Session: **MITEC 1:40-2:50 PM**

Use System i Access for Web to work with DB2 for i5/OS

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i want stress-free IT.

i want control.

i want an i.

Abstract

System i Access for Web provides web-based access to System i resources through a browser.

This session focuses on how easy it is to access i5/OS for DB2 from the Web. It will cover the System i Access for Web options available to upload PC data to the System i database and to download database information to a PC user.

In this session, attendees will learn how to:

1. Use the SQL Wizard to build and save SELECT statements
2. Work with advanced output options, such as file types, HTML options, and lists.
3. Upload data to i5/OS for DB2 the browser
4. Run static and dynamic queries
5. Extract select information about i5/OS objects and resources.
6. Import SQL statements created with DB2 Query Manager (5722-ST1) and IBM Query for System i (5722-QU1) into System i Access for Web

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Requirements?

- Would you like to see some other features in our iSeries Access Family?

- Please submit requests for enhancements via the FITS system.

- Go to the iSeries Access home page:

- http://www.ibm.com/eserver/iseries/access/
- And click on link "Request for Design Change"

This really helps development get new functions into the planning process

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Packaging & Ordering

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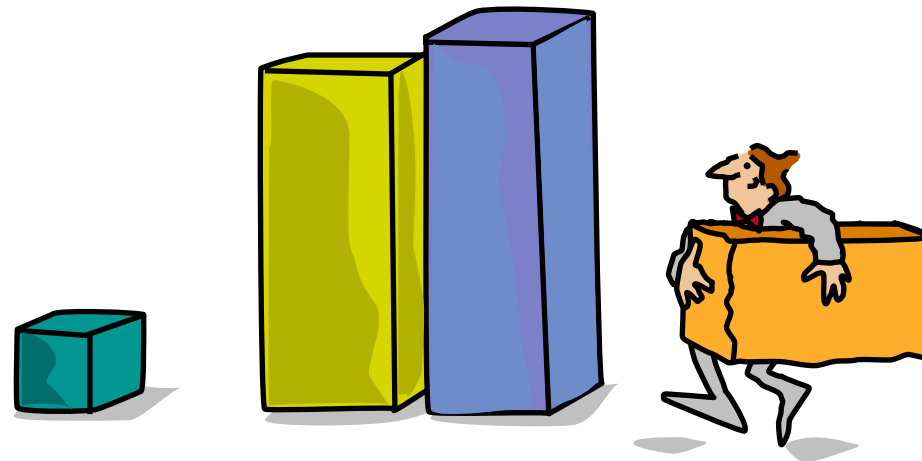
System i Access Family Packaging

V5R4 5722-XW1 iSeries Access Family	V5R3 5722-XW1 iSeries Access Family

• iSeries Access for Windows,
  5722-XE1, V5R4
	• iSeries Access for Windows,
	  5722-XE1, V5R3

• iSeries Access for Web,
  5722-XH2, V5R4
	• iSeries Access for Web,
	  5722-XH2, V5R3

• iSeries Access for Linux,
  5722-XL1
	• iSeries Access for Linux,
	  5722-XL1, V1.10

• iSeries Access for Wireless,
  5722-XP1, V5R4
	• iSeries Access for Wireless,
	  5722-XP1, V5R3

	• HATS Limited Edition V5.0, 5724-F97-01
	V5R3 customers not wanting to upgrade to i5/OS V5R4 but want the new V5R4 iSeries Access Family clients can order no-charge Feature No. 2648 of Product No 5722-XW1.

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iSeries Access and System i Express

- **Each i5/OS user on System i is entitled to use any client in the iSeries Access Family at no additional charge**

- **With iSeries Access, users can:**
  - **Access traditional i5/OS applications using the 5250 emulation function**
  - **Query and retrieve DB2 information through easy-to-use GUIs**
  - **Upload spreadsheet information into DB2**
  - **Use i5/OS as a file server**
  - **Access i5/OS printer output, convert it to .PDF, and print it on PC printers**

- **iSeries Access Family (5722-XW1) unlimited user feature included with 515 and 525 systems**

Just announced in April 2007

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

- **Requirements**

- **Topology**

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System i Access for Web – V5R4

A graphical interface to your System i functions

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Functions you can perform with System i Access for Web 5722-XH2, V5R4

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

Messages

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

Database

- Tables
- My Request
- Run SQL
  - Open Office Formats
- Copy Data to Table
- Import Requests
  - iSeries Access for Windows
  - Query Manager
  - Query/400
- Extract Server Data

Download

My Personal Folder

Jobs

- User Jobs
- Server Jobs

Customize

- Preferences
- Policies
- Settings

Commands

- Run commands
- My commands
- Search

Other

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

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Desktop Requirements

System i Access for Web is installed and runs on System i.
It requires a browser to be running on end user desktop

- **Internet Explorer 6.0 with Service Pack 1 (Windows)**

- **Netscape 7.0 (Windows® and Linux)**

- **Netscape 4.7 (AIX®)**

- **Opera 7.54 (Windows® and Linux)**

- **Mozilla 1.7 (Windows, Linux, and AIX)**

- **Mozilla Firefox 1.0.2 (Windows and Linux)**

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Server Requirements

System i Access for Web requires HTTP and a web application server to be running on System i

HTTP Server

Application Server

Servlet

JSPs

Java Beans

Web browser

Internet

**Enterprise Server
Host applications
Database**

Tier 1

Tier 2

Tier 3

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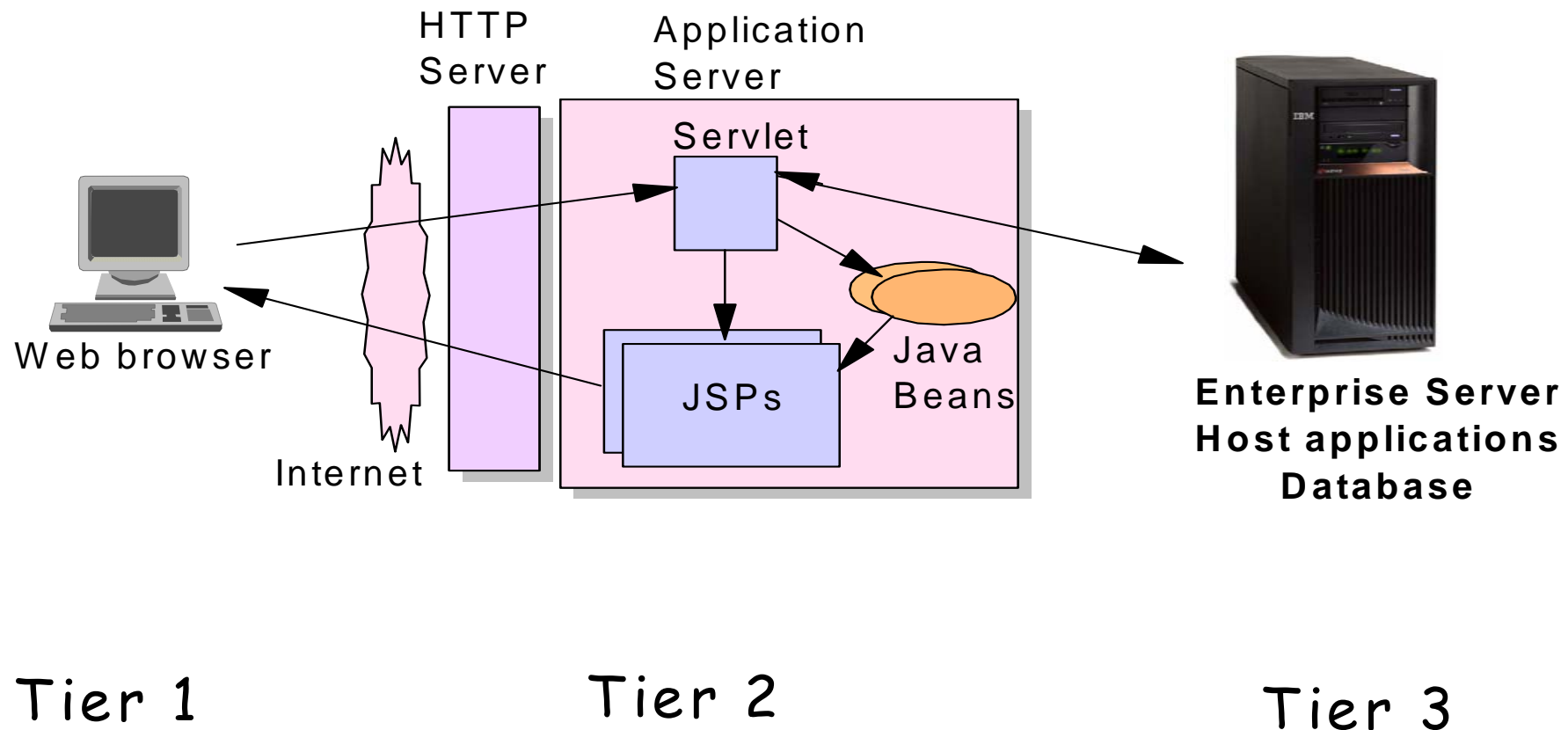
Database Overview

System i Access for Web

**System I Access for Web uses the
JDBC Driver for Database Connectivity**

Web Browser
Access to System i

System i
Web Server

Websphere

System i
Access
for Web

JDBC Driver   JDBC Driver

DB2
UDB

DB2
UDB

i want an i.
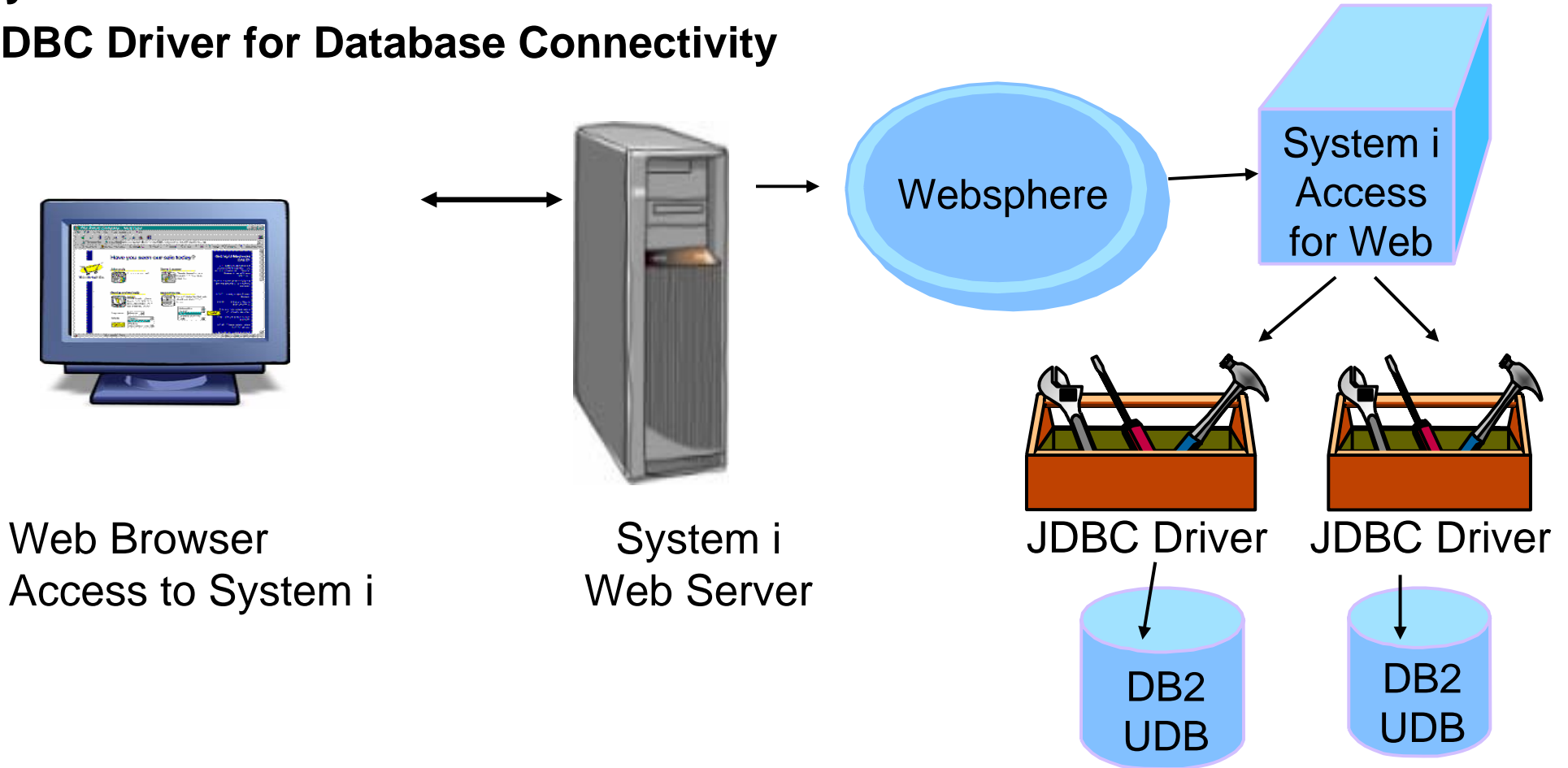
Security and Administration
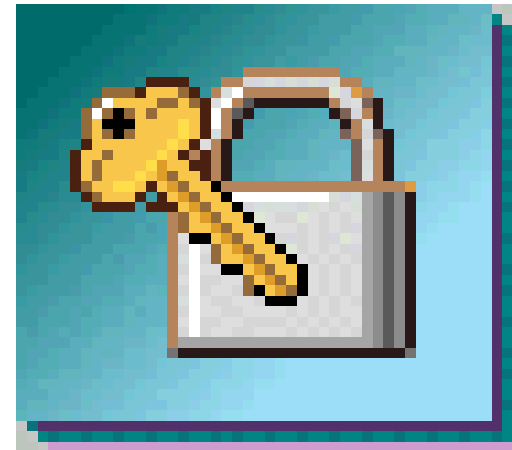
Security – Access to DB2 for i5/OS

All database requests in System i Access for Windows, System i Access for Web, and System i Access for Linux flow through the System i Access Database Server

All objects on the server, including SQL objects, are managed by the system security function

– Most IBM SQL operations go through the iSeries Database DB Host Server and use the QIBM_QZDA server exit point.
– This includes Data Transfer, ODBC, .NET, parts of OLE DB, and some functions of the Toolbox (JDBC including Access for Web).
– *See: http://publib.boulder.ibm.com/iseries/v5r2/ic2924/index.htm?info/sqlp/rbafymst324.htm*

System i Access Database Server

➢ **I5/OS Object Level Security**
➢ **Exit Programs**

Database and Source Physical Files

Exit Programs

– Exit programs written for the QIBM_QZDA NDB, ROI, and SQL exit points may help to restrict certain users from accessing specific files.
– Configured with WRKREGINF on the iSeries
– Given the SQL statement sent from the client application (Data Transfer). Statements may be rejected by the user exit program
– May be written in a variety of host languages

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Policies

- **Control Access to Database functions by restricting access to System i Access for Web functions.**

- **Restrict by specific user, groups of users, all users**

- **Requires SECADM authority to use**
  - **a non-SECADM user can be granted the rights to administer System i Access for Web**

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All the Policies that can be set for 'Database' functions

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The Database function

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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.

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My Requests

Administrator creates queries or upload requests for end users to run.

➢ **Selected Users are then given access to run these selected data requests**

➢ **They're only given access to run those necessary to perform their job**

These are called Shortcuts

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Static Requests

Run a pre-built query or upload

- **Example is a Query that is set up to display up to 500 entries**

This query could be set up to:

- **Be viewed in the browser**
- **Converted to a spreadsheet format, HTML, plain text….**
- **Converted to .PDF**
- **Saved in IFS or Personal Folder**

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Dynamic Query

Example has 2 conditions the end user can set:

1. **Type of boat (Power, Sailing, etc)**
2. **Price limits (lower / upper)**

Query brings back only database entries meeting conditions

iSeries Access for Web

Find Boat

My Home Page
My Folder
Print
Messages
Jobs
5250
Database
· Tables
· My requests
· Run SQL

Select Boat Type

P

A
C
P
S
T

in US$ greater than or equal to: 20000

in US$ less than or equal to: 500000

OK   Cancel

iSeries Access for Web

SQL Output

My Home Page
My Folder
Print
Messages
Jobs
5250
Database
· Tables
· My requests

[1]

BCOST	BYEAR	BTYPE	BNAME	BFEET	BNT01
23900	1978	P	Carver Santa Cruz	28	-Constructed of fiberglass.
55000	1985	P	Monk Flybridge/Sedan	34	-Double planked cedar on oak frames.
185000	2000	P	Baveria 50 Yacht	50	5 cabins, 3 showers, Volvo TMD22 78PS engine

[1]

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How to work with the database features

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When using 'Database' functions

You can connect to other multiple different systems and databases with System i Access for Web

- – **Simply add other database connections to your list**

  - **Easiest way to do this is to copy the default one, then modify it and save it.**
  - **It will then appear as an option in the Connection pulldown**

- – **The default IBM Toolbox for Java is for DB2 for i5/OS, but you could use other driver managers to connect to other systems**

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Database – use WAS data sources (new in V5R4)

Servlet version

WAS data sources are pooled and managed by WAS and should scale better than our original database connections

Two types of connection definitions are supported:

– **Driver manager connections require a driver class and a JDBC URL**

- **Specify the JDBC driver class name to use for this database connection, ie, the IBM Toolbox for Java JDBC Driver**

– **Data source connections require a data source name.**

- **Specify the JNDI name of the data source to use for this connection. Must have a component-managed authentication alias set if it is used in a single sign-on environment.**

iSeries Access for Web — User: CMINER System: LP126AB.RCHLAND.IBM.COM

Edit Policies - Database Connections

Profile: CMINER

Default connection: IBM Toolbox for Java - LP126AB.RCHLAND.IBM.COM
Default derived from: Shipped default

Action	Connection	Derived From
	Connection: IBM Toolbox for Java - LP126AB.RCHLAND.IBM.COM Driver class: com.ibm.as400.access.AS400JDBCDriver JDBC URL: jdbc:as400://LP126AB.RCHLAND.IBM.COM;prompt=false;	Shipped default

Add database connection
Create a new database connection.

Set default connection
Set the default connection policy for this profile.

Category list
Return to the policies category list.

Policies help
View help for working with database connections.

Data Source connections enable many different applications running under WebSphere to use the same data source connection

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Upload PC data to DB2 for i5/OS

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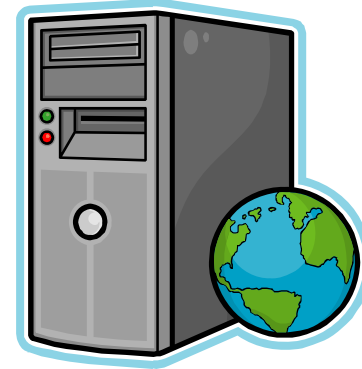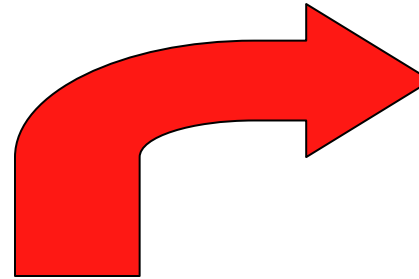
Copying Data to DB2 for i5/OS

Copy data to table function allows you to copy PC data into a DB2 for i5/OS table

Specify:

- **File name**
- **File type**
- **File settings**
- **Table name**
- **Replace or append records to table**
- **Connection**

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Creating a new table

Copy data to table will create a new table if one does not exist

Choose to view or change the table definition

or

To simply create the table using the default definition determined by System i Access for Web

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Creating a new table

Verify Column Definitions for A New Table

From this panel you may add a description, change data types, column length, and scale

Click Create Table to create the new table and copy your data to the new table

iSeries Access for Web   User: **CMINER**   System: **LP126AB.RCHLAND.IBM.COM**

My Home Page
My Folder
Print
Messages
Jobs
5250
Database
· Tables
· My requests
· Run SQL
· Copy data to table
· Import request
· Import query
· Extract server data
Files
Command
Download
Customize
Other

Related Links:
· iSeries Access for Web
· iSeries Access
· iSeries Navigator
· iSeries Information Center
· iSeries Resource Library

Table Column Definitions

Verifying column definitions before creating the table is recommended. You can change any of the column definition attributes before clicking Create Table.

Column	Description	Type	Length	Scale	Sample Data
BTYPE		CHAR	1	0	P
BNAME		CHAR	29	0	Baveria 50 Yacht
BFEET		FLOAT	0	0	50.0
BYEAR		FLOAT	0	0	2000.0
BCOST		FLOAT	0	0	185000.0
BNT01		CHAR	71	0	5 cabins, 3 showers, Volvo TMD22 78PS engine
BNT02		CHAR	66	0	
BNT03		CHAR	68	0	
BNT04		CHAR	64	0	
BNT05		CHAR	69	0	
BNT06		CHAR	72	0	
BNT07		CHAR	72	0	
BNT08		CHAR	70	0	
BNT09		CHAR	70	0	
BNT10		CHAR	63	0	

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Query DB2 for i5/OS

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Run SQL

The Run SQL function allows you to type in a free-form SQL Statement

- **If you do not know SQL, then use the SQL Wizard to help you generate an SQL SELECT statement**

- **Select from a variety of output formats, including:**
  - **Preview**
  - **PDF**
  - **.XLS (Excel)**
  - **XML**
  - **HTML**
  - **…**

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The SQL Wizard

The SQL Wizard helps you generate a single table SELECT statement

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Identify the DB2 for i5/OS database table

Step 1:

Choose a table

Type in a **table filter** to help narrow your search. Many schemas (libraries) may be specified by putting them in a comma separated list

Select a table and click OK to use it to generate the SELECT statement

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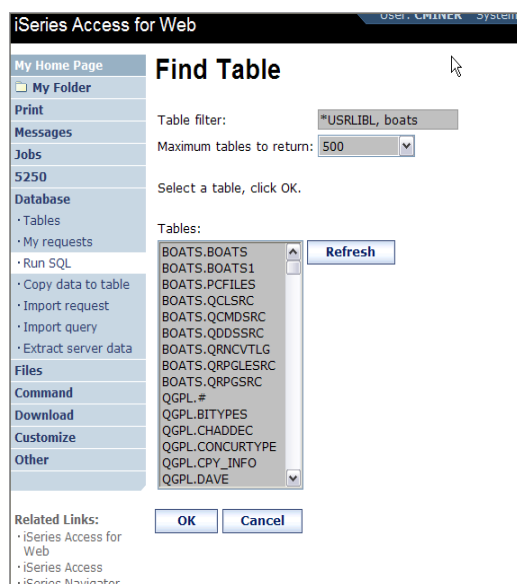
Select your Output Columns

Step 2:

Choose columns

- – **Check the boxes next to the columns to include them in the statement**
  - If you check none, you get all columns

- – **Click the column order button to change the order output**
  - Changed Price from 50 to 05 so it would be first

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Specify Conditions

Step 3:

Adding conditions

– **Conditions allow you to select records that meet certain criteria.**

– **Click Add New Condition to specify a condition.**

– **Select the column to use in the condition and click Next**

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Choose the operator type

- **The SQL wizard allows you to choose the operator to use in the condition**

- **The condition shows up both in the SQL and in a condition list. You may edit or delete the condition.**

- **You may also add additional conditions.**

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Choose static versus dynamic

- **The SQL wizard allows you to choose if the condition value is specified in the request, or is prompted for when the request is run.**

- **Static or Dynamic**

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Specifying a Static Value

The SQL wizard allows you to specify the value for the condition.

The value can be:
- **A value,**
- **Constant or**
- **Other specific function**

Can find values in table

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The statement is complete!

- **The statement is now complete.**

- **Click the Finish button (not shown) on the bottom of the SQL Wizard page to return to Run SQL**

- **The SELECT statement you generated is available for use in Run SQL**
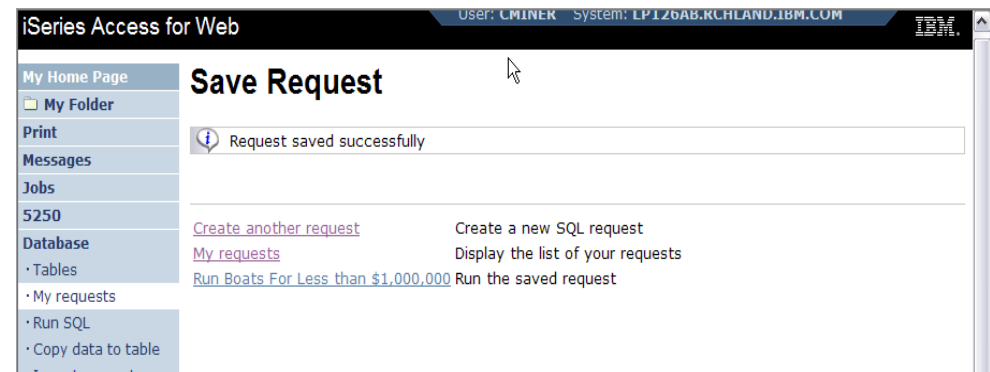
Save the SQL Request

After creating a statement, by hand or with the Wizard you also have the option to store the statement for later use
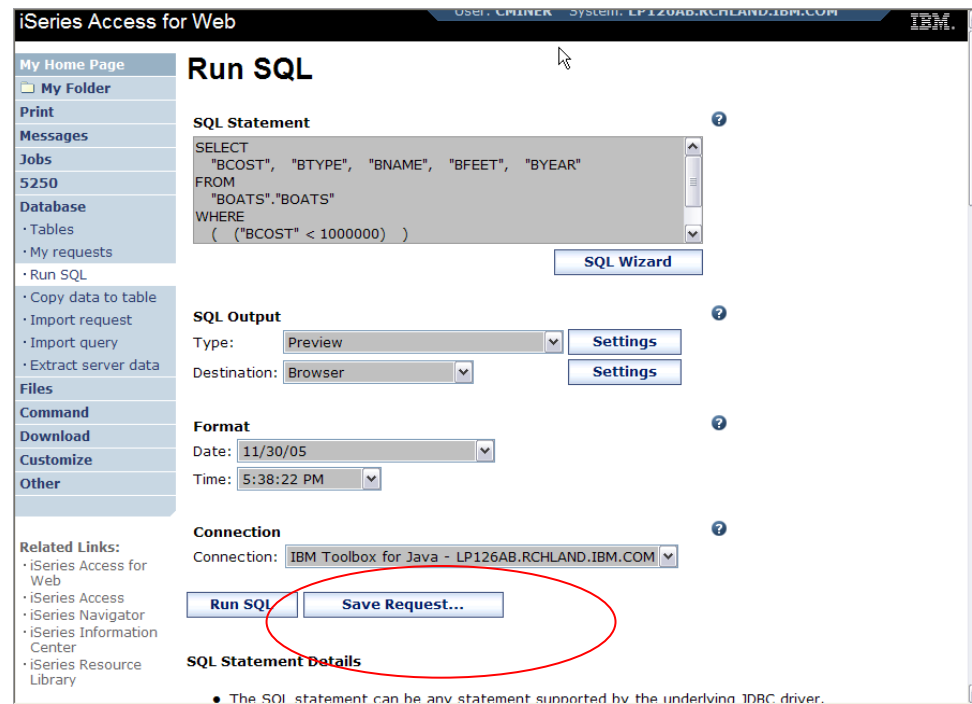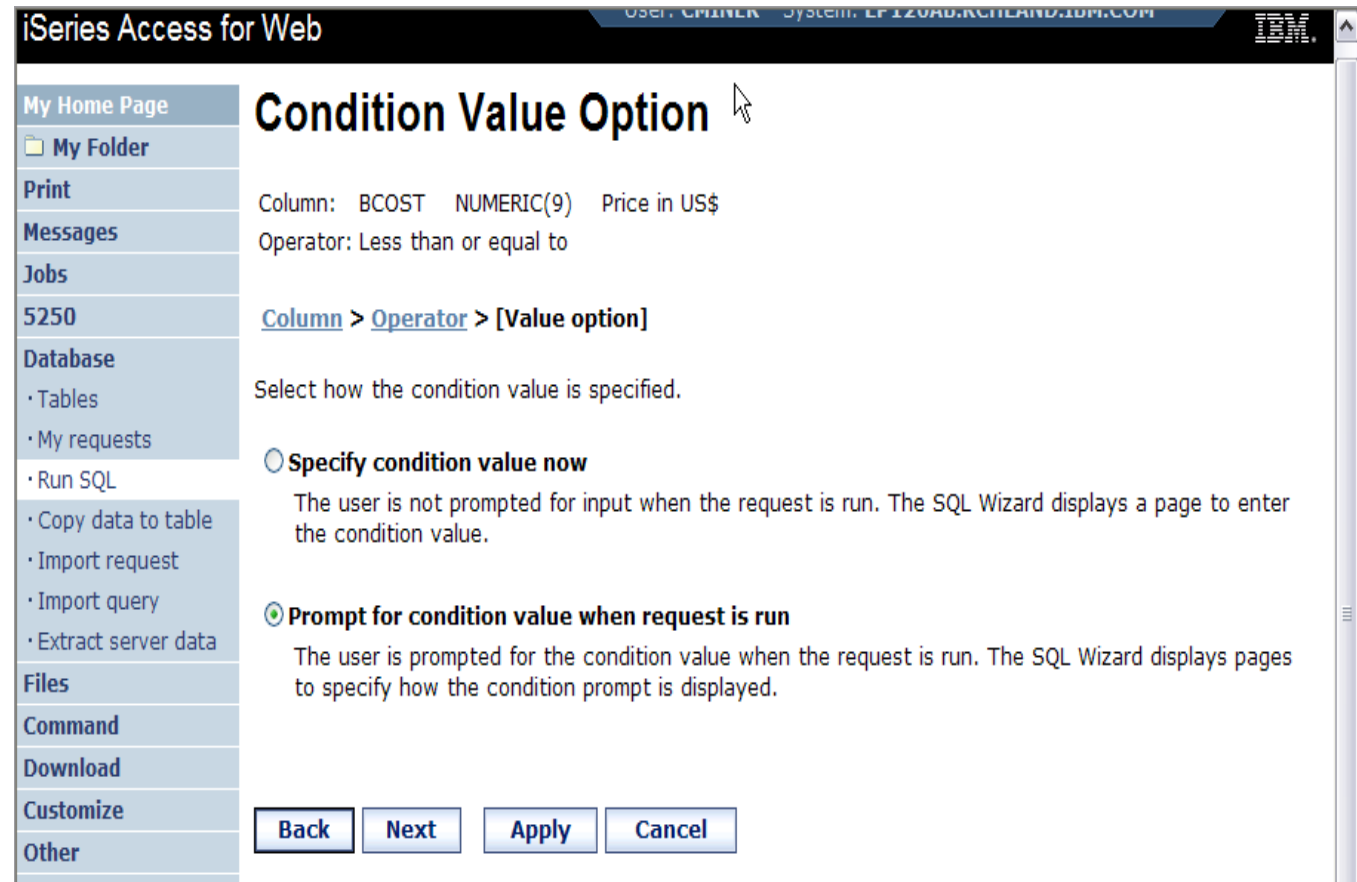

Can Run it now

Or

Run it later from "My Requests"

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Dynamic Query – condition value

Select to prompt for values when the request is run

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Chose Operator and Prompt Type

- **Choose a comparison operator just like we did in the static query example**

- **Select how the user will be prompted for the values**

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Chose Operator and Prompt Type

- **Setting Initial Value that Boats can cost equal to or less than $3,000,000**

- **Adding Text to explain to user what to enter in this column**

- **User can then change value**

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Can Include Multiple Conditions on Dynamic SQL Requests

- **Let's add another condition to this Dynamic SQL Request**

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Setting up Additional Operator and Prompt Type

- **For 'Type of Boat', we will select from list of Types in our Database File**

- **Two (2) types of boats in the database file**

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Set Display Order and See Conditions Set

- **Will display information based on 'Boat Cost' in descending order**

- **Shows how SQL has been written based on 2 Conditions**

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User Runs Dynamic Query built with 2 Conditions

User selects

- **Maximum cost of boat**
- **Type of Boat**

The SQL Output was set up to show in Descending Order by Boat Cost

iSeries Access for Web — Run SQL

User: CMINER

My Home Page
My Folder
Print
Messages
Jobs
5250
Database
· Tables
· My requests
· Run SQL
· Copy data to table
· Import request

Run SQL

Boat Cost Upper Limit

1000000
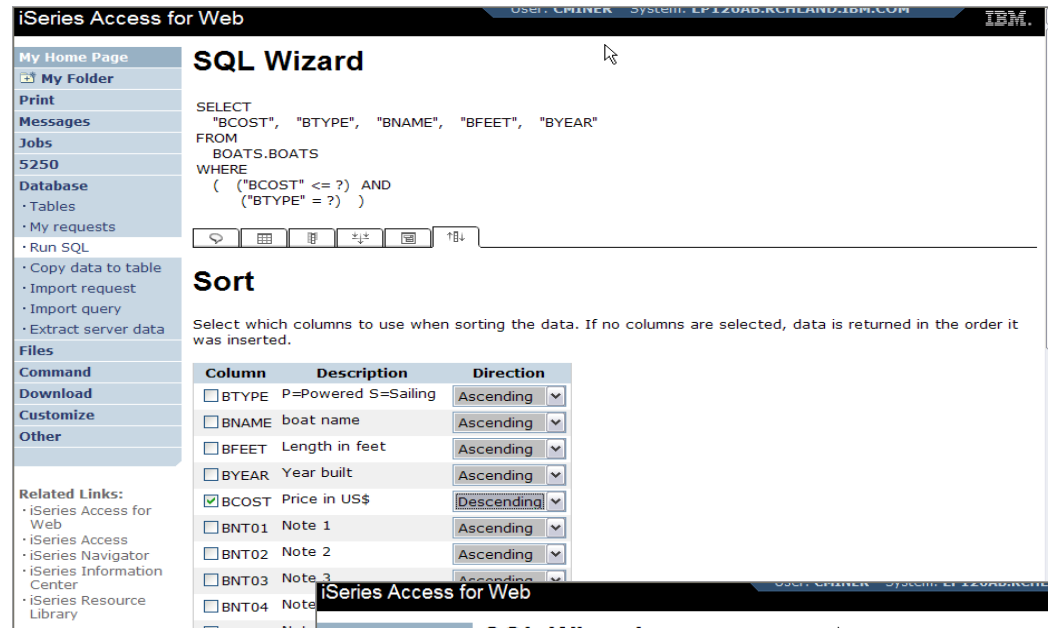
P=Powered S=Sailing exactly equal to: S

OK   Cancel

iSeries Access for Web — SQL Output

User: CMINER   System: LP120AB.RCH...

My Home Page
My Folder
Print
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Jobs
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· Copy data to table
· Import request
· Import query
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Files
Command
Download
Customize
Other

SQL Output

|◀ ◀◀ ◀ [1] ▶ ▶▶ ▶| ↻

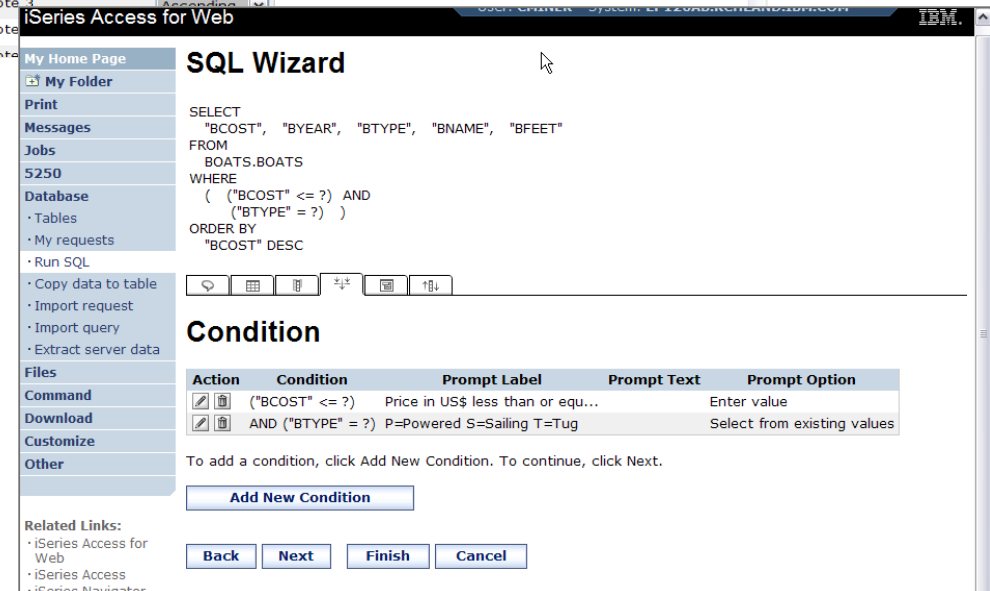| BCOST	BTYPE	BNAME	BFEET	BYEAR
450000	S	Merlin's Magic	54	1990
269500	S	Seafinn 411 Motorsailer Ketch	41	1989
179500	S	Fountaine Pajot Antigua	37	1993
179000	S	Nauticat 40	40	1989
159900	S	Shannon 50 ketch	50	1981
149000	S	Brandlmayr 48	48	1985
80000	S	Garden Design Porpoise Ketch	51	1974
69950	S	Corsair 27	27	1994
69000	S	Morgan 382 Race/Cruise Sloop	38	1978
63000	S	Mariner Ketch	40	1979
57900	S	Hunter 33.5	33	1990
27500	S	Bill Garden Schooner	36	1953

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Dynamic query – wizard warning

- **Dynamic queries generated by the wizard can only be modified using the wizard**

- **If you wish to create your own you will need to manually add parameter markers directly into the SQL statements**

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Dynamic Query – Form Example

- **Want to use different button style**

- **Want button next to prompt control, not underneath it**

- **Form element:**
  - **<FORM name=accessories action="http://server/webacces s/ iWADbExec" method="get">**

- **Hidden element:**
  - **<input type="hidden" name="request" value="req" />**

- **Entry field:**
  - **<input type="text"**
  - **name="iwaparm_1" value="" />**

Great way to add Database requests to your existing web pages

SQL Output Destinations

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SQL Output Destinations

Choosing a destination

Choose from 4 different output destinations:

- **Browser**

- **Email**

- **Personal folder**

V5R4 Integrated File System

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Run SQL – Output Browser

The SQL statement is built indicating that Output Type is Microsoft Excel.

Browser sees the .xls format type and automatically starts Excel on the desktop, and puts results in a spreadsheet

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Run SQL – Destination EMAIL

The SQL statement is built indicating that:

➢ **Output Type is PDF**

➢ **Destination is EMAIL**

Access for Web converts SQL output to .PDF and attaches it to an email.

Note: my email address has been filled in for me

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Run SQL – My Personal Folder

The SQL statement is built indicating that:

> ➢ **Output Type is HTML**
> ➢ **Destination is My Folder**

> ➢ **Click on My Folder link**
> ➢ **Select the SQL Output**
> ➢ **Shown to me in HTML**

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Run SQL – Integrated File System

The SQL statement is built indicating that:

1. **Output Type is HTML**
2. **Destination is Integrated File System**
3. **Next screen select 'CMINER' directory**

4. **Click on 'Files' tab**
5. **Open CMINER directory**
6. **Click on File Name**
7. **Results shown in HTML**

MYLSTNAM	MYCITY	MYSTATE
Henning	Dallas	TX
Jones	Clay	NY
Vine	Broton	VT
Tyron	Hector	NY
Stevens	Denver	CO
Alison	Isle	MN
Doe	Sutler	CA
Thomas	Casper	WY
Williams	Dallas	TX
Lee	Hector	NY
Abrham	Isle	MN

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Destination Settings

You can specify the folder and mail settings before the request is run

Or you can wait until the request is run

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Shortcuts

Give users access to upload/download requests you have created

i want an i.
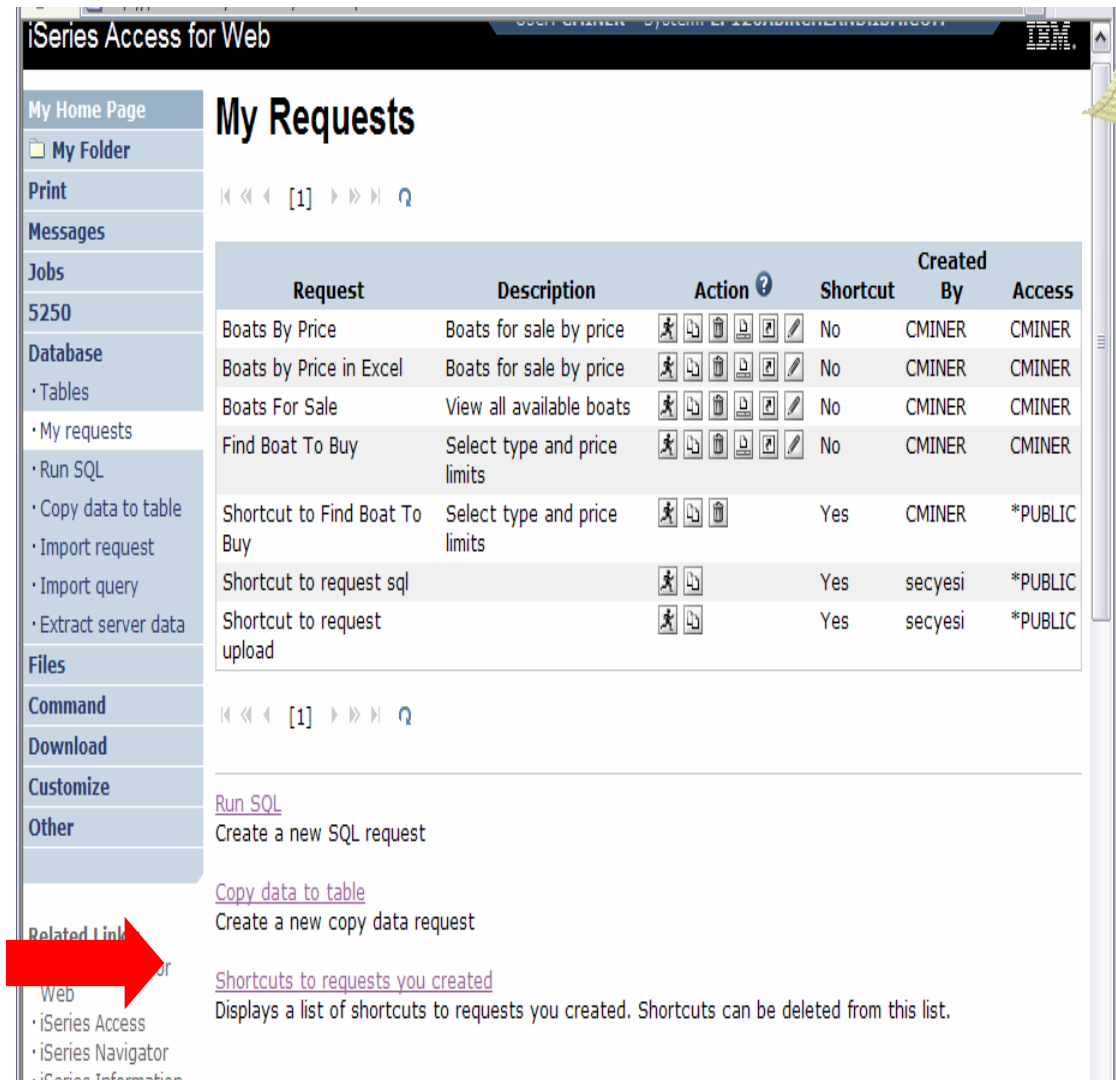
Shortcuts – working with, managing

Under "Action" column, you can:

- **Create shortcuts**
- **Edit your shortcuts**

At bottom of screen, you can:

- **Delete shortcuts to existing users or groups**

Shortcuts – giving users access

Under "Actions" select Create Shortcuts.

Click browse button to see all users and groups on the system.

- **Add the users and groups you want to run this saved request**

If the Predefined Request changes, the Shortcut is automatically changed for users too

i want an i.
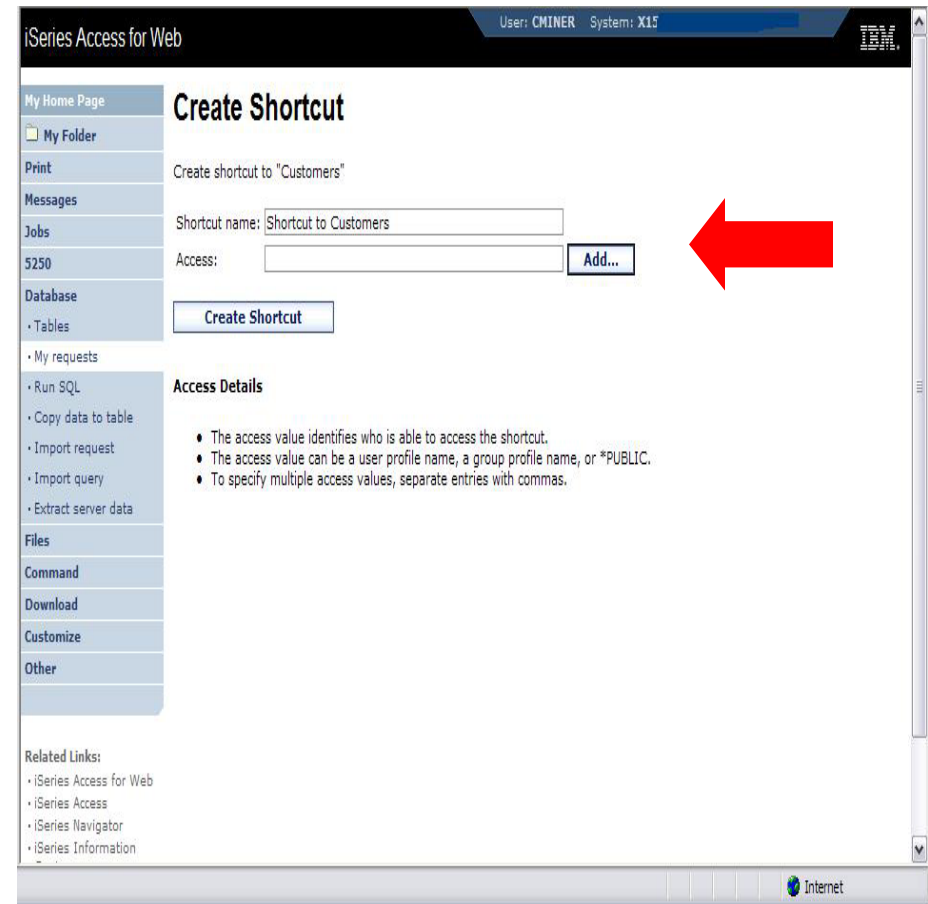
Set Policies for Building Requests / Using Shortcuts

Policies work on i5/OS User Profiles – Users and Groups

Decide what users can do with your shortcuts

- **Copy them**
- **Delete them**

Set up Policies to:

- **Allow users to create and modify requests**

or

- **Run only previously defined shortcuts**

User can only run shortcuts previous built by someone else

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Import Requests and Import Queries

iSeries Access fo

My Home Page
My Folder
Print
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5250
Database
· Tables
· My requests
· Run SQL
· Copy data to table
· Import request
· Import query
· Extract server data
Files
Command
Download
Customize
Other

i want an i.

© 2007 IBM Corporation

Importing Client Access Data Transfer Requests

Import your existing iSeries Access for Windows and Client Access Data Transfer requests into iSeries Access for Web!

i want an i.
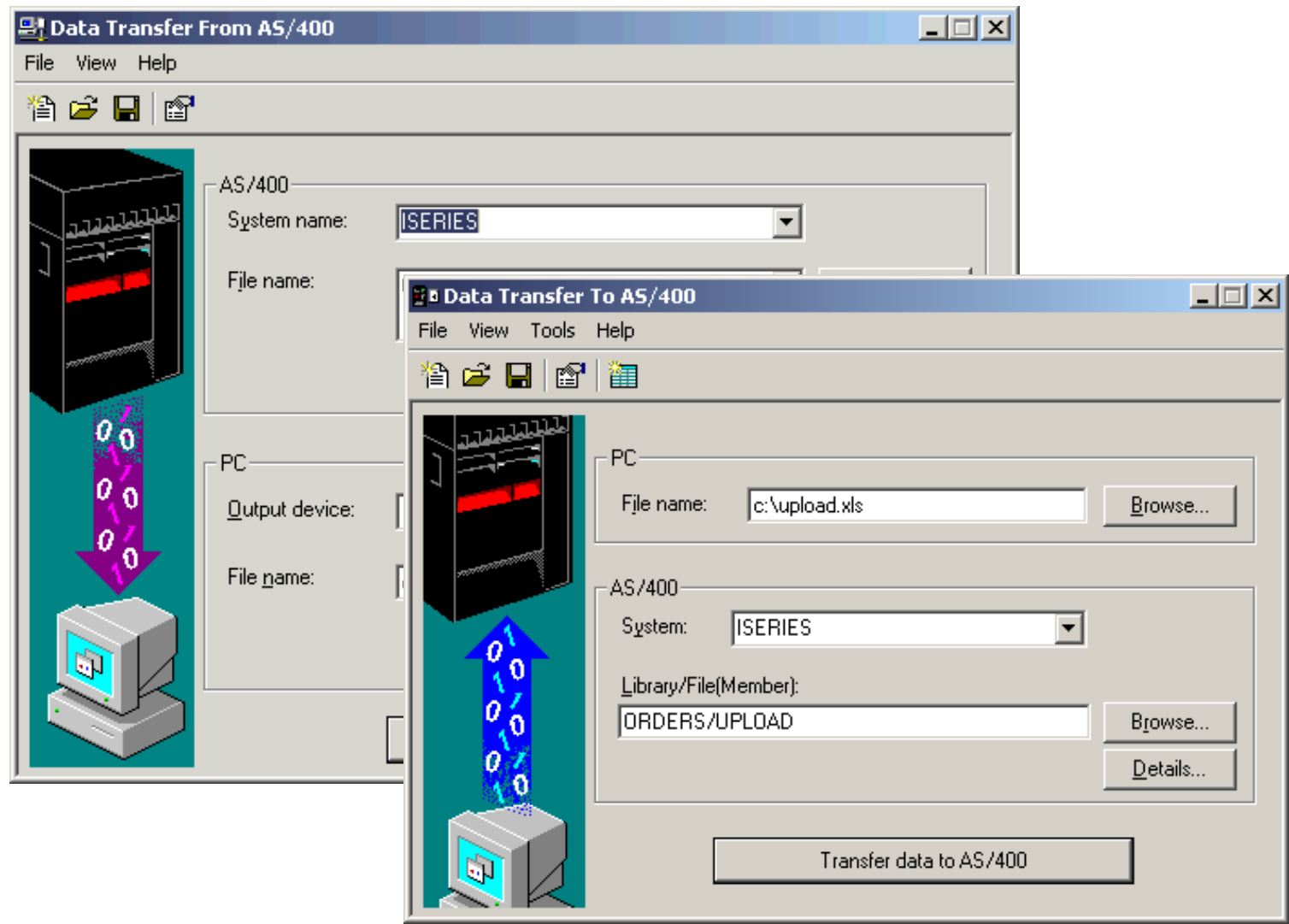
Import Function

- **Don't lose your investment in already built Data Transfer requests**

- **Import them into iSeries Access for Web**

- **The imported transfer request may be run or saved as an iSeries Access for Web request**

- **Then users can run them from their browsers!**

iSeries Access for Web   User: **CMINER**   System: **LP126AB.RCHLAND.IBM.COM**

My Home Page
📁 My Folder
Print
Messages
Jobs
5250
Database
· Tables
· My requests
· Run SQL
· Copy data to table
· Import request
· Import query
· Extract server data
Files
Command
Download
Customize
Other

Related Links:
· iSeries Access for Web
· iSeries Access

Import Client Access Data Transfer Request

Specify the Client Access Data Transfer request you want to import. The request will be converted to an iSeries Access for Web request.

Note: The converted iSeries Access for Web request could work differently than the Client Access request. Verifying the converted request is strongly recommended.

Request to Import

Client Access request: [_____] [Browse...]

Character set: [Western [windows-1252] ▼]

[**Import Request**]

Import Details

- The supported transfer request files are as follows:
  - IBM Client Access Express Data Transfer From AS/400 .DTF files
  - IBM Client Access for Windows 95/NT Data Transfer From AS/400 .TTO files
  - IBM Client Access Express Data Transfer To AS/400 .DTT files
  - IBM Client Access for Windows 95/NT Data Transfer To AS/400 .TFR files
- Data Transfer From AS/400 request files are converted to settings that can be used by Run SQL.
- Data Transfer To AS/400 request files are converted to settings that can be used by Copy data to table.
- Choosing an incorrect character set may result in an incorrectly imported request file.

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Import Query Requests

- **Bring your existing queries to a browser environment**

- **Use the Import Query tool to bring them into iSeries Access for Web**

  - **IBM Query for iSeries (5722-QU1)**

  - **DB2 Query Manager (5722-XT1)**

iSeries Access for Web User: CMINER System: LP126AB.RCHLAND.IBM.COM

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Related Links:
· iSeries Access for Web
· iSeries Access

Import Query

Specify the query file you want to import. The query contained in the query file will be converted to an iSeries Access for Web database request.

Note: The converted iSeries Access for Web database request could work differently than the original query file. Verifying the converted request is strongly recommended.

Query to Import

Query file: _____ [Find...]

Query type: DB2 UDB for iSeries Query Manager (*QMQRY) ▼

Query file CCSID: Query for iSeries (*QRYDFN)
     DB2 UDB for iSeries Query Manager (*QMQRY)

[Import Query]

Import Details

Query files of types *QMQRY and *QRYDFN are supported. These query files are created by Query for iSeries and DB2 UDB for iSeries Query Manager. Queries of type form, queries of type procedure, and prompted queries, are not supported. Queries containing program variables or replacement variables are also not supported.

*QMQRY and *QRYDFN
are the query file types supported*

Extract Server Data

i want an i.
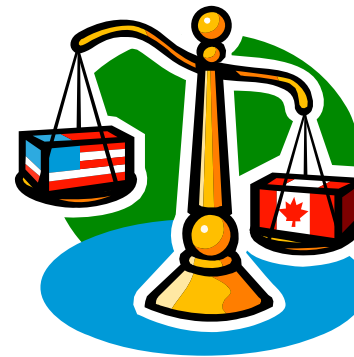
Extract Server Data

- **Extract i5/OS object information into a database table or tables.**

- **Then use Tables or Run SQL functions to retrieve relevant data.**

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Extract Server Data

Extract Server Data can be used to retrieve information about objects on the iSeries server, and then store the results in a database table

– **General object information can be retrieved for any iSeries object type.**

– **Object specific information can also be retrieved for the following object types:**

- Directory entries
- Messages
- Software fixes
- Software products
- System pool
- User profiles

- **You could easily build a query:**

  – **To find out what users have used more than 100 MB of storage in the IFS**

  – **Or you might want to know what users have had more than 2 invalid sign-on attempts in the past three months.**

- **This very powerful capability lets you look at your iSeries information in any manner that is of importance to you.**

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GUI to work directly with DB2 for i5/OS Table data

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Tables – work with iSeries database information

- **Insert**
- **Update**
- **Quick View**
- **Find**
- **Run SQL**
- **Copy Data To Table**

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Working with Tables

Connection & Table Filter

Table Actions

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Table Filter

Used to control the tables displayed in the Tables list

Comma-separated list of

- **schemas**
- **schema filters**
- **tables**
- **table filters**

The % character is used as a wild card character.

*USRLIBL is a special value to identify all tables in the user portion of the library list.

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Tables → Find Record

- **If you don't want users 'updating', 'inserting' or 'deleting' records,**

- **then let them use only the Find function**

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Tables → Update Function

Wildcards may be used in the selection

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Inserting New Records into A Table
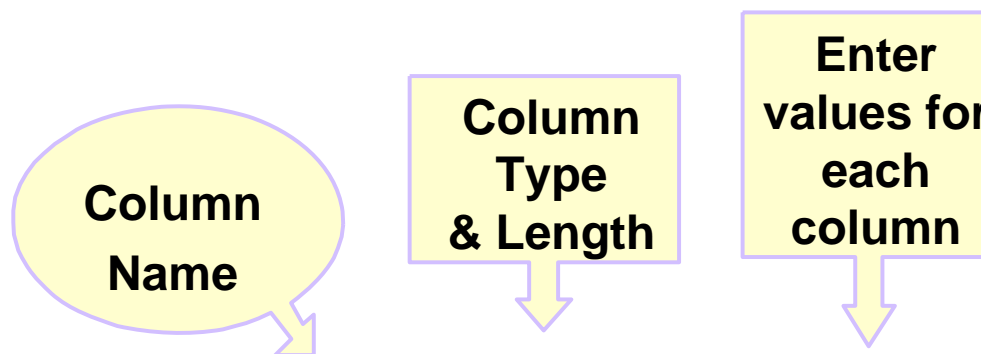
Column Name

Column Type & Length

Enter values for each column

iSeries Access for Web

User: CMINER   System: LP126AB.RCHLAND.IBM.COM

My Home Page	
My Folder	
Print	
Messages	
Jobs	
5250	
Database	
· Tables	
· My requests	
· Run SQL	
· Copy data to table	
· Import request	
· Import query	
· Extract server data	
Files	
Command	
Download	
Customize	
Other	

Insert Record

To insert a record, specify column values and click Insert Record. ❓

Column	Type	Value	Description
BTYPE	CHAR(1)		P=Powered S=Sailing
BNAME	CHAR(30)		boat name
BFEET	NUMERIC(3,0)	0	Length in feet
BYEAR	NUMERIC(4,0)	0	Year built
BCOST	NUMERIC(9,0)	0	Price in US$
BNT01	CHAR(72)		Note 1
BNT02	CHAR(72)		Note 2
BNT03	CHAR(72)		Note 3
BNT04	CHAR(72)		Note 4
BNT05	CHAR(72)		Note 5

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Appendix A. HTML Output Types

i want an i.
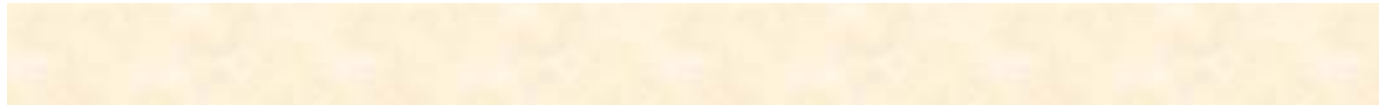
Use HTML File support
Updating a Web server

Download Database information to Workstation

1 →

HTML File Generated at PC

2

Send HTML output to Web Server File System

3 ←

Client browsers view HTML on iSeries or PC Web Server

Client PC

i want an i.
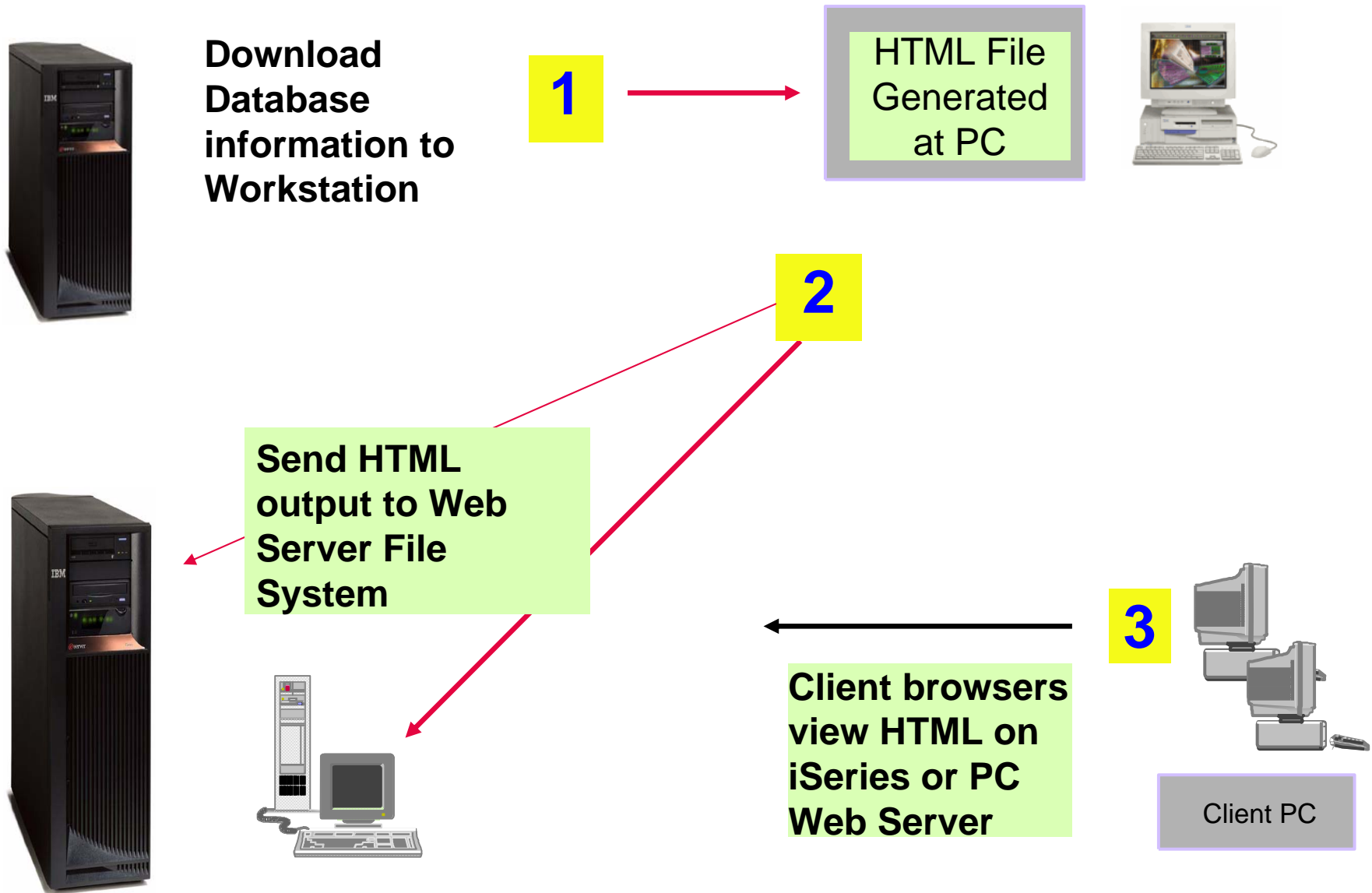
HTML Output Settings

- **Many settings from:**

- **Caption**

- **Table**

- **Cell data**

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Displaying output in a paged list

iSeries Access for Web (continued)

❑ **Specify a value for 'Rows per table' to limit the number of rows displayed on a page**

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Contrasting other layouts

Preview output type displays a limited number of rows per page, but you can't customize how the list is displayed

If you do not specify a value for 'Rows per table', all results are returned in a single page

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A template file can be used to display custom content before and after the statement results

The template file must have previously been placed in the Integrated File System (IFS) on the iSeries server

Template

File: /boats/homepage/accesswater.html

Tag: %%CONTENT%%

General

Character set: Multilingual [UTF-8]

Maximum rows:

Access for Water *Supplying quality boats since 2002*

Home

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.

IBM | iSeries | Service

iSeries Access for Web **(continued)**

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Example of template file

```
<HTML>
<BODY>
<table>
<tr><td>
<img SRC="boathead.gif" height=43 width=614>
</td>
  <tr>
    <td align="right">
      <a href="/webaccess/iWAHome">Home</a>
    </td>
  </tr>
</table>
<br>
%%CONTENT%%
<br>
<BODY>
</HTML>
```

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Appendix B: Comparisons: Similarities / Differences

- **iSeries Access for Windows**

- **iSeries Access for Web**

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Supported File Formats

Supported file formats	System i Access for Web Database (servlets)	System i Access for Windows Data Transfer
• Comma Separated Variable	Yes	Yes
• Data Interchange Format	Yes	Yes
• Extensible Markup Language (XML)	Yes	Yes
• Hyper Text Markup Language (HTML) (on downloads)	Yes	Yes
• No conversion	No	Yes
• ASCII Text	Yes	Yes
• Text – Tab delimited	Yes	Yes
• Basic Random	No	Yes
• Basic Sequential	No	Yes
• DOS Random	No	Yes
• DOS Random Type 2	No	Yes

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Supported File Formats (continued)

Supported file formats	iSeries Access for Web Database (servlets)	iSeries Access for Windows Data Transfer
• Preview (on downloads)	Yes	Yes
• Portable Document Format (PDF) (on downloads)	Yes	No (can send to PC printer by selecting 'Print' as output device)
• Microsoft Excel Version 3	Yes	Yes
• Microsoft Excel Version 4	Yes	Yes
• Microsoft Excel Version 5	No	Yes
• Microsoft Excel Version 7	No	Yes
• Microsoft Excel Version 8	No	Yes
• Microsoft Excel XML	Yes	Yes
• Lotus 123	No	Yes
• Lotus 123 Version 1	Yes	No
• Lotus 123 Version 4	No	Yes
• Lotus 123 Version 9	No	Yes

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Comparison of Database Capabilities

Feature / Function	iSeries Access for Windows	iSeries Access for Web	iSeries Access for Linux
ODBC driver	Yes	No	Yes
OLE DB provider	Yes	No	No
.NET provider	Yes	No	No
From an iSeries, start programs/commands on PC			
– **Incoming Remote Command**	Yes	No	No
GUI to find, add, update, delete selected records in an iSeries database Table	No	Yes	No
GUI to convert query results to .PDF format	No	Yes	No
GUI to e-mail query results in one step	No	Yes	No
Wizard to import Query/400 SQL requests	No	Yes	No
Wizard to import Query Manager SQL requests	No	Yes	No
Wizard to import iSeries Access for Windows Data Transfer requests	No	Yes	No
Programming Support			
– **ActiveX automation Objects**	Yes	No	No
– **Limited support using java.net.URL and the documented URL Interfaces**	No	Yes	No

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Comparison of Data Transfer and Access for Web Database

Feature / Function	iSeries Access for Windows	iSeries Access for Web
• **All SQL Statements Supported**	Yes	Yes
• **Wizards to build SELECT statements and convert to PC format**	Yes	Yes
• **Can build SELECT statements with group, having, and join support**	Yes	No
• **Can create dynamic queries (prompted for input at time of running)**	No	Yes
• **Access to members other than the default member**	Yes	No
• **Wizards to upload PC data to iSeries DB2**	Yes	Yes
• **Support for Source Physical Files**	Yes (sequence and data generated on uploads is not returned by default)	No (treated the same as other Table Values)
• **Upload data directly from Excel**	Yes	No
• **Excel dates/times handled as dates/times**	Yes	No, handled as character strings
• **Can run predefined saved requests**	Yes	Yes
• **Schedule requests to run silently**	Yes	No
• **Can Share requests amongst users**	No, put on shared drive	Yes, via Shortcuts
• **Can run multiple requests simultaneously (batch)**	Yes (RTOPCB, RFROMPCB)	No
• **Asynchronous Processing (ie, control returned before request completes)**	No	Yes (except for Browser option)

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Request Types

iSeries Access for Web	iSeries Access for Windows
Database Requests From iSeries 1. Requests are saved by User name, extension types are not displayed 2. An "Import" Facility (*) can be used to convert iSeries Access for Windows Data Transfer requests to iSeries Access for Web requests	**Data Transfer From iSeries** 1. .DTF - New request type used by iSeries Access for Windows 2. .TTO - Request type used in 5763-XD1 and DOS Extended clients 3. .DT - Request type used in Windows 3.1 client 4. .RTO - Rumba transfer request file
Database Requests To iSeries 1. Requests are saved by User name, extension types are not displayed 2. An "Import" Facility (*) can be used to convert iSeries Access for Windows Data Transfer requests to iSeries Access for Web requests	**Data Transfer To iSeries** 1. .DTT - New request type used in iSeries Access for Windows 2. .TFR - Request type used in 5763-XD1 and DOS Extended clients 3. .DT - Request type used in Windows 3.1 client 4. .RTO - Rumba transfer request file

(*) RTO files are not supported by Import Facility in iSeries Access for Web

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Microsoft Excel Support

What is significance of various Microsoft Excel formats supported?

1. **Microsoft Excel XML - is the newest type supported by Excel and Word, and it is a defined format that is easy to parse programmatically.**
2. **For iSeries Access for Web, the Microsoft Excel XML file type is the only "native" Excel file type that is supported for working with very large amounts of rows.**
3. **iSeries Access for Windows enables you to work with large amounts of rows using BIFF5, BIFF7, BIFF8 file types.**

Supported file formats	iSeries Access for Web Database (servlets)	iSeries Access for Windows Data Transfer
• Microsoft Excel Version 3	Yes	Yes
• Microsoft Excel Version 4	Yes	Yes
• Microsoft Excel Version 5	No	Yes
• Microsoft Excel Version 7	No	Yes
• Microsoft Excel Version 8	No	Yes
• Microsoft Excel XML	Yes	Yes

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Overall Strengths – database function

iSeries Access for Windows

Data Transfer

– Runs natively on Windows; can also run on a Windows web server
– Provides an SQL-like interface to allow full file SELECT or customized queries including joins, sorting, and record grouping. Can run advanced queries.
– Transfer source physical files and data physical files to PC file types
– Transfer PC file types to the source and data physical files on System i.
– Transfers may be run interactively, in batch mode, and programmatically
– Can run requests by clicking an icon
– Can schedule data transfers
– Has Excel Add-ins
– Has ActiveX Automation Objects

iSeries Access for Web

Database:

– Runs on System i web server; sends HTML to browser
– You can work directly with Tables, including Find, Insert, Updating, Delete, and Add. You may also view the entire table.
– Can run any SQL statement
– Supports both Dynamic and Static queries
– SQL Wizard helps you build SELECT statements.
– Can email results in many data formats
– Can convert results to PDF
– Can create Requests and give to other users to run
– Can Import Client Access Data Transfer requests; and IBM Query for iSeries (5722-QU1) and DB2 Query Manager SQL requests.

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eServer	IBM (logo)	
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