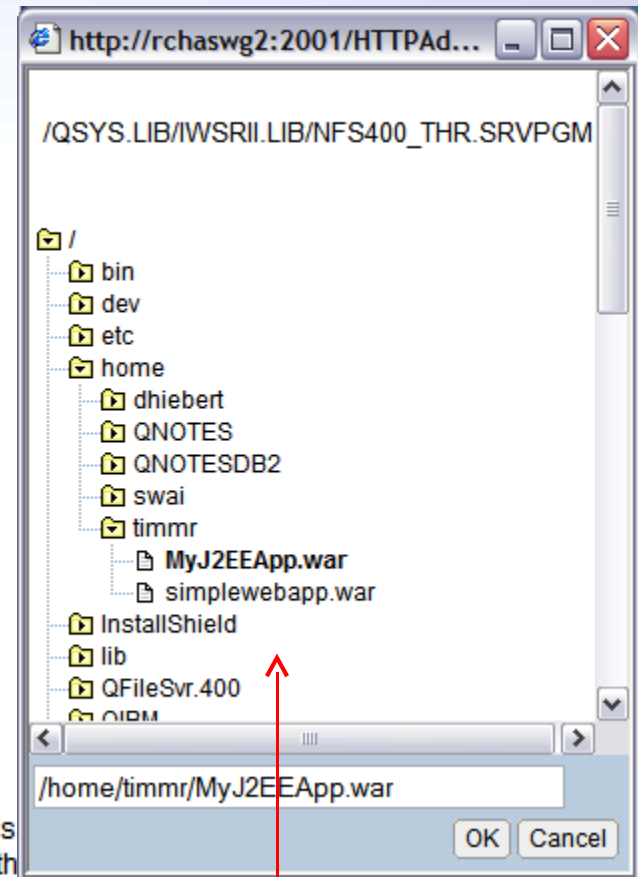
Install Application

- Install application - Specify application options

INTAPPSVR2 > Install New Application

Install New Application

Provide Options to Perform the Install

Specify application deployment options

Application name: | MyJ2EEApp

Context root: | /MyJ2EEApp | e.g. /myContextRoot

Directory application installed to: /www/intappsvr2/lwi/apps/eclipse/plugins

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Install Application

- Install application - Port routing information

Install New Application

Context Root Port Mapping

This application by default can be accessed by all ports that this application server is listening on. To limit this application to specific ports, specify custom port mapping. This option will allow the context root for this application to be limited to only the selected port values currently being listened on by this server.

Select configuration type ?

⦿ Keep default port mapping(**Recommended**)

◯ Specify custom port mapping

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Install Application

- Install application - Summary

Install New Application

Summary

When you click Finish the installation will be started for the following application.

Path of application archive file:	/home/timmr/MyJ2EEApp.war
Application name:	MyJ2EEApp
Context root:	/MyJ2EEApp
Directory application installed to:	/www/intappsvr2/lwi/apps/eclipse/plugins
Context root ports:	10074

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Install Application

- Application installing

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Manage Installed Application

General information about the application

- Name

- Install directory

- Start options

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Manage Installed Applications

Specify specific port for the application to listen on

Note: Application ports; subset of server ports

Manage Installed Applications

Specify additional classpaths for the application

Database Connections

- **Terminology – Database connection = data source/JDBC**
  - **Data source**: A data source represents a specific database that is used by one or more applications installed in your application server. Data sources provide connection pooling and a JNDI name which can be used by applications to access the data source

  - **Database connection:** Database providers and connections are the vehicles used to tell the server how to access the database, what database to access, and where the database is located. It supports the native JDBC driver, IBM Toolbox for Java and JTOpen JDBC drivers.

- **IAS Limitation**
  - Only 1 JNDI name
  - JNDI name must be: jdbc/ProxyDS
  - Applications must be modified to use this name

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Database Connections – Create connection

IBM Web Administration for i5/OS

Setup | **Manage** | Advanced | Related Links

All Servers | HTTP Servers | **Application Servers** | ASF Tomcat Servers

● Running ▷ ■ ⟳   Server: DANAPPSVR - V7.1 (int app svr) ▾

▼ Common Tasks and Wizards
  🗃 Create Web Services Server
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▼ Server Properties
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  🗋 Manage Database Connections

▼ Problem Determination
  🗋 View Logs
  🛠 View Create Summary

DANAPPSVR > Manage Database Connections

Manage Database Connections

All database connections: ❓

Connection ID	Database	Connection type
There are no entries for this table.		

[Create]

Launch Wizard to create new connection

Click Manage
Database Conncetions

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Database Connections – Create connection

Specify the database connection type
- IBM Developer Kit for Java JDBC™ driver - Local DB2
- IBM Toolkit for Java JDBC™ driver - Remote DB2

- Derby Database Provider - Local

DANAPPSVR > Manage Database Connections > Create Database Connection

Create Database Connection

Specify Database Connection Type

Welcome to the Create Database Connection wizard. This wizard creates a new database connection that can be used by your application to connect to a database. The database connection contains information such as the path to the database, the user ID and password to be used for connecting to the database, along with the database access method.

Specify the database connection type: ❓

Database connection type: | IBM Developer Kit for Java JDBC(TM) driver - Local DB2 ▾ |

IBM Developer Kit for Java JDBC(TM) driver - Local DB2
IBM Toolkit for Java JDBC(TM) driver - Remote DB2
Derby Database Provider - Local

The connection ID distinguishe[s] ... this server. A unique value must be specified for this connection ID. The application must then use this connection ID when accessing information from the database.

Connection ID: | *DEFAULT |

Specify Connection ID

- application uses this connection ID to access the database

Database Connections – Using the Connection ID

Note IAS JNDI name

- ***DEFAULT**

```
InitialContext context = new InitialContext();
DataSource ds = (DataSource) context.lookup("jdbc/ProxyDS");
Connection con = ds.getConnection();
```

No Connection Info passed on
Datasouce getConnection()

- **Unique Connection ID**

```
InitialContext context = new InitialContext();
DataSource ds = (DataSource) context.lookup("jdbc/ProxyDS");
Connection con = ds.getConnection("MyConnectionID", null);
```

Unique Connection ID allow for
multiple databases to be specified

Unique Connection ID
passed on the Datasouce
getConnection()

THE NEW POWER EQUATION

Database Connections – Create Connection

- **Database location**
  - – *LOCAL – database is located on this system
  - – hostname of remote system database is located on
- **Schema name**
  - – Same of the schema, collection, or library for the DB2 database

- Connection user ID
  - I5/OS User profile
  - User must have authority to the database!

DANAPPSVR > Manage Database Connections > Create Database Connection

Create Database Connection

Specify Database Connection Information

The database connection information specifies which database the application connects to. The database can be eithe remote database.

The database connection may require a User ID and password for the connection to the database.

Database location:	*LOCAL
Schema name:	
Connection user ID:	
Password:	

THE NEW POWER EQUATION

Database Connections – Create Connection

- **JNDI name**
  - Must be   jdbc/ProxyDS

DANAPPSVR > Manage Database Connections > Create Database Connection

Create Database Connection

JNDI name

The Java Naming and Directory Interface$^{(TM)}$(JNDI) provides naming and directory functionality to Java applications. An application uses a JNDI name along with a database connection to access a database. The integrated Web application server provides one JNDI name to be used by any application that needs database access. Access to different database is achieved by using the same JNDI name with different database connections. Database connections are distinguished from each other by connection ID's.

The following JNDI name must be used by applications to access databases:

JNDI name: jdbc/ProxyDS

THE NEW POWER EQUATION

Database Connections – Create Connection

- **Click Finish to create this new connection**

DANAPPSVR > Manage Database Connections > Create Database Connection

Create Database Connection
Summary

When you click **Finish** the application server **"DANAPPSVR"** will be modified to use the following database connection.

Database connection information

Database connection type:	IBM Developer Kit for Java JDBC(TM) driver - Local DB2
Connection ID:	*DEFAULT
Database location:	*LOCAL
Schema name:	fred
JNDI name:	jdbc/ProxyDS
Connection user ID:	timmr

Note: When you click **Finish** you will need to restart the application server in order for the changes to take effect.

[Back] [Finish] [Cancel]

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Database Connections - Manage

Work with the connection properties

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Database Connections – Manage properties

- **Modify the properties**

DANAPPSVR > Manage Database Connections > Database Connection Properties

Database Connection Properties

| General |

Database Connection Properties ?

Connection ID:	*DEFAULT
Connection type:	IBM Developer Kit for Java JDBC(TM) driver - Local DB2
Database location:	*LOCAL
Schema name:	fred
JNDI name:	jdbc/ProxyDS
Connection user ID:	timmr
Password:	••••••••••

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Additional Info

- **See Integrated Web Application Server product Web page!!!**
  - http://www-03.ibm.com/systems/i/software/ias/

- **Questions**

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Trademarks and Disclaimers

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