Get to the Web Fast with System i® Access for Web

http://www.ibm.com/systems/i/software/access/web

Linda Hirsch

LLHIRSCH@us.ibm.com

IBM Rochester, Minnesota

THE NEW POWER EQUATION

Introducing IBM Power Systems

System i Access for Web Sessions and Labs

23CE   **409136**   **Get to the Web Fast with System i Access for Web**

25LA   450047   LAB: System i Access for Web: Configuration
& 26LA

32MB   410068   System i Access for Web – Setup and Configuration

33MB   440281   Run 5250 Through a Browser Using System i Access for Web

37MI   409160   Database Access with System i Access for Web

43LA   520027   LAB: Administrators Get Started with System i Access for Web

45MF   420016   What an Administrator Needs to Know: Restricting Access and Other Security Considerations

55LA   420063   LAB: Test Drive System i Access for Web
& 56LA

Table of Contents

- **What is System i Access for Web?**

- **Getting started**

- **Ways to roll out to end users**

- **Control access to functions**
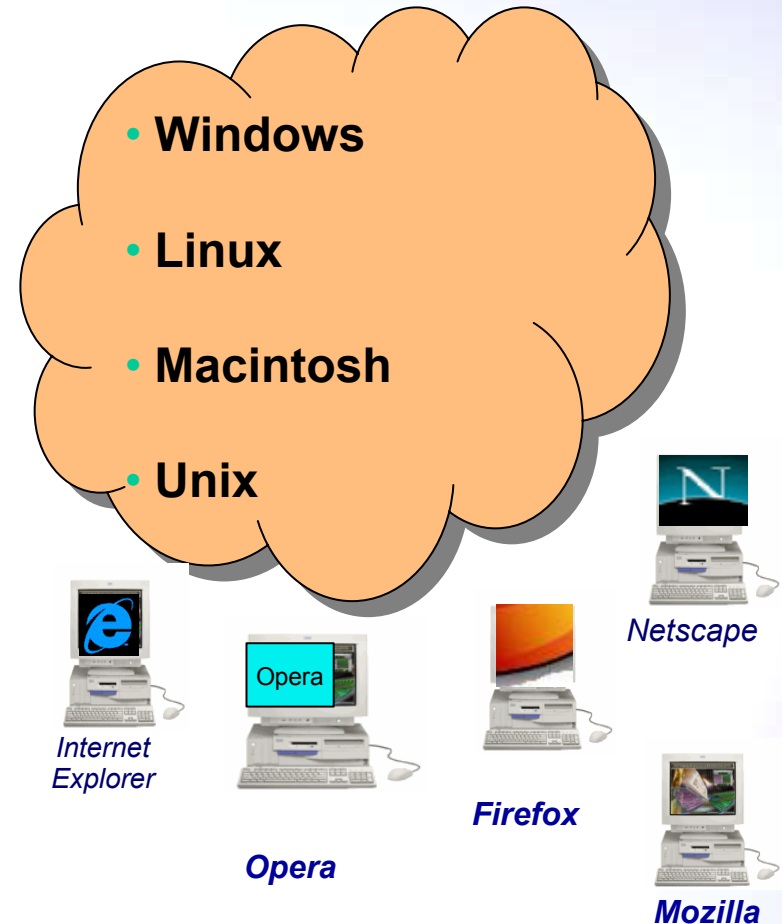
What is System i Access for Web?

End users can leverage business information, applications, and resources across an enterprise by extending the IBM i resources to the client desktop through a web browser

Provides access to IBM i 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**
- **Uses industry standard protocols - HTTP, HTTPS and HTML**

- **Windows**
- **Linux**
- **Macintosh**
- **Unix**

Netscape

Internet Explorer

Opera

Firefox

Mozilla

Fully Integrated with your Browser

❖ **Use any code page available in your browser**

- **System i Access for Web translated into 38 NLVs (including DBCS**
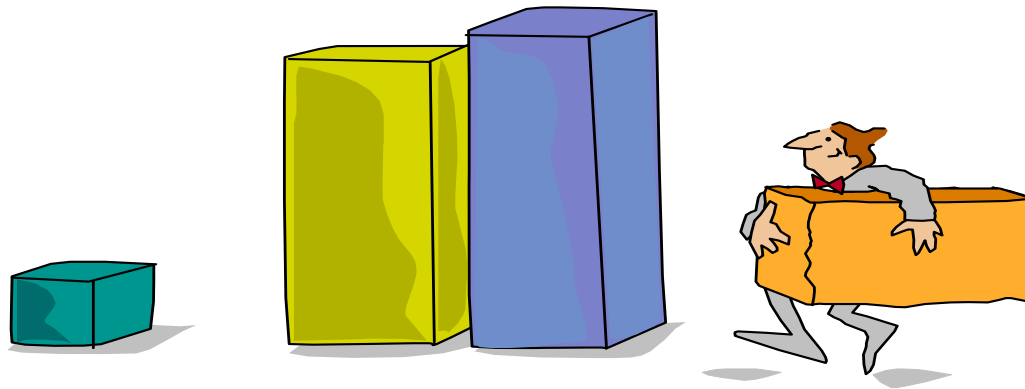- **See screens in preferred language**

❖ **Use any keyboard setting available in Windows**

❖ **Font Size**

❖ **Set up your SSL through your browser**
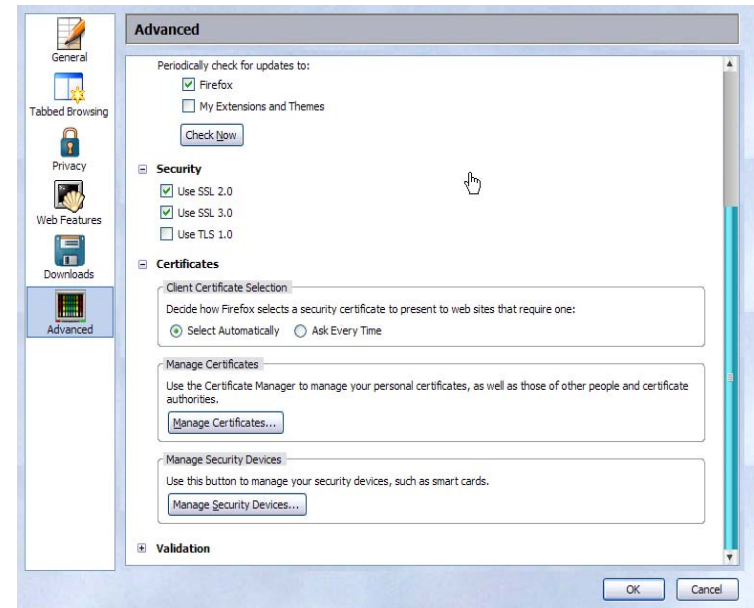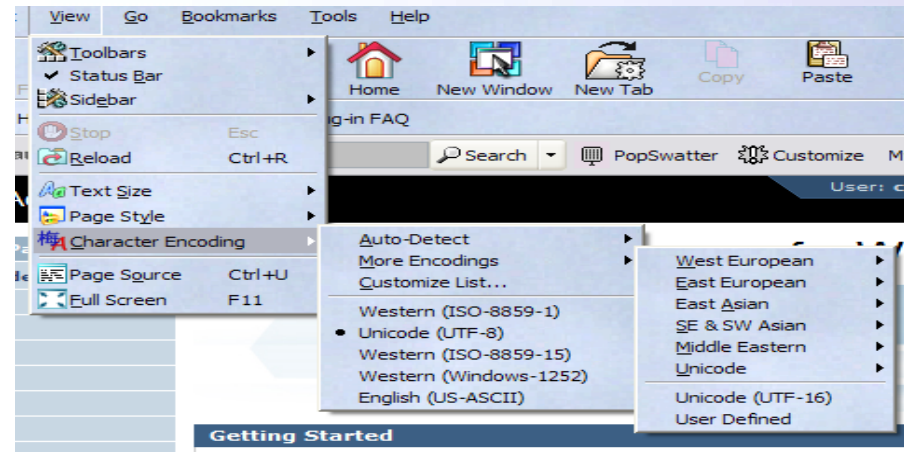
Packaging and Ordering

System i Access Family - Packaging

V6R1 5761-XW1 System i Access Family	V5R4 5722-XW1 iSeries Access Family
System i Access for Windows, 5761-XE1, V6R1	iSeries Access for Windows, 5722-XE1, V5R4
System i Access for Web, 5761-XH2, V6R1	iSeries Access for Web, 5722-XH2, V5R4
System i Access for Linux, 5761-XL1, Vx.x (V6R1)	iSeries Access for Linux, 5722-XL1, V1.10 (V5R4)
System i Access for Wireless, 5722-XP1, **V5R3**	iSeries Access for Wireless, 5722-XP1, **V5R3**
V5R4 i5/OS® customers not wanting to upgrade their operating system to V6R1 but want the new V6R1 System i Access Family clients can order no-charge Feature No. 2649 of Product No. 5722-XW1	

- NOTE: System i Access for Web is available on V5R1 and later.   This chart summarizes the releases that can currently be ordered.

Products - Focus

Description	Product	Product Number	Need 57xx-XW1* to use?
Family Name	➤ System i Access Family	57xx-XW1	
Windows client	➤ System i Access for Windows	57xx-XE1	Yes (for 5250 and Data Transfer)
Linux client	➤ System i Access for Linux	57xx-XL1	Yes (for 5250)
Browser Access	➤ System i Access for Web	57xx-XH2	Yes
Handheld / Wireless offering	➤ System i Access for Wireless ➤ IBM i Toolbox for Java ME	57xx-XP1	No
IBM i systems management	➤ System i Navigator ➤ Operations Console	Packaged in 57xx-XE1	No

* 57xx = 5761 or 5722

Flexible Purchase Options:
- ✪ Processor-Based = purchase price based on software tier, connect unlimited numbers of users
- ✪ User-Based = purchase only number of users who will be concurrently connected

Notes:
- ✪ Can upgrade from User-Based to Processor-Based, but cannot go back to User-Based after purchasing Processor-Based
- ✪ Software maintenance included in base IBM i software subscription

System i Access Family included with new hardware

- **System i Access Family (5722-XW1 or 5761-XW1) unlimited user feature included with the following hardware or edition packages**

  - **System i Model 515 Express configurations**
    - See Announcement Letter 107-181 dated 4/1/07 for more details

  - **System i Model 525 Express and CBU configurations**
    - See Announcement Letter 107-182 dated 4/1/07 for more details

  - **System i Model 570 with POWER6 technology**
    - See Announcement Letter 107-448 dated 7/31/07 for more details
  - **Included with Express Edition packages for POWER 520 and 550 models – announced April 2008**

- **Any IBM i user connecting to the above System i models is entitled to use any of the System i Access Family products at no additional charge. This includes:**

    - **System i Access for Windows**
    - **System i Access for Web**
    - **System i Access for Linux**
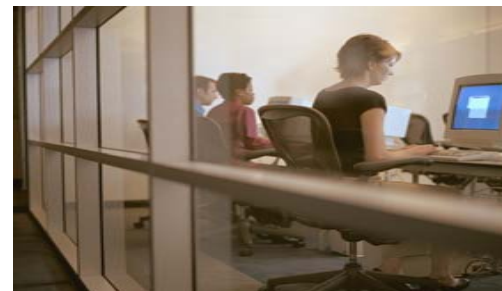
Functions you can perform with System i Access for Web V6R1

Print
- Printer output
- PDF Printer output
- Printers
- PDF Printers
- Internet Printers
- Internet Printer Shares
- Printer shares
- Output Queues

5250
- Active Sessions
- Start 5250 Session
- Configured Sessions
- Bypass Sign-on

Files
- Browse Files
- File Shares
- Browse File Share

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

Database
- Tables
- My Request
- Run SQL
  - Open Office Formats
  - ** Wizards supports joins across multiple tables
  - ** Chart SQL results
- Copy Data to Table
- Import Requests
  - System i Access for Windows
  - Query Manager
  - Query/400
- Extract Server Data

Commands
- Run commands
- My commands
- Search

My Personal Folder

Jobs
- User Jobs
- Server Jobs

Customize
- Preferences
- Policies
- Settings
- Transfer configuration data

Download

Other
- Bookmarks
- Change Password
- Connection Pool
- Status
- Trace

Single sign-on
- EIM (WAS authentication)
- ** Windows domain login (WAS authentication)

** Scheduling of tasks

Items marked with "**" are new in the V6R1 version

Getting Started

Before you start with Access for Web you must get your web application server running

HTTP Server

Application Server

Servlet

Web browser

Internet

JSPs

Java Beans

Enterprise Server
Host applications
Database

Tier 1

Tier 2

Tier 3
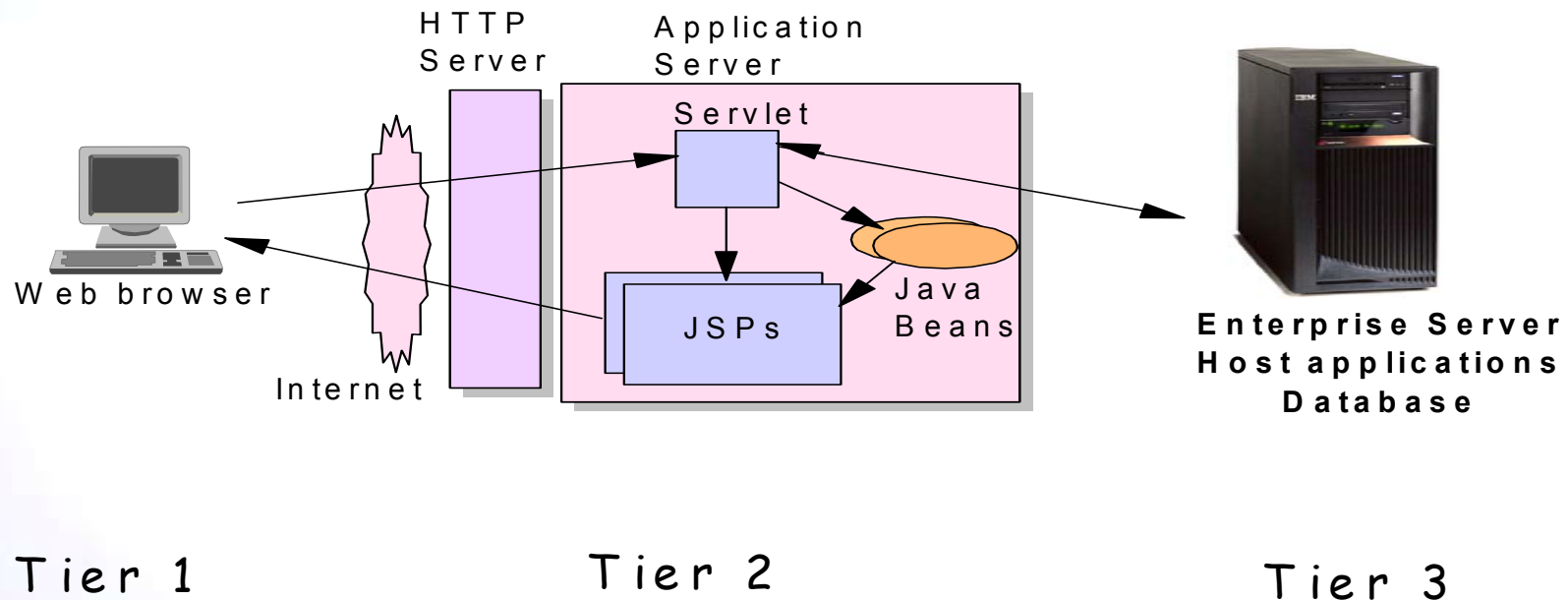
Supported Web Application Servers

- The System i Access for Web servlet code can be used with any of the following web application servers:

  - Integrated web application server
  - WebSphere® Application Server V7.0, V6.1 and V6.0 – Express for i
  - WebSphere Application Server V7.0, V6.1 and 6.0 Base and Network Deployment
  - WebSphere Application Server V5.1 - Express
  - WebSphere Application Server V5.0 - Express
  - WebSphere Application Server V5.1 and 5.0 Base and Network Deployment Editions
  - ASF Tomcat **(V5R4 and earlier releases)**

- The System i Access for Web portlet code can be used with any of the following portal servers.

  - IBM Workplace Services Express V2.6
  - WebSphere Portal for Multiplatforms V6.0
  - WebSphere Portal for Multiplatforms V5.1.0.1
  - WebSphere Portal Express for Multiplatforms V5.0.2
  - WebSphere Portal Express Plus for Multiplatforms V5.0

PTFs required for latest web app server and portal support:
http://www.ibm.com/systems/i/software/access/web/servicepacks.html

Integrated Web application server
What is it? Does System i Access for Web support it?

- **What is the IBM i integrated Web application server?**

  - **A web application engine much like ASF Tomcat**
  - **Uses minimal system resources, similar to ASF Tomcat**
  - **Minimal effort by an Administrator to maintain**
  - **V5R4 is the last release IBM i will contain ASF Tomcat**

- **How is it packaged?**

  - **5761-DG1 and 5722-DG1 IBM HTTP Server for i**
  - **Integrated Web application server 7.1 is available in the DG1 group PTF**
    - **V5R4 SF99114 level 13 or later**
    - **V6R1 SF99115 level 1 or later**

- **System i Access for Web support**
  - **V5R4 and V6R1 System i Access for Web support the IBM i integrated Web application server**
  - **V5R4 System i Access for Web can be installed and is supported on V5R4 and V5R3 IBM i**
  - **V6R1 System i Access for Web can be installed and is supported on V6R1 and V5R4 IBM i**

Integrated Web application server – V6R1 or V5R4 IBM i

IBM

User created instance   **(requires use of V6R1 System i Access for Web with V6R1 or V5R4 IBM i)**

1. Load/apply latest PTFs (review cover letters for any additional information)
   - V6R1 GA cumulative PTF package
   - V5R4 SF99114 group for product 5722-DG1
2. Load/apply latest V6R1 System i Access for Web PTF
   - V6R1 SI29664 or later
3. Start the Web Administration for i
   - STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)
4. Use the Web Administration for i wizard to create an instance of the integrated Web application server and an HTTP web server.
   - http://<system_name>:2001/HTTPAdmin
     Follow the instructions in the doc on this page:
     http://www.ibm.com/systems/i/software/access/web/servicepacks.html

     Link: "*Configuring an Integrated Web Application Server Instance*"

4. Configure System i Access for Web
   - QSH
   - cd /QIBM/ProdData/Access/Web2/install
   - cfgaccweb2 –appsvrtype *INTAPPSVR –instance <instance_name>
6. Start integrated Web application server and HTTP web server using the Web Administration for i interface.
   - http://<system_name>:2001/HTTPAdmin
7. Open a browser to System i Access for Web using preconfigured HTTP:port
   - http://<system_name>:<port>/webaccess/iWAMain
8. Done!

Integrated Web application server – V5R3 or later IBM i

Administrative instance and preconfigured HTTP web server
(use V5R4 or V6R1 System i Access for Web with V5R3 or later IBM i)

1. Stop the Web Administration for i5/OS
   - ENDTCPSVR SERVER(*HTTP) HTTPSVR(ADMIN)
2. Load/apply latest PTFs (review cover letters for any additional information)
   - V6R1 GA cumulative PTF package
   - V5R4 SF99114 group for product 5722-DG1
   - V5R3 SF99099 group for product 5722-DG1
3. Load/apply latest System i Access for Web PTF
   - V6R1 SI29664 or later
   - V5R4 SI29607 or later
4. Configure System i Access for Web
   - QSH
   - cd /QIBM/ProdData/Access/Web2/install
   - cfgaccweb2 –appsvrtype *INTAPPSVR
5. Start the Web Administration for i5/OS
   - STRTCPSVR SERVER(*HTTP) HTTPSVR(*ADMIN)
6. Start preconfigured HTTP web server
   - STRTCPSVR SERVER(*HTTP) HTTPSVR(IWADFT)
7. Open a browser to System i Access for Web using preconfigured HTTP:port
   - http://<system_name>:2020/webaccess/iWAMain
8. Done!

http://www.ibm.com/systems/i/software/websphere/

WebSphere Application Server for System i

IBM i

Advantages

Hardware resources

Virtualization

Software

Support and services

Resources

News

Related links
- IBM Power Systems
- Redbooks
- PartnerWorld

Overview | Support | Resources

Websphere for System i | What's New | Announcements | About WebSphere | Product information | Ordering

Features

WebSphere Application Server Version 7.0 is the latest release and is supported on IBM i. To find out more about the new version or any other of the supported versions — please click on the links below:

Version 7.0

→ IBM WebSphere Application Server V7.0 for IBM i
→ IBM WebSphere Application Server for Developers V7.0 for IBM i
→ IBM WebSphere Application Server Network Deployment V7.0 for IBM i
→ IBM WebSphere Application Server – Express V7.0 for IBM i

Version 6.1

→ IBM WebSphere Application Server V6.1 for System i
→ IBM WebSphere Application Server for Developers V6.1 for System i
→ IBM WebSphere Application Server Network Deployment V6.1 for System i
→ IBM WebSphere Application Server – Express V6.1 for System i

Version 6.0

→ IBM WebSphere Application Server V6.0 for System i
→ IBM WebSphere Application Server for Developers V6.0 for System i
→ IBM WebSphere Application Server Network Deployment V6.0 for System i
→ IBM WebSphere Application Server – Express V6.0 for System i

Version 5.1

→ IBM WebSphere Application Server V5.1 for System i
→ IBM WebSphere Application Server for Developers V5.1 for System i

Need directions?

i5/OS
Developer Road Atlas

→ IBM System i Developer Road Atlas
→ An Independent Analysis of the iSeries Developer Roadmap – Updated for 2006 (1.4MB)

→ Get Adobe® Reader®

Buying or selling?

→ IBM Express Software Buying and Selling Guide

Quick Links

→ IBM WebSphere Application Server

→ WebSphere Application Server – Express

→ IBM eServer Solutions Enablement – WebSphere

→ WebSphere for System i education

Performance Considerations…

Use the IBM Systems Workload Estimator at

http://www-912.ibm.com/wle/EstimatorServlet

Setting up your web application server

DMZ = demilitarized zone

Your users actually access these systems

Firewall

Firewall

Running here:
- **HTTP Server**
- **WAS, Integrated Web App Server, Tomcat**
- **System i Access for Web**
  - ➤ **"Target Server" parameter**

Install Access for Web (RSTLICPGM)
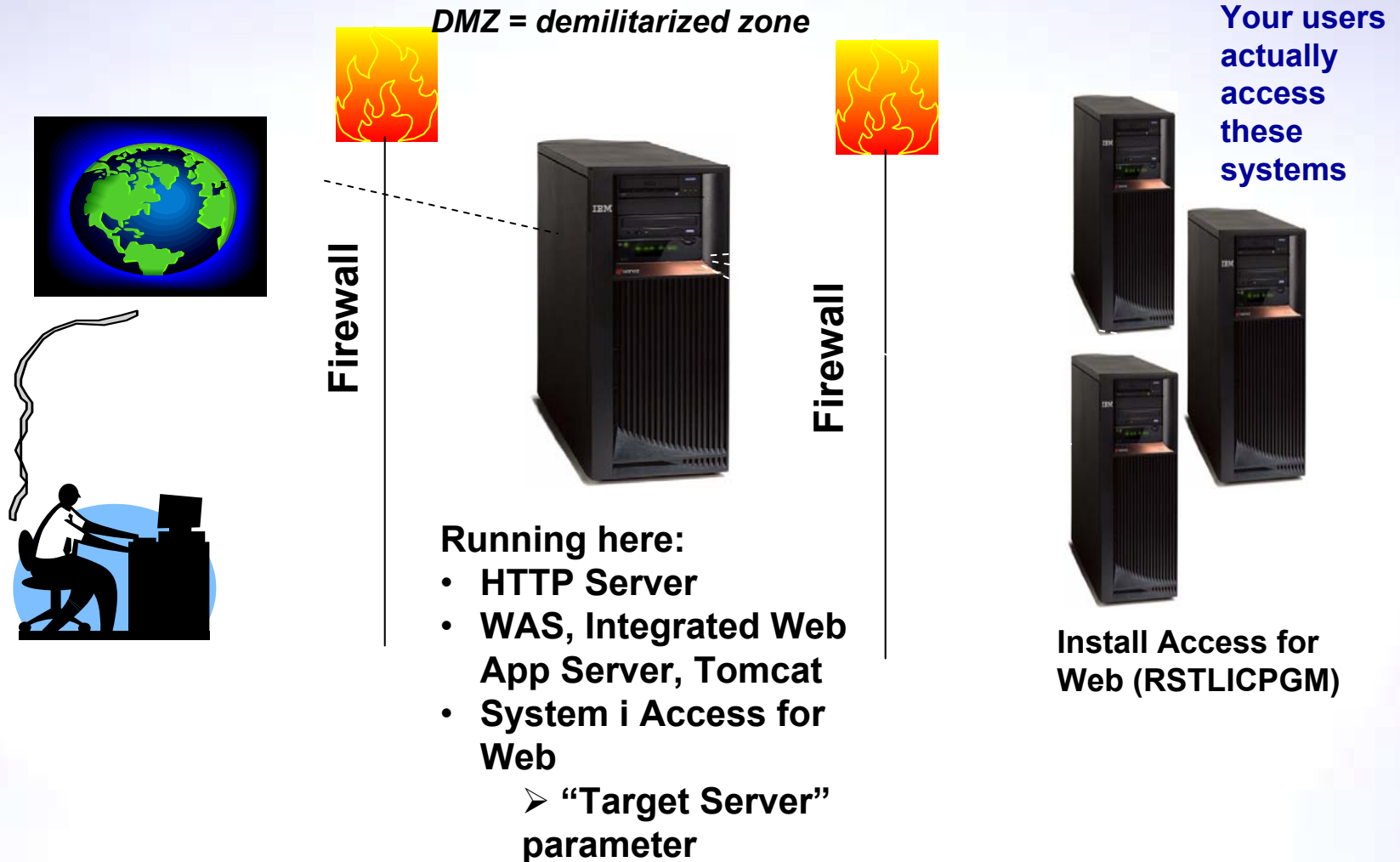
Only need to set up one web application server

Port Requirements Comparison

System i Access for Windows (5722-XE1)*

- Port 449 for Port Mapper
- Port 8476 (9476) for Sign-on
- Port 8470 (9470) for Central
- Port 8472 (9472) for Data Queues
- Port 8471 (9471) for Database
- Port 8475 (9475) for Remote Commands
- Port 8473 (9493) for Print
- Port 2001 (2010) for Web Admin
- Port 446 (448) for DDM
- Port 23 (992) for Telnet
- Port 137, 138 for NetServer
- Port 389 (636) for LDAP
- Port 5555 (5566) for Mgmt Central
- Port 53 if using DNS Server

System i Access for Web (5722-XH2)

- Port 80 (or any other port) for HTTP Server
- Port 443 (or any other port) for HTTPS Server

*See Information APAR II12227 for detailed information

Get System i Access for Web running

- **Get a copy of the System i Access for Web Install & Users Guide**
  - **http://www.ibm.com/systems/i/software/access/web/doc.html**

- **Install System i Access for Web from your IBM i stacked media.**
  - **RSTLICPGM - Install Access for Web, 5722-XH2, into QIBM directory**

- **Configure and start System i Access for Web.**
  - **CFGACCWEB2 - Configure the System i Access for Web application server**
  - **STRACCWEB2 - Start the System i Access for Web application server.**

- **Set some policies to enable or limit access to various functions of Access for Web**

System i Access for Web Documentation on the Web…

V6R1

V6R1 System i Access for Web is supported on V6R1 and V5R4 i5/OS.

Connecting to System i: System i Access for Web (Information Center)	HTML PDF
System i Access for Web Single Sign-on Using WebSphere SPNEGO Support	PDF
Automating Tasks – HTTPS/SSL	PDF
Configuring an Integrated Web Application Server Instance	PDF

↑ Back to top

V5R4

V5R4 iSeries Access for Web is supported on V5R4 and V5R3 i5/OS.

Connecting to iSeries: iSeries Access for Web (Information Center)	HTML PDF
URL Interfaces to V5R4 iSeries Access for Web	PDF

↑ Back to top

V5R3

V5R3 iSeries Access for Web is supported on V5R3 i5/OS and V5R2 OS/400

http://www.ibm.com/systems/i/software/access/web/doc.html

IBM i Software Requirements

Product Number	Product Name	Option	$
57xx-SS1	V5R3 System i Access for Web: V5R2 OS/400 or V5R3 i5/OS V5R4 System i Access for Web: V5R3 and V5R4 i5/OS V6R1 System I Access for Web: V5R4 or V6R1 i5/OS	Base	w/HW
57xx-SS1	IBM i - Extended Base Directory Support	3	N/C
57xx-SS1	IBM i - AFP Compatibility Fonts	8	N/C
57xx-SS1	IBM i - Host Servers	12	N/C
57xx-SS1	IBM i QShell Interpreter	30	N/C
57xx-SS1	• If you plan to use Secure Sockets Layer (SSL): IBM i Digital Certificate Manager • Cryptographic Access Provider (128-bit)	34	N/C N/C
57xx-DG1	IBM HTTP Server for i	Base	N/C
57xx-JV1	Developer Kit for Java Developer Kit for Java Version 1.3 Developer Kit for Java Version 1.4 **(or later: Check WebSphere doc for required version**)	Base 5 6	N/C N/C N/C
57xx-JC1	Toolbox for Java	Base	N/C
57xx-TC1	TCP/IP Connectivity Utilities for i	Base	N/C

IBM i Software Requirements (continued)

Product Number	Product Name	Option	$
57xx-XW1	System i Access Family	Base	$
57xx-XH2	System i Access for Web • Ships with 57xx-XW1 System i Access Family • V5R3 System i Access for Web runs on OS/400 V5R2 and i5/OS V5R3 • V5R4 System i Access for Web runs on i5/OS V5R3 and V5R4 • V6R1 System i Access for Web runs on i5/OS V5R4 and V6R1	Base	part of XW1

57xx-IP1	IBM Info Print Server
	(**Optional** -- enables best PDF output:
	   - **is not** required to view PDF output
	   - is required for V5R3 and later "PDF Printer" support)
		Base	$

Software Requirements (continued)

Product Number	Product Name	Option	$
5733-W70 5733-W61 5733-W60 57xx-E51 5733-W51 57xx-IWE 5733-WS5 57xx-DG1 57xx-DG1 * * * *	One, or more, of the following web servers • WebSphere Application Server V7.0 for i (all three editions) • WebSphere Application Server V6.1 for i (all three editions) • WebSphere Application Server V6.0 for OS/400 (all three editions) • WebSphere Application Server V5.1 - Express for iSeries • WebSphere Application Server V5.1 for iSeries (Base and ND) • WebSphere Application Server V5.0 - Express for iSeries • WebSphere Application Server V5.0 for iSeries (Base and ND) • Apache Software Foundation Tomcat • Integrated web application server • WebSphere Portal for iSeries (Express and Express Plus) V5.0.2.2 • WebSphere Portal Enable for Multiplatforms V5.1.0.1 • WebSphere Portal V6.0 • IBM Workplace Services Express V2.5, V2.6	See documentation	

Refer to the documentation for the individual web serving environments additional requirements that may not be listed above.

- WebSphere http://www.ibm.com/servers/eserver/iseries/software/websphere/wsappserver/
- ASF Tomcat http://www.ibm.com/servers/eserver/iseries/software/http/
- Portal V5.0.2.2 http://publib.boulder.ibm.com/pvc/wp/502/smbi/en/InfoCenter/index.html
- Portal V5.1.0.1 http://publib.boulder.ibm.com/infocenter/wp51help/index.jsp
- Portal V6.0 http://publib.boulder.ibm.com/infocenter/wpdoc/v6r0/index.jsp
- Workplace V2.5 http://publib.boulder.ibm.com/infocenter/wseic/v2r5/index.jsp
- Workplace V2.6 http://publib.boulder.ibm.com/infocenter/wseic/v2r6/index.jsp

4 CL Commands in System i Access for Web

Example of the CL commands

- **Configure** Command example when using WebSphere Application Server V5.1 - Express for iSeries
  - CFGACCWEB2 -appsvrtype *WAS51EXP -wasinst iwa51exp -appsvr iwa51exp
- **Start** Command example when using WebSphere Application Server V5.1 - Express for iSeries
  - STRACCWEB2 APPSVRTYPE(*WAS51EXP) WASINST(MYINST) APPSVR(*DEFAULT)
- **End** Command example when using WebSphere Application Server V5.1 for iSeries
  - ENDACCWEB2 APPSVRTYPE(*WAS51) WASINST(DEPTXYZ) APPSVR(*DEFAULT)
  - Sometimes you may need to end Access for Web so you can make changes, then start it again.
- **Remove** Command
  - The Remove System i Access for Web (RMVACCWEB2) command is used to remove the System i Access for Web configuration from a web application server

Users can now Connect!

- **Open browser**
- **Key in System i url**
- **Prompted for IBM i user id and password**
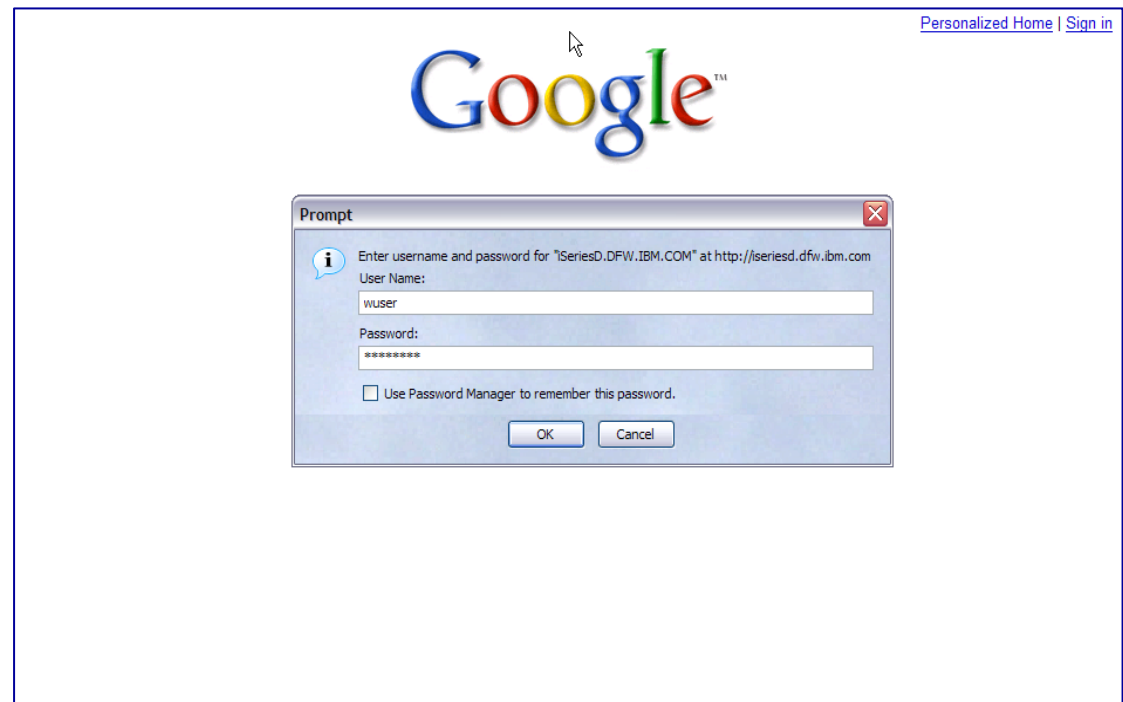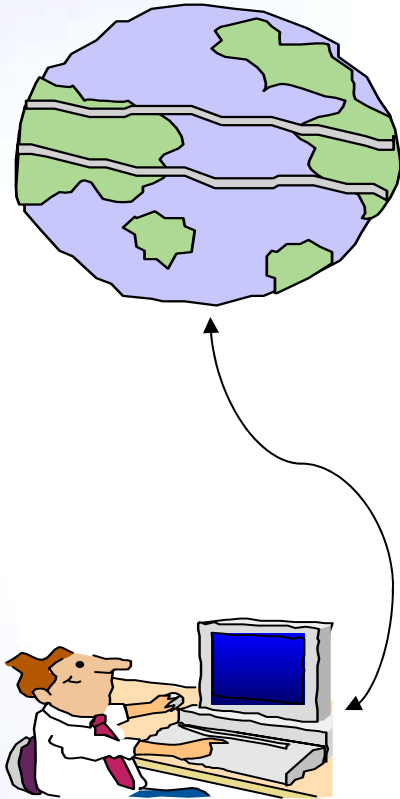
Different Ways to Roll Out System i Access for Web

- **Use 'out of the box'**
  - Set some policies to limit what functions are accessible to your users, and give them the URL address to System i Access for Web

- **Use 'out of the box', but set up predefined functions**
  - You can set up preconfigured 5250 sessions that users (or groups of users) can run, can create predefined database requests for users to run, set up commands users can run, etc.

- **Create your own 'window' to your system through Access for Web**
  - Add company banners to screens, set up 'click and link' tasks that users can perform, set up macros to simplify user access.

- **Use Access for Web with the IBM WebSphere Portal solution**
  - A single unified workspace in which your employees, trading partners, and customers can easily find and use the applications and information that they need

Different Ways to Roll Out System i Access for Web

- **Use 'out of the box'**

- **Use 'out of the box', but set up predefined functions**

- **Create your own 'window' to your system through System i Access for Web**

- **Use the WebSphere Portal solution**

Home Page entry point

Home Page = http://<myiseries>:<port>/webaccess/iWAHome

- **System i Access for Web 'Home Page' out-of-the-box view**

- **This page is totally customizable**

New 'look' in V5R4…

Your **Window** to your System i

http://<myiseries>/webaccess/iWAHome

Customized 'window' to IBM i

Window is associated with IBM i user profiles

- **An administrator can create multiple different 'windows' based on user profile / group profile for different types of users.**

- **Can tightly control what functions a user can perform on your IBM i**

- **Tie in with other web applications (such as WebFacing and HATS) from here as well**

- **Link to other systems, not just System i**
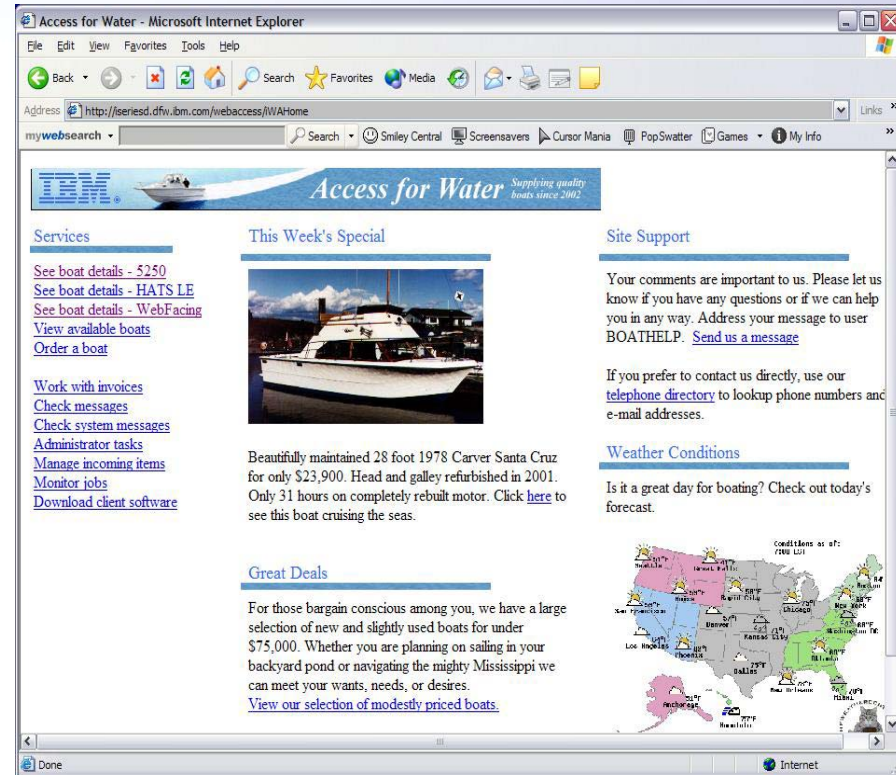
- *One view and set of functions for the Accounting department*

- *Another view and set of functions for the Warehouse staff*

Customized Home Page

Customized view of the Home Page

- **Could be used as 'entry' point to IBM i**

- **Let's drill down and look at some of this…**

➡️ *http://iseriesd.demos.ibm.com/webaccess/iWAHome*

Using 5250 emulator in System i Access for Web

The company banner, 'Access for Water' is carried forward on all screens

- **Went into 'Customize → General' and pointed at file with the company .gif.**

5250 emulator in Access for Web

- **Application looks better and did no work**
- **Can use 5250 Bypass Signon (new in V5R4) to bypass IBM i sign-on screen**
- **Can use Access for Web Macro support to start the RPG application (BOATS)**

Zero (0) extra steps

Task Oriented – not function oriented…

Selected 'work with invoices'

- **This takes user to 'Printer Output' – user's Spoolfile printer output**

- **SCS or AFP printer output is converted to PDF 'on the fly' by Access for Web to PDF**

- **Since it is now in .PDF format, user can print it to any network printer**
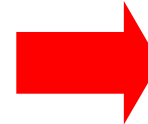
E-mail PDF output

E-mail is integrated with System i Access for Web

- **Your mail server can be anywhere in your network**
- **Users receiving your e-mail need only an e-mail address**
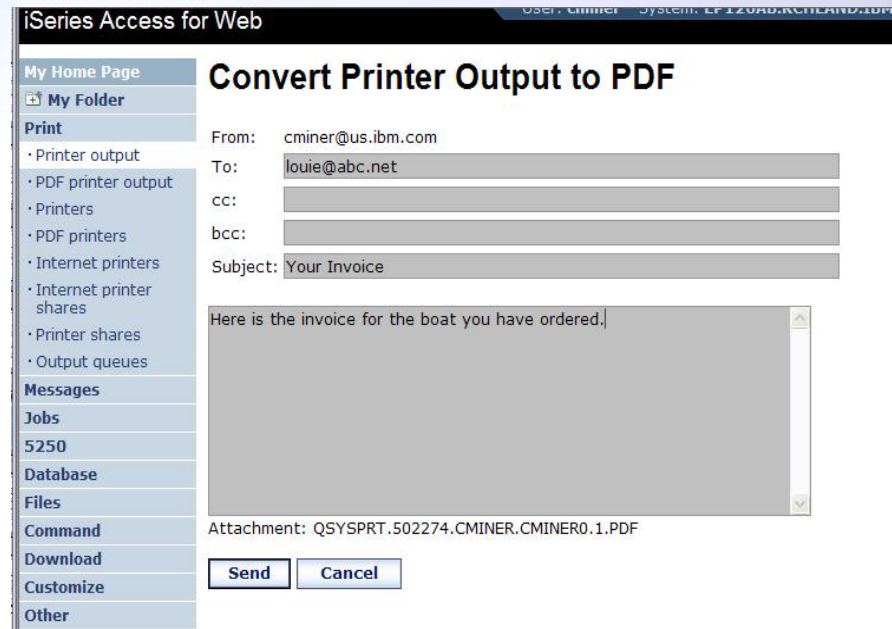
User selects an option in the Printer Output screen to 'e-mail PDF output'

- **The PDF document is then included in the e-mail**
- **Sender's e-mail address filled in; user only needs to address it.**
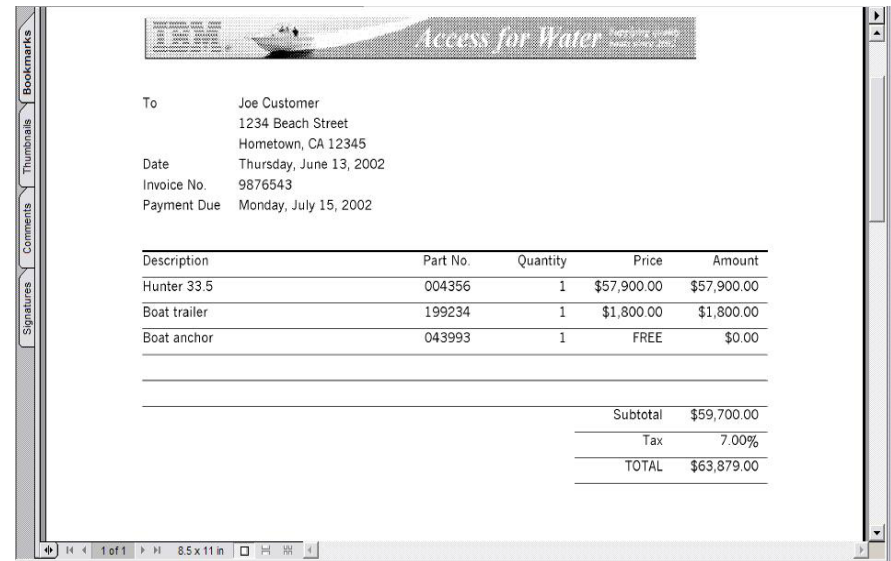
Run an IBM i Database Query

Clicked on 'View our selection of moderately priced boats'
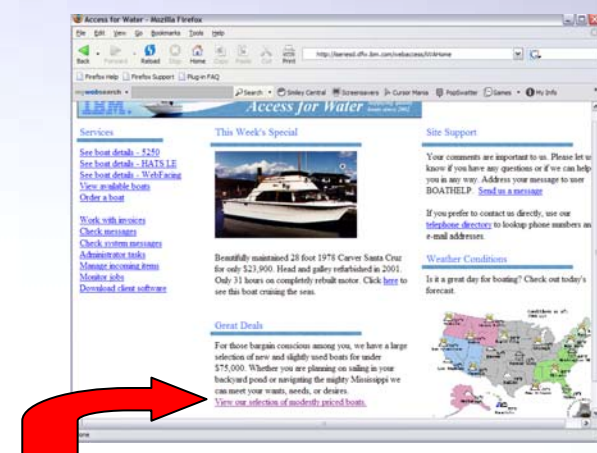
- **Administrator had previously built an SQL Query using the System i Access for Web 'Database' function**

- **Could also have been set up to show in an .XLS or .PDF format**

  – **a variety of other output types as well**

BNAME	BFEET	BYEAR	BCOST	BNT01
Mako Sportfisher	19	1989	13000	-Located in Anacortes, WA.
Monk Bridgedeck Cruiser	36	1956	19900	-Built of mahogany, oak, and cedar.
Carver Santa Cruz	28	1978	23900	-Constructed of fiberglass.
Bill Garden Schooner	36	1953	27500	-The hull is 1/8' caravel cedar planked atop 1 1/4" x 1 1/2" oak frames
Monk Flybridge/Sedan	34	1985	55000	-Double planked cedar on oak frames.
Hunter 33.5	33	1990	57900	-The boat has a large wheel steering a spade rudder.
Mariner Ketch	40	1979	63000	-Full keel and the rudder is keel hung
Morgan 382 Race/Cruise Sloop	38	1978	69000	-Has an Airex hull and skeg rudder. Has been rated by LLoyd's
Corsair 27	27	1994	69950	-Equipped for cruising and racing

Try out System i Access for Web on a demo server!

Start your browser and connect to the following web site:
http://iseriesd.demos.ibm.com/webaccess/iWAHome (case sensitive)

User ID = WACUST **Password = demo2pwd**	**This shows the basic look of System i Access for Web as we ship it. You can try various functions -- including working with printer output, creating database requests, etc. Click on the 5250 tab, sign onto the IBM i, then start an RPG application called BOATS and run it.**
User ID = BOATADMIN **Password = demo2pwd**	**This is an example of how a customer might design a web page for their use. You will see that an end user could start the same BOATS application by clicking on the 5250 session, or they could have used HATS to run the application. You will also see other links that would let a user work with spooled file information, work with IFS, run database requests, etc..**

Send email to: LLHIRSCH@us.ibm.com to reset the user profiles if either gets disabled.

More Documentation…

Article describing how 'Access for Water' web page was built

Go to the System i Access Family web page at:
www.ibm.com/systems/i/software/access/web/articles.html

- **Find article written Jan/Feb 2003 entitled 'Build a Quick and Easy Web Site with iSeries Access for Web' (PDF version)**

- **Updated Oct 2006 in <u>System i News</u> 'Tailor iSeries Access for Web'**

Different Ways to Rollout Access for Web

- **Use 'out of the box'**

- **Use 'out of the box', but set up predefined functions**

- **Create your own 'window' to your system through Access for Web**

- **Use the WebSphere Portal solution**

System i Access for Web has many entry points

'URL Interfaces to System i Access for Web' manual available on the web

http://<myiseries>/webaccess/iWAMain

- **Can enter at many different pages**

- **Can use navigation bar to move from function to function**

http://<myiseries>/webaccess/iWA5250
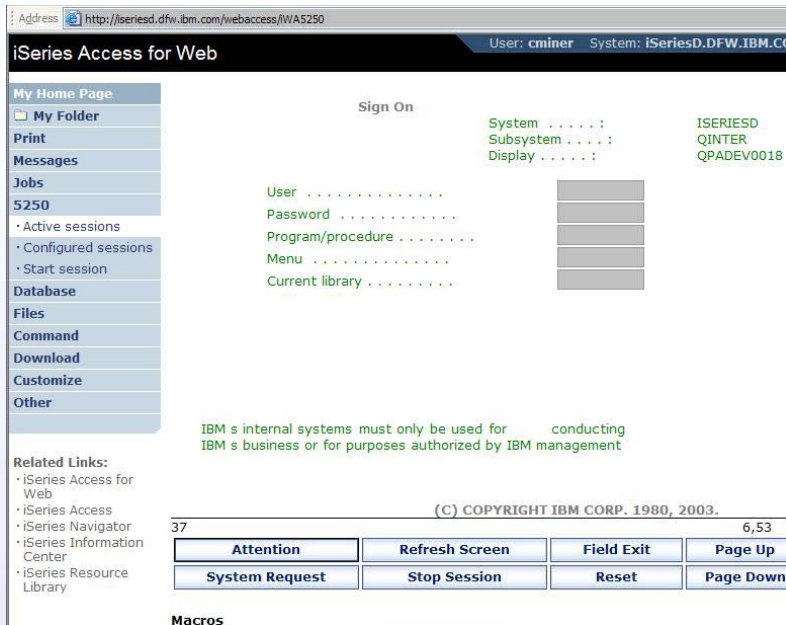
http://<myiseries>/webaccess/iWASpool
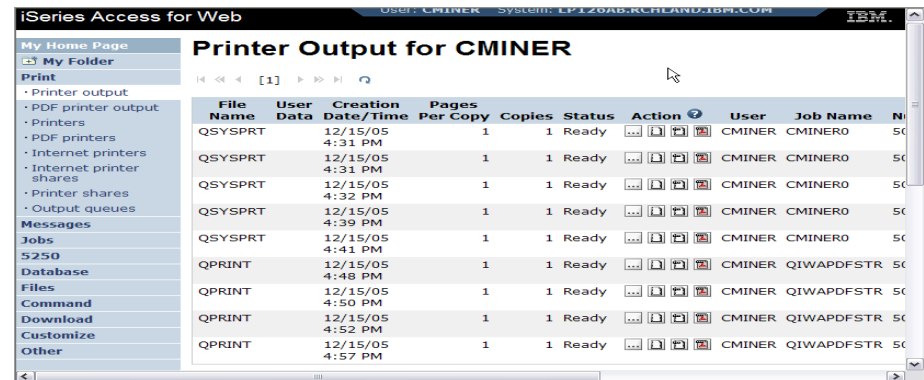
Reduce functions you give to users
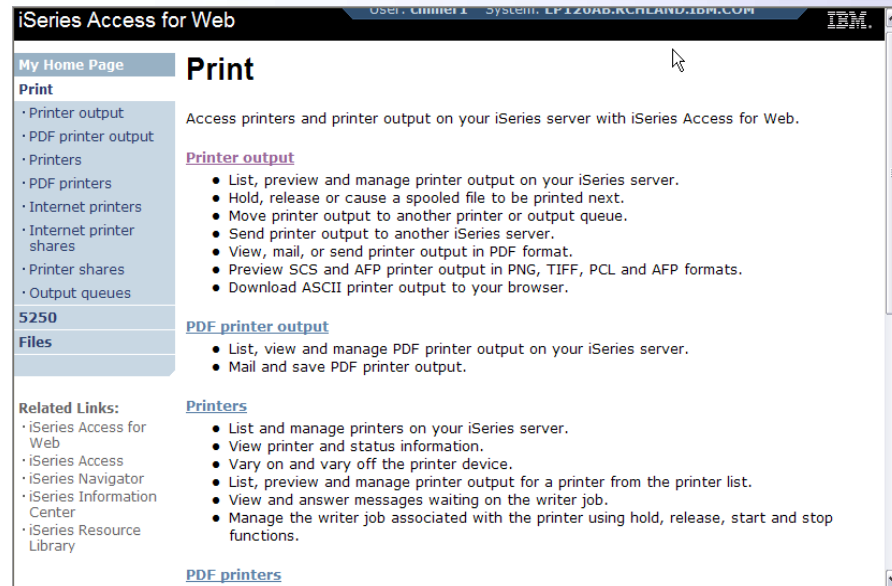
Reduce tabs that get displayed

Reduce options under tabs
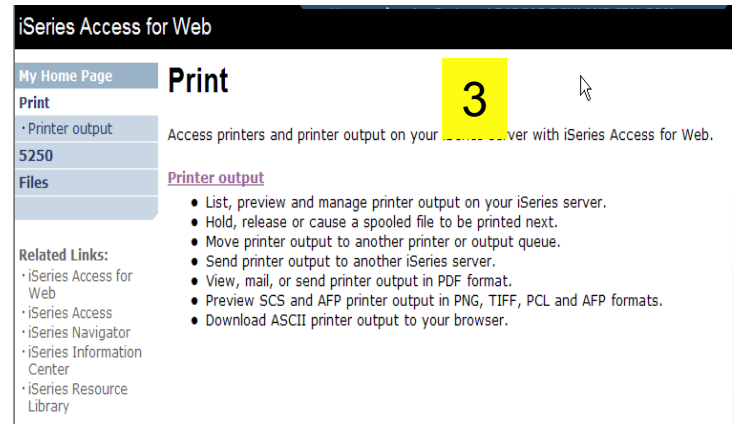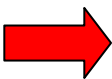
Printer Output - Spoolfile

1. **Print Tab**
   - **User only has one option available, i.e. 'Printer output'**
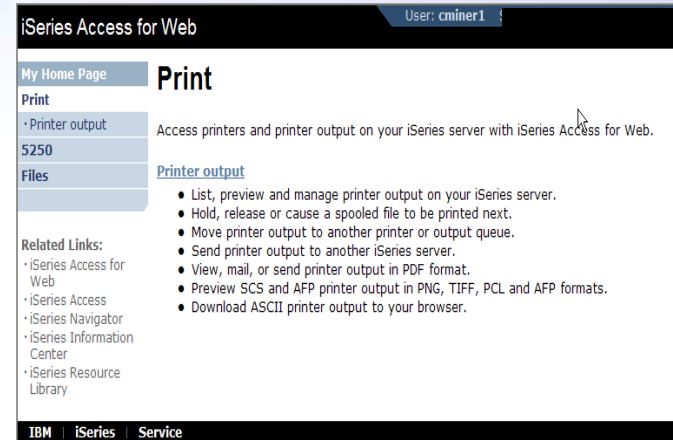
2. **Default look of 'Printer Output'**

3. **Customized look of 'Printer Output' for signed on user**
   - **Removed many of the columns of printer output**
   - **Reordered list**
   - **Removed several end user actions**
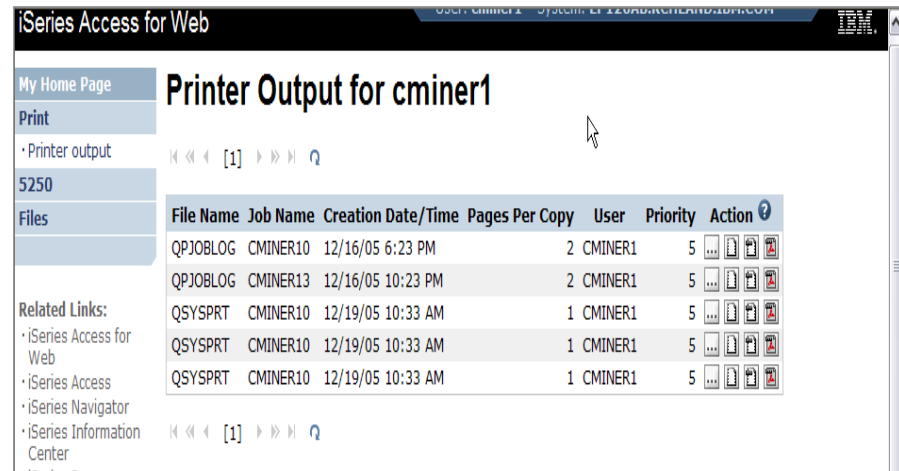
Run Pre-configured 5250 Sessions

You want to limit users to only starting 5250 sessions that you have preconfigured

- **You have removed user's ability to configure a session**

- **User selects 'Configured Sessions'**
  - **Only one listed, only action user can perform is to 'start' it**

- **User clicks on Start**
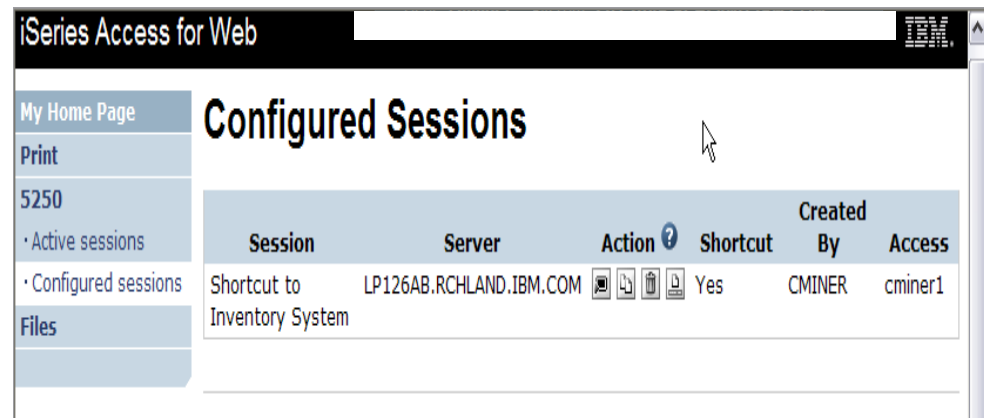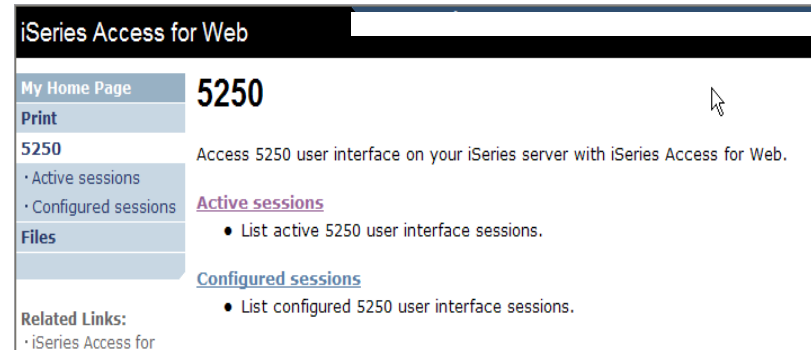
User can run 5250 application

User is placed in this application

- **The session could be configured to include a macro to put the user directly into a specific application on the System i**
  - Or on a menu screen

- **Use CHGUSRPRF, LMTCPB=Yes to remove command line from user's screen**
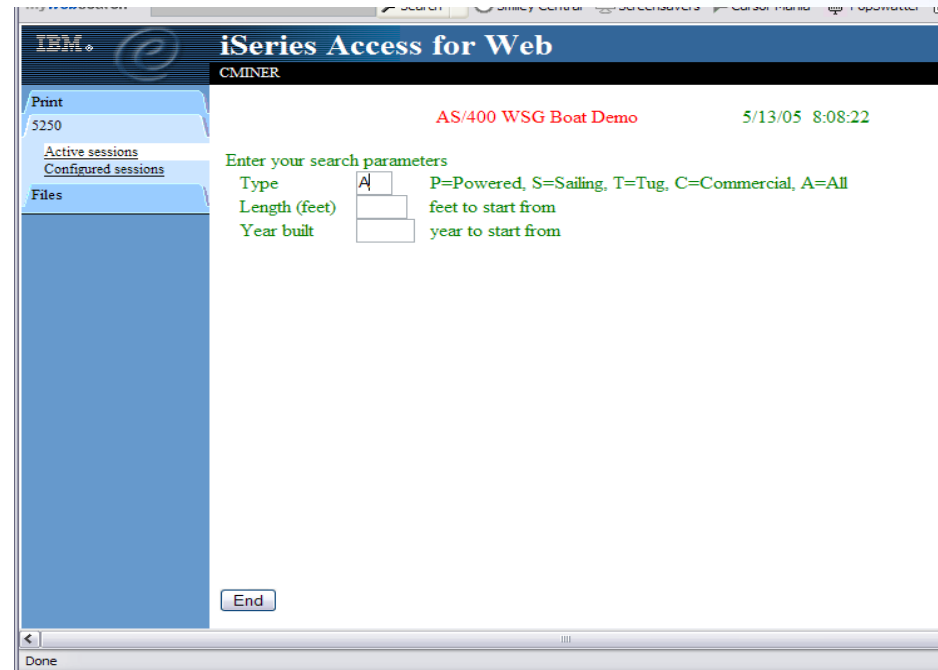
Change look of 5250 session

1. **Default 'web' look**
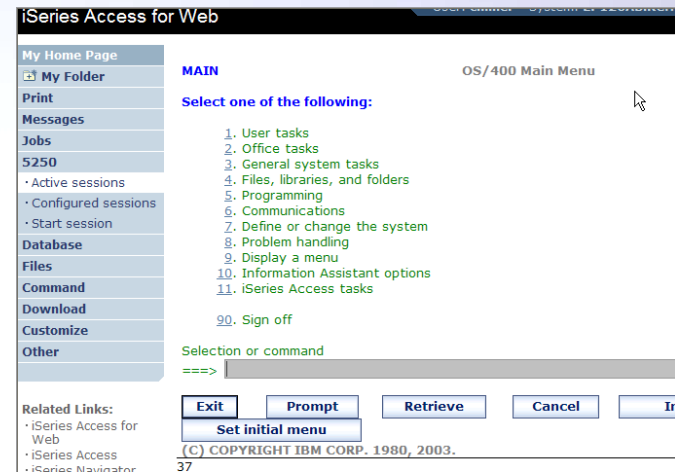
2. **Changed colors, added keypad at side, changed buttons at bottom to words**

3. **Removed navigation bar, put keypad on top**
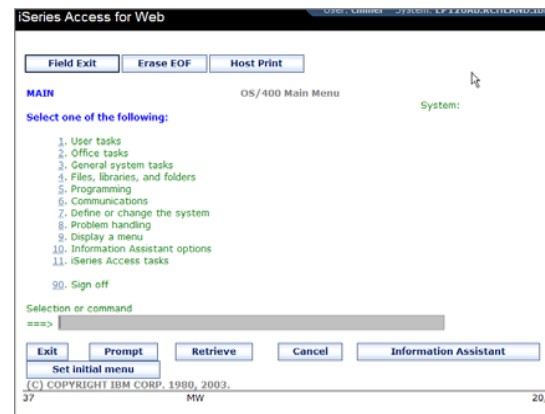
4. **Selected 'traditional' view, removed navigation bar**
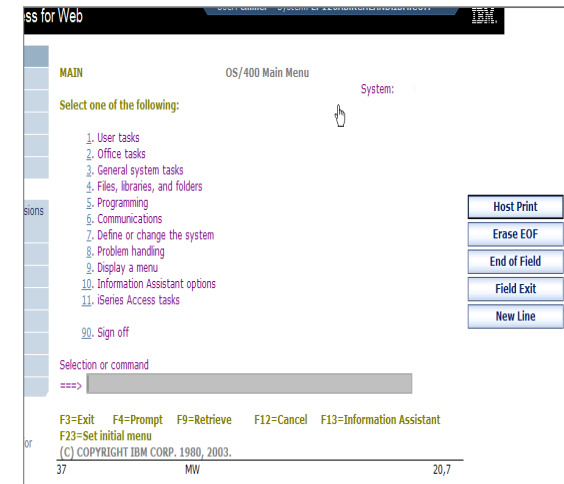
Work with Files in the IFS

- **Navigate and browse the directories located on your IBM i integrated file system**
  - **Don't need to map drives**
  - **Don't need to know directory structures**
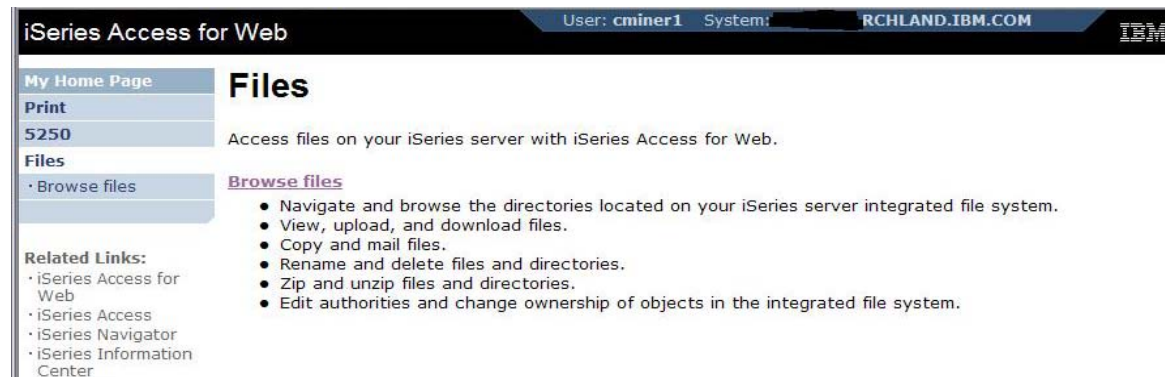
- **View, upload, and download files**

- **Copy and mail files**

- **Rename and delete files and directories**

- **Zip and unzip files and directories**

- **Edit authorities and change ownership of objects in the integrated file system**

Browse Files - 'Filtered View'

When I click on 'Browse Files', I see only a directory called 'cminer1' and its content

- **Because the administrator set a 'Default Directory' policy for me**

Actions I can perform:

- **Subdirectories: Create new ones, Rename, Work with**
- **Files: Copy, Rename, Delete, Mail, Work with (ie, Zip, Unzip, etc)**

Different Ways to Rollout System i Access for Web

- **Use 'out of the box'**

- **Use 'out of the box', but set up predefined functions**

- **Create your own 'window' to your system through Access for Web**

- **Use the WebSphere Portal solution**

Portal Solutions – the next wave in technology

For most organizations, the decision to invest in an enterprise portal is not a question of "if," but "when"?
(Craig Roth, VP META Group, 6/3/03)

Content

Processes

People

Applications

Portal built on IBM i

System i Access for Web Portlets on IBM i Portal

Portlet Support added to System i Access for Web

V6R1	V5R4	V5R3 PTF SI11914 (May 2004)	V5R3 (Jan 2004)

• **New portal application: "Standard portal application"**
  – **Written to the Java Specification Requests (JSR) 168 Portlet Specification**
  – **Strategic System i Access for Web portal offering**
 	
• **Original portlets, "IBM portal application," are still available**
	• **Single Sign-on (SSO)**
	  – **Via WAS Security model**
	  – **5250 Bypass signon option**
	• **Database**
	  – **OpenOffice spreadsheet format (.ods)**
	  – **IBM i SQL Requests**
	  – **Viewer to look at IBM i SQL results**
	• **Files**
	  – **Zip function to zip files in IFS**
	• **IBM i Credentials**
	  – **Users can change IBM i password via System i Access for Web, and it will additionally update currently defined credentials with the new password value.**
		• **File**
		• **Print**
		• **Database**
		• **Command**
		• **Credentials**
		• **Related Links**
			• **5250**
			• **iFrame**
			• **Welcome**

Different Ways to Rollout Access for Web

- **Use 'out of the box'**

- **Use 'out of the box', but set up predefined functions**

- **Create your own 'window' to your system through Access for Web**

- **Use the WebSphere Portal solution**

Control user access to functions

My Home Page
My Folder
Print
Messages
Jobs
5250
Database
Files
Command
Download
Customize
· Preferences
· Policies
· Settings
· Transfer
  configuration
Other
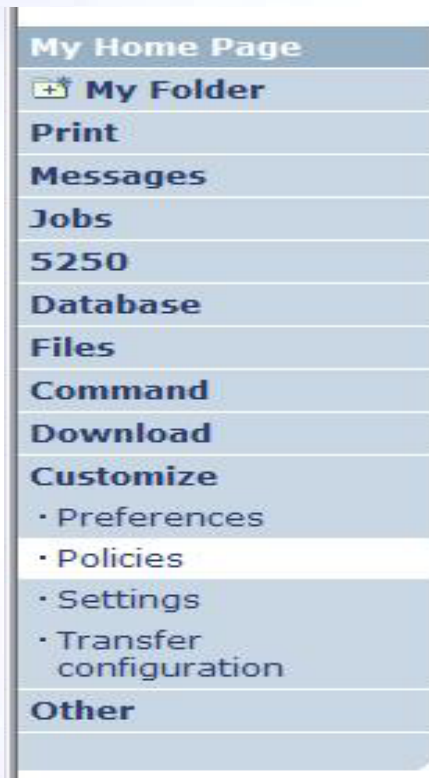
1. **How do I keep my users from using all these functions?**

2. **How do I set up the environment for my users?**

3. **Should I let my users set have some individual screen settings for some functions?**

You need *SECADM authority to customize profiles

System i Access for Web uses IBM i User Profiles

When an System i Access for Web user attempts to access any function on the IBM i, the following sequence of checks are made to authenticate user access:

- **User profile**
- **Group profile(s)**
- ***PUBLIC profile**

*PUBLIC profile is the set of default policy settings shipped with Access for Web

- **The defaults allow most functions to be available to all users**

The settings in these policies indicate what functions within System i Access for Web, a user can attempt to use.

- **For Example: Let's say you give users full access to the 'Database' tab.**
- **You have Object Level authority set up on your data**
- **When a user attempts to use one of the System i Access for Web Database GUIs to get at the database information, the user will get an IBM i message indicating they are not authorized to access data**

Customize → Policies

Policies are used to control access to System i Access for Web functions

For example:

- **A Files access policy can be set to Deny or restrict a user or group from accessing the file function.**

- **Policies are saved and associated with the appropriate IBM i user or group profile.**

- **Each 'Category' expands for granular control**

Action	Category	Description	Access
✎	5250	5250 user interface custom settings.	Allowed
✎	Command	Run batch command custom settings.	Allowed
✎	Customize	Preferences and policy administration custom settings.	Allowed
✎	Database	Database tables, requests, and run SQL custom settings.	Allowed
✎	Database connections	Create and edit database connection definitions.	Allowed
✎	Download	Download packages custom settings.	Allowed
✎	Files	Integrated file system and file share custom settings.	Allowed
✎	General	Page layout, language and character set custom settings.	Allowed
✎	Jobs	Work with jobs custom settings.	Allowed
✎	Mail	Send mail custom settings.	Allowed
✎	Messages	Display messages, send messages, and message queue custom settings.	Allowed
✎	My Folder	My Folder custom settings.	Allowed
✎	Print	Printer output, printers, printer shares and output queue custom settings.	Allowed
✎	Sametime	Lotus Sametime custom settings.	Allowed
✎	Other	Change password and other miscellaneous custom settings.	Allowed

Policies - customize for all users at once

One alternative…

Use the *PUBLIC group profile and set policies for all users

- **'Deny' functions for all users in a single step**
- **Then 'Allow' specific users access to functions via their User or Group profiles**

Problem:

You're locked out too, until you go in and "Allow" functions for yourself

Example: Set Policy to Default to Specific Directory in IFS

Set a 'Default Directory' for:

- ***PUBLIC**

- **Groups of users**

- **Specific user**

In this example, I went into CMINER1 profile, and set policy to show only the 'CMINER1' directory to this user...

- **My Folder**
- **Print**
- **Messages**
- **Jobs**
- **5250**
- **Database**
- **Files**
- **Commands**
- **Customize**
- **Downloads**
- **Mail**

System i Access for Web 5250 Interface

Runs as an interactive job

– Only function in System i Access for Web that is interactive

TN5250 port

– Only function in System i Access for Web that uses TN5250 port

Use "Start Session" Dynamically

- Specify the system to connect

- Select the session attributes
  - Port, code page, workstation ID, etc.
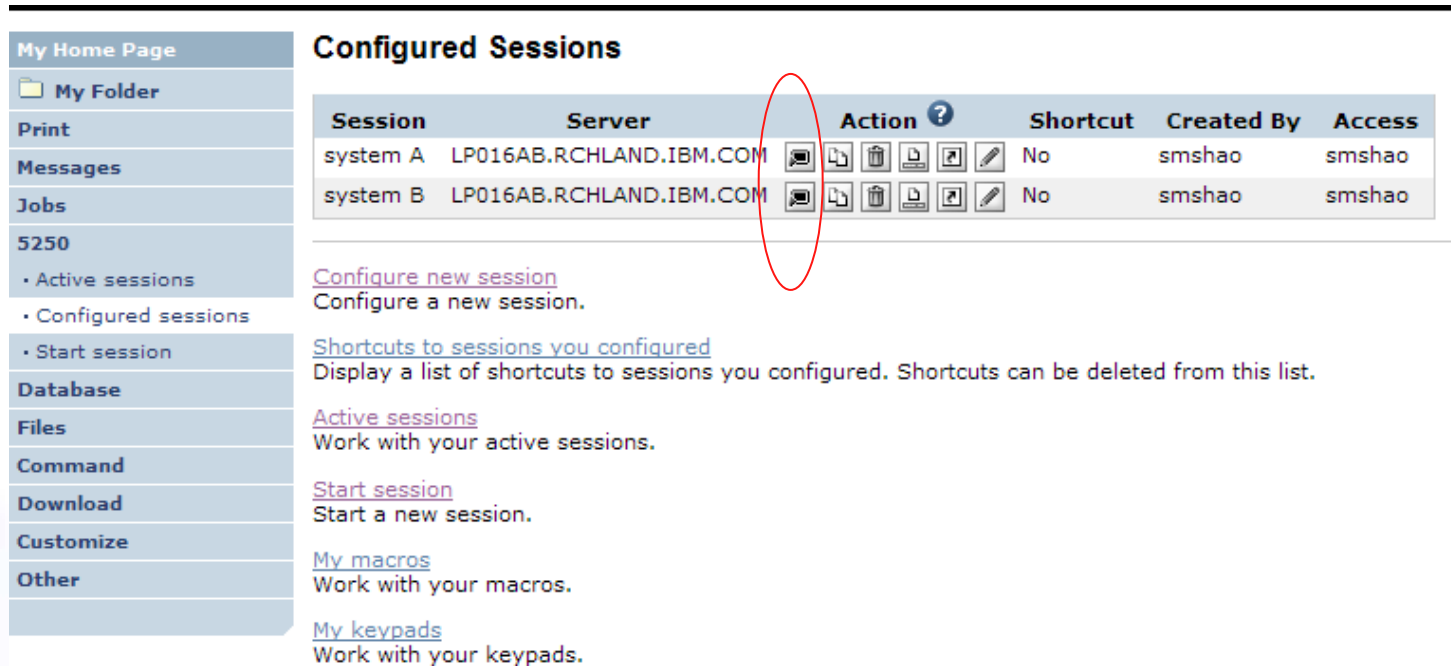
- Start session

Start a Configured Session

- Configured sessions list shows the list of sessions for the logged in user
- Select the "Start" icon for the session to start
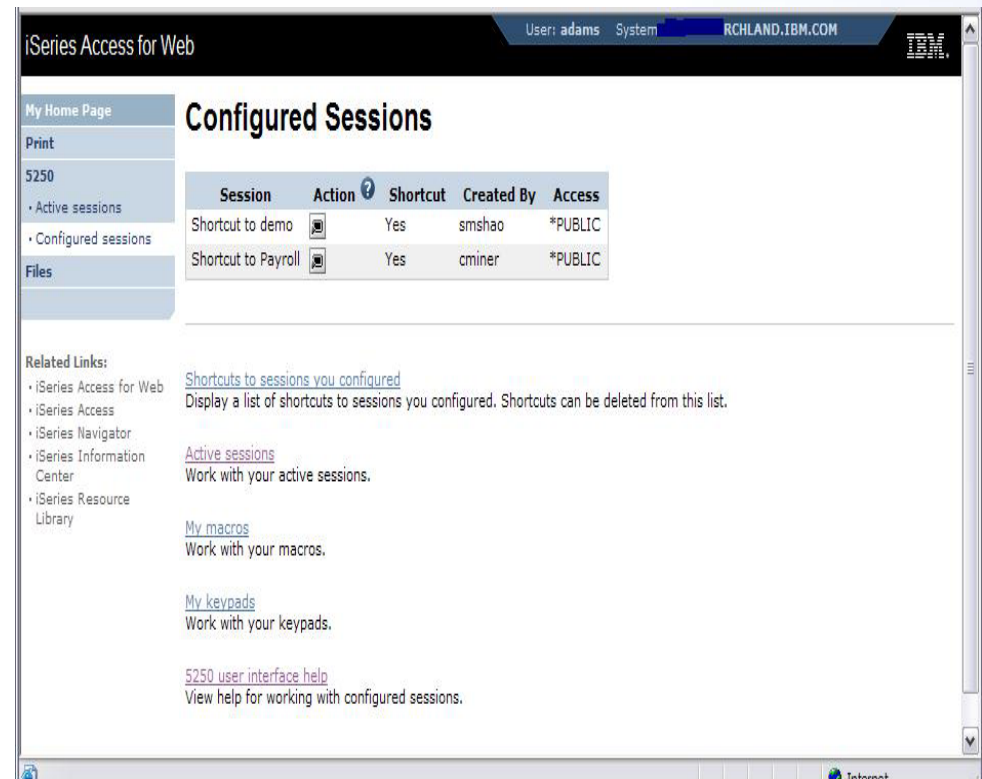
Run Pre-Configured 5250 Sessions

You can limit users to connecting to only specific systems or running only specific applications.

http://<systemi>:<port>/webaccess/iWAMain

- Create preconfigured 5250 sessions

- Then set policies to restrict users to only preconfigured sessions

- User selects 'Configured Sessions'
  - Only link provided
  - User has only one action → to start a session

- My Folder
- Print
- Messages
- Jobs
- 5250
- **Database**
- Files
- Commands
- Customize
- Downloads
- Mail

System i Access for Web – Database Functions

Access database tables on your iSeries server with iSeries Access for Web.

Tables

- View a list of database tables on your iSeries server.
- Perform actions on these tables without having knowledge of SQL and its syntax.
- View the contents of a table in a paged list, using the Quick view action.
- Add and update records in a table using the Insert and Update actions.
- Create your own customized SQL request for a table using the Run SQL action.
- Create your own customized copy data request for a table using the Copy data to table action.

My requests

- View a list of previously saved requests.
- Run or Edit requests from this list.
- Manage lists using the Copy, Delete, and Rename actions
- Create and manage shortcuts to requests

Run SQL

- Run SQL statements dynamically.
- View output as a paged list or in a popular file format, like Microsoft Excel or Lotus 1-2-3. (Output format depends on how you have your browser configured and whether the browser can locate a plug-in for the output type you choose.)
- Customize how data is returned by setting options specific to the output type.
- Build SELECT statements using an SQL Wizard.
- Save requests for repeated use.

Copy data to table

- Copy existing data files from your PC to a database table on your iSeries server.
- These data files can be in many popular file formats, including Microsoft Excel and Lotus 1-2-3.
- Replace the contents of a table or add data to an existing table.
- Create a new database table based on the contents of a workstation file.
- Save requests for repeated use.

Import request

- Import Client Access Data Transfer upload and download requests into iSeries Access for Web copy data and SQL requests.
- Imported requests are automatically converted to iSeries Access for Web format.
- Run and edit converted requests on your iSeries server just like other copy data and SQL requests.

Import query

- Import queries generated by Query for iSeries and DB2 UDB for iSeries Query Manager.
- Imported queries can be saved into iSeries Access for Web database requests.
- Run and edit converted queries on your iSeries server just like iSeries Access for Web SQL requests.

Extract server data

- Extract server object information into a database table.

Upload PC Data to the System i

- **Upload data from a variety of file types**
  - **Excel, XML, Lotus, etc**
  - **OpenOffice new V5R4**

- **Put into IBM i database**
  - **'Replace' contents of table**
  - **'Append' to existing data**

- **If no table exists on the IBM i, you will get a wizard to help you create a new table**

Create System i Table

Wizard to help you create an IBM i table from your PC spreadsheet

Database Tables

You can:

- **Insert**
- **Update**
- **Quick View**
- **Find (new V5R4)**
- **Run SQL**
- **Copy Data to Table**

Download Database Information from System i

Run SQL allows you to run SQL statements
- **Could copy/paste complex SQL statements in here...**

Variety of output types
- **PDF, Excel, 1-2-3, XML, etc**

Destination
- **Browser**
- **Mail as attachment**
- **Personal Folders**
- **IFS (new V5R4)**

Can save request
- **My Requests, Give Shortcut to others**

SQL Wizard if you don't know SQL

Create Database Requests with SQL Wizard

SQL Wizard enables you to:

- **Select tables**

- **Select which columns to return**

- **Add conditions to your select statement**

- **Select the columns by which you want the data sorted**

New in V6R1! Chart SQL Results: Background

- System i Access for Web provides support to run SQL statements and store the results in a selected file format

- Historical supported file formats include:
  - HTML
  - Microsoft Excel
  - PDF
  - OpenDocument

Chart SQL results: SVG File Format

- **Support for new output file type in V6R1**
  - Scalable Vector Graphics Chart (*.svg)
    - Language for describing 2D graphics in XML
    - W3C standard
  - Users can store SQL results in a chart

Chart SQL Results: SVG Configuration

- Many configuration options
  - Chart type
    - Area, Bar, Pie, Line
  - Colors
  - Legend location
  - Grid shown
  - Chart type options
    - Bar – vertical or horizontal
    - Pie – exploded or complete
    - Line – marker shape
  - Other….

- Same destination options:
  - Browser, mail, IFS, personal folder
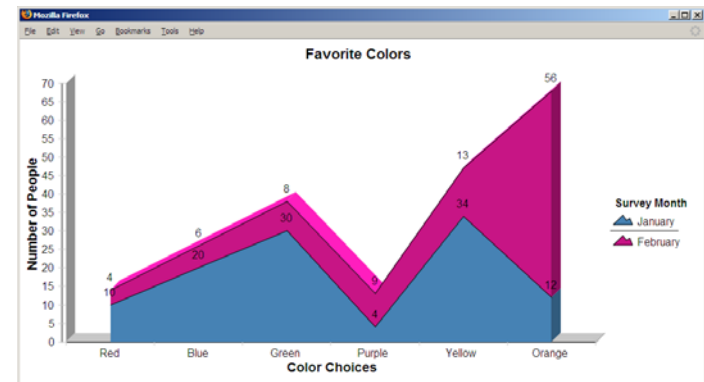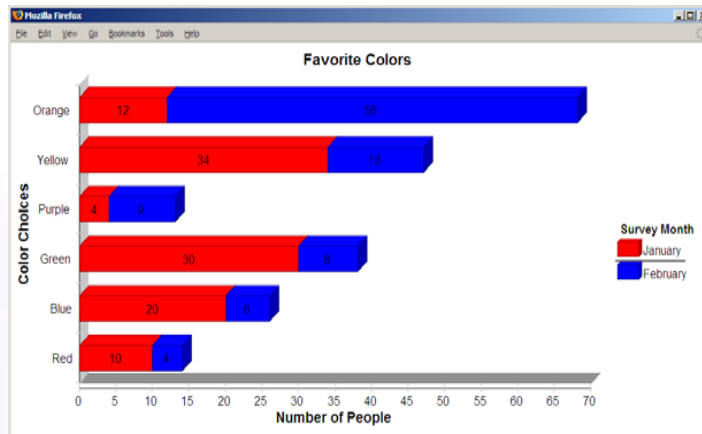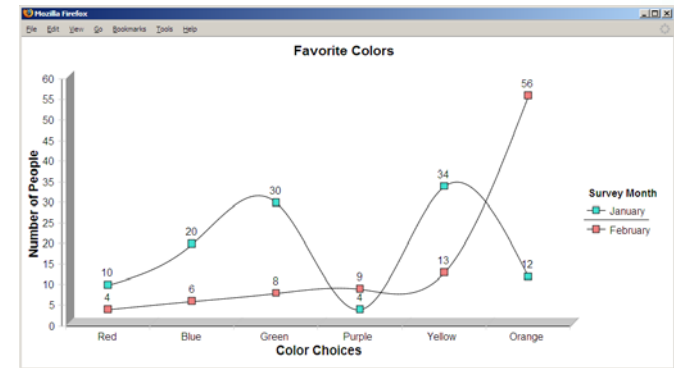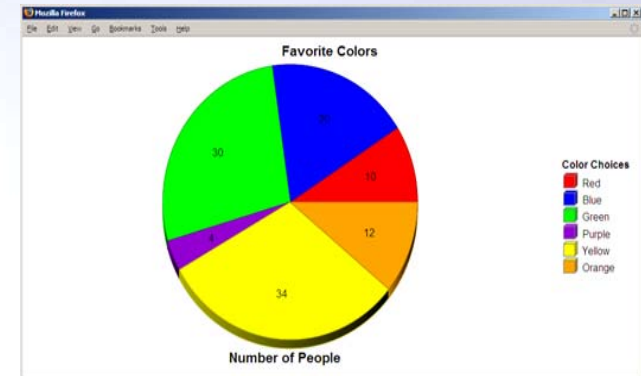
Database - Run Requests

Administrator could:

- **Give users or groups of users some database requests that were created for them.**

- **Users can run only these specific requests**

- **No other database options offered**

Printing

- My Folder
- **Print**
- Messages
- Jobs
- 5250
- Database
- Files
- Commands
- Customize
- Downloads
- Mail

Work with Printer Output, Printers, Queues

Typical end user printer tasks

- **Printer Output**
- **PDF Printer Output**

Tasks more oriented toward system operators, administrators, programmers, etc

- **Printers**
- **PDF Printers**
- **Internet Printers**
- **Internet Printer Shares**
- **Printer Shares**
- **Output Queues**

Work with Printer Output

http://<myiseries>/webaccess/iWASpool

My 'printer output'

Actions include:
- **Work with**
- **View**
- **View As**
- **View PDF**

Easy-to-use GUI for working with my printer output

- **Don't need to sign onto a 5250 session, and run commands to get to spool file**

Note: IBM Infoprint Server (57xx-IP1) is NOT needed to use "View PDF"
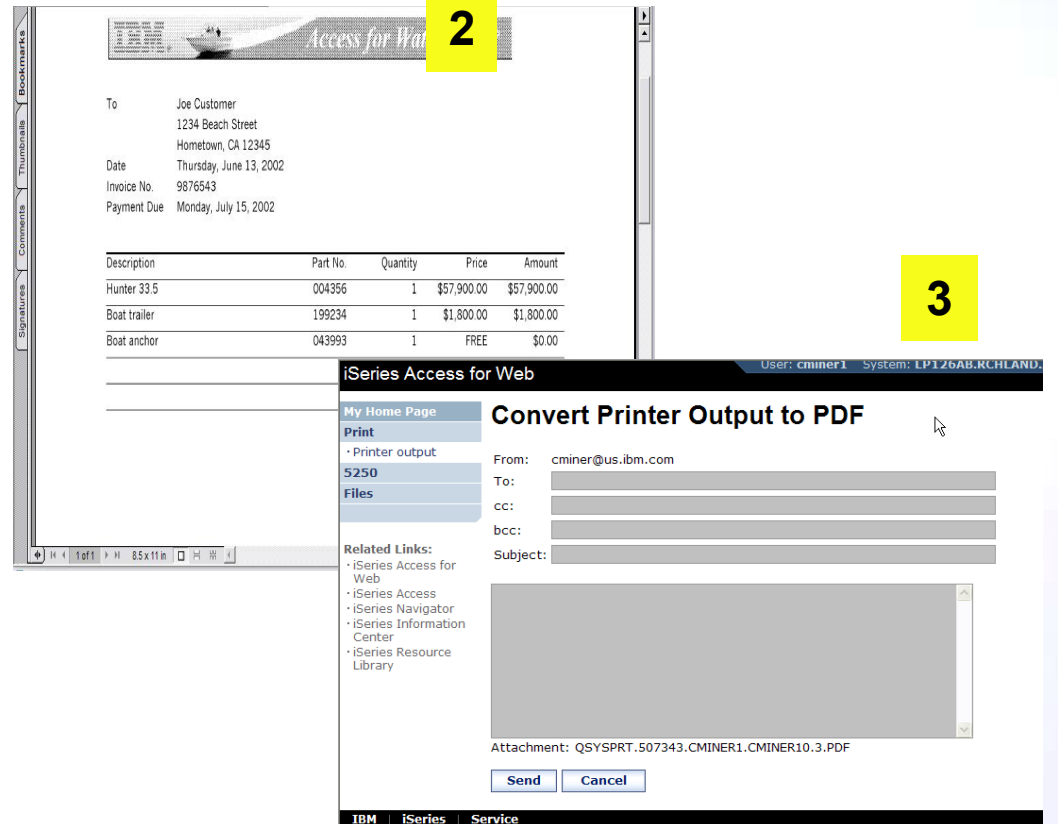
Printer Output - Spoolfile

1. **Requested 'View PDF'**

   - **Can select any option on pulldown for my printer output**
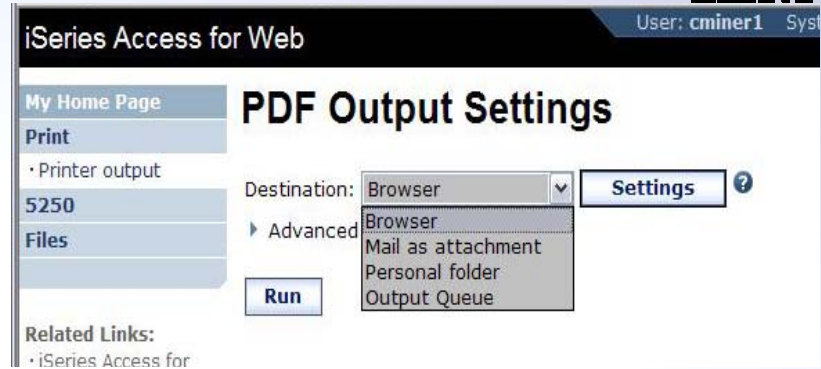
2. **View in Browser**

   - **Shows overlays, etc**

   - **Can print on any printer in network**

3. **Send .PDF document in an email**

   - **Mail server does not have to be installed on IBM i**

PDF Printer Output

http://<myiseries>/webaccess/iWAPDFPrinterOutput

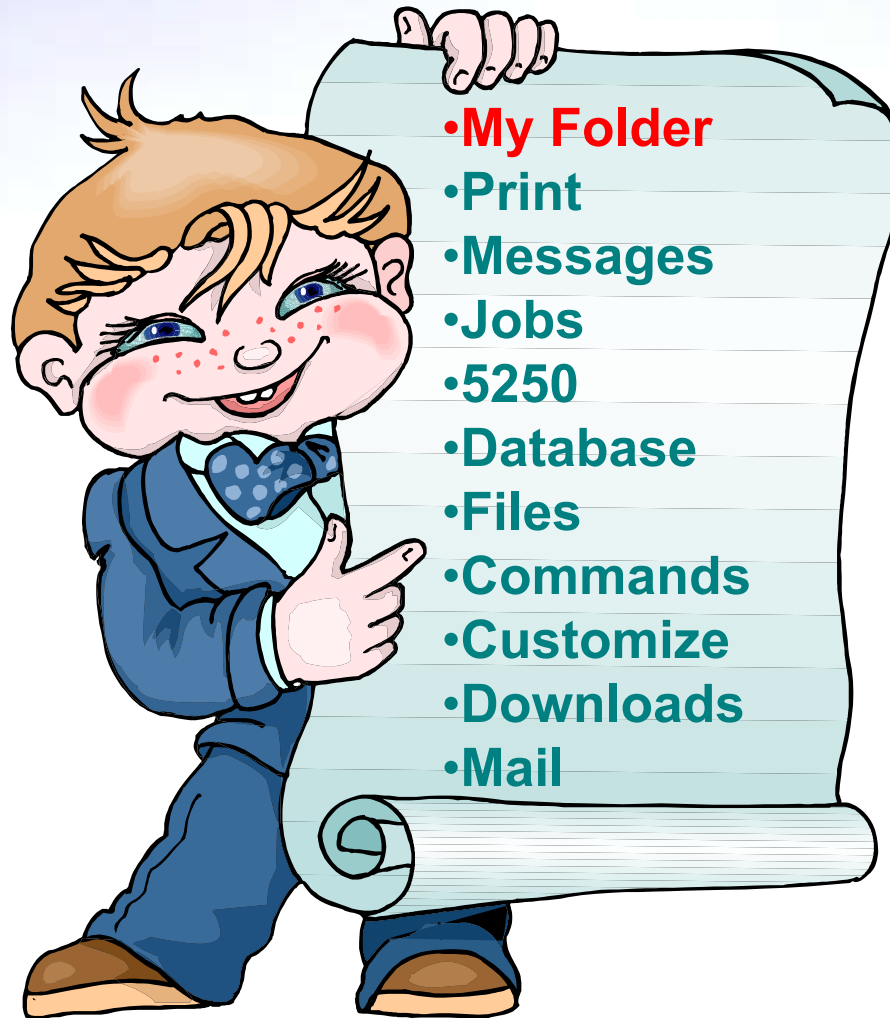**Printer output automatically converted to PDF and placed in PDF Printer Output Queue at spool time**

Actions include:

– **View**

– **Copy to File**

– **Copy to Folder; Delete**

– **Mail**

Note: IBM Infoprint Server (57xx-IP1) needed to use "PDF Printer Output" and "PDF Printers"

My Folder

- **My Folder**
- **Print**
- **Messages**
- **Jobs**
- **5250**
- **Database**
- **Files**
- **Commands**
- **Customize**
- **Downloads**
- **Mail**

My Folder

Folder resides in the IFS
- Folder does not show up in IFS directory listing
- Administrator can control size of Folders (new in V5R3)

Folder can only be accessed by owner
- Good for long-running requests (ie, actions performed asynchronously so the browser is not tied up)
- An easy way to avoid large attachments (ie, a large query result)
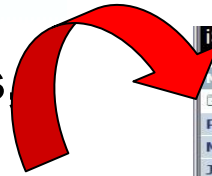
Can place information in other users' Folders
- Performing requests for someone else
- Mechanism for workflow.

Combine e-mail and My Folder functions to:

- Perform requests for someone else
- Distribute results to a group of users
- Send e-mail to others when you place information in their Folder
- Be notified when new items are placed in your Folder

Simply click on 'My Folder' to see items

- **Can store items, email them, delete them, etc**

- **Do not need to understand any Directory structure to put information in My Folder or another's Folder**

Other new functions in V6R1

New in V6R1!
Single sign-on via Windows domain login – V6R1

- WAS 6.1 provides a trust association interceptor (TAI) that uses the Simple and Protected GSS-API Negotiation Mechanism (SPNEGO) to securely negotiate and authenticate HTTP requires for secured resources in WAS.
  - This uses kerberbos authentication.
  - The SPNEGO TAI enables Windows domain login to be used when granting access to secure resources in WAS.

- When V6R1 System i Access for Web is configured in a SPNEGO TAI environment, the Windows workstation user can login to the Windows domain and have Access for Web use those credentials to authenticate to IBM i

New in V6R1!
Schedule tasks: Create automated task as a .jar file

1. **Build the request and save it**

2. **Select "schedule the task"**

3. **Create (define) the task**

4. **Completed automated task definition**

5. **Review Database help to determine how to run the scheduled task**

Summary

System i Access for Web V6R1 Enhancements

– Single sign-on: support authentication using Windows domain login

– Chart SQL results in bar, area, line, or pie chart

– SQL wizard supports joins of multiple tables

– Automation and scheduling of tasks

– JSR 168 Portlets
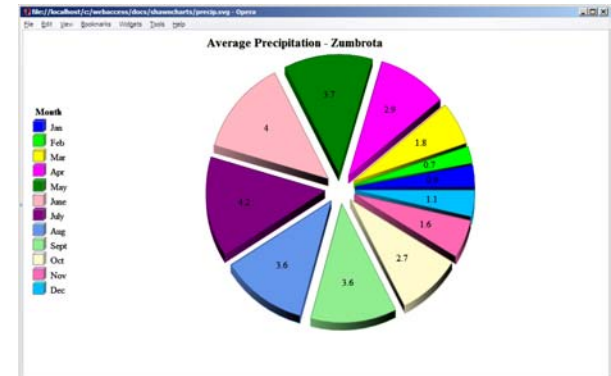
Functional enhancements can be submitted via the FITS system. The url is:
http://www.ibm.com/systems/i/software/access/

And click on link "Request for Design Change"

Why use System i Access for Web?
Start simple, grow fast...

- **Any IBM i customer can quickly get started working in a Web environment**

  - ► **If their system is not capable to running WAS, they can easily install the ASF Tomcat web application server. ASF Tomcat runs on hardware with 70 CPW and 256 MB memory**

- **Any IBM i customer -- with little Web experience - can easily get started working with e-business**

  - ► **System i Access for Web is simple to install and configure**

  - ► **No programming skills required to set it up**

- **Any IBM i customer -- without training or setup on users' desktops - can extend the reach of their resources to end users**

  - ► **Use customize facility to set up view ('window') to System i and to control access to various IBM i resources**

    - – **all built around IBM i user profiles**

A great first step to get System i into e-business

Use 'out of the box'

Additional Information

- System i Access Home page:
  - http://www.ibm.com/systems/i/software/access

- System i Access for Web Home page:
  - http://www.ibm.com/systems/i/software/access/web/

- Demo of System i Access for Web:
  - http://iseriesd.demos.ibm.com/webaccess/iWAHome

Special notices

This document was developed for IBM offerings in the United States as of the date of publication. IBM may not make these offerings available in other countries, and the information is subject to change without notice. Consult your local IBM business contact for information on the IBM offerings available in your area.

Information in this document concerning non-IBM products was obtained from the suppliers of these products or other public sources. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. Send license inquires, in writing, to IBM Director of Licensing, IBM Corporation, New Castle Drive, Armonk, NY 10504-1785 USA.

All statements regarding IBM future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.

The information contained in this document has not been submitted to any formal IBM test and is provided "AS IS" with no warranties or guarantees either expressed or implied.

All examples cited or described in this document are presented as illustrations of the manner in which some IBM products can be used and the results that may be achieved. Actual environmental costs and performance characteristics will vary depending on individual client configurations and conditions.

IBM Global Financing offerings are provided through IBM Credit Corporation in the United States and other IBM subsidiaries and divisions worldwide to qualified commercial and government clients. Rates are based on a client's credit rating, financing terms, offering type, equipment type and options, and may vary by country. Other restrictions may apply. Rates and offerings are subject to change, extension or withdrawal without notice.

IBM is not responsible for printing errors in this document that result in pricing or information inaccuracies.

All prices shown are IBM's United States suggested list prices and are subject to change without notice; reseller prices may vary.

IBM hardware products are manufactured from new parts, or new and serviceable used parts. Regardless, our warranty terms apply.

Any performance data contained in this document was determined in a controlled environment. Actual results may vary significantly and are dependent on many factors including system hardware configuration and software design and configuration. Some measurements quoted in this document may have been made on development-level systems. There is no guarantee these measurements will be the same on generally-available systems. Some measurements quoted in this document may have been estimated through extrapolation. Users of this document should verify the applicable data for their specific environment.

Special notices, cont.

IBM, the IBM logo, ibm.com AIX, AIX (logo), AIX 6 (logo), AS/400, BladeCenter, Blue Gene, ClusterProven, DB2, ESCON, i5/OS, i5/OS (logo), IBM Business Partner (logo), IntelliStation, LoadLeveler, Lotus, Lotus Notes, Notes, Operating System/400, OS/400, PartnerLink, PartnerWorld, PowerPC, pSeries, Rational, RISC System/6000, RS/6000, THINK, Tivoli, Tivoli (logo), Tivoli Management Environment, WebSphere, xSeries, z/OS, zSeries, AIX 5L, Chiphopper, Chipkill, Cloudscape, DB2 Universal Database, DS4000, DS6000, DS8000, EnergyScale, Enterprise Workload Manager, General Purpose File System, , GPFS, HACMP, HACMP/6000, HASM, IBM Systems Director Active Energy Manager, iSeries, Micro-Partitioning, POWER, PowerExecutive, PowerVM, PowerVM (logo), PowerHA, Power Architecture, Power Everywhere, Power Family, POWER Hypervisor, Power Systems, Power Systems (logo), Power Systems Software, Power Systems Software (logo), POWER2, POWER3, POWER4, POWER4+, POWER5, POWER5+, POWER6, System i, System p, System p5, System Storage, System z, Tivoli Enterprise, TME 10, Workload Partitions Manager and X-Architecture are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at www.ibm.com/legal/copytrade.shtml

The Power Architecture and Power.org wordmarks and the Power and Power.org logos and related marks are trademarks and service marks licensed by Power.org.

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

Linux is a registered trademark of Linus Torvalds in the United States, other countries or both.

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

Intel, Itanium, Pentium are registered trademarks and Xeon is a trademark of Intel Corporation or its subsidiaries in the United States, other countries or both.

AMD Opteron is a trademark of Advanced Micro Devices, Inc.

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

TPC-C and TPC-H are trademarks of the Transaction Performance Processing Council (TPPC).

SPECint, SPECfp, SPECjbb, SPECweb, SPECjAppServer, SPEC OMP, SPECviewperf, SPECapc, SPEChpc, SPECjvm, SPECmail, SPECimap and SPECsfs are trademarks of the Standard Performance Evaluation Corp (SPEC).

NetBench is a registered trademark of Ziff Davis Media in the United States, other countries or both.

AltiVec is a trademark of Freescale Semiconductor, Inc.

Cell Broadband Engine is a trademark of Sony Computer Entertainment Inc.

InfiniBand, InfiniBand Trade Association and the InfiniBand design marks are trademarks and/or service marks of the InfiniBand Trade Association.

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

Trademarks and Disclaimers