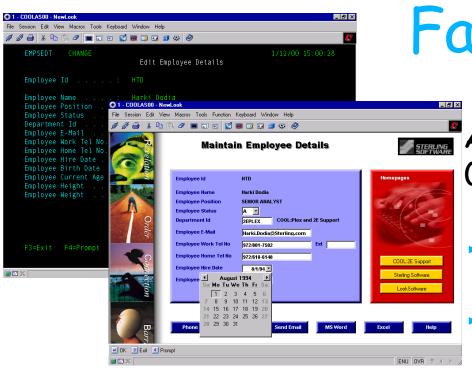


# Start Simple Grow Fast: Give That 5250 Screen a New



Face

Hosted by Mike Martin & Robin Clark -America iSeries e-business segment manager (mpmartin@us.ibm.com) (rjclark@us.ibm.com)

- Kevin Larsen -eBusiness Center Team Leader (kevlars@us.ibm.com)
- Carole Miner iSeries Client Integration (cminer@us.ibm.com)
- Linda Cole Consulting Sales Specialist (Icole@ca.ibm.com)



## Agenda



- -What is Start Simple Grow Fast???
- Moving to eBusiness
- -Getting Ready for the Web
  - -WebSphere Application Server
- -Faster Ways to the Web
  - -Refacing roadmap
    - iSeries Access for Web
    - Host Publisher
    - WebFacing
- Education, Services, Support

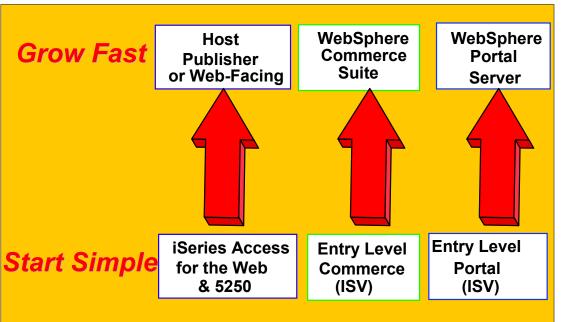


## Start Simple Grow Fast...



What is Start Simple Grow Fast?





## Start Simple...

- With a low cost solution
- With all the basic function
- With a path to "Grow Fast"

#### ...Grow Fast

- With a robust solution
- With best of breed functionality
- With a close tie to IBM Strategy



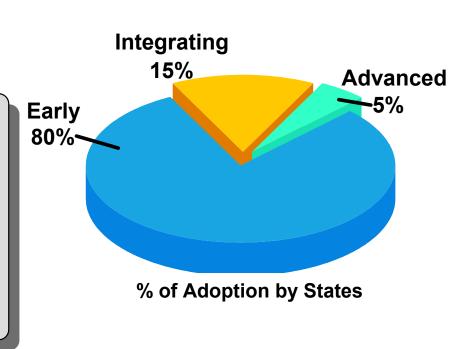


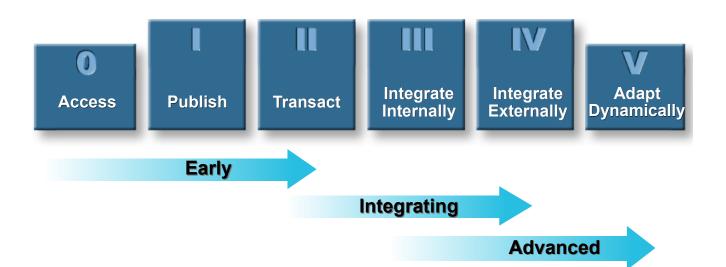
## States of e-business Adoption



#### iSeries Focus:

- 1. Extend existing applications to the web
- 2. Buy new e-business solutions from ISV's
- 3. Build new e-business applications

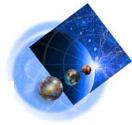








## How to Move iSeries Apps to the Web



# 1. Extend Core Business Processes and Applications to the Web

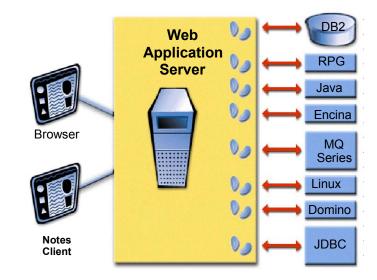
- Browser based User Interface
- Minimal change to underlying applications
- Minimal initial investment in skills

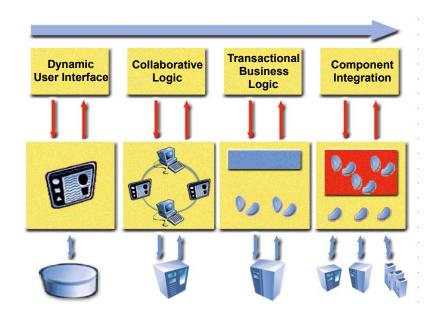
# 2. Add New Logic to Existing Applications

- Interoperability between Java and RPG, COBOL, etc.
- Full application integration

## 3. Build New eBusiness Applications

- eBusiness applications written in Java, RPG,
   COBOL with XML, etc.
- JSPs, Servlets



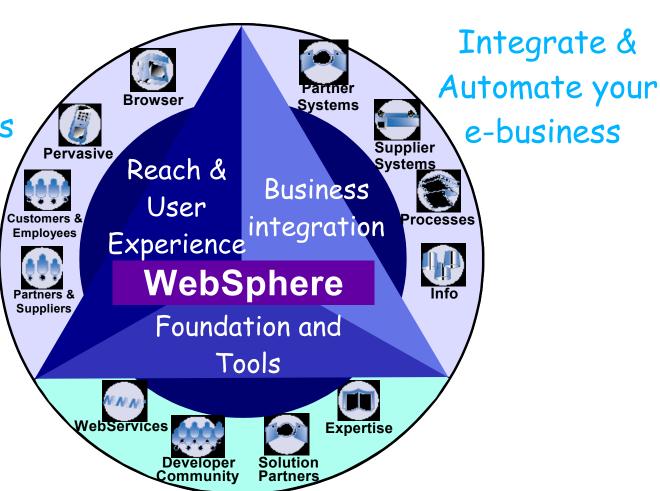




## WebSphere building blocks for dynamic e-business



Extend & Personalize your e-business



Build, Deploy, & Grow your e-business





## WebSphere building blocks for dynamic e-business

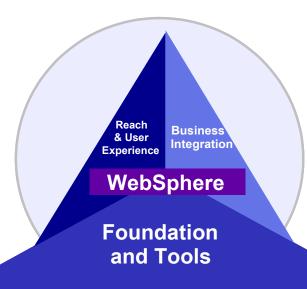


#### Foundation & Tools Definition

The core of any e-business is getting your business processes and transactions on the Web — so your customers and colleagues can buy and sell. Talk and share -anytime, anywhere. The WebSphere e-business foundation is all about Web-enabling your business as fast and as flexibly as possible.

#### Foundation & Tools Story

Start to Build: WS Studio Tools to Workbench Collaboration to eclipse Open Source innovations (e-AD) ....then Deploy: Integrated App Server, from legacy apps to new Web Services ...then Grow: scalability, optimization, continuity, new business models (ie. UDDI)



#### Foundation & Tools

#### WebSphere Application Server

provides the essential e-business functions of handling transactions and extending back-end business data and applications to the Web.

#### Studio

E-business development tools for professional developers offered on a common workbench technology

#### Host Access

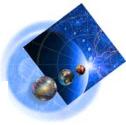
Group of products which enable customers to flexibly connect hosting capabilities with older technology within the enterprise.

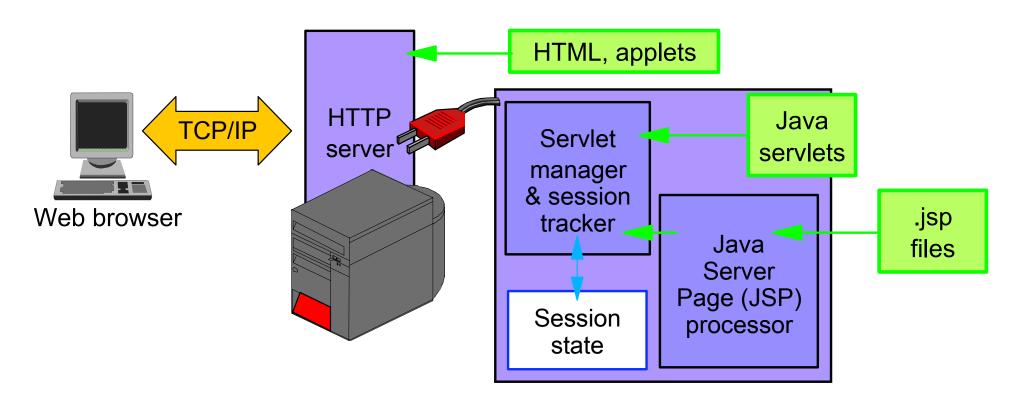






## WebSphere Application Server





- WebSphere Application Server is:
  - A plug-in to the HTTP server for running Java servlets
  - Available on many platforms OS/400, OS/390, NT, AIX, ...





## Servlets and JSPs



#### Servlets

- A Java class plug-in to the application server
- Acts as the Web application controller
  - Processes and routes browser requests to Java helper objects

### JavaServer Pages (JSPs)

- Encapsulate the presentation (view) of the application
- Allows a clean separation between presentation and dynamic content
- Use Java scriptlets to reference Java beans for dynamic application data

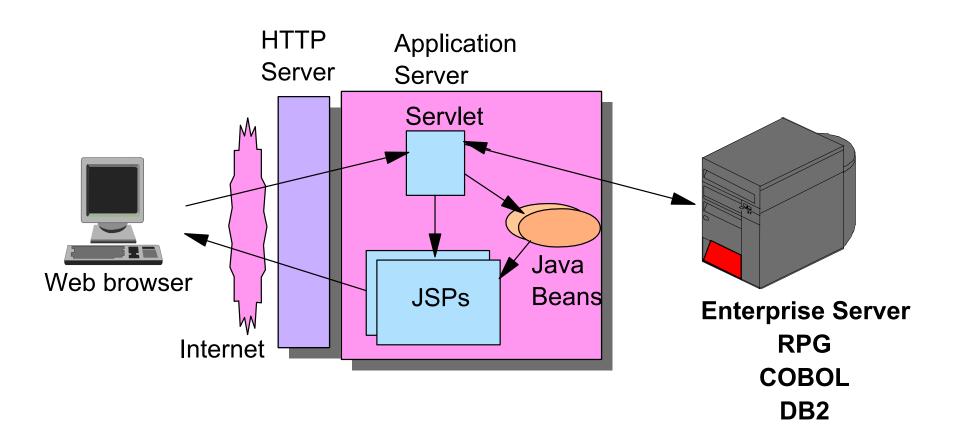
#### Java Beans

- Encapsulate dynamic application data
- Populated by the servlet
- Servlets, JSPs, and Beans are the resources of Web applications. They allow the generation of dynamic web pages.



## Web App Architecture





Tier 1 Tier 2 Tier 3





## Websphere Application Server



#### WebSphere Application Server Standard Edition v3.5 5798-WS3 (EOS June 2003)

- WebSphere Standard+ is not J2EE certified and does not include advanced function in WAS Advanced
- -Lack of EJB support and no multi-server capabilities for most robust, reliable web sites
- -NO CHARGE FEATURE!!!! (Great Place to start!!)

## WebSphere Application Server Advanced Edition v3.5 5798-WA3 (\$12K per CPU) (EOS June 2003)

- JDEE Certified (JDK 1.2)
- For departments or small/medium business only requiring support for Servlets & JSPs
- For standalone department or small/medium business

#### WebSphere Advanced V4 (Single Server Edition) - (\$8K per CPU plus SW maint.)

- Mission Critical Features: J2EE Certified (JDK 1.3), Web Services, (SOAP, UDDI, WSDL), New single server
  configuration option, Improved Manageability, Increased Performance
- For standalone department or small/medium business

#### WebSphere Advanced V4 (\$12K per CPU plus SW maintenance)

- Supports Single Server Edition functions plus
- Plus multi-server capabilities such as clustering, enhanced administration, distributed security, workload management, and much more





## WebSphere Application Server - V5

Coming 1Q03

An extended J2EE & Web services 'build-to-integrate' platform for creating, composing & choreographing dynamically adaptable networked application flows and behaviors

A J2EE web services application server specifically optimized to the unique QoS of z/OS

The core Web services J2EE 1.3 certified application server enabling industry leading QoS and flexible deployment options

An easily approachable "on-ramp" to e-business, providing fast and productive development, deployment of dynamic web applications

WebSphere Application Server **Enterprise** 

WebSphere Application Server <sup>4</sup>

WebSphere Application Server

- Express





## WebSphere Application Server Options on iSeries

WebSphere **Application Server** Advanced Edition v4 0 5733-WA4 \$12K per processor

WebSphere **Application Server** Single Server v4.0 5733-WS4 \$8K per processor

Server v5.0 WebSphere

Coming 1Q03

WebSphere

**Application** 

Server Network

Deployment

Server v5.0

WebSphere

**Application** 

Server Base

**Application** Server Express Server v5.0

WebSphere **Application Server** Advanced Edition v3.5 5798-WA3 (EOS

June 2003)

\$12K per processor

WebSphere **Application Server** Standard Edition v3.5

(EOS June 2003)

no charge feature

Application re-facing...Start with WAS 3.5 and move to WAS Express when available.



## WebSphere --> sub-capacity pricing



## Sub-Capacity pricing is the pricing of SWG products at less than the full machine capacity, subject to the current terms

#### Purpose of Sub-Capacity pricing

- -Better address Server Consolidation on servers with partitioning capabilities
- -Provide attractive pricing model for customers with multiple workloads
- -Offer flexibility and changeability to meet individual customer requirements
- -Incorporate the use of new technology such as LPAR to better support customers

#### How is this monitored for compliance?

- -IBM license management programs will be required on certain servers to accurately
- -manage Sub-Capacity pricing
- -In the future, sub-capacity licensed customers will be required to send license
- -manager software inventory logs to IBM

#### How does Sub-Capacity pricing apply to iSeries & WebSphere?

- -WebSphere Application Server
- -WebSphere Commerce Suite





## Sub Capacity Examples





Partition #1	Partition #2			
WAS	Other Workload			
0.5 cpu	1.5 cpu's			

#### 2-Way iSeries

- WAS processor units = 0.5
- WAS licenses required = 1

4-Way iSeries

■ WAS processor

units = 1.3

■ WAS licenses

required = 2

2-Way iSeries



Part #1	Part #2	Partition #3 Other Workload			
WAS	WAS				
0.6 cpu	.7 cpu	2.7cpu's			

	Part #1	Part #2	Partition #3			
	WAS	WAS	Other Workload			
1015	0.6 cpu	.7 cpu	2.7cpu's			

#### 8-Way iSeries

- WAS processor units = 1.5
- WAS licenses required = 2
- WCS processor units = 0.9
- WCS licenses required = 1



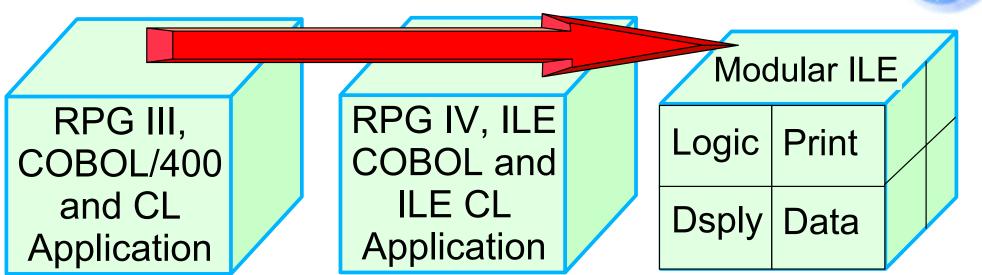
Part #1 Part #2 Part #4 Part #3 Other Workload WAS WCS WCS 1.5 cpu 0.4 cpu 0.5 cpu 5.6 cpu

**8-Way iSeries** 



## Phasing In ...





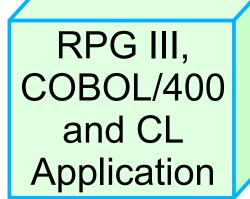
- Move to modern compilers
- Modularize with ILE





## DB2 Functions Added ...





RPG IV, ILE COBOL and ILE CL Application

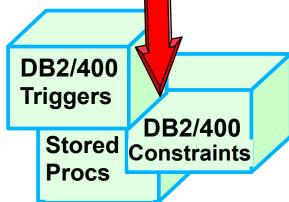
Logic Print

Modular ILE

Dsply Data

Move to modern compilers

- Modularize with ILE
- ► Use DB triggers, etc





## Change the Look of the Application ...



RPG III, COBOL/400 and CL Application

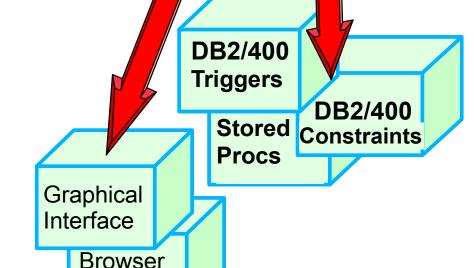
RPG IV, ILE COBOL and ILE CL Application

Logic | Print

Modular ILE

Dsply Data

- Move to modern compilers
- Modularize with ILE
- Use DB triggers, etc
- Add GUI or Web UI

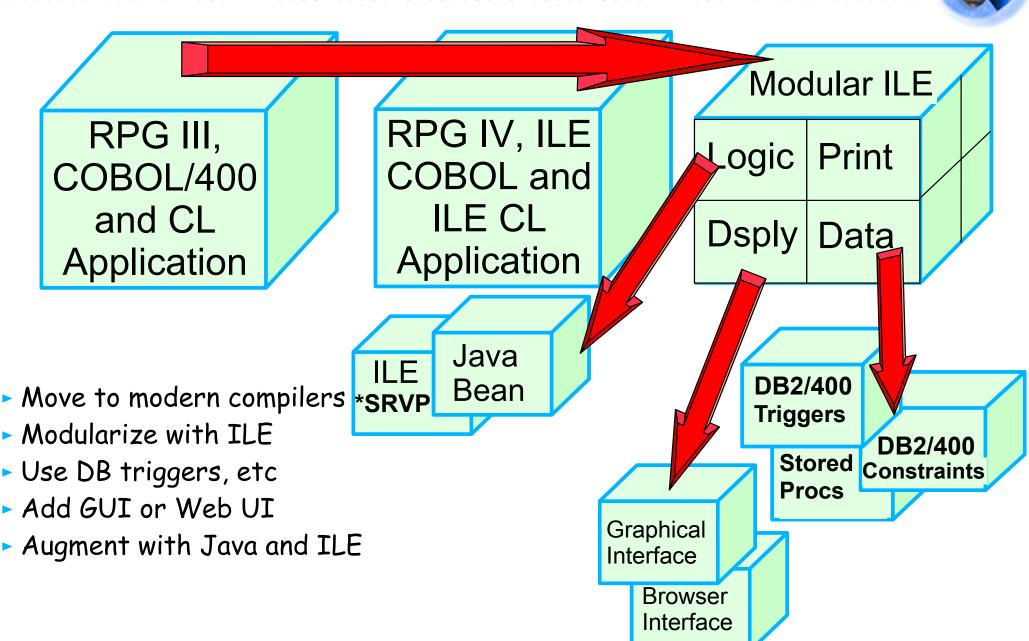


Interface



## Extend Application with New Function ...

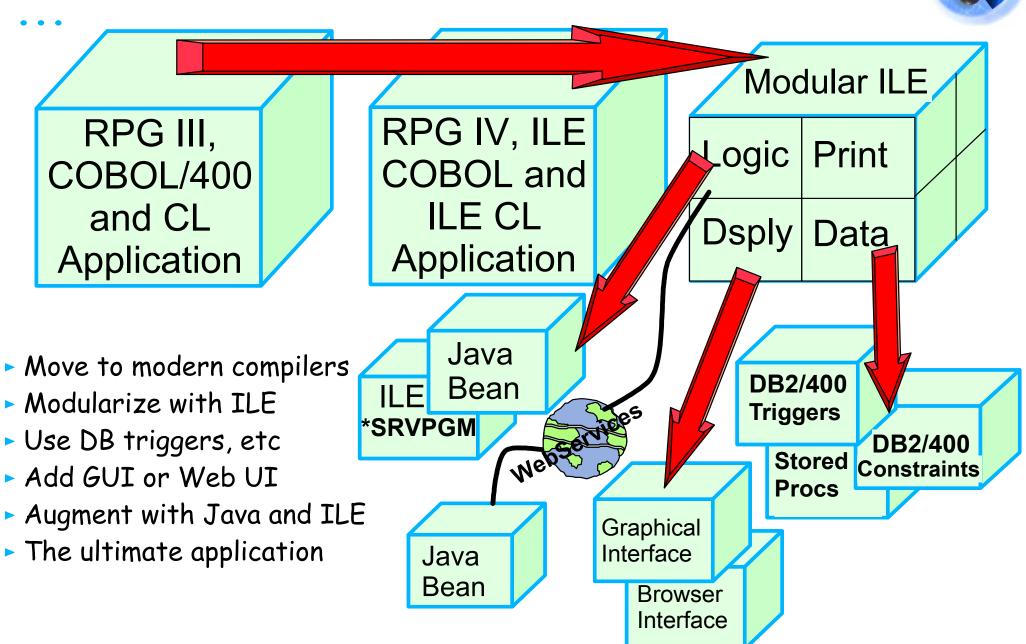






## Ready to Try the Ultimate?? WebServices







## Getting Started with WebSphere with iSeries

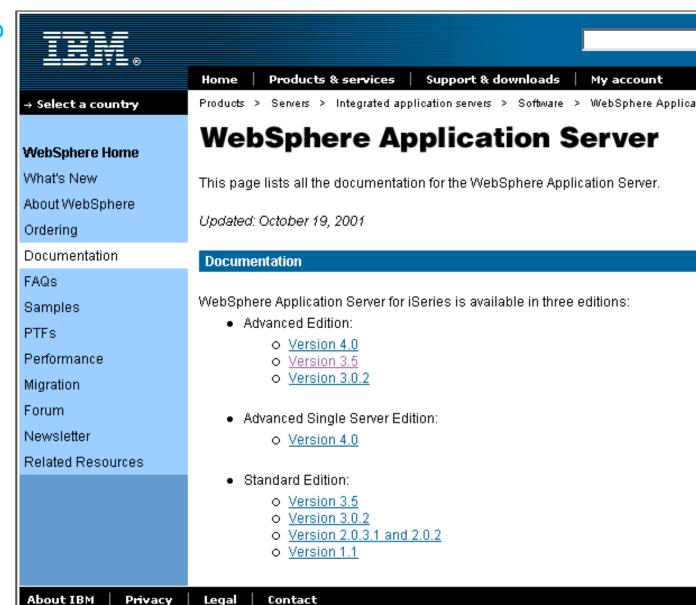


IBM @ server iSeries

http://www-1.ibm.com/servers/eserver/iseries/software/websphere/wsappserver/docs/doc.htm

Access this URL for one-stop shopping to find out about:

- Getting Started
- Checklists
- Migration
- Documentation
- Release Notes
- PTFs
- Performance
- Samples





## Getting Started with WAS 3.5



http://www-1.ibm.com/servers/eserver/iseries/software/websphere/wsappserver/docs/as400v35/docs/indexiic.html

## IBM WebSphere Application Server for AS/400 Advanced Edition site map search

Home

- -- Administratio
  - -- Programming

Tarrent Barre

Introduction

Installation

WebSphere Application Server for iSeries

#### Installation and Initial Configuration

Introduction

Home

- \* Additional Resources
- Checklist
- Planning the installation
- ▶ Installing WebSphere
- Configuring WebSphere
- ▶ Starting WebSphere
- Verifying the Installation
- Troubleshooting

**Search** 

# Installation and initial configuration of WebSphere Application Server for iSeries

This topic describes what is required to install and start WebSphere Application Server for iSeries. It also provides instructions on how to configure your iSeries server, the WebSphere administrative domain, and IBM HTTP Server for AS/400; and how to verify that the WebSphere Application Server was started successfully.

You can print the information in this topic by using the Installation and initial configuration PDF.

Note: This information is also available as a checklist that you can print out.

#### Introduction

This section provides a brief description of WebSphere Application Server for iSeries.

#### Additional resources

This section provides links to additional resources regarding the use of WebSphere Application Server for iSeries.

The installation and initial configuration of WebSphere Application Server for iSeries includes the following steps:



#### Step 1: Planning the installation and initial configuration

This step describes a series of tasks that you should complete before you install WebSphere Application. Server for iSeries to ensure that all the prerequisites are met.



#### Step 2: Installing WebSphere Application Server

This step describes how to install the WebSphere Application Server product on your iSeries system and the Administrative Console on your workstation.



#### Step 3: Creating an initial configuration

This step describes how to configure your iSeries system, the WebSphere administrative domain, and your HTTP Server so that WebSphere Application Server will run correctly.

## Checklist: WAS 3.5 installation & configuration

http://www-1.ibm.com/servers/eserver/iseries/software/websphere/wsappserver/docs/as400v35/docs/indexiic.html

·····

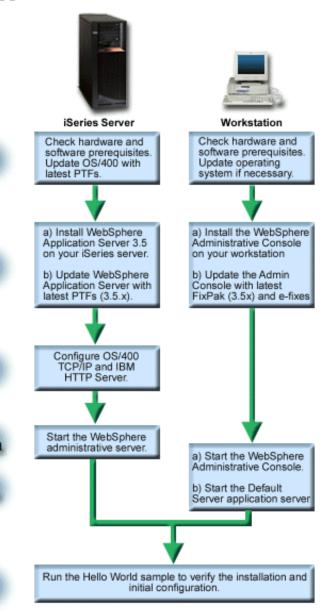
Step 1: Planning the installation and initial configuration

Step 2: Installing WebSphere Application Server

Step 3: Creating an initial configuration

Step 4: Starting the WebSphere Application Server environment

Step 5: Verifying the installation









# Are There "Faster" Ways to WebSphere & e-Business??







## Your Options ....



## Buy a Web-Enabled Application

- many vendors have already converted their code

## Build a Web-Enabled Application

- iSeries Access for the Web
- Host Publisher
- WebFacing
- Domino
- WebSphere Commerce Suite
- WebSphere Portal Server



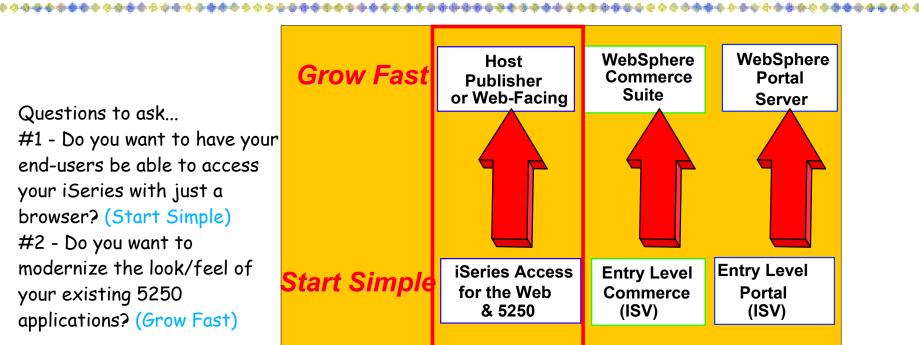
## Start Simple Grow Fast Application ReFacing



Questions to ask...

#1 - Do you want to have your end-users be able to access your iSeries with just a browser? (Start Simple)

#2 - Do you want to modernize the look/feel of your existing 5250 applications? (Grow Fast)



## Start Simple...

- iSeries Access for Web
- Bundled with Client Access
- No additional charge!

## ...Grow Fast

- Host Publisher -or-
- WebFacing
- No additional charge!



## iSeries Access for Web



#### iSeries Access for Web

(Product Number 5722-XH2, V5R2)

- Fully translated, including DBCS NLVs
- Available on:
  - -OS/400 V5R1 and V5R2
- Requires a web application server:
  - WebSphere Application (Advanced and Single) Server 4.0
  - -IBM HTTP Server with the "Tomcat" plug-in from the Apache Software Foundation (ASF)
- Can be configured to run with more than one web application server and can run concurrently.
  - -WAS Advanced 4.0, WAS Single Server 4.0, and ASF Tomcat can all be installed, configured, and running on an iSeries server concurrently, and V5R2 (5722-XH2) can be configured to run in more than one WebSphere administrative instance concurrently.
  - -iSeries Access for Web V5R1 (5722-XH1) and V5R2 (5722-XH2) can be installed and run on the same iSeries server concurrently



## What is iSeries Access for Web?



End users can leverage business information, applications, and resources across an enterprise by

extending the iSeries resources to the client desktop through a web browser

#### Provides access to iSeries through a browser

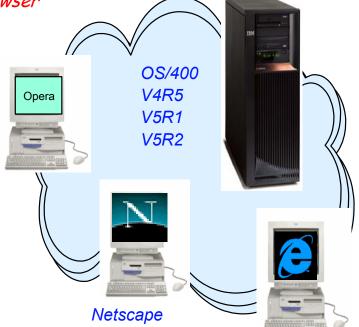
- **5250** access
- Access to database, integrated file system, printers, output queues, jobs
- Can run batch commands and send/receive messages

#### It has the following advantages:

- Is server based
- Requires only a browser on the client, no configuration required at desktop,
   no applets installed on desktop

Opera

Uses industry standard protocols - HTTP, HTTPS and HTML







Windows, Linux, Macintosh, UNIX/AIX, OS/2, ...

## Functions You Can Perform



#### My Personal Folder X Print



- Printer output
- Printers
- Internet Printers
- Printer shares
- Output Queues

#### Database

- Tables
- My Requests
- Run SQL
- Copy Data to Table
- Import Requests

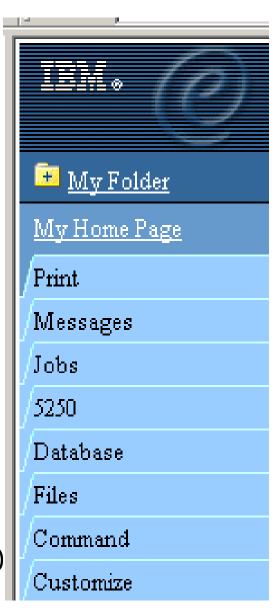
#### 5250



■ Start 5250 Session

#### Commands

Run commands (Batch)



#### Files

- Browse Files (in IFS)
- File Shares (in NetServer)

#### Messages

- Display Messages
- Send Messages
- Operator Messages
- Message Queue

#### Jobs 👈



- User Jobs
- Server Jobs

#### Customize

- Administrator controls access to functionsu by user or group of users:
  - Can customize front page
  - Can limit what tasks can be performed







## New Integrated 5250 Interface



#### \*\*\*\*\*\*\*\*\*\* iSeries Access for Web webaccess USER USER TASKS SYSTEM: $R^{\dagger}$ SELECT ONE OF THE FOLLOWING: 1. DISPLAY OR CHANGE YOUR JOB DISPLAY MESSAGES SEND A MESSAGE SUBMIT A JOB WORK WITH YOUR SPOOLED OUTPUT FILES WORK WITH YOUR BATCH JOBS 7. DISPLAY OR CHANGE YOUR LIBRARY LIST 8. CHANGE YOUR PASSWORD 9. CHANGE YOUR USER PROFILE MORE USER TASK OPTIONS 90. SIGN OFF SELECTION OR COMMAND ===> F3=EXIT F4=PROMPT F9=RETRIEVE F12=CANCEL F13=INFORMATION ASSIST

- Full use of keyboard
  - Mouse not required to work with keyboard keys
- Can specify workstation (device) ID
- Keypads
- Macros
  - Contains a series of cursor position commands and user input
- I32-column support
  - -Screen will auto-switch as needed
- Configurable 'Web' or 'Traditional' view



F16=AS/400 MAIN MENU

## V5R2 - e-mail output and PDF conversion



IBM @ server iSeries

#### 'e-mail' results as attachment

- Can send results to a recipient with status sent to sender for:
  - A database (SQL)action
  - -CL command
  - File command
  - -PDF view of print information
- A one-step way to distribute information across the network, and particularly useful when recipient is not an iSeries user.

## Convert output to .pdf

# iSeries Access for Web webaccess Printer Output for webaccess

File Nam	.e	User Data		ation /Time		iges Copy	Copies	Status
QPRINT			3/28/02	1:09 PM		1	1	Ready
QPJOBLO	G	QPADEV000C	4/11/02	10:30 PM	[	2	1	Ready
QPDSP.		Acti	on				Previo	ew e
QPJOBI J	H	old Print Nex	t <u>Delete</u>	PDF	GIF	ΓIFF	PCL 2	AFP Viewer
ÿ	H	old Print Nex	t <u>Delete</u>	PDF	GIF	ΓIFF	PCL A	AFP Viewer
ÿ	H	old Print Nex	t <u>Delet</u> e	PDF	GIF	TFF	PCL 2	AFP Viewer
y	H	old Print Nex	<u>t Delete</u>	PDF 9	GIF	TIFF	PCL 4	AFP Viewer
ÿ	H	old Print Nex	t <u>Delete</u>	PDF 9	GIF	ΓIFF	PCL A	AFP Viewer
y	H	iold Print Nex	<u>t Delete</u>		GF	ΓFF	PCL 4	AFP Viewer



## V5R2 - My Folder





## iSeries Access for Web

cminer

#### My Folder

- Container resides on the web server and can only be accessed by owner
  - An easy way to avoid large attachments (for example a large query result)
- Can place information in other users' My Folders
  - Mechanism for workflow.
- Combine new 'Mail' function with 'My Folder' function
  - Send email to others when I place information in their folder
  - Be notified when new items are placed in my folder.

## 'Mail' or 'Personal Folder' is good for:

- Long-running requests (actions performed asynchronously so the browser is not tied up)
- Perform
   requests for
   someone else or
   distribute
   results to a
   group of users



### Main Web Page - traditional users familiar with iSeries

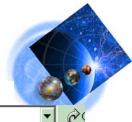




url address is: www.<iseries>.com/webaccess/iWA



## Sample Web Page- users not familiar with iSeries





Links Search t Address Address http://lp116ab:2026/webaccess/iWAHome

#### Access for Water Supplying quality boats since 2002

#### Services

View available boats
See boat details
Order a boat

Work with invoices
Check messages
Check system messages
Administrator tasks
Manage incoming items
Monitor jobs

#### This Week's Special



Beautifully maintained 28 foot 1978 ( for only \$23,900. Head and galley re Only 31 hours on completely rebuilt r see this boat cruising the seas.

#### Great Deals

For those bargain conscious among y selection of new and slightly used bos \$75,000. Whether you are planning obackyard pond or navigating the might can meet your wants, needs, or desir

#### Site Support

Your comments are important to us. Please let us know if you have any questions or if we can help you in any way. Address your message to user

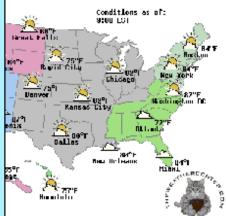
Send us a message

Access for Web provides customization capabilities

- Could be used as 'entry' point to iSeries
- Run your Host
   Publisher or
   WebFacing
   applications from
   here

#### onditions

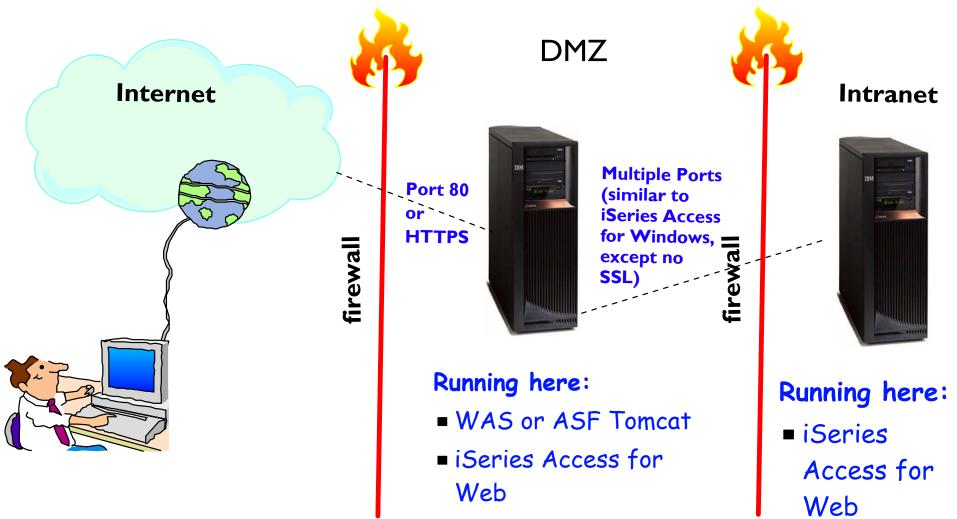
ay for boating? Check out today's





## Using a DMZ\*





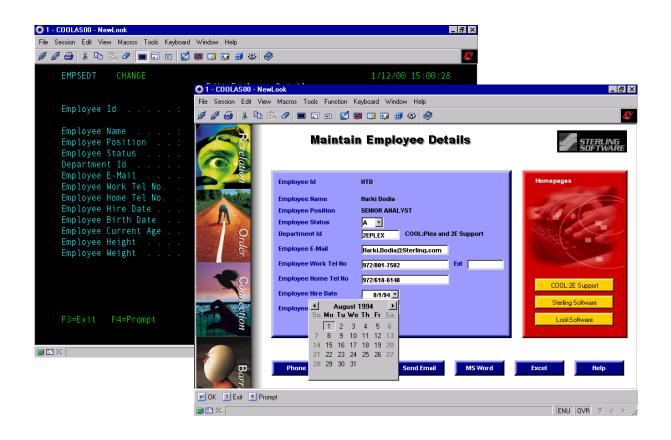


## Application Re-facing Solutions



### WebSphere Products Available!

- WebSphere Host Publisher
- WebSphere Development Studio (Web Facing)







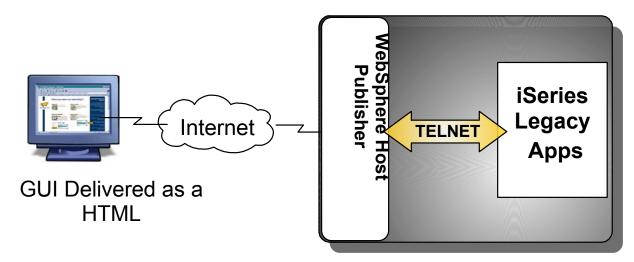
## WebSphere Host Publisher - benefits



#### Benefits

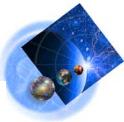
- Enable programmers to:
  - Replace traditional green screens with a Web look and feel
  - Streamline navigation through an application so end user productivity of an existing application is improved --making it easier to learn and use
- Enable end users to:
  - Run applications from any desktop operating system through any browser supported by WAS

#### IBM @server iSeries





## WebSphere Host Publisher - capabilities



### Capabilities

- Enable programmers to:
  - Modernize iSeries (5250), zSeries (3270), and DEC/UNIX (VT) applications without changing the host applications -- in fact you don't even need the source code!
  - You don't need to modernize entire application -- simply select the paths you want to publish to the Web
  - Turn <u>system screens</u> into Web pages
  - Consolidate multiple applications into a single composite Web page

- Easily customize and add business logic to your existing host application where needed
  - Can <u>create a database</u>
     <u>application using Host Publisher</u>
  - Can combine another IBM connector solution (like MQ Series) or industry-standard Java pages (JSPs)
- Extend to Pervasive devices
  - Further leverage your host application investments by extending legacy access to users of cell phones or Palm Pilots by combining use of other WebSphere technologies



## Key Components of Host Publisher



Development environment is a task-oriented, graphical user interface that runs on a PC with Microsoft Windows

WebSphere Host Publisher

Run time environment runs on WAS on iSeries

Host Publisher Studio

Host Publisher Server

### Development Environment

- Generates IntegrationObjects
- Contains Java bean factories
- Generates Java Server Pages and J2EE files

#### Run Time Environment

- Contains session management
- Provides a run-time administration servlet
- Has Iog and trace management
- Contains Java classes for connection management
- Provides Servlet API support





## What are the steps?



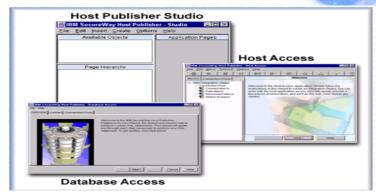
- 1. Install/configure Host Publisher Server in WAS
  - -get it ready for use
- 2. Start the WebSphere Host Publisher Studio
  - -Host Access (5250, 3270, VT) or Database Access (JDBC) paths
- 3. Step through the application or host screens -- capturing the information you wish to publish
  - -generates Java beans called Integration Objects
- 4. Import the Integration Objects into the Host Publisher Application Integrator (studio)
  - -generates JSPs and J2EE.ear files
- 5. Perhaps polish your application further
  - -Could use a product in the WebSphere Studio family or other products to enhance the graphical look of the pages
- 6. Install the J2EE files on the application server using WAS Administrator
- 7. Ready for Web users to enter url to access the application



### WebSphere Host Publisher Studio - Host Access



The 'Host Access' component works with existing 5250, 3270, and VT applications or host screens to provide data and functions in a web page



#### Host Access interacts with host tasks

- Host 'green screen' applications or system screens (ie, OS/400 screens such as working with spool file)
- Entering input, extracting output
- Represents them as reusable Java bean components
- Data from multiple host applications or system screens can be combined in a single web page

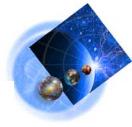
#### Benefits

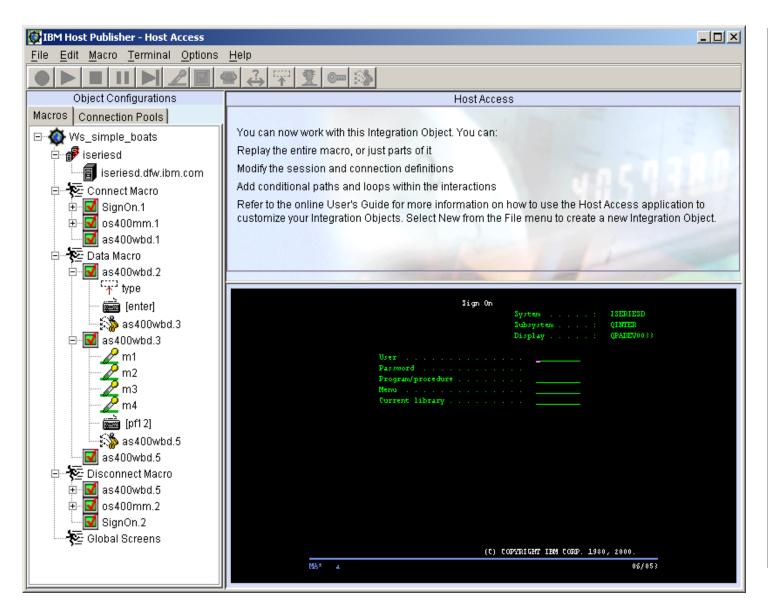
- Host Publisher hides the complexity of obtaining the data
- No changes to host applications needed!
- Mission critical data can be presented to new users in new ways





## Capturing Your Screens



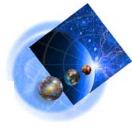


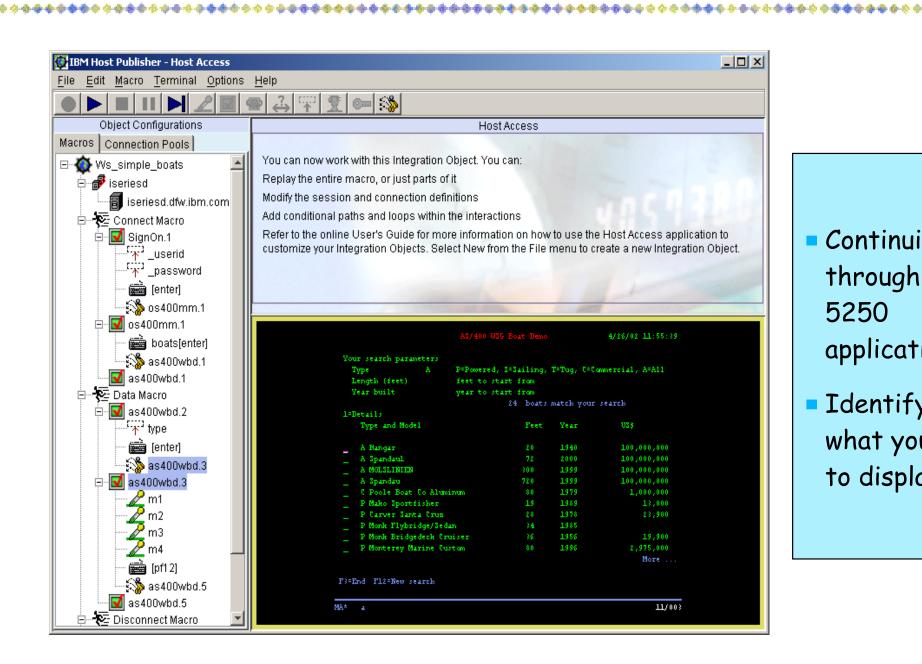
- Step through your application
- Picking the input/output fields you want to display
- Watch on the left as Host Publisher is building the JSPs





## Working through the Studio





- Continuing through the 5250 application
- Identifying what you want to display...



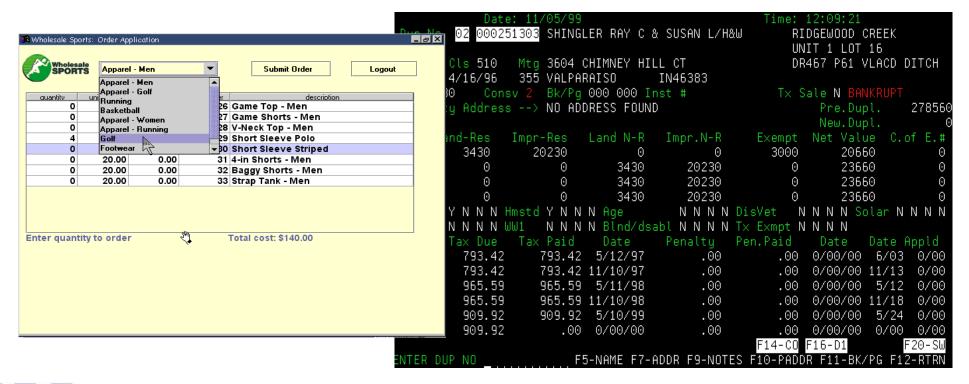


## Testing / Debugging your application



# You can use the Host Publisher Display Terminal function for debugging

- You can run the 5250 application in its green-screen view right next to your modernized application
- Enables you to see the paths through your 5250 application that your modernized application is going to take.







### WebSphere Host Publisher Studio - Database Access



The 'Database Access' component is used to create SQL Integration Objects that can access relational databases



- Includes iSeries JDBC driver
- AS/400 Toolbox for Java

The 'Database Access' component is used to create Integration Objects that can access databases

- Supports any relational database that provides JDBC drivers
- Can access DBA data over the network using JDBC driver in DBA Connect

Database Access enables you to:

- Perform SQL inserts, updates and deletes in conjunction with DB2 UDB for iSeries, and
- Represent them as reusable Java bean components





### WebSphere Host Publisher Studio - Application Integrator



The 'Application Integrator' component is used to Java Server Pages (JSPs) and J2EE.ear files



The 'Application Integrator' component is an interactive application builder for integrating Java components

- Host access beans
- Database access beans
- Other Java applications

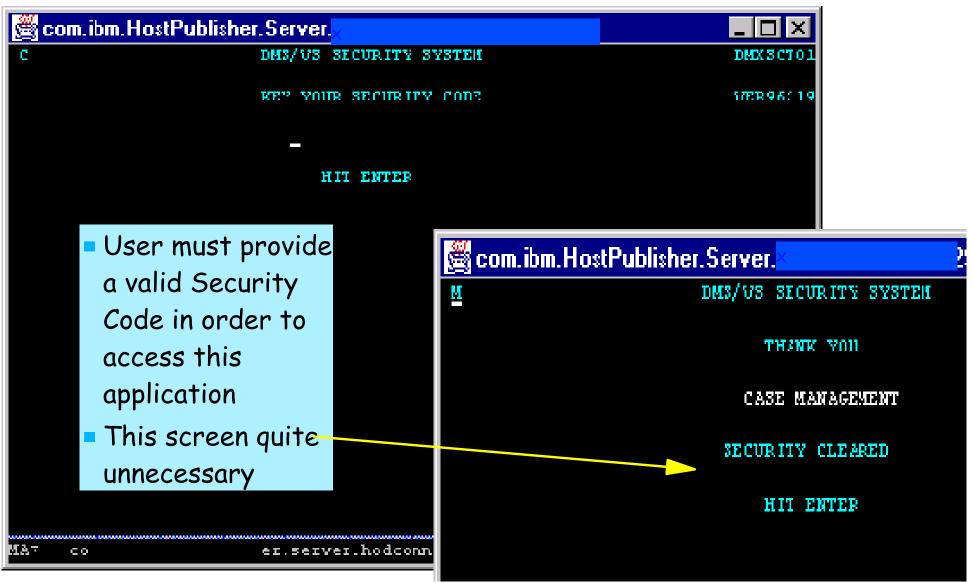
Also used to build composite applications





## Example: Green Screen Application

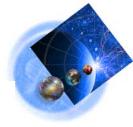


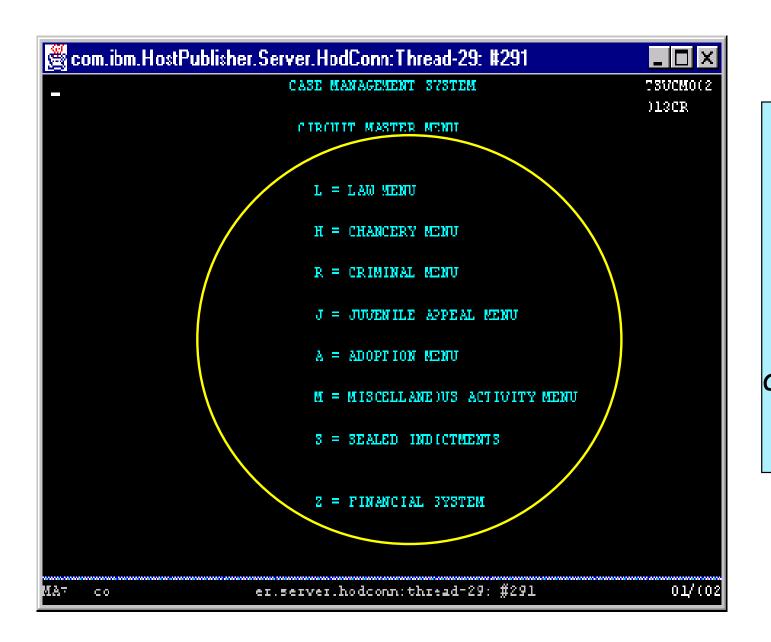






## Example: Case Management System





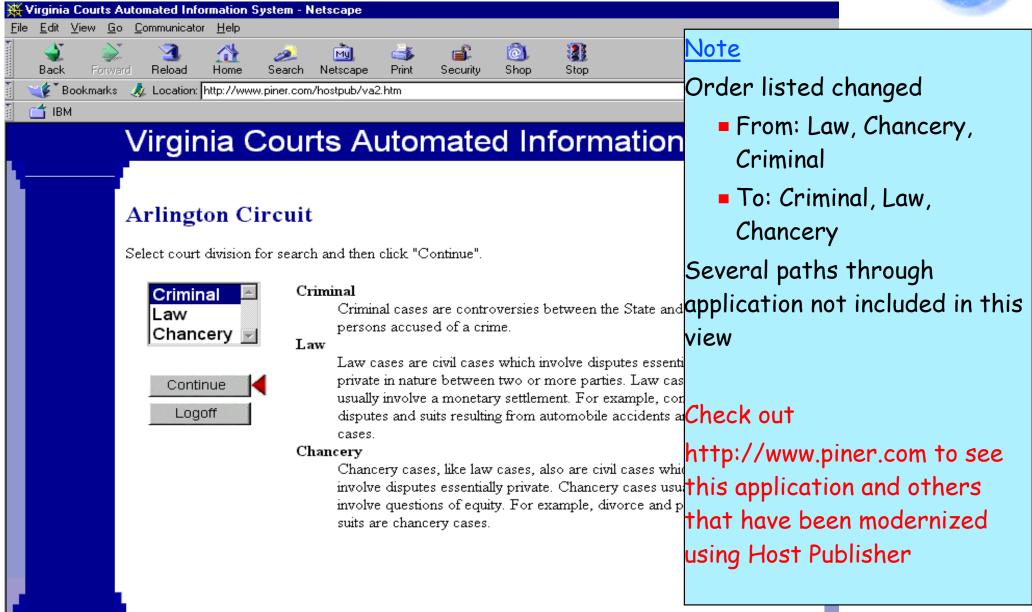
Multiple
paths
through
this
application





## 'Web-ized' 3 Paths Through Application





## iSeries Access Family Packaging

6	

		- 10,4401
V5R2	V5R1	V4R5
5722-XW1	5722-XW1	5722-XW1
iSeries Access Family	iSeries Client Access	AS/400 Client Access
	Family	Family for Windows
• 5722-XEI, V5R2	• 5722-XEI, V5RI	• 5769-XE1, V4R5
iSeries Access for	AS/400 Client Access	AS/400 Client Access
Windows	Express for Windows	Express for Windows
• 5722-XH2, V5R2	• 5722-XH1, V5R1	• 5763-XDI, V3R2M0
<ul><li>iSeries Access for</li></ul>	iSeries Access for Web	AS/400 Client Access
Web		for Windows 95/NT
• 5724-B81, V4.0	• 5648-E25, V3.5	• 5763-XKI, V3RIM0
<ul><li>WebSphere Host</li></ul>	WebSphere Host	AS/400 Client Access
Publisher	Publisher	for Windows 3.1
	Customers with Software	Customers with Software
	Subscription can get V5R2	Subscription can get V5R1
	family products by	family products by
	ordering no-charge	ordering no-charge
	Feature No. 2645 of	Feature No. 2643 of
	Product No. 5722-XW1	Product No. 5755-AS5





OS/400 V5R2	OS/400 V5R1	OS/400 V4R5
WAS 4.0	WAS 4.0	WAS 4.0
<ul> <li>WebSphere Host</li> </ul>	• WebSphere Host	
Publisher V4.0,	Publisher V4.0,	
5724-B81	5724-B81	
• iSeries Access for Web	• iSeries Access for Web	
(V5R2), 5722-XH2	(V5R2), 5722-XH2	
ASF Tomcat	WAS 3.5	WAS 3.5
• iSeries Access for Web	• WebSphere Host	<ul> <li>WebSphere Host</li> </ul>
(V5R2), 5722-XH2	Publisher V3.5,	Publisher V3.5,
,	5648-E25	5648-E25
Note: Host Publisher not	Also install ASF Tomcat	• iSeries Access for Web
supported on Tomcat	and run iSeries Access	(V5R1), 5722-XH1
	for Web (V5R2),	
	5722-XH2 under	
	Tomcat	
	Note: Could run iSeries Access for	
	Web (V5R1, 5722-XH1) but has	
	significantly reduced function	

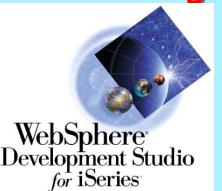




## WebSphere Development Studio Client



## Announcing:



5722-WDS: V5R1 & V5R2

ibm.com/software/ad/wds400

#### ONE PRODUCT: ALL TOOLS

#### All host compilers and tools

- ✓ RPG. COBOL. C. C++
- ✓ ADTS (PDM, SEU, SDA, RLU, DFU)
- √"open" IDE workbench

#### WebSphere Development Tools

- based on eclipse tool set
  - CODE/400
  - ✓ Visual Age for Java Pro plus ET/400
  - ✓ WebSphere Studio Pro plus iSeries extensions

- - √ VisualAge for RPG

✓ WebFacing

If you have any of the following products (5769-CB1, 5769-CL3, 5769-CX2, 5769-CX5, 5769-PW1, 5769-RG1, 5769-WDS) you are entitled to a no additional charge upgrade to 5722-WDS if customer has a current software subscription contract.

60,000 copies shipped since May 23, 2001





**CODE/400** 

VisualAge for RPG

**VisualAge** for Java

WebSphere Studio

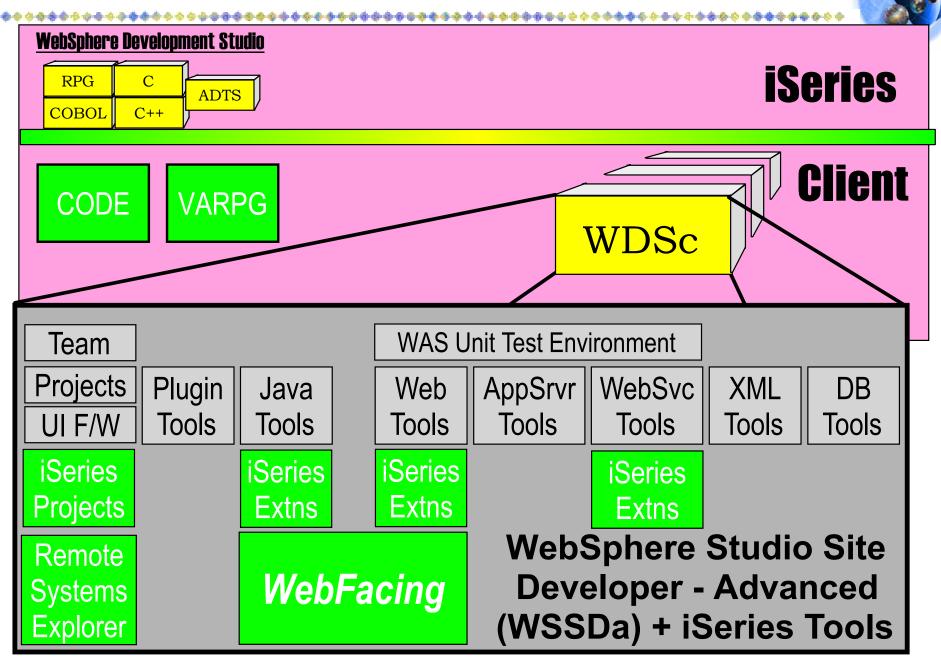
Web Facing Tool

Common Installation, JDK, Communications, Documentation





### WDS and WDSc 4.0!







## WebSphere Web-Facing

#### WebFacing Tool

- -Creates a Web interface for 5250 applications using standard JavaServer Pages, servlets and JavaBeans
  - -Runs with WebSphere Application Server
  - Web interface can be customized with WDS or any Java tooling
  - Web interface can also be customized within CODE designer
- No changes to the 5250 application
  - —Supports both 5250 and Web interface
- Must have source code

#### Customer Benefits

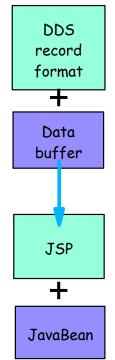
- 5250 applications can be Web enabled quickly, easily and cost effectively
  - 5250 green screen applications can be converted and hosted on WebSphere Application Server in hours
  - -8 step conversion process is easy
  - -No separate tooling or run-time charges
- No dual maintenance for the application
  - WebFaced application supports both a 5250 and Web interface
- Web look-and-feel
  - Customization capabilities deliver good Web appearance
- Positioned to extend application in future...

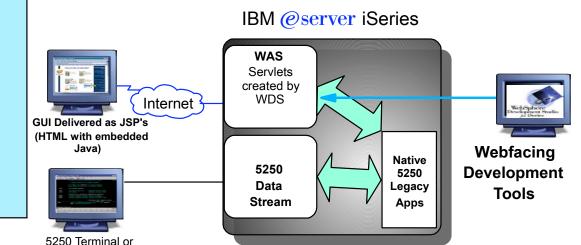
#### What are the Steps?

- 1. Start the new WDS 4 iSeries
- 2. Run the Create WebFacing Project wizard
  - import DDS Source from the server
  - specify the CL command used to start the app and the text desired for the Web page link
  - select style

Emulation

- 3. Convert DDS to JSPs and beans
- 4. Update publishing information
- 5. Deploy the files to WebSphere Application Server
- 6. Ensure that a WAS instance is up and running
- 7. Invoke the first page Invocation page=index.html
- 8. Iteratively improve the look ...







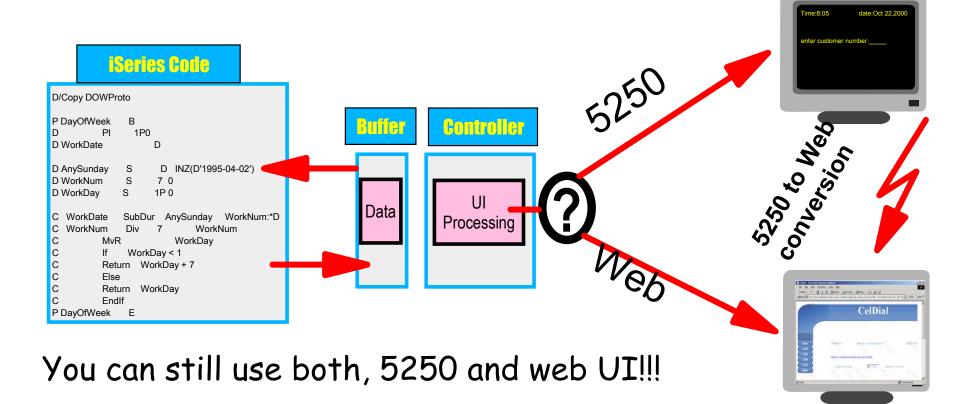
## WebFacing/400

► Create Browser based GUI for 5250 applications

\*\*\*\*<del>\*</del>

- 5250 screens to Browser
- Convert DSPF source to JSPs and Servlet.
  RPG/COBOL runs "as is", No need to change!







## Before and After WebFacing ...

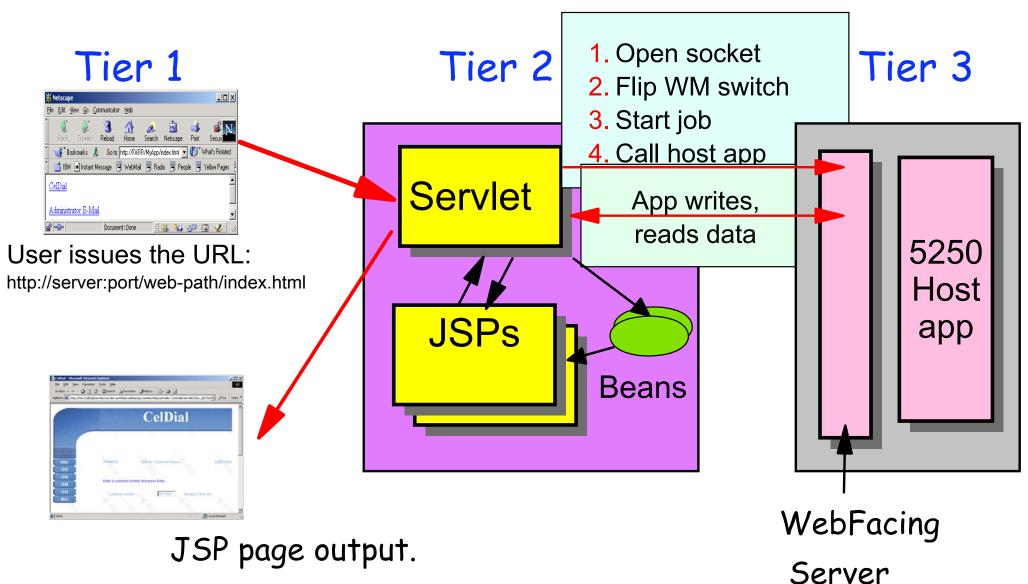


	APPCON WebFaced!! - Microsoft Internet Explorer provided by ZDNet			
■ <mark>-</mark> Session A - [24 x 80]	<u>File Edit View Favorites Tools Help</u>	<b>1</b>		
File Edit Iransfer Appearance Communication Assist Window Help  PrtScrn Copy Paste Send Recv Display Color Ma	Back Forward Stop Refresh Home Search Favorites History Mail Print  Address Address Attp://localhost:8080/Webfacing/servlet/com.ibm.as400ad.webfacing.runtime.httpcontroller.Cont	t Jane		
Z0000001 Sign On/Off Environment : Appcon/IBM Test System				
Type information. Then press Enter.  Required  Identification  Password	APPCON WebFaced!			
Optional  Company	Environment . : Appcon/IBM Test System  Type information. Then press Enter.  CF01  Required  Identification	sssssss		
Connected to remote server/host TORAS48F using port 23	Company			
	Done Local i	intranet //		



## How does it all work?





User enters data, and

presses Submit...



IBM @ server iSeries

## What are the steps?



- 1. Start the new IDE
- 2. Run the Create WebFacing Project wizard
  - -import DDS Source from the server
  - -specify the CL command used to start the app and the text desired for the Web page link
  - -select style
- 3. Convert DDS to JSPs and beans
- 4. Update publishing information
- 5. Deploy the files to WebSphere Application Server
- 6. Ensure that a WAS instance is up and running
- 7. Invoke the first page Invocation page=index.html
- 8. Iteratively improve the look ...



## New IDE . . .

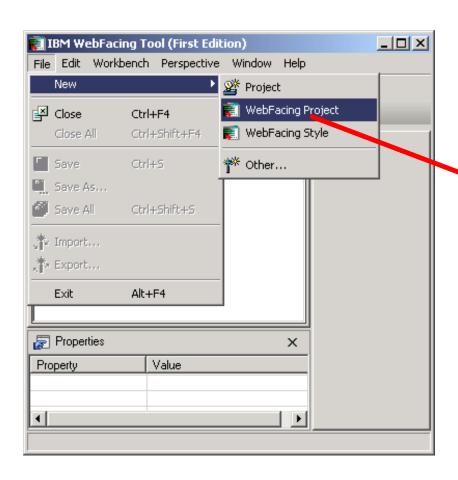


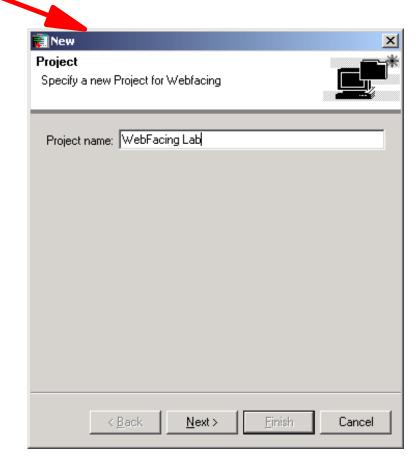




## Create a New Project!









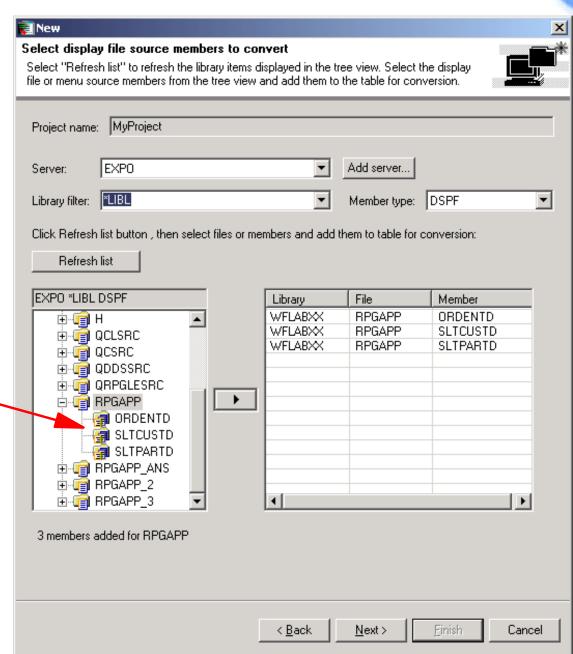


### Select DDS source

- Select server
- Sign on



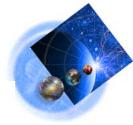
Select DDS

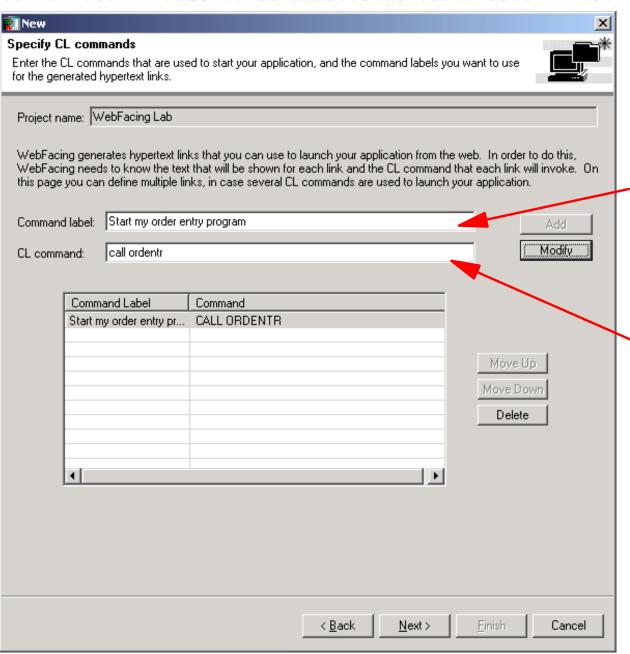






## Command to Call App





Text for web page link

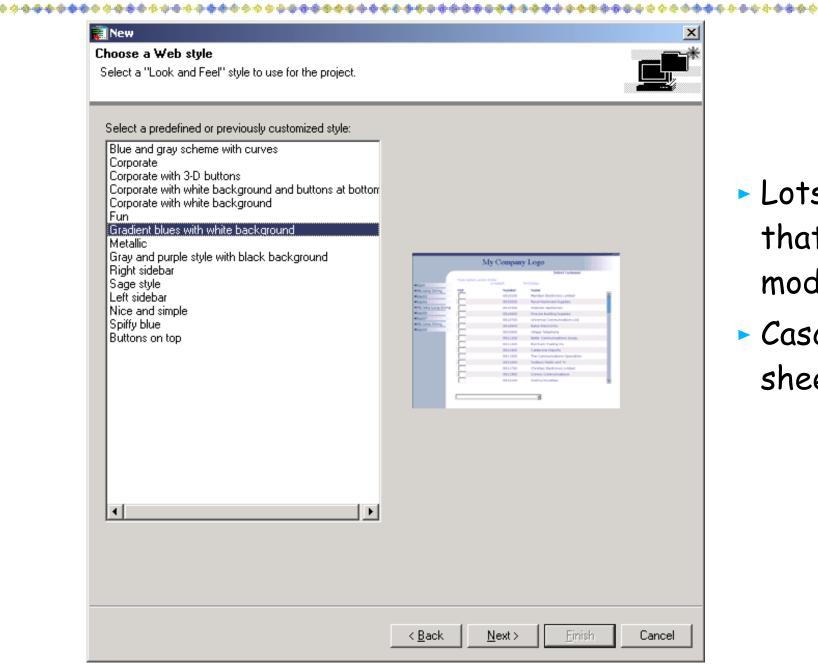
CL command





## Select Presentation Style



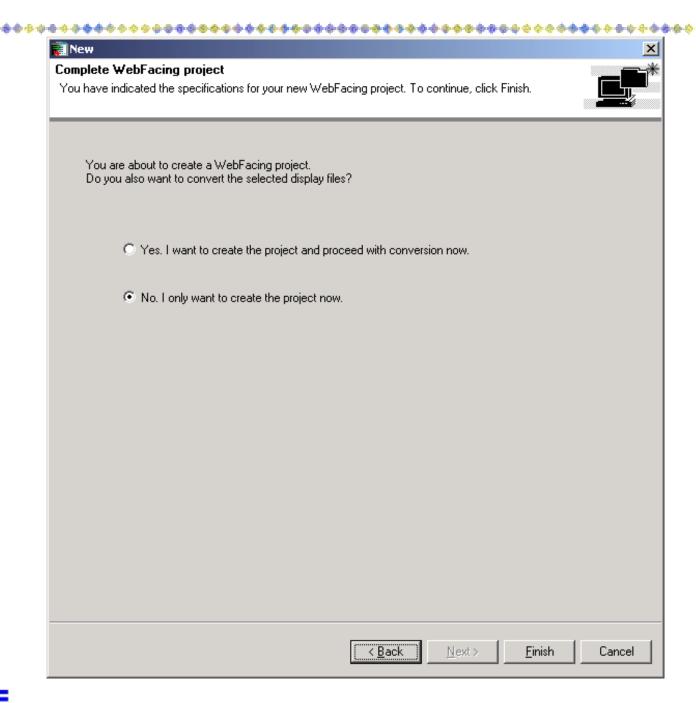


- Lots of styles that you can modify!
- Cascading style sheets



### Done

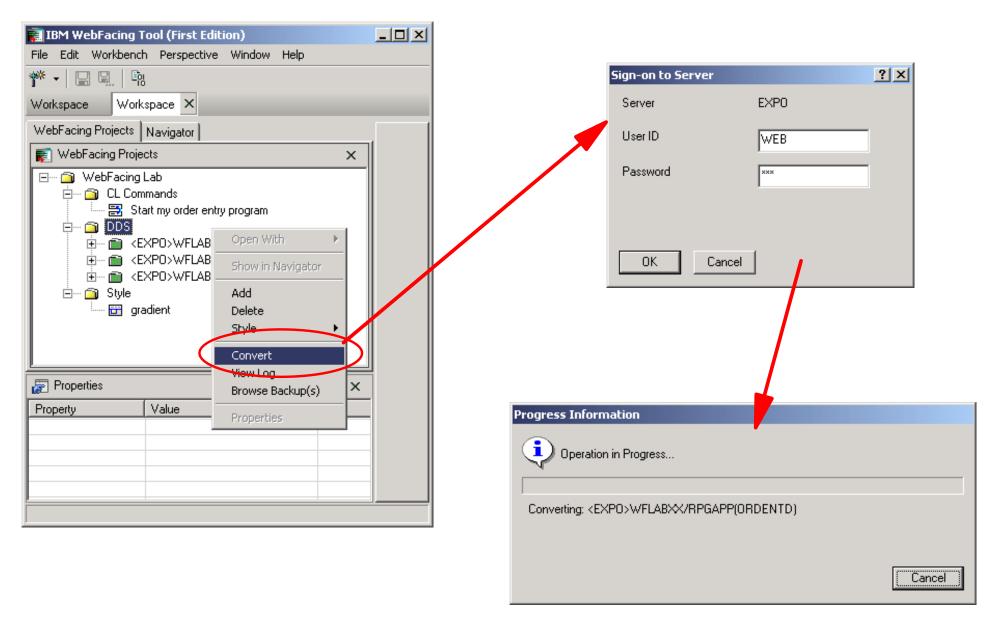






### Convert DDS to JSPs







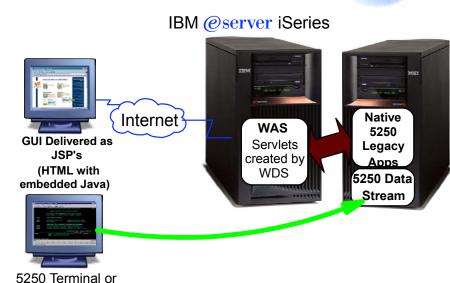


## RoadMap to application re-facing

- 1) Start with WAS 3.5 Standard Edition (5733-AS3) no charge
  - -WAS3.5 will have an upgrade path to WAS Express (no charge feature?)
- 2) Choose WebSphere utility to use for re-facing application
  - -Web Facing
    - part of WebSphere Development Studio 5722-WDS -(no charge upgrade w/ software subscription from following products (5769-CB1, 5769-CL3, 5769-CX2, 5769-CX5, 5769-PW1, 5769-RG1, 5769-WDS)

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

- Need Source Code
- Users will see all application screens, one-for-one conversion of application screens



Emulation

as a HTML

#### - Host Publisher

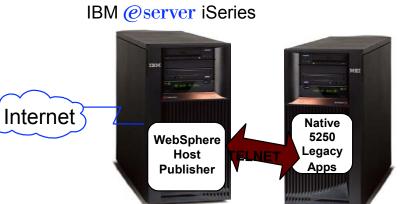
- -Part of iSeries Client Access Family (V5R1, Product No. 5722-XW1)
  - -If you received 5722-XW1 prior to 9/28/01 Order no-Charge Feature No. 2644 of Product No. 5722-XW1 to get iSeries Client

Access Family (V5R1, Product No. 5722-XW1)

-Customers at V4R5 who have Client Access Family Product (5769-XW1)

Order no-Charge Feature\* No. 2643, Product No. 5755-AS5 to get

- Don't need Source code
- Multiple screen and/or data sources can be combined into a single application to create a composite application GUI Delivered
- Choose the proper tiered solution (next page)



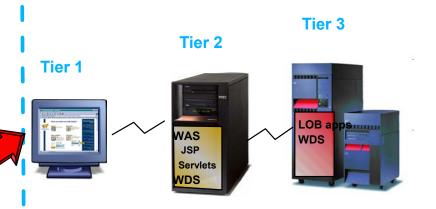




### Roadmap to application re-facing (tiered solutions)



**Refacing solutions....** (leveraging the iSeries)



iSeries Environment After - New Server

### Add middle tier application

#### server

- Separate LOB from Websphere
- Implement using low cost Green
   Streak hardware solution
- Smaller software tier
- -well positioned for Linux firewall
- -consider using GreenStreak





iSeries Before







**iSeries Environment After - LPAR** 

### Use LPAR to add WebSphere

- -single server (requires LPAR)
- WebSphere requires 500 CPW
- -may require hardware upgrade
- -may increase software tier
- -well positioned for Linux firewall
- consider using GreenStreak









### Education, reference material, & demos

#### **Education:**

- IBM WebSphere Host Publisher Application for iSeries Development
  - Course Code: S6232
  - See iSeries Technology Center website at: http://www-3.ibm.com/services/learning/ iSeries Access for Web InstallationGuide (SC41-5518)
- IBM WebSphere Host Publisher Application Development Workshop
  - Course Code: SW910
  - See IBM Learning Services website at http://www.ibm.com/services/learning/us/
- Web Enablement Workshop for iSeries
  - Course Code: ITC08
  - See iSeries Technology Center website at: http://www-3.ibm.com/services/learning/spotlight/iseries/
- iSeries WebFacing Tools
  - CourseCode: AS043
  - http://www-3.ibm.com/services/learning
- WebSphere Studio for iSeries plus WebFacing Tool
  - CourseCode: S6185
  - http://www-3.ibm.com/services/learning
- Web Strategy and Design Workshop
  - Course Code: ITC12
  - hands on workshop intended to introduce a set of application development tools to customers that are creating Java-based applications for iSeries.
    - ▶ WebFacing, Host Publishere, Visual Age for RPG
- On-line Education (http://www-3.ibm.com/services/learning
  - Introduction to WebSphere on iSeries (1.5 hrs)
    - Course Code: IK087
  - Implementing WebSphere Application Server on iSeries (1.5 hrs)
    - Course Code: IK088
  - WebFacing Your iSeries Applications (1.0 hrs)
    - Course Code: IK089

#### Reference Material:

- Building Integration Objects With IBM SecureWay Host Publisher Version 2.1, SG24-5385-00
- WebSphere Development Tools for iSeries Generating Web Front Ends to Existing Applications, REDP0516
- IBM WebSphere Development Tools for AS/400: An Introduction, REDP0503
- Web Enabling AS/400 Applications with IBM WebSphere Studio, SG24-5634-00
- Linux on the IBM eServer iSeries Server: An Implementation Guide, SG24-6232-00
- Building iSeries Applications for WebSphere Advanced Edition 3.5, SG24-5691-00
- Building A Java Adapter Over a 5250 Application to enable B-B transactions' article
  - ► An example of taking an interactive 5250 order entry application running on an iSeries machine, and making it accessible via a web browser
  - http://www.iseries.ibm.com/developer/ java/topics/hostpubadapter.html

#### Demo iSeries Access for Web and WebSphere Host **Publisher:**

http://iseriesd.dfw.ibm.com/webaccess/iWAHome (case sensitive) Use the following User ID and password to sign in:

User ID of WUSER

Password of GUEST I

Beaver Creek Web Solutions Demo site...

http://www.piner.com/



## WebFacing Conversion Workshops



- Want to try out IBM's WebFacing technology?
- Want to create Browser Based GUI interfaces from existing applications?
- then this workshop is for you!

PartnerWorld for Developers working in conjunction with the IBM Toronto Lab will be offering a 3 day hands-on workshop to introduce Business Partners to the WebFacing Tool, First Edition. The focus of this workshop is to provide a "proof of concept" for converting a sample of your own application code (or your customers' code) to a Browser Based GUI. Members of the WebFacing Development Team from Toronto will be on hand to handle specific questions and to guide you through this conversion process.

**<u>Dates</u>**: Sept 10-12 or Nov 5-7

Location: Rochester, Minnesota

#### Agenda

Day 1: Learn/review the basics of WebSphere Application Server 4.0

Day 2: Learn/review the basics of IBM's WebFacing tooling

Begin conversion of your own (or your customers') code

Day 3: Conversion work continues

Registration: ibm.com/servers/eservers/iseries/developer/webface/

For more information, contact:

Alison Butterill butteril@ca.ibm.com

OR

Linda Cole | lcole@ca.ibm.com

(Please note: There is a charge of \$1250.00 USD for participating in this workshop)





## WebFacing Seminars

Discover a fast, easy and cost effective way to give your legacy applications of graphical web-base interface!

#### Free iSeries half day seminar:

IBM and APPCON are pleased to invite you and the members of your team to attend a free half day seminar on moving your existing iSeries applications to the Web. You may already own WebSphere Development Studio for iSeries (AS400) and not realize you have the power - IBM has shipped 60,000 copies of this product to users who have IBM software subscriptions, since May 23, 2001.

Time: Seminars are held at 9:00 AM and 1:00 PM at each location

Registration: http://www.eserversoftwarenet.com/msp/site/msp.nsf/SeminarInfo?Openform (Availability is limited so reserve as early as possible)

#### Seminar Locations:

- Bethesda, MD 08/06/02
- Richmond, VA 08/07/02
- Philadelphia, PA 08/12/02
- Atlanta, GA 08/13/02
- New York, NY 08/14/02

#### Seminar Topics:

- The iSeries Application Development (AD) Value Proposition by David Slater, World Wide Market Manager, iSeries Application Development
- How to convert green screen programs to Web based applications
- How to set up and configure a WebSphere Application Server
- The Service Providers' role in e-business





## First Install Customer Assistance



First Install Customer Assistance for Websphere Application Server Standard or Advanced Edition for iSeries or AS/400.

■ We would like to welcome new customers to the Websphere arena and provide them with assistance that may be needed to install and configure Websphere Application Server, either Standard or Advanced Edition. By starting with a working instance of Websphere Application Server and reviewing the sample programs provided, your time spent with Websphere Application Server will be more productive and enjoyable. Through your application and acceptance into this program, the Rochester Support Center will provide you with 8:00AM - 5:00PM Central Standard Time phone support assistance in setting up a Websphere Application Server test environment.

#### This assistance includes:

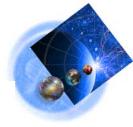
- 1. Documentation clarification
- 2. Verify you have all Prerequisites available: Software, Hardware, PTF's, and Communication configurations
- 3. Creation of a default Websphere instance
- 4. Configuration and enablement of Websphere for an HTTP server
- 5. Installation and use of Websphere Client based Admin Console (excluded Firewall configuration)
- 6. Validate the above by running of a sample servlet.

http://www.iseries.ibm.com/developer/websphere/assistance.html





## Where to get pre-sales support



### Call TechXpress\*

877-707-2727

(Single entry point into the Americas Technical Sales Support)

- An SPC Agent will take your information and submit a TechXpress request for you.
- Your request will be acknowledged within 4 hours.





### When you need:

- Solution design and architecture assistance
- Product information
- Configuration & Pricing
- Subject matter experts for Solution Assurance Reviews
- Complex solution sales support
- Pre-sales customer calls
- Proofs of Concept
- Presentations
- Customized Demos
- Competitive sales assistance

### Value to you:

- Access to world class technical resources in
  - Techline
  - Competeline
  - ATS (Advanced Technical Support)
- Quicker response times for you
- Increased time to spend with customers
- Improved customer sat and responsiveness
- \* Requesters will need to provide detailed information and OMSYS Numbers.



## Pre-Sale Support...WSSC



# WebSphere Sales Support Center for iSeries VSSC

Who are we?

Who do we assist?

How do we assist?

**Examples** 

#### Need help with WebSphere on iSeries Situation?

The WSSC is a virtual team of iSeries and Software Group (SWG) resources who provide a single point of contact for WebSphere for iSeries Opportunities and engagements

Business Partners, iSeries and Software Group Reps, and Technical sales support personnel

We take each WebSphere for iSeries request as an opportunity to sell a product or improve customer experience. We help you locate information, advise on solution design and architecture, and help with sizing and configuration. The WSSC will provide you with a link to subject matter experts and competitive sales assistance

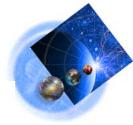
- Advice on sizing, performance, configuration and pricing
- Provide solution design and architecture assistance
- Assist in arranging presentations, teleconferences, briefings, etc.
- Identify and connect technical resources to resolve problems
- Coordinate WebSphere for iSeries Technical Education

E-Mail: rchiroc@us.ibm.com Phone: 1-507-253-7056





## Where to get services...



### iSeries Custom Technology Center (CTC)

- Custom Development Services for iSeries and WebSphere!
- Native e-business Solutions using WebSphere, Servlets, JSPs, CGIs, HTML
- Modernizing Legacy Applications to Take Advantage of e-business Technologies (B-to-B, B-to-B)
- Native Java Programming
- Native Domino Solutions
- WebSphere Commerce Suite Solutions
- Native MQ Series
- Application Port Assistance
- Client/Server Development including Network Station
- Database Applications
- TCP/IP and Sockets Application Development
- Advanced Technology Implementation
- RPG, COBOL, ILE C Programming

Contact: Mark Even 507-253-1313 even@us.ibm.com Pete Cornell 507-253-4955 pcornell@us.ibm.com Ray Harney 507-253-0920 harney@us.ibm.com

(EMEA) Eric Aquarrone CTC EMEA1@fr.ibm.com





### e-business (Services) Partners focused on WebSphere



#### To be on this list, the Partner must have:

- Certified in WAS (Std and/or Adv v3.5 or above) or WCS v5.1
- Have an iSeries ebiz/ecom VAE
- Have iSeries references (native)

#### Eastern Region

- ► Application Design Services, Inc www.adsapps.com
- ▶ Bridan Technologies www.bridan.com
- Computer Applications Specialists, Inc. www.comappspec.com
- ► CommerceQuest www.commercequest.com
- ► CrossLogic Development Corp. www.crosslogic.com
- ▶ DyComp, Inc www.dycompinc.com
- ► Sky Solutions, LLC. www.skysolutions.com
- ► Softwrite Computer Systems www.softwrite.com

#### Western Region

- ► Chouinard and Myhre, Inc, www.cm-inc.com
- ► Kalos Group, Inc. www.kalos.com
- ► MMI Internetworking -www.mmi-internetworking.com
- ►MSI System Integrators www.msiinet.com
- ▶ Pacific Software Associates, Inc. www.psateam.com
- ▶ RyTE Consulting www.ryte.com
- ► Symatrix Technology www.symatrix.com
- ► The TAM Group www.tamgroup.com
- ► Zobrist Consulting www.zobristinc.com

#### Central Region

- ► Advanced System Designs www.asd.net
- ► Altier Technologies, LLC www.AltierTech.com
- ► Andrews Consulting Group www.andrewscg.com
- ► Computech Resources, Inc. www.compures.com
- ▶ DigiTerra www.digiterra.com
- ► DPS, Inc. www.dpslink.com
- ► Foresight Technology Group www.foretek.com
- ► Haverstick Consulting haverstickconsulting.com
- ► Keller Shroeder & Associates, Inc. www.KSAinc.com
- ► Strategies & Solutions www.Strategies-LLC.com
- ▶3X Corporation www.3x.com

#### North Region

- ► Group Present Present.ca
- ► SilverBlaze Solutions Inc. www.silverblaze.com





## Why Change?



#### Demand

- For GUI
- For more function, more often
- For new clients: web
- For new business models

### Reality

- No IBM investment in RPG III, COBOL/400 or ADTS
  - Focus is RPG IV, ILE COBOL, Java and the Web
  - Focus on workstation based tooling

### Skills

- Attract and keep
- Perception versus Reality



### For Additional Information...



WebSphere V3.5 Handbook - SG24-6161-00

Redbook, published January-10-2001

**Building iSeries Applications for WebSphere Advanced Edition 3.5** - SG24-5691-00

Redbook, published June-11-2001

IBM WebSphere V4.0 Advanced Edition Handbook - SG24-6176-00

Redbook, published March-12-2002

WebSphere 4.0 Installation and Configuration on the IBM iSeries Server - SG24-6815-00

Redbook, published April-21-2002

WebSphere J2EE Application Development for the IBM iSeries Server - SG24-6559-00

Redbook, published May-1-2002

IBM WebSphere Development Tools for AS/400: An Introduction - REDP0503

Redpaper, published March-14-2001

IBM Web-to-Host Integration Solutions - SG24-5237-03

Redbook, published January-21-2002

WebSphere Development Tools for iSeries Generating Web Front Ends to Existing

**Applications** - REDP0516

Redpaper, published November-22-2001

Java and WebSphere Performance on IBM iSeries Servers - SG24-6256-00

Redbook, published February-26-2002, last updated March-5-2002

A Feature Based Comparison Between WebSphere Application Server and Apache

Software Foundation's Jakarta Tomcat - REDP0198

Redpaper, published April-11-2002

Residency:In-depth Study of the WebFacing Tool to Convert iSeries 5250 Apps to

**Browser-based GUIs**, SA-R332

Residency, Starts 19 Aug 2002, ends 27 Sep 2002 (6 weeks). Accepting back-up nominations.





### Trademarks and Disclaimers



© IBM Corporation 1994-2002. All rights reserved.

References in this document to IBM products or services do not imply that IBM intends to make them available in every country.

The following terms are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both:

AS/400 IBM(logo)
AS/400e iSeries
e (logo) business OS/400

IBM

Lotus, Freelance Graphics, Sametime, and Word Pro are registered trademarks of Lotus Development Corporation and/or IBM Corporation. Domino and QuickPlace are trademarks of Lotus Development Corporation and/or IBM Corporation.

C-bus is a trademark of Corollary, Inc. in the United States, other countries, or both.

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

ActionMedia, LANDesk, MMX, Pentium and ProShare are trademarks of Intel Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

SET and the SET Logo are trademarks owned by SET Secure Electronic Transaction LLC.

Other company, product and service names may be trademarks or service marks of others.

Information is provided "AS IS" without warranty of any kind.

All customer examples described are presented as illustrations of how those customers have used IBM products and the results they may have achieved. Actual environmental costs and performance characteristics may vary by customer.

Information in this presentation concerning non-IBM products was obtained from a supplier of these products, published announcement material, or other publicly available sources and does not constitute an endorsement of such products by IBM. Sources for non-IBM list prices and performance numbers are taken from publicly available information, including vendor announcements and vendor worldwide homepages. IBM has not tested these products and cannot confirm the accuracy of performance, capability, or any other claims related to non-IBM products. Questions on the capability of non-IBM products should be addressed to the supplier of those products.

All statements regarding IBM future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only. Contact your local IBM office or IBM authorized reseller for the full text of the specific Statement of Direction.

Some information in this presentation addresses anticipated future capabilities. Such information is not intended as a definitive statement of a commitment to specific levels of performance, function or delivery schedules with respect to any future products. Such commitments are only made in IBM product announcements. The information is presented here to communicate IBM's current investment and development activities as a good faith effort to help with our customers' future planning.

Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput or performance that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput or performance improvements equivalent to the ratios stated here.

Photographs shown are of engineering prototypes. Changes may be incorporated in production models.



