IBM

e server

Session: 270080

e server® iSeries.

iSeries Access Family
What's New and Hot in V5R3

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iSeries Access Family Products

e server

- This presentation will cover the variety of connectivity options that iSeries Access Family provides to meet your needs:
  - Linux (native) → ★ iSeries Access for Linux
  - Windows (native) → ★ iSeries Access for Windows
  - Wireless → ★ iSeries Access for Wireless
  - Browser-based → ★ iSeries Access for Web
    → ★ HATS LE

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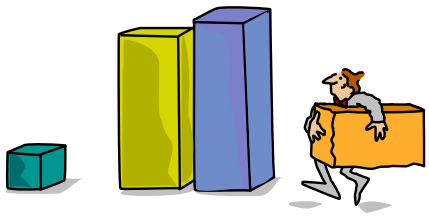
Packaging & Ordering



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iSeries Access Family Packaging

V5R3 5722-XW1 iSeries Access Family	V5R2 5722-XW1 iSeries Access Family
• iSeries Access for Windows, 5722-XE1, V5R3	• iSeries Access for Windows, 5722-XE1, V5R2
• iSeries Access for Web, 5722-XH2, V5R3	• iSeries Access for Web, 5722-XH2, V5R2
• iSeries Access for Wireless, 5722-XP1, V5R2	• WebSphere Host Publisher, 5724-B81, V4.0, 5724-B81, V4.01
• HATS Limited Edition V5.0, 5724-F97-01	• HATS Limited Edition V4.0 5724-D34-01 (after 6/30/2003)
• iSeries Access for Linux, 5722-XL1, V5R3	
	V5R2 customers not wanting to upgrade to OS/400 V5R3 but want the new V5R3 iSeries Access Family clients can order no-charge Feature No. 2647 of Product No. 5722-XW1

OS/400 V5R1

- EOM was 12/2003
- ~~EOS was 5/31/2004~~
- EOS has been extended to 9/30/2005

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Products - Focus

Description	Product	Product Number	Need 5722-XW1 to use
Family Name	➢iSeries Access Family	5722-XW1	Yes
Windows client	➢iSeries Access for Windows	5722-XE1	Yes (for 5250 and Data Transfer)
Linux client	➢iSeries Access for Linux	5722-XL1	Yes
Browser Access	➢iSeries Access for Web ➢HATS LE	5722-XH2 5724-F97-01	Yes Yes
Handheld / Wireless offering	➢iSeries Access for Wireless ➢iSeries Toolbox for Java ME	5722-XP1	No
OS/400 systems management	➢iSeries Navigator ➢Operations Console ➢EZ-Setup	Packaged in 5722-XE1	No

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
  Note: Can upgrade from User-Based to Processor-Based, but cannot go back to User-Based after purchasing Processor-Based
- Software maintenance included in base OS/400 software subscription

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iSeries Access for Linux

- First available in Aug 2003
- Latest releases available Feb 2005

www.ibm.com/eserver/iseries/access/linux

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iSeries Access for Linux – Sessions in Chicago

1. 36GI - iSeries Access for Linux Overview

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What is iSeries Access for Linux

- iSeries Access for Linux includes the following features:
  - Full function 5250 emulator
    - This function enables end users to work with OS/400 system screens and run host applications
  - ODBC driver
    - This function enables your Linux PC applications to access information in DB2 UDB for iSeries
  - iSeries Access APIs
    - RmtCmd, NLS, System Object…
- Supported for use on the following:
  - Linux operating systems with Intel processors and on Power PCs
  - iSeries server logical partition (LPAR)

Designed to run natively on Linux operating systems

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Two different versions available

32-bit Linux operating systems

- **Available February 4, 2005**: **Version 1.8**
- The 320bit version provides an ODBC driver for accessing the DB2 Universal Database® (UDB) for iSeries and a 5250 emulator.

64-bit Linux operating systems

- **Available February 21, 2005**: **Version 1.2**
- The 64-bit version provides an Extended Dynamic Remote SQL (EDRS) driver for Power PC.
- It is supported only on SuSE SLES 9 and requires the iSeries Access for Linux 32-bit product to be installed first.
- For more information on ERDS, refer to the XDA Web Site and iSeries Infocenter, "Extended Dynamic Remote SQL (EDRS) APIs" in the Programming -> APIs -> Database and File -> Database section.

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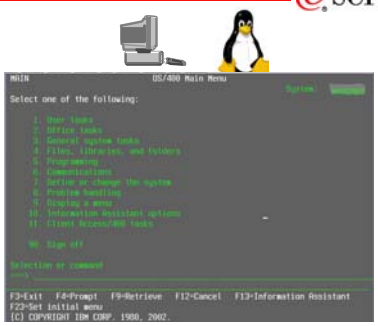
Full-function, Native 5250 emulator

The 5250 emulator contains a variety of functions, such as:

- **Ability to provide a workstation/device ID**
- **Both 80 and 132 screen sizes**
- **Keyboard mapping (GUI)**
- **Macro support**
- **Record/playback**
- **Pop-up/pull-down keypads**
- **Screen print**
- **and other capabilities**



For Linux end users

It can also asynchronously display server messages in the 5250 interface

Users Guide explains 5250 emulator functions
www.ibm.com/eserver/iseries/access/linus/pdf/ iseries_access_5250.pdf

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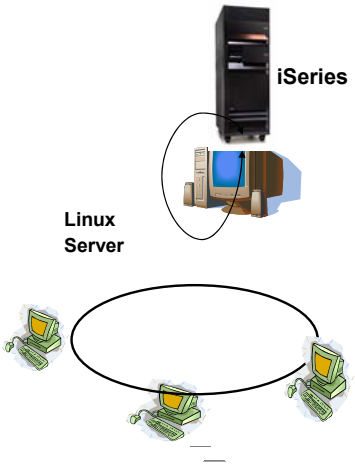
Supports 3-tier environments

- New ibm5250 - STAND_ALONE command line option.
- Enables easy use of:
  - Virtual Network Computing (VNC)
  - Linux Terminal Server Project (LSTP)



VNC and LSTP users

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National Language Support - SBCS

- 5250 emulation menus and messages are available in many national language versions
  - The main emulator window labels and helper applications are translated and will display based on the $LANG system environment variable
  - The command line value – LANGID may also be used to set the language
  - English text displayed for missing NLVs

Language	Locale	Description
2922	pt_PT	Portuguese in Portugal
2924	en_US	English
2925	fi_FI	Finnish
2926	da_DK	Danish
2928	fr_FR	French
2929	de_DE	German
2931	es_ES	Spanish
2932	it_IT	Italian
2933	no_NO	Norwegian
2937	sv_SE	Swedish
2929	de_CH	German Swiss
2940	fr_CH	French Swiss
2942	it_CH	Italian Swiss
2963	nl_BE	Belgium
2966	fr_BE	French in Belgium
2980	pt_BR	Portuguese in Brazil
2981	fr_CA	French Canadian

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National Language Support - DBCS

ibm5250 has been tested using the default XIM compliant IME's listed below.

Language	Simplified Chinese	Traditional Chinese	Japanese	Korean
XIME	xcin-zh_CN	xcin-zh_TW	kinput2	nabi
xx (MRI dir /opt/ibm/iseriesAccess/mri/xx)	zh	zh_TW	ia	ko
LANG	zh_CN	zh_TW	ia_JP	ko_KR
Font Encoding SB	iso8859-1	iso8859-1	jisx0201.1976-0	iso8859-1
Font Encoding SB	gb2312.1980-0	big5-0	jisx0208.1983-0	ksc5601.1987-0

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Notes: Double-Byte Support

- **IBM5250 ideographic (DBCS) language support requirements and setup**
- Input methods are used to input characters that are not found on the keyboard. Languages that require more characters than the keyboard contains must use an Input Method Editor (IME) to compose characters. The X Input Method protocol was developed to allow the X Input Method Editors (XIME) to compose and send characters to X applications. Ideographic languages, formerly referred to as Double Byte Character Set (DBCS) languages, will require an IME that is XIM compliant when using ibm5250 to connect to ideographic locale i5/OS sessions. For more technical information on IME, XIM or XIME, see the Links section at the end of this document.
- **Requirements**
- ibm5250 requires the following for ideographic language (DBCS) support

- LANG environment variable is set to the proper locale.
- Input Method editor (IME) that is X Input Method (XIM) compliant, installed and configured for the ideographic language (DBCS) language.
- Monospaced fonts with the proper Single Byte and Double Byte encodings for the language.
- IBM5250*inputMethod resource is correct for the X Input Method Editor (XIME).
- The environment variable XMODIFIERS is set for the XIME.
- The IME is started before launching ibm5250.

- **Default XIME Setting/Values and Required Fonts**

  The default IBM5250 XIME values are
  IBM5250*inputmethod: **XIME**
  XMODIFIERS=@im=**XIME**

- The following monospaced font sets are required:

  For 8x16 and 16x16 FontSet
  -*-*-medium-r-normal--*-*-*-*-c-80-(see encodings below) Single Byte
  -*-*-medium-r-normal--*-*-*-*-c-160-(see encodings below) Double Byte
  For 12x24 and 24x24 FontSet
  -*-*-medium-r-normal--*-*-*-*-c-120-(see encodings below) Single Byte
  -*-*-medium-r-normal--*-*-*-*-c-240-(see encodings below) Double Byte

- To display the available fonts, type:
- *xlsfonts* -fn "FontPattern"

  For example, to display the available jisx0201.1976-0 fonts
  xlsfonts -fn "-*-*-medium-r-normal--*-*-*-*-c-*-jisx0201.1976-0"
- **NOTE:**
  ibm5250 has only been tested using the default XIM compliant IME's listed below.

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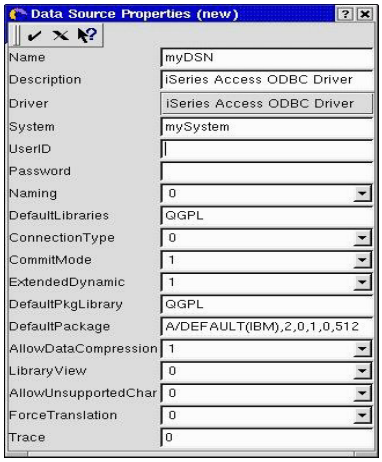
Native ODBC Driver

Extending the reach to iSeries data…

- **Can run ODBC applications, such as:**
  - **OpenOffice**
  - **ODBC and PHP for Web Serving**
  - **ODBC and Perl**
  - **unixODBC DataManager**
    - "Explorer" type of application to manage DSNs
    - Run and view results of SQL requests
    - unixODBC 2.2.3 version ships DataManagerII with additional features
  - **unixODBC isql**
    - Command line application
    - Neat way to generate simple HTML page with data tables
  - **Your own applications…**



The high-function, best-performing iSeries ODBC driver (included in iSeries Access for Windows) was ported to run on Linux

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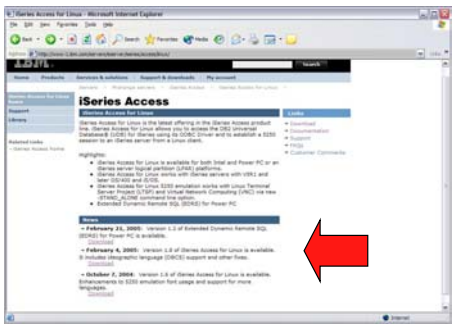
iSeries. mySeries.

iSeries Access for Linux (V1.8 & V1.2)

iSeries Access for Linux available via 'download' only

You can obtain iSeries Access for Linux V1.8 in two ways

- **Download from the web**
  - **www.ibm.com/eserver/iseries/access/linux**
- **Connect to your iSeries using iSeries Access for Web.**
  - **Select the 'Download' tab, then select the appropriate Access for Linux download**
- **The 64-bit EDRS Driver available as download from the web**



Over 9,000 downloads from 60 different countries so far!

Either way iSeries Access for Linux is fully supported through IBM SupportLine

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iSeries. mySeries.

Access for Web 'Download' Capability

Let users download iSeries Access for Web by using iSeries Access for Web 'Download' feature

Go out to our demo web site at: http://iseriesd.dfw.ibm.com/webaccess/iWAPackages (userid is WUSER , password is DEMO2PWD) and see Access for Web 'Download' capabilities

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iSeries NetServer: Supports Linux Clients

- iSeries NetServer was expanded to support Linux clients.
  - Thus iSeries NetServer provides the same file and print sharing functions to Linux users as it does for Windows users.
    - Linux clients (with kernel Version 2.4.3 or higher) with SAMBA (Version 2.0.7 or 2.2) can access the iSeries
    - This functions in built into OS/400 V5R2 (and a PTF in OS/400 V5R1)

This gives the iSeries administrator the ability to easily control what files or printers a Linux user can get access to

For additional information, see:
http://www.ibm.com/eserver/iseries/netserver

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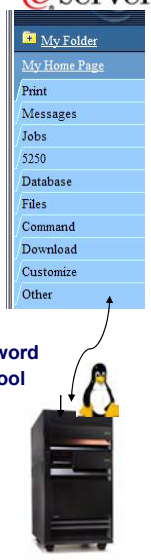
Combine iSeries Access for Web for a complete Linux solution

iSeries Access for Web, 5722-XH2, V5R3

- My Personal Folder
- Print
  - Printer output
  - PDF Printer output
  - Printers
  - PDF Printers
  - Internet Printers
  - Internet Printer Shares
  - Printer shares
  - Output Queues
- Database
  - Tables
  - My Requests
  - Run SQL
  - Copy Data to Table
  - Import Request
  - Extract Server Data
- 5250
  - Active Sessions
  - Start 5250 Session
  - Configured Sessions
- Commands
  - Run commands
  - My commands
  - Search
- Files
  - Browse Files
  - File Shares
- Messages
  - Display Messages
  - Send Messages
  - Sametime
  - Operator Messages
  - Message Queue
- Jobs
  - User Jobs
  - Server Jobs
- Customize
  - Preferences
  - Policies
  - Settings
- Download
- Other
  - Bookmarks
  - Change Password
  - Connection Pool
  - Status
  - Trace
  - About



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iSeries Access for Linux – Customer Reference

Thanks IBM!!!

Great job folks! For several months I had been looking for a software package to handle IBM's 5250 protocol for Linux. While there are a few projects out there none of them could fit our needs. IBM's developers have done a great job in setting up a very smooth running version of Client Access for Linux. I was even more excited to see that the newest version would work with our LTSP system (Linux Terminal Server Project). We are now serving up 40+ desktops with full iSeries access from one Linux server with plans to expand the user base. Again, Great Job!

Eric Pell
Manager of Information Systems
Gainey Transportation Services
http://www.gaineycorp.com

GAINEY TRANSPORTATION SERVICES, INC.

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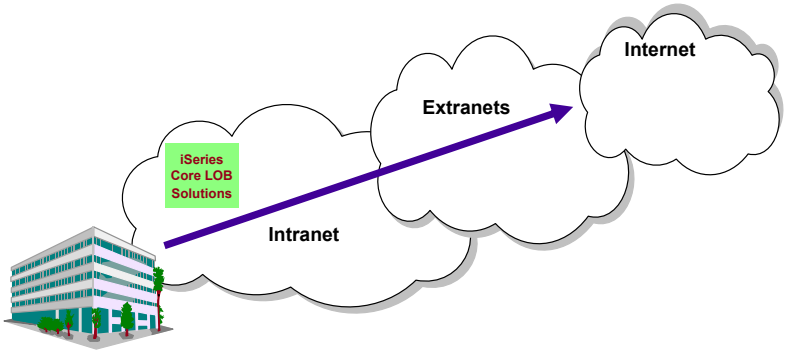
Core LOB Solutions



Looking for highly functional and integrated solution for:

- **Windows servers and Windows desktop users**
- **iSeries administration and operation**

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iSeries Access for Windows
5722-XE1

www.ibm.com/eserver/iseries/access/windows

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iSeries Access for Windows – Sessions in Chicago

1. 26GH – MS Office with Client Access
2. 31GJ - Administration of iSeries Access for Windows: Advanced Tips
3. 31GH - MS Office and Client Access Integration Session 1: Setup and Overview
4. 32GH – MS Office and Client Access Integration Session 2: Word and Excel
5. 33GH – MS Office and Client Access Integration Session 3: Access-Web-Sending Data
6. 36CA - iSeries Access for Windows: What's New in V5R3
7. 41CB - iSeries Access Data Transfer: Tips and Techniques
8. 41LC - LAB: MS Office with CA/400
9. 42CB - iSeries Access for Windows: Security and Communications Tips
10. 44CA - iSeries Access for Windows in a .NET World
11. 45LA - OPEN LAB: iSeries Access for Windows with the Experts
12. 52CB - Everything you wanted to know about PC5250 emulation
13. 56CB - Performance Tune iSeries Access ODBC Driver

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Integrating native Windows with iSeries

Want a single solution for working with all iSeries resources...

- A single offering designed for Windows users that provides:
  - High-function, easy-to-use 5250 emulator to work with iSeries applications
  - A PC print server that OS/400 output can be sent to and run unattended
  - Access to iSeries database and other resources from Windows applications
  - Ability to use iSeries as file and print server
  - Administer users and monitor/manage iSeries servers in the network
- No special web application server code required
  - All code runs natively on the Windows
- It's all in iSeries Access for Windows
  - PC5250 emulation, Data Transfer, ODBC, etc for end users and Windows programmers
  - iSeries Navigator for iSeries operators and administrators
  - Operations Console to work with OS/400 system console
  - EZ-Setup to quickly and easily set up new iSeries servers

- The most comprehensive iSeries native Windows connectivity solution in the market
- 90+% of iSeries customers already using iSeries Access for Windows

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Windows Operating Systems

The V5R3 version of iSeries Access for Windows will not install on:

- **Windows 95**
- **Windows 98**
- **Windows ME**

The V5R3 version of iSeries Access for Windows can be installed on:

- **Windows NT 4.0**
- **Windows 2000**
- **Windows XP Professional**
- **Windows 2003 Server**

- **The V5R2 version of iSeries Access for Windows can be used on Windows 98, ME, NT 4.0, 2000, XP, 2003**
- **The V5R1 version of iSeries Access for Windows can be used on Windows 95, 98, and ME, NT 4.0, 2000, XP**

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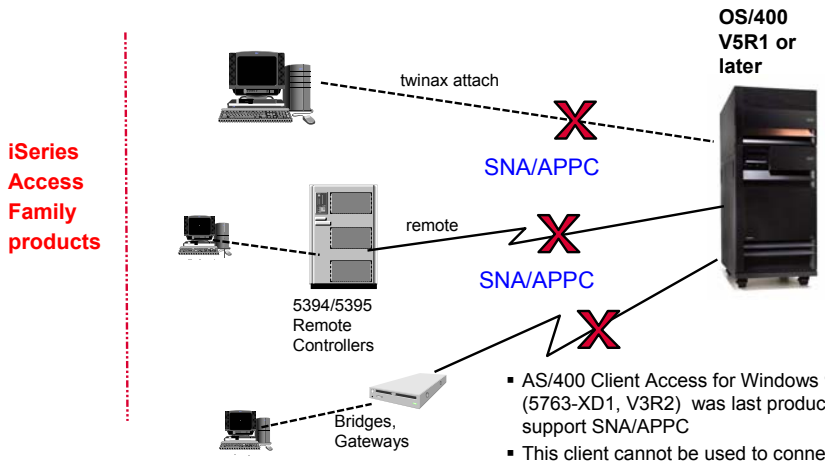
No SNA/APPC support in iSeries Access Family

If you are upgrading an existing customer who has an SNA/APPC network, plan for time and effort to switch network to TCP/IP...



- AS/400 Client Access for Windows 95/NT, (5763-XD1, V3R2) was last product to support SNA/APPC
- This client cannot be used to connect to OS/400 V5R1 or later (errors likely to occur)

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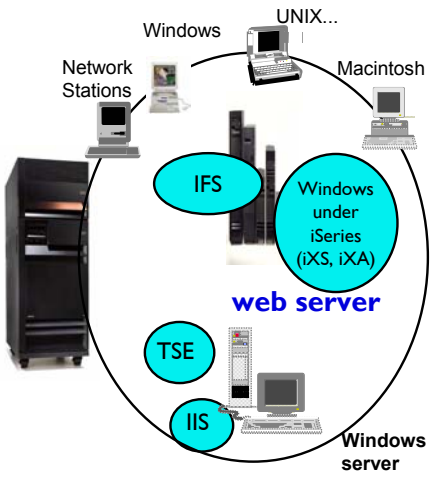
Supports Microsoft operating environments...

- **Microsoft Transaction Services (MTS)**
  - example, an Auction House application where may need to back out transactions (ie, 2-phase commit)
- **Terminal Server Edition (TSE)**
  - iSeries Access runs on a Windows server, and enables multiple simultaneous users (such as Network Stations, DOS, Unix, or Macintosh) work with iSeries resources
- **Internet Information Services (IIS)**
  - Provides a Web application infrastructure for Windows Servers. iSeries Access runs on server, and fulfills requests for iSeries data (ie, ODBC, OLE DB, etc)



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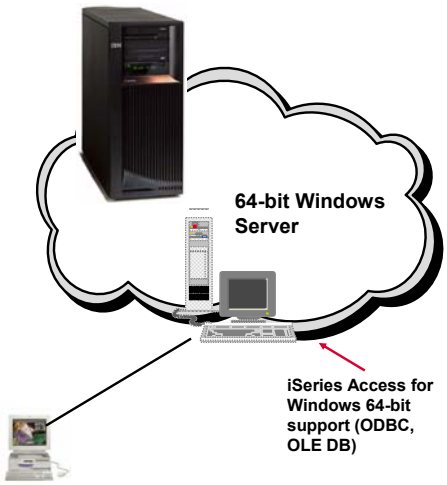
Supports new components...

Intel Itanium hardware

- **The ODBC and OLE DB components have been ported to run natively on 64-bit Windows**
  - Most other components will run in 32-bit mode on 64-bit hardware (print drivers and SSL support will not run with 64-bit applications).



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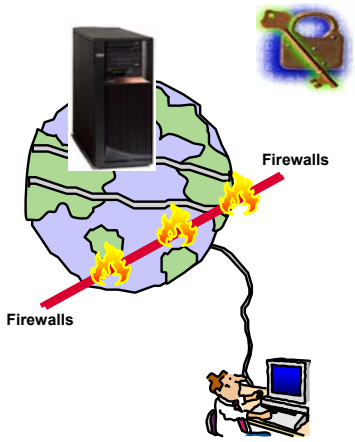
Supports leading network and security offerings...

Security

- **Secure Sockets Layer (SSL)**
  - Including SSL client authentication
- **Kerberos**
  - Enterprise Identify Mapping (EIM) can be used with Kerberos
- **Long passwords**

Networking

- **Virtual Private Networks (VPN)**
  - Tunneling protocol and encryption to ensure secure communications
- **NAT (Network Address Translation)**
  - Hides iSeries address when on Internet



If you do it on iSeries, you can do it with iSeries Access for Windows...

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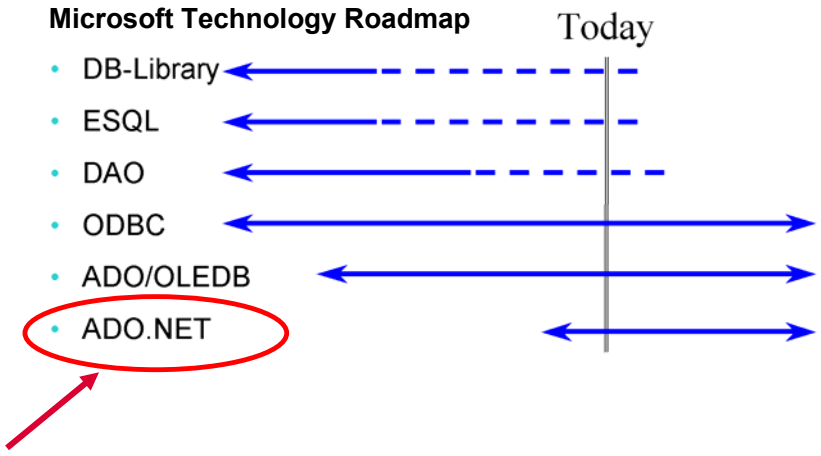
Microsoft-defined application middleware

.NET is the next big wave in Microsoft technology...

Microsoft Technology Roadmap



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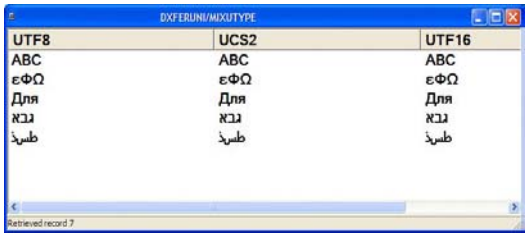
Database Middleware

- **ODBC Driver**
  - Best performing ODBC driver for accessing iSeries database
- **OLE DB Data Provider**
  - Functionally rich access to iSeries database (including record-level access) and applications
  - Also has add-ins to Visual Basic to simplify development of Windows applications to work with iSeries
- **.NET Data Provider**
  - Enables applications using Microsoft's .NET framework to access iSeries database
- **Data Transfer**
  - Upload/download database information

- **Middleware continually enhanced to stay current with new functions in iSeries and in Windows**
  - Unicode enablement / New Unicode text file type
  - Support for UTF-8 and UTF-16 data in DB2 database tables



A product description could be stored in the database in 10 different languages and used during product packaging for all these languages

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iSeries Access for Windows – chargeable items

5250 Display and Printer emulation

- Personal Communications V5.7 5250 emulation product included in iSeries Access for Windows

- **Key characteristics**
  - Full keyboard support (function keys, field exit key, etc)
  - Macros, play-record features
  - Break messages shown
  - Optimal performance for data entry
  - Printer emulation provides ability to 'push' iSeries printer output to PC-attached printers.
  - Printer emulation enables user to print selected pages of output
  - Worldwide enabled (SBCS, DBCS, bi-directional...)

Data Transfer

- Upload PC data to iSeries database, download iSeries database information to PC

- **Key characteristics**
  - Add-ins for Excel to upload/download directly from/into spreadsheet
  - Full set of conversions from PC format to iSeries database format
  - Can schedule requests to run on desktop (without user intervention)
  - Batch transfer capability
  - Wizard to create iSeries tables on uploads
  - Can SSL-enable individual transfer requests
  - APIs for all data transfer GUIs
  - Unicode enabled (UTF8, UTF16)
  - Worldwide enabled (SBCS, DBCS, bi-directional...)

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Combine use of Tailored Install and Silent Install

You want to control what your users install and manage the install centrally:

- Install only selected parts of iSeries Access for Windows, maybe different parts for different users (based on OS/400 user profiles)
- Don't want users to find additional Access for Windows functions in the Selective Install window
- Install the code on users' PCs without their intervention
- Get updates (service packs) and new releases automatically installed on those end user PCs

Use a combination of Tailored Install and Silent Install and a few PC commands (wizards) to do this:

- From then on, Access for Windows will keep desktop users up to date.

Use new PTFFORM to update Tailored Install directory with fixes

Steps to perform...

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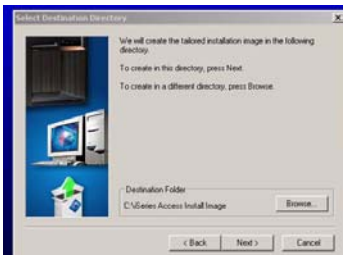
Starting up 'Tailored Install'

Run Cwbinimg.bat wizard

- **CWBinimg.bat is in QIBM directory. Path is \myiseries\qibm\ProdData\CA400 \Express\Install\Image**
- **Open/Start CWBINIMG.BAT, and it will start the iSeries Access for Windows Tailored Install wizard.**

- **Put this file somewhere where your users can access it (IFS, PC server…)**



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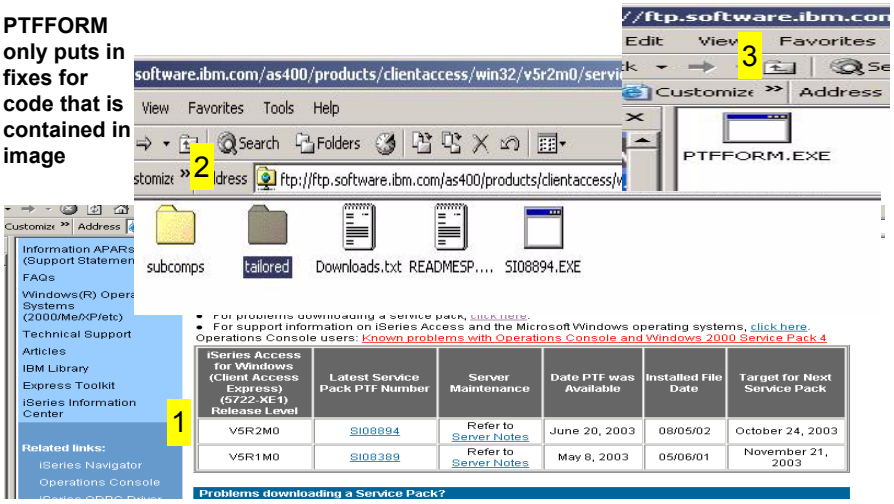
Use PTFFORM to add new Service Pack to Tailored Install image

***www.ibm.com/eserver/iseries/access/windows* and select 'Service Packs'**

PTFFORM only puts in fixes for code that is contained in image



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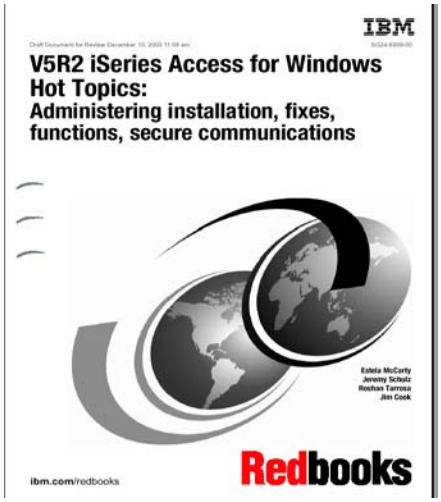
New Redbook for iSeries Administrators

- **Download it from www.ibm.com/eserver/iseries/access/windows**
- **IBM Form Number SG24-6939-00**



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Customer comment

iSeries Access for Windows V5R3 beta

- I was able to quickly create a VB.NET data access program to read data from an iSeries table. The performance seemed great.
- I was also impressed with the improved performance of many of the Ops Nav system functions. For example, it used to take minutes to display the tables in a relatively small library, now it takes only seconds.
- I am using VPN to access our iSeries over the Internet using a cable modem.

Paul D. Olsen, Senior Systems Architect
Silvon Software, Inc., Annapolis MD
The Enterprise Performance Management Company
www.silvon.com

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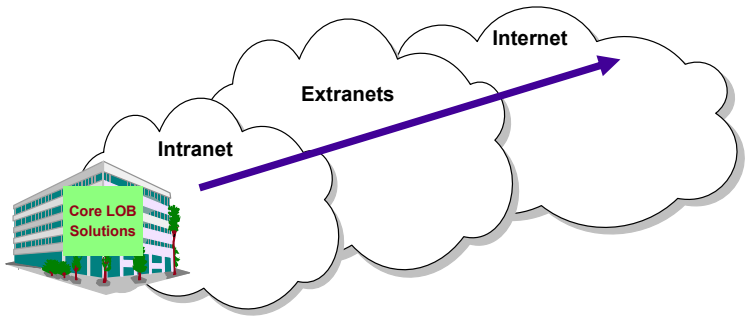
Extend iSeries applications to the Web



Customers are looking for no network desktop administration and easy access to iSeries information:

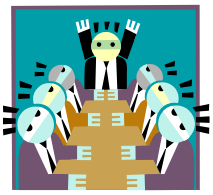
- For a variety of desktop users
- For users with no iSeries skills

© 2004 IBM Corporation

Moving to Web and e-business

Customers want a new look on their iSeries and extend its information reach...

- iSeries Access Family provides alternatives so you can easily take your iSeries to the Web and e-business
  - This will help you solve pressing business problems quickly, practically, affordably -- with flexibility for the future
- iSeries Access for Web can be the instant 'window' to the iSeries
  - It provides completely customizable front page capability and tremendous function and flexibility
- Host Access Transformation Server Limited Edition (HATS LE) another instant 'windows' to the iSeries
  - You can provide 5250 access via a browser to users within minutes.



Top executive focus topic:
Get rid of those green screens!

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Sessions in Chicago

1. 21BD – Enhance your 5250 GUI Access with HATS LE
2. 31GM - iSeries Access for Web: Setup and Configuration
3. 32GM - iSeries Access for Web: The Browser Alternative!
4. 35LA - LAB: iSeries Access for Web: Installation and Configuration
5. 36LA - LAB: iSeries Access for Web: Installation and Configuration
6. 41GH - iSeries Access for Web Runs in a Portal
7. 42GH - iSeries Access for Web: Run 5250 in a Browser
8. 44GH - Tips and Techniques for iSeries Access for Web
9. 45GM - iSeries Access for Web: Database Access
10. 51GI – Programming with iSeries Access for Web
11. 52GH - iSeries Access for Web: Control Access to your iSeries Resources
12. 53GH - iSeries Access for Web: Printing Made Easy Through Your Browser
13. 55LA - OPEN LAB: iSeries Access for Web
14. 56LA - OPEN LAB: iSeries Access for Web

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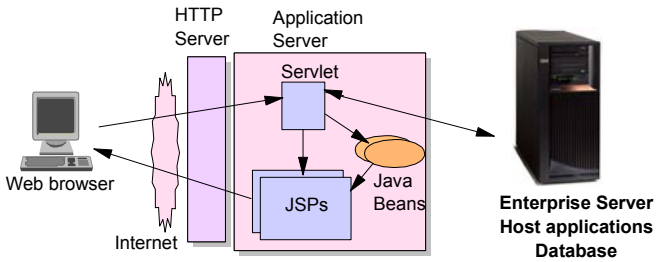
First you need a web application server



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Web Application Server Options

	Web Application Server	Minimum iSeries Requirements
5722-DG1	ASF Tomcat •The ASF Tomcat web application server is part of the no-charge IBM HTTP Server for iSeries (5722-DG1)	70 CPW 256 MB memory
	•WebSphere Application Server Advanced Edition V4 •WebSphere Application Server Advanced Edition Single Server V4	
Ships with i5 V5R3	WebSphere Application Server V5.0 Express for iSeries	300 CPW 512 MB memory
	WAS V5.0 Base and WAS V5.0 Network Deployment	
Ships with i5 V5R3	WebSphere Application Server -- Express V5.1	300 CPW 512 MB memory
	WAS V5.1 Base and WAS V5.1 Network Deployment	
	•WebSphere Portal - Express for Multiplatforms V5.0.2 •WebSphere Portal - Expess Plus for Multiplatforms V5.0.2	750 CPW 2 GB memory
Ships with i5 V5R3	WebSphere Application Server – Express V6.0	300 CPW 512 MB memory

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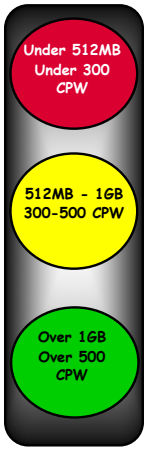
Is your AS/400 or iSeries ready?



Bxx, Cxx, Dxx, Exx, Fxx
S10, S01, Pxx
S20 / # 2161, # 2163
100, 150
170 / # 2159, # 2160, # 2164
170 / # 2289, # 2290, # 2291
170 / # 2292
170 / # 2407, # 2408, # 2409
200, 20S, 250
270 / # 2422, # 2423, # 2424
270 / # 2248, # 2452, # 2454
3xx, 4xx
500, 510, 50S
53S / # 2154
530 / # 2150, # 2151
600
620 / # 2175, # 2179, # 2180, # 2181
720 / # 2061
820 / # 2425, # 2426, # 2457, # 2456

Need HW Upgrade for any WAS

S30 / # 2257
S20 / # 2170, # 2165
170 / # 2176, # 2183, # 2383
170 / # 2384, # 2385, # 2386
270 / # 2250, # 2431
53S / # 2155
530 / # 2152
620(1)
640 / # 2185, # 2186, # 2187
640 / # 2237
720 / # 2062
820 / # 2395, # 2427, # 2458
800
810

WAS-Express, WebFacing & IBM Telephone Directory

SB1, SB2, SB3
S20(1), **S30**(1), **S40**
170 / # 2388
270 / # 2252, # 2253
270 / # 2432, # 2434
53S / # 2156, # 2157
530 / # 2153, # 2162
640 / #2238, #2239
650
720(1), **730, 740**
820(1), **830, 840**
825
870
890

WAS-Express, V5, ND, WebFacing, IBM Telephone Directory (1000+ cpw = Portal & Commerce)

All 2004 i5 models

(1) = Except as listed above

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iSeries. mySeries.

Determine Your Performance

Use the IBM Workload Estimator Tool at
http://www-912.ibm.com/wle/EstimatorServlet

Express requires less system resources!

Minimum Configuration

I5/OS V5R3 or OS/400 V5R2M0 or V5R1M0	Processor CPW*	Memory* (Per Instance)
	300	512 MB (768 MB for support for Web Admin GUI)

2 MB L2 cache (recommended)

*For running the application server only. Values define available resources and existing system workloads should be understood. Smaller configurations may be used, but performance degradation should be expected. Applications may add additional configuration requirements.

Use the IBM Workload Estimator Tool to develop a custom configuration estimate based on application design aspects.

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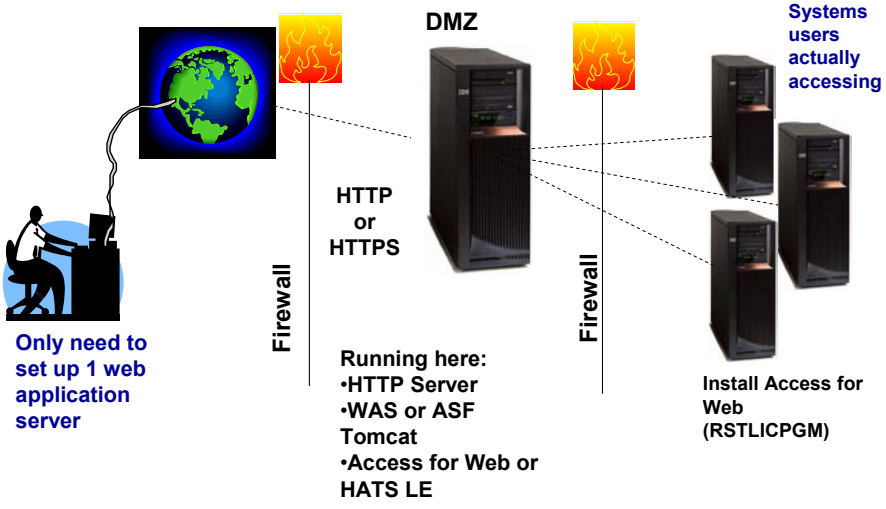
iSeries. mySeries.

Setting up your web application server



DMZ = demilitarized zone

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iSeries Access for Web (5722-XH2)

http://<myiseries>/webaccess/iWAHome

© 2004 IBM Corporation

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
- Uses industry standard protocols - HTTP, HTTPS and HTML

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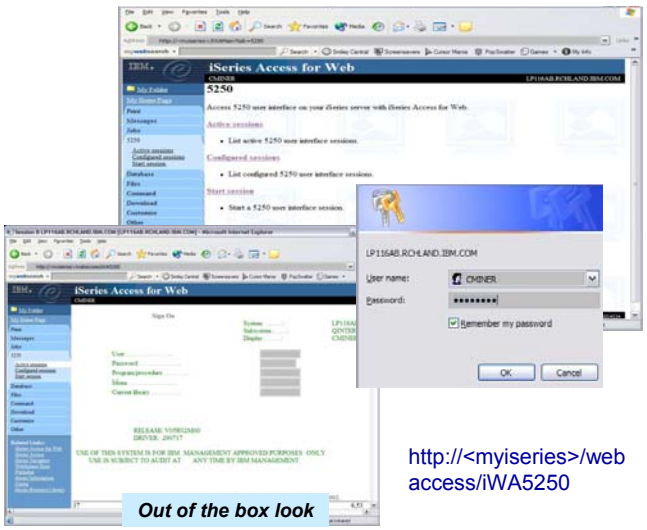
5250 display emulation

http://<myiseries>/webaccess/iWAMain?tab+5250

- Can reconnect to a previously active session
- Can configure a session or work with previously configured sessions
- Can start a new 5250 session



Out of the box look

http://<myiseries>/webaccess/iWA5250

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5250 Emulation Capabilities

- **Page up, page down, and function keys supported on:**
  - Microsoft Internet Explorer (version 5.0 and later), Netscape (version 6.0 and later), Mozilla
- **Can Assign unique device ID**
- **Screen auto-switches to 132 columns as needed**
- **Cursor positioning**
  - Ability to place cursor at non-input fields for cursor sensitive applications
- **Macros**
  - New 'initial macro' can be played immediately after a session is started. It is a way for users to bypass the OS/400 sign-on screen and perhaps have a specific host application started in their behalf.
- **Keypads**
- **Shortcuts to session configurations and macro definitions can now be created.**
  - You can pre-configure what another user or group of users can use for sessions and macros. You could then take away their ability to create sessions and macros and enable them to use only the ones you have created.
- **Active sessions can now be shared with other users and groups.**
  - This can be useful from a Help Desk perspective to be able to view what the end user is viewing.

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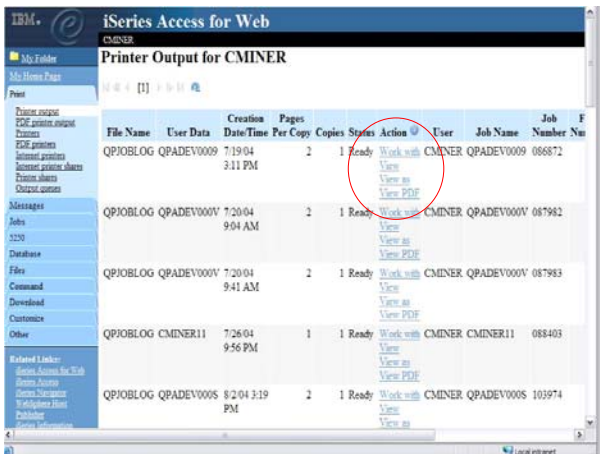
Work with Printer Output Queue - Spoolfile

- **My 'printer output'**
  - **Can view it**
  - **Or can select 'Work with' for more options**
- **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**

http://<myiseries>/webaccess/iWASpool



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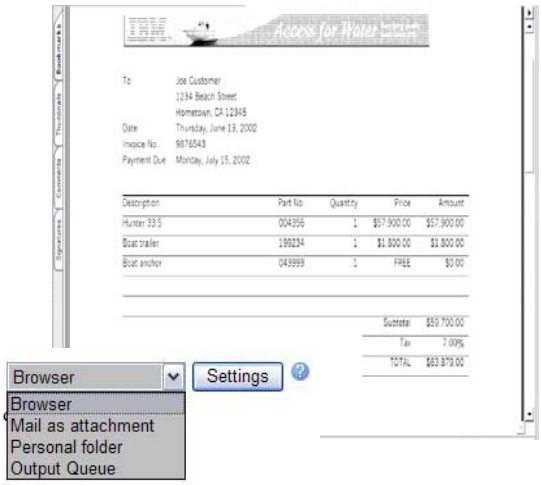
Convert Printer Output to PDF

- On-the-fly conversion of all printer output (SCS, AFP) to PDF
  - Convert it and display it in browser
  - Print it to any local or network printer
  - E-mail it
  - Put it in any Personal Folder
  - Move it to another print queue



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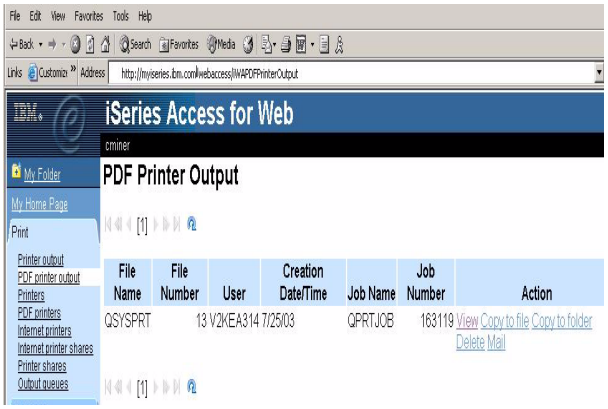
iSeries. mySeries.

PDF Printer Output

http://<myiseries>/webaccess/iWAPDFPrinterOutput

PDF Printer Output is a new tab

- It will display a list of PDF documents that have been converted by any of the PDF printers that you have access to
- Now users can go straight to the 'PDF Printer Output' tab and click to view the output, email it, copy it to a file or Personal Folder, or delete it



Requires InfoPrint Server (5722-IP1)

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iSeries. mySeries.

Infoprint Server for iSeries – 5722-IP1

- **Go beyond 'print and distribute.' Go to the next level of automation to manage and present business information electronically.**
  - **Receive more value from your IBM iSeries investment. Extend core iSeries output capabilities that help enable you to reengineer business processes to improve service levels, decrease transaction costs, reduce paper flow and enhance competitive advantage with speed and flexibility.**
- **With Infoprint® Server, you can transform any standard iSeries output format and produce electronic output in Advanced Function Presentation (AFP™) or PDF.**
  - **This capability allows you to manage and distribute information via e-mail, Web or local printing.**
  - **And, you gain iSeries management of network output.**
- **Infoprint Server provides transforms for PCL, PostScript®, GIF, TIFF, JPEG and PDF data into AFP**
  - **So you can bring these documents into the iSeries for efficient and cost-effective handling.**

Complimentary trial

Activate your 70-day evaluation of Infoprint Server for iSeries today. Unlock the trial from the OS/400® Version 5 release set of CDs. Learn more

http://www.printers.ibm.com/internet/wwsites.nsf/vwwebpublished/ipserverhome_i_ww

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Use with Other Web Applications

Link to iSeries Access functions from other applications...

Use Access for Web Printer Output from Webfacing, HATS, HATS LE...

Has a link to iSeries Access for Web Printer Output

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Notes: Add Access for Web PDF link to HATS LE

Edit your template to include linking to iSeries Access for Web Printer Output so users can see/print their jobs.. The easiest way to modify your template is to open the HATS LE Admin Console, click "Advanced", select your template and click "Edit".

Note the circled additions put in the template...

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01
Transitional//EN">
<HTML>
<%@ page import="java.util.*, com.ibm.hats.common.*" %>
<%@ page language="java" contentType="text/html; charset=UTF-
8"%>
<%@ taglib uri="/WEB-INF/classes/tld/hats.tld" prefix="HATS" %>

<HEAD>
<title><HATS:TemplateSetting name="PAGE_TITLE"
caption="%PAGE_TITLE_FIELD"
defaultValue="%WELCOME_TO_MY_SITE_MSG" type="string"
helpID="" configurable="true" priority="1" percentFill="100" /></title>
<HATS:Util type="baseHref" />
<script type="text/javascript" language="javascript">
function goToURL(url) {
  document.location.href = url;
}
</script>
<META name="GENERATOR" content="IBM WebSphere Studio">Add
the following lines:
```

Further down in the template note the circled additions added:

```
<CENTER>
        <TABLE height="100%" cellpadding="3" cellspacing="3" border="0"
width="100%">
                                        <TBODY>
        <TR>
        <TD nowrap width="145">
                <BR>
                <BR>
                <BR>
                <BR>
                <BR>
                <BR>
                <BR>
                <BR>
                <BR>
                <BR>
                <BR>
                <BR>
                <BR>
                <BR>
                <HATS:ApplicationKeypad/>
<input type="button" class="ApplicationButton" value="Manage Spool Files"
onClick="goToURL('http://myiseries/webaccess/iWASpool')">
        </TD>
```

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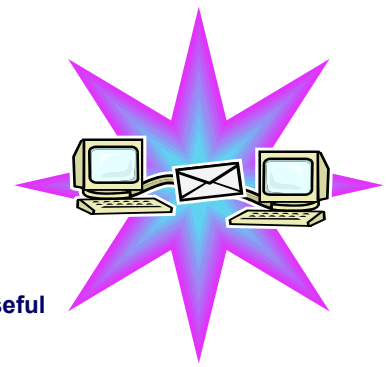
iSeries. mySeries.

Integrates with desktop user's email server

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



Sent as an attachment to the 'email'

A one-step way to distribute information across the network, and particularly useful when recipient is:

- Not an iSeries user
- Does not have access to a web browser

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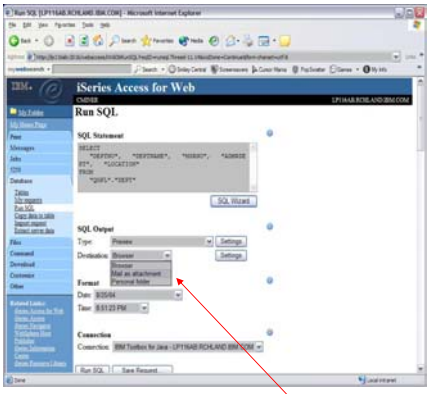
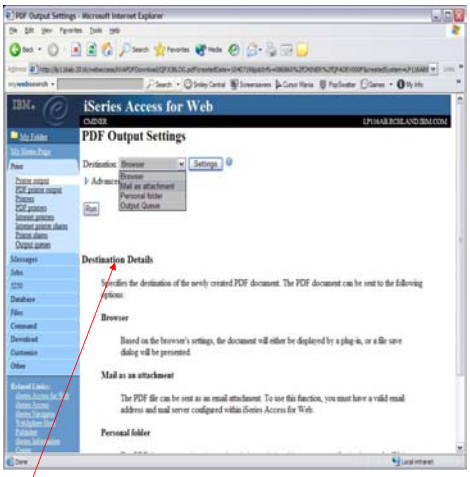
iSeries. mySeries.

Users can easily email results

'Mail' option displays for function of Access for Web that supports 'Mail'





Database request

Mail output

Working with PDF printer output

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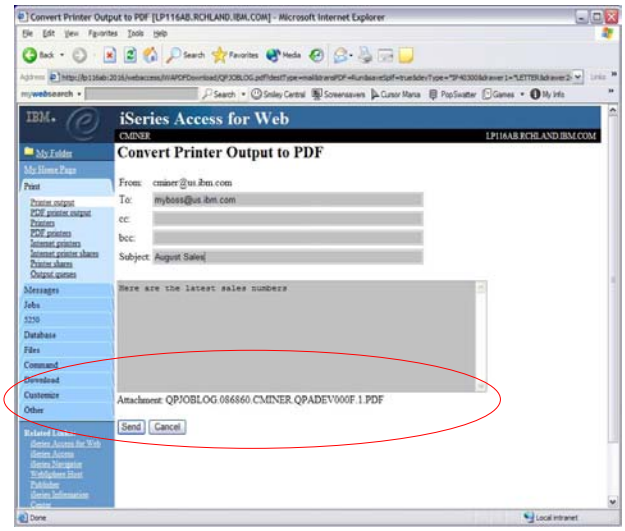
iSeries. mySeries.

Send your e-mail



Your email address plugged in for you…

...see PDF attachment there...

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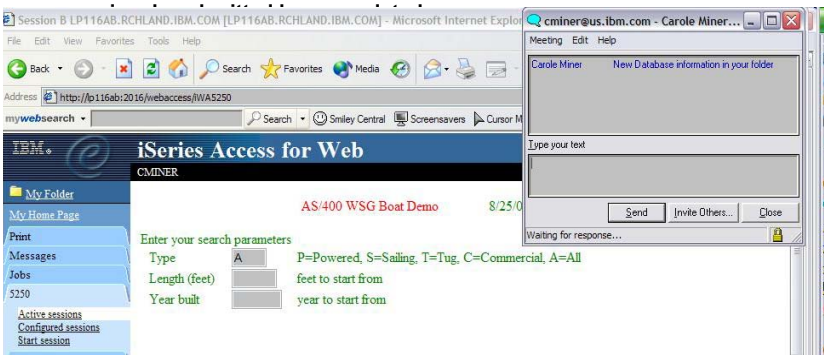
iSeries. mySeries.

Integration with Lotus Sametime – V5R3

- **Receive Sametime messages:**
  - **When something is added to 'My Folder' -- this could be someone has put something new in my folder or a database or CL command request that I**



You must have a Sametime Server installed in your network and accessible from your iSeries. Sametime is an add-on product to Lotus Notes.

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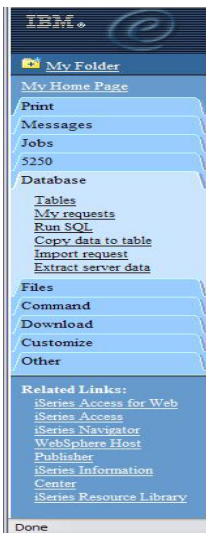
Database functions



Easy-to-use GUIs for working with the iSeries database

- **Tables**
  - **View contents of a table using Quick View**
  - **Add or update records using 'Insert and Update'**
  - **Perform actions without having knowledge of SQL and its syntax**
- **List previously saved requests**
  - **Run or Edit Requests**
  - **Copy, Delete, and Rename actions**
- **RUN SQL using SQL Wizard**
- **Exchange spreadsheet data with iSeries**
- **Import existing Client Access Express for Windows Data Transfer requests**
- **Extract Server data**

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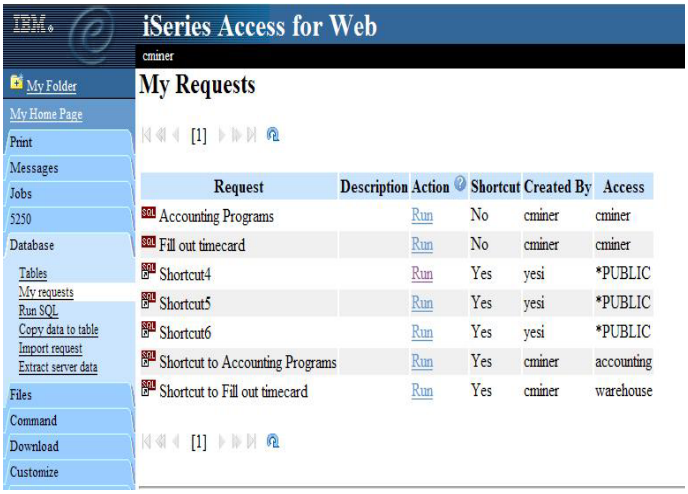
Run Requests

- You could give users or groups of users some database requests that you have created for them.
- They can only run these specific requests



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Upload Data

- Upload data from a variety of file types
  - Excel, XML, Lotus, etc
- Put into iSeries database
  - 'Replace' contents of table
  - 'Append' to existing data
- If no table exists on the iSeries, you will get a wizard to help you create a new table

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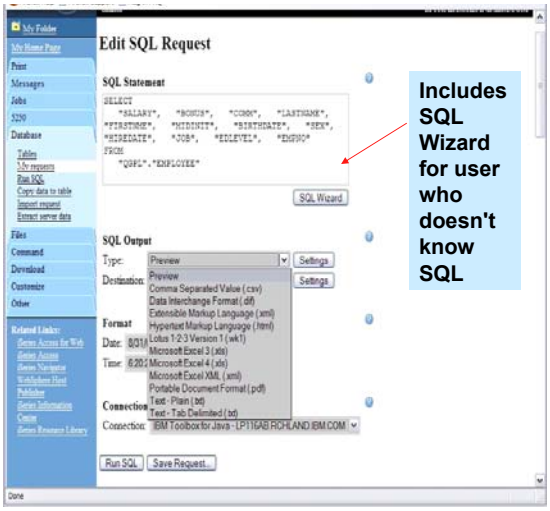
Run SQL

- Run SQL allows you to dynamically 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
- Can save request
  - My Requests, Give Shortcut to others



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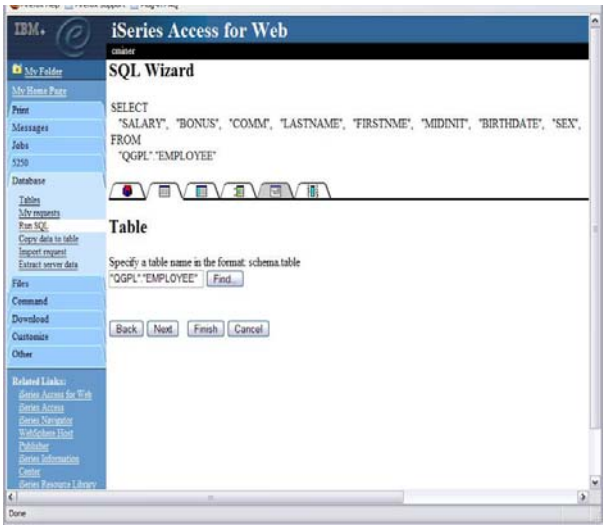
SQL Wizard

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



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Dynamic Queries – V5R3

- **SQL Wizard now supports dynamic database queries**
  - **Contains the ability to generate SQL statement with markers for conditional values**
  - **For example, an Administrator might build a query to retrieve some particular customer information, then when the end user runs the query a prompt would appear for user to key in 'customer name', 'customer number', etc.**

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iSeries. mySeries.

The best way to learn about iSeries Access for Web is to try it!

Access the following web site through your browser:

- **http://iseriesd.dfw.ibm.com/webaccess/iWAHome (case sensitive)**
- **This is an IBM iSeries server in Dallas**

Use the following User ID and password to sign into the EXPERIENCED USER page:

- **User ID of WUSER**
- **Password of DEMO2PWD**

This shows the basic look of Access for Web as we ship it. You can try various functions -- including working with printer output and the options we provide. You can click on the 5250 tab, sign onto the iSeries, then start an RPG application called BOATS and run it.

Start up a different another browser session to same url address above, and use the following User ID and password to sign into the Access for Water INEXPERIENCED USER page:

- **User ID of BOATADMIN**
- **Password of 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 if they had used WebFacing or Host Publisher they could run the application with them. So click on all 3 links and see the same application in different views. You will also see other links that would let a user work with spoolfile information, work with IFS, run database requests, etc..

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iSeries. mySeries.

Demo page – 'window' to iSeries

See integration with other products

- IBM Telephone Directory (that ships with all WebSphere Application Server orders) integrated into front page
- Get printer output from iSeries spool file as a PDF
- Get information out of iSeries database
- Run a movie that is stored in iSeries IFS

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Why use iSeries Access for Web?

Start simple, grow fast...

Any iSeries customer -- with any hardware model - can quickly get started working in a Web environment

- If your system hasn't got the capacity to run WAS, they you can easily install the ASF Tomcat web application server. ASF Tomcat runs on hardware with 70 CPW and 256 MB memory

Any iSeries customer -- with little Web experience - can easily get started working with e-business

- iSeries Access for Web is simple to install and configure
- No programming skills required to set it up

Any iSeries 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 iSeries and to control access to various iSeries resources
  - – all built around OS/400 user profiles

A great first step to get iSeries into e-business

Use 'out of the box'

© 2004 IBM Corporation

WebSphere Portal Offerings for i5/iSeries

- **Flexible portal licensing (per-user OR per-CPU pricing)**
  - Both per-user & per-cpu pricing can be used on Intranets, Extranets & Internet
  - iSeries Enterprise Edition for i825/870/890 includes 20 per-user licenses of Plus
- **Simplified portal installation & set-up with wizards**
  - Portal image included in Virtual Media Image (VMI) for easy installation
  - Easy-to-use wizard gives you a production-ready portal server
- **New integrated portal function**
  - Document management - store, categorize, search, subscribe, review and approve
  - Productivity components – view/edit documents, spread sheets and presentations
  - Collaboration Center in WebSphere Portal - Express Plus
- **Simplified portal administration**
  - Intuitive interface and fewer steps required for frequently used functions such as adding a user and assigning access privileges

Available for iSeries

•January 2004

•WebSphere Portal – Express for Multiplatforms V5.02

•WebSphere Portal – Express Plus for Multiplatforms V5.02

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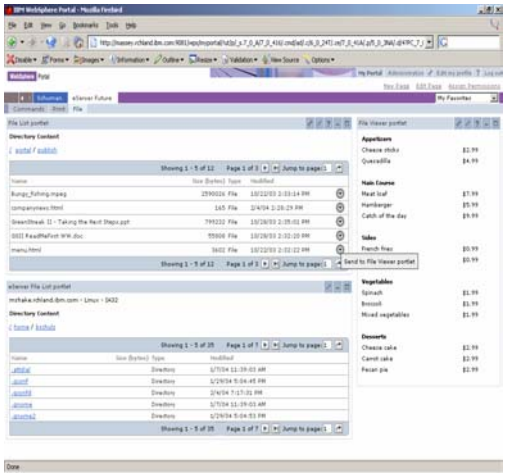
Use Access for Web with Portal

- **Support for WebSphere Portal Express and Express Plus**
  - **The V5R3 Access for Web product (with software fixes) runs as a portlet on both versions of WebSphere Portal.**
- **Most functions can run as portlets**
  - **5250 emulation runs in a portlet window**
  - **Other functions of Access for Web can individually be assigned to a portlet window as well.**
    - For example, one might have the 'Database' function in one window and 'Print' function in another windows



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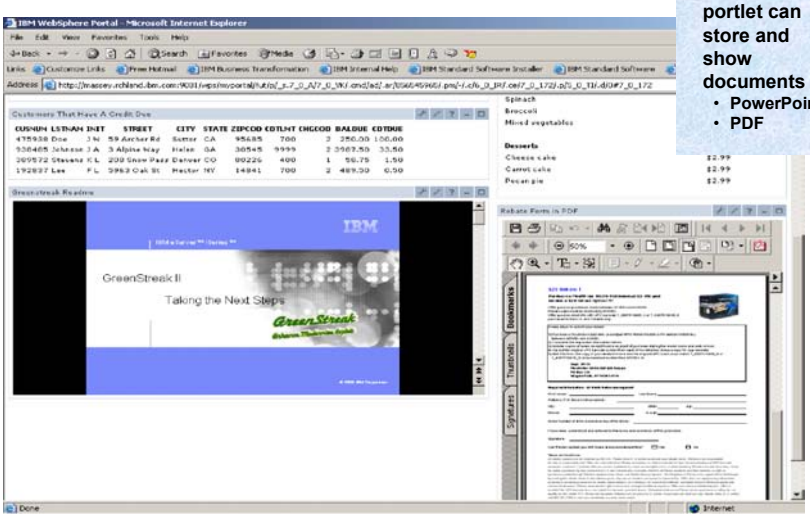
iSeries Access for Web running in a portal...

Simple Content Publishing



Using 'IFS' portlet can store and show documents
- **PowerPoint**
- **PDF**

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Customer comment

iSeries Access for Web

- **I read your article in the iSeries400 experts journal (*). This article was very informative and inspired us here at Guelph Hydro to implement the product. We had the product up and running in a day and configured our security using the tools available with the product. I can confidently say that this product is definitely "Cool" and we have already taken advantage of the powerful features of this product. This is a definite "got to have" product for any serious iSeries shop.**
- **You can give your development team two thumbs up on this one.**
- **Thanks again.**

Mike Joaquin
Guelph Hydro Electric Systems Inc
Guelph, Ontario Canada

(*) "A Peek at the Future: iSeries Access for Web" appeared in iSeries 400 Experts Journal, November/December 2003 edition

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HATS Limited Edition

- **Host Access Transformation Services Limited Edition**
  - **5250 emulator that is used through a browser**
  - **Servlet - entire product runs on web application server, nothing to install or configure at the desktop**
- **Available only in iSeries Access Family, 5722-XW1**
  - **Automatically ships with 5722-XW1 orders**
    - **First made available 6/30/03**
  - **No additional charge for HATS LE (beyond the cost of 5722-XW1)**

A quick and easy way to put iSeries applications on the Web

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HATS LE

Runs in a browser

- **Delivers HTML to the desktop**
- **Only software needed on the client is a Web browser**
- **Uses browser SSL features**

Works on all 5250 screens

- **Stock Templates included so you can quickly personalize your web page to your company look and feel**

Screens are converted on the fly, in real time

- **Selection lists can be converted to hot links, buttons, drop-down menus, or option lists (radio buttons)**
- **PF keys are can be converted to buttons or hot links**

No programming necessary

- **Doesn't break if changes are made to 5250 application**
- **No need to access source code**

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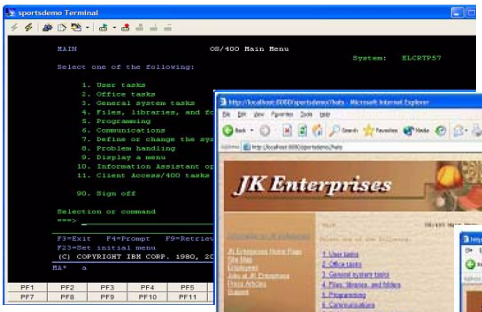
HATS LE: Real-time Screen Conversion



Traditional green screen

Drop-down menu

HATS LE on-the-fly conversion using customer-provided HTML (logo and graphics)

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HATS LE handles 'Subfiles'

HATS LE has special default code to handle 'subfiles'.

- Ran command 'STRQM'
- Selected 'Work with Query Manager Tables'

HATS LE was configured to show these tables as pulldowns

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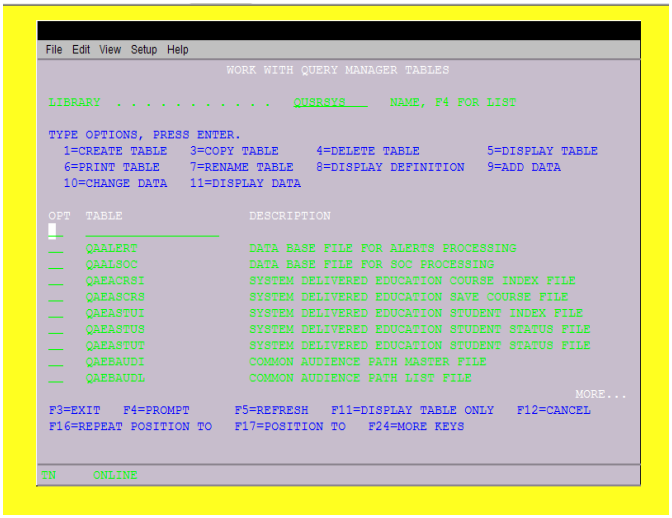
Typical emulator handling of Subfile fields

- These same screens views by another browser-based 5250 emulator



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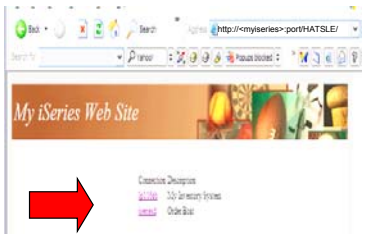
HATS LE – Version 5.0

- New features in HATS LE V5 (available on V5R2 or V5R3)
  - Ability to configure multiple iSeries connections – users then select from a menu which iSeries server they wish to connect to



  - Improved default transformation features:
    - Improved Subfile rendering
    - Improved selection list rendering
    - Detect 'More…' option on 5250 screen
    - Automatic table detection
    - Support for reverse image
  - New templates and additional support to work with new templates

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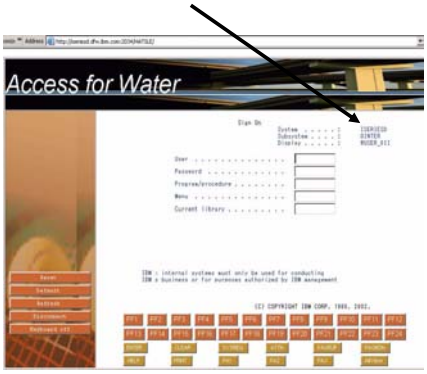
Try out HATS LE for yourself!

Demo web site...connect to iSeries using HATS LE

http://iseriesd.dfw.ibm.com:2034/HATSLE/

- Note that Workstation ID also starts with WUSER for each session →used HATS LE Workstation ID wildcard support

- **Key in user-id of WUSER**
- **Key in password of DEMO2PWD**



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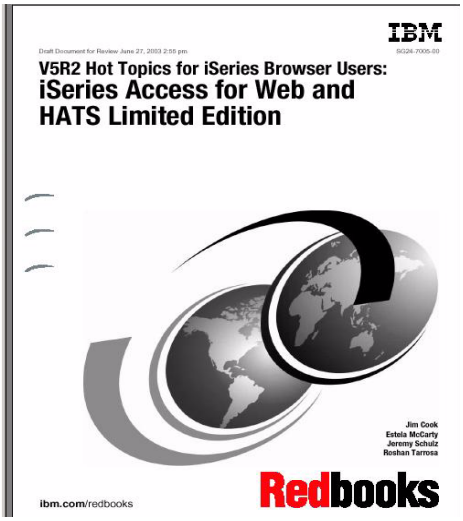
Redbook

New Redbook...
SG24-7005-00

Download it from iSeries Access Web page at
www.ibm.com/eserver/iseries/access



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iSeries Access for Wireless 5722-XP1

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Application Flexibility, Innovative Technology

Integrated package of wireless functions and middleware

- Management Central-Pervasive
  - Functional enhancements for V5R2, including worldwide enablement
- iSeries Toolbox for Java Micro Edition
  - Provides access to iSeries through Java ™ classes running on the devices, and ability to write Java Toolbox applications with the customized look for the devices
- JDBC Micro Edition
  - Access DB/2 on the iSeries from Java running on a wireless device, or write full-featured JDBC applications (transactions, stored procedures, DB triggers, etc.)

iSeries Access for Wireless is a relatively new member of the iSeries Access Family

Delivered with OS/400 V5R2 at no additional cost

Delivers strong features to enhance development of wireless applications for use with the iSeries

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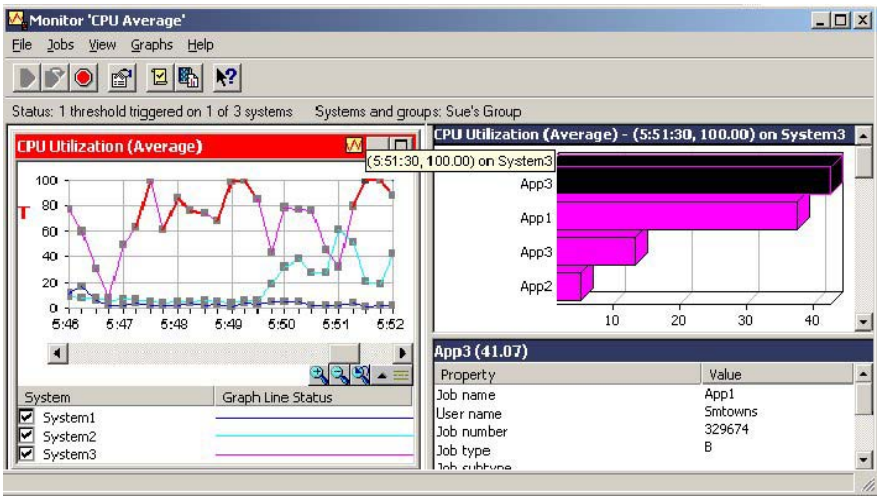
Management Central Pervasive

a 'System Monitor' has just reached a threshhold



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Connectivity solutions...

iSeries Access Family is investing in a variety to connectivity options to meet customer needs:

Linux (native)	★ iSeries Access for Linux
Windows (native)	★ iSeries Access for Windows
Wireless	★ iSeries Access for Wireless
Browser-based	★ iSeries Access for Web
	★ HATS LE

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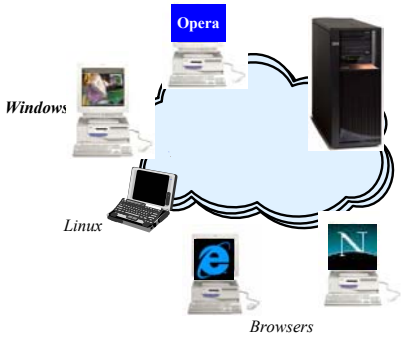
Summary

The way to work with your iSeries is through an easy-to-use and powerful GUI..

- **Your desktop solutions will 'look great'...**
- **You have leading technology at your fingertips that bring exceptional productivity benefits...**
- **You can easily expand your business to the Web**



Browsers
(Internet Explorer, Netscape, Mozilla...)

As one customer so aptly said a '*definite "got to have" product for any serious iSeries shop*'

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