

# 24D Database Access with System i Access for Web

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



#### **System i Access Sessions**

#### Windows:

System i Access for Windows: What's New?

#### Web:

- Get to the Web Fast with System i Access for Web V6R1 (Overview)
- Run 5250 Through a Browser with System i Access for Web
- Database Access with System i Access for Web
- System i Access for Web: Setup and Configuration
- System I Access for Web: What an Administrator Needs to Know

Functional enhancements can be submitted via the FITS system. The url is: <a href="http://www.ibm.com/systems/i/software/access/">http://www.ibm.com/systems/i/software/access/</a>

And click on link "Request for Design Change"



## Try out Access for Web for yourself!

Start your browser and connect to the following web site: <a href="http://iseriesd.dfw.ibm.com/webaccess/iWAHome">http://iseriesd.dfw.ibm.com/webaccess/iWAHome</a> (case sensitive)

User ID = WUSER	This shows the basic look of Access for Web as we ship it. You can try various functions including working with printer output, creating database requests, etc. Click on the 5250 tab,
Password = DEMO2PWD	sign onto the iSeries, then start an RPG application called BOATS and run it.
	This is an example of how a customer might
User ID = BOATADMIN	design a web page for their use. You will see that an end user could start the same BOATS
Password = DEMO2PWD	application by clicking on the 5250 session or they could have used WebFacing to run the
	application. You will also see other links that
	would let a user work with spoolfile information,
	work with IFS, run database requests, etc



## What is System i Access for Web?

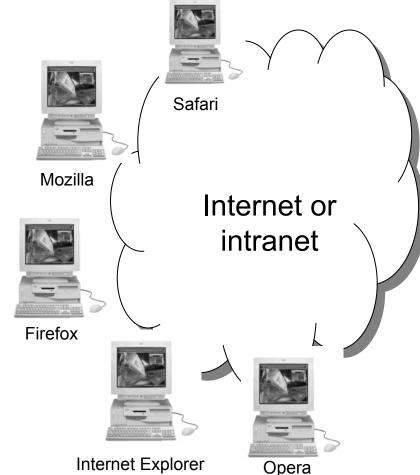
End users can leverage business information, applications, and resources across an enterprise by extending i5/OS resources to the workstation desktop through a web browser

## Provides access to i5/OS resources through a browser

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

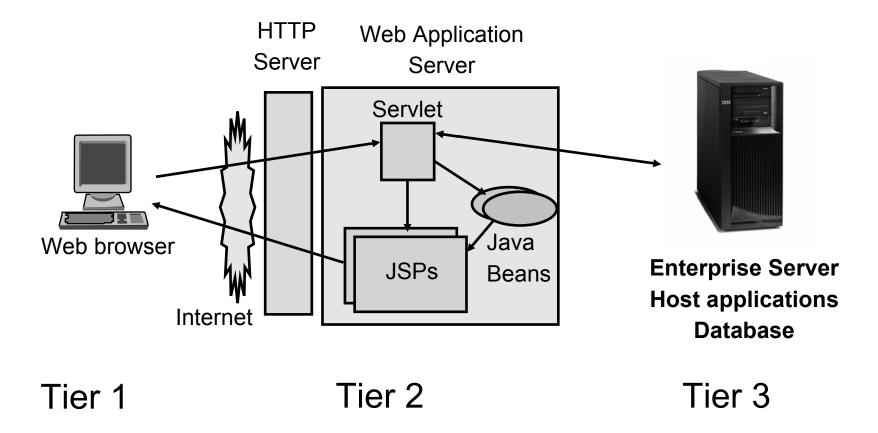
#### It has the following advantages:

- Runs on i5/OS
- 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





### Web application environment





## System i Access for Web – Database Functions

Access database tables with System i Access for Web.

#### Tables

- View a list of database tables on your target system.
- 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.
- Display the contents of a table record using the Find record action.
- 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 target system.
- 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 System i Access for Web copy data and SQL requests.
- Imported requests are automatically converted to System i Access for Web format.
- Run and edit converted requests just like other copy data and SQL requests.

#### Import query

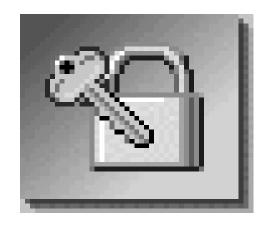
- Import queries generated by Query for i5/OS and DB2 for i5/OS Query Manager.
- Imported queries can be saved into System i Access for Web database requests.
- Run and edit converted queries just like other System i Access for Web SQL requests.

#### Extract i5/05 data

Extract i5/OS object information into a database table.



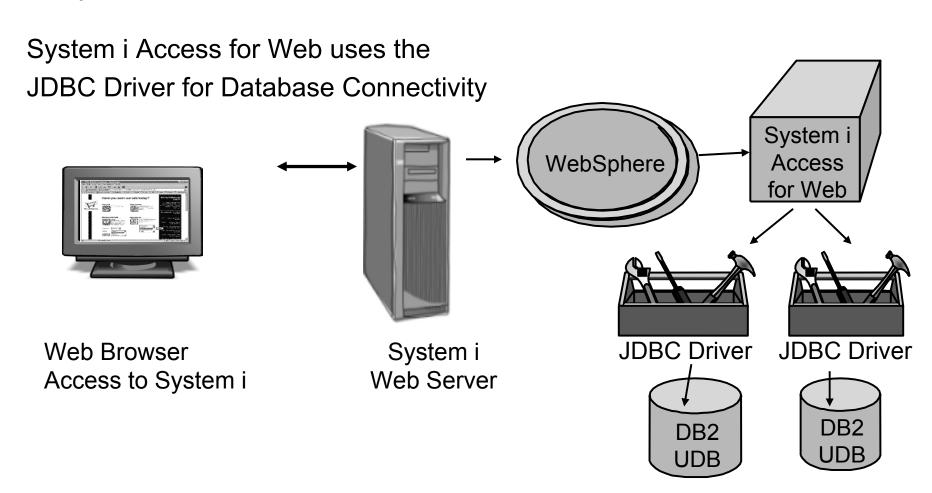
## **Security and Administration**





#### **Database Overview**

System i Access for Web



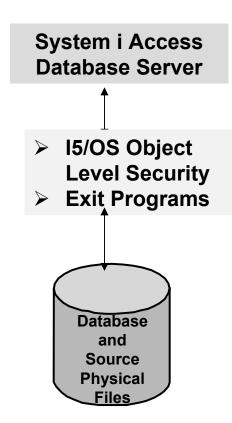


### **Security – Access to DB2 for i5/OS**

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

All objects on the system, 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/v 5r2/ic2924/index.htm?info/sqlp/rbafym st324.htm



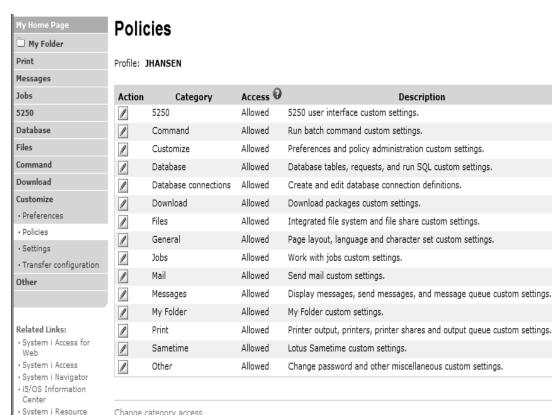
#### **Exit Programs**

- 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 i5/OS
- Given the SQL statement sent from the client application. Statements may be rejected by the user exit program
- May be written in a variety of host languages



#### **Policies**

- 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



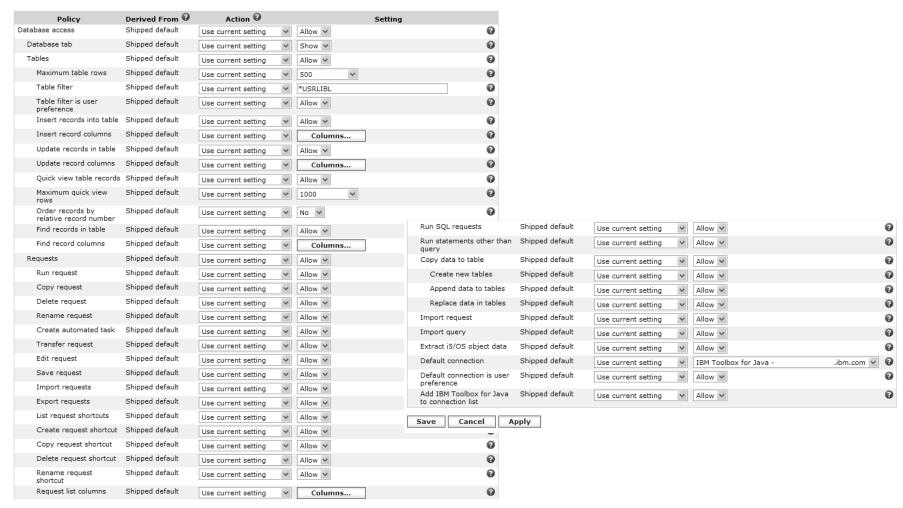
Change category access policies for this profile.



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

**Edit Policies - Database** 

Profile: JHANSEN







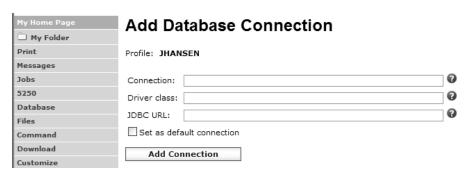
## How to work with the database features

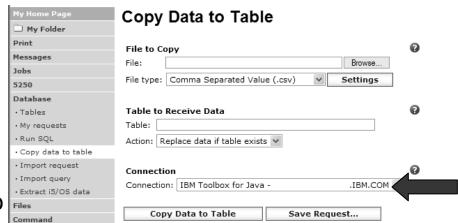


## When using 'Database' functions

You can connect to multiple 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
- Default is IBM Toolbox for Java and is for DB2 for i5/OS, but you could use other JDBC drivers to connect to other systems





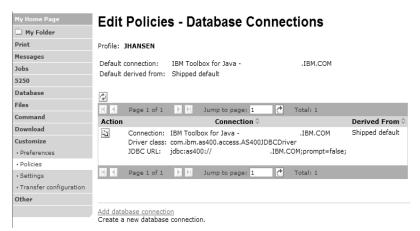


## Database – use WAS data sources Servlet version

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.





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



## For the 'typical' end user





## 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



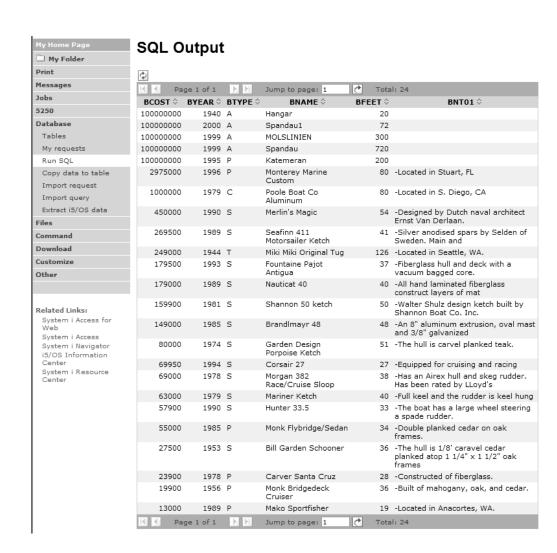
### **Static Requests**

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



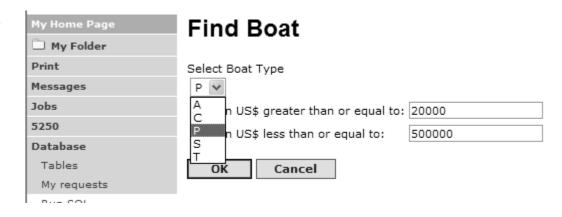


#### **Dynamic Query**

Example has conditions the end user can set:

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

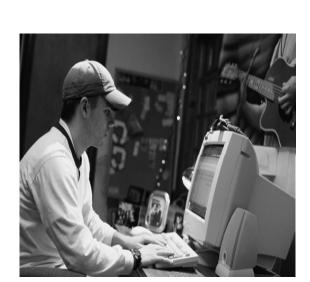
Query brings back only database entries meeting conditions

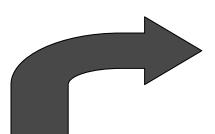






## **Upload PC data to DB2 for i5/OS**







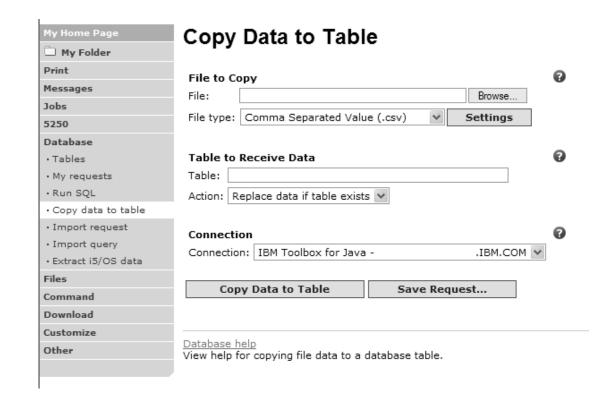


## Copying Data to DB2 for i5/OS

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





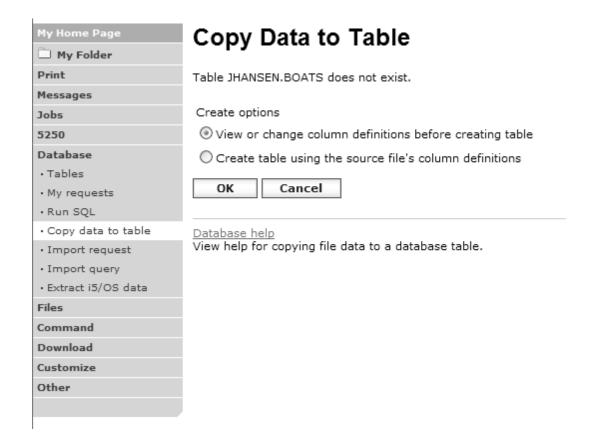
#### Creating a new table

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



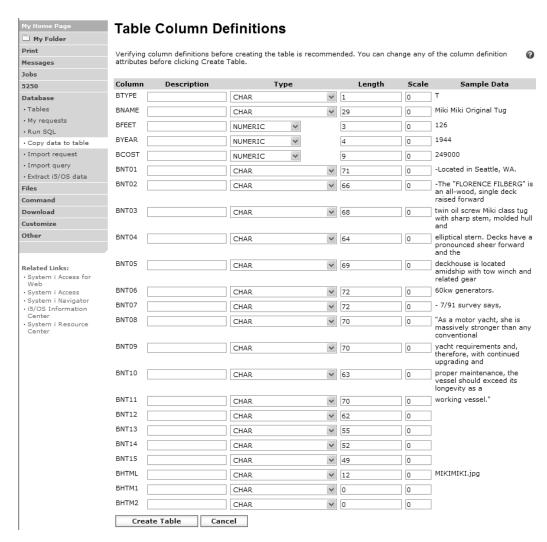


#### Creating a new table

#### 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





## **Query DB2 for i5/OS**



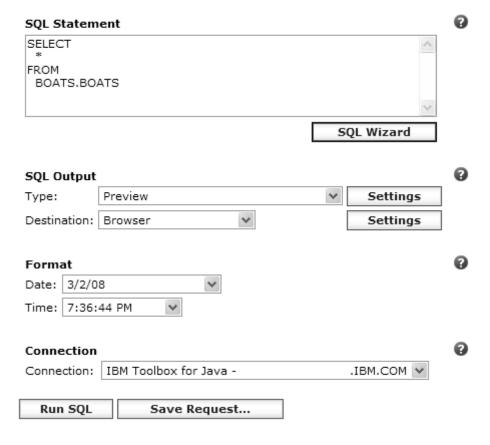


#### Run SQL

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
  - SVG (V6R1)
  - ...

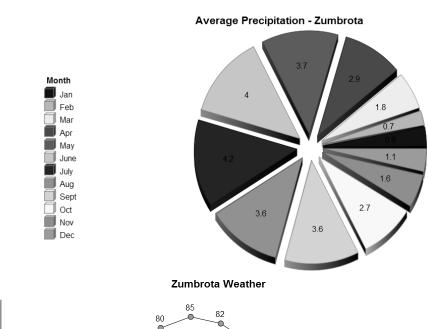
#### Run SQL

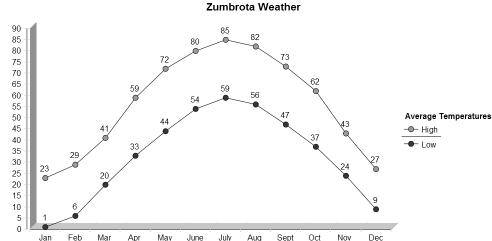




## **SQL Output Type Enhancements (V6R1)**

- New output types
  - Scalable Vector Graphics Chart (.svg)
    - Language for describing 2D graphics in XML
    - W3C standard
  - Text Delimited (.txt)
- Excel output types support Excel date/time formats
- Decimal floating point columns (DECFLOAT)

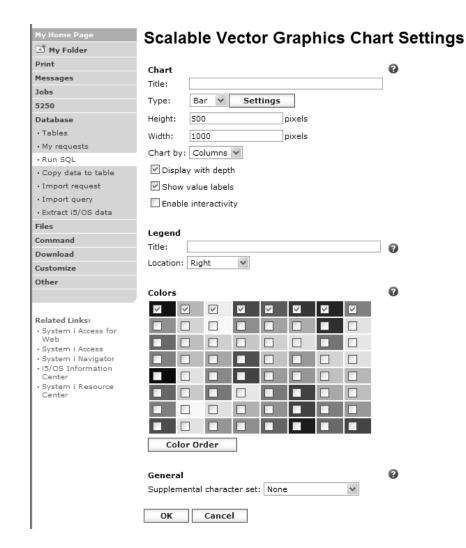






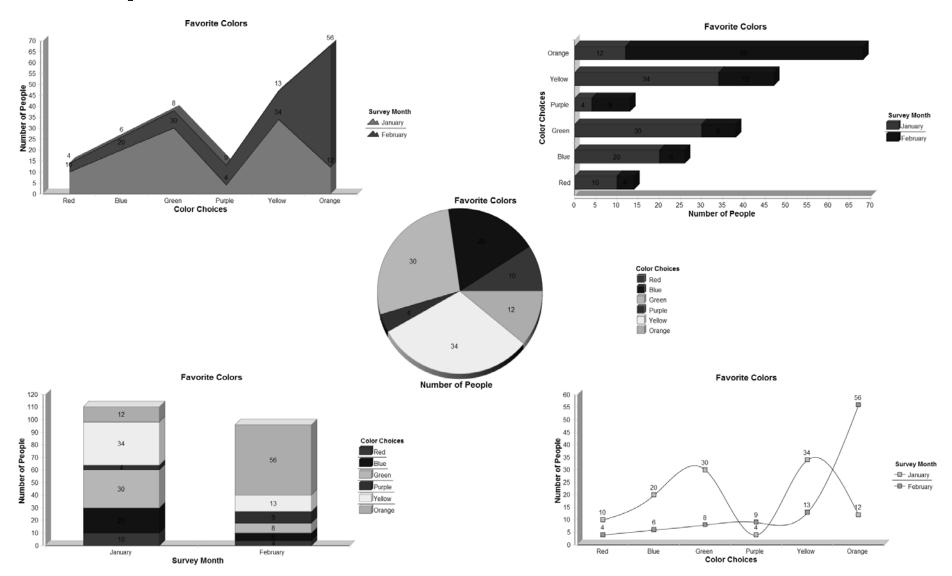
## **Chart Settings**

- Many configuration settings
  - Chart type
    - Area, Bar, Line, Pie
  - Chart type settings
    - Area curved areas, ...
    - Bar vertical or horizontal, ...
    - Line marker shape, ...
    - Pie exploded pie, ...
  - Size
  - Legend location
  - Colors
- Same destination options
  - Browser, e-mail, file system, personal folder





## **Example Charts**





#### The SQL Wizard

The SQL Wizard helps you generate a SELECT statement

V6R1 includes support for joining tables





### Identify the DB2 for i5/OS database table

#### Step 1:

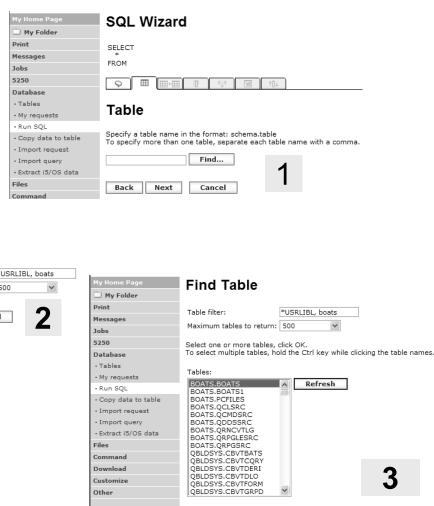
Choose a table

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



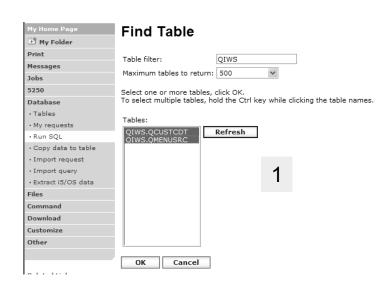
OK

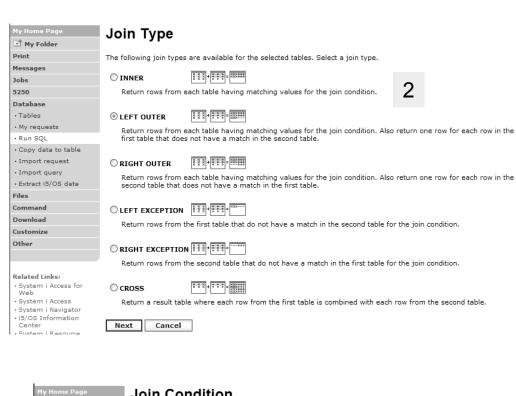
Cancel



### **Joining Multiple Tables**

- Select multiple tables
- Select the join type
- Optionally add conditions









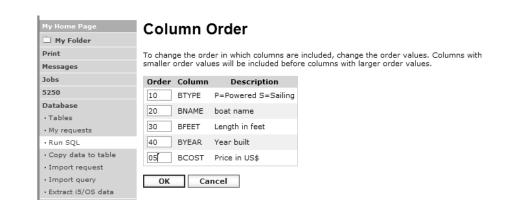
## **Select your Output Columns**

#### 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





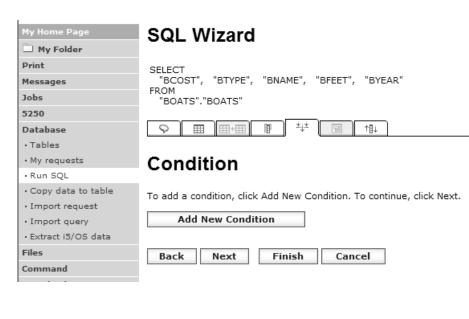


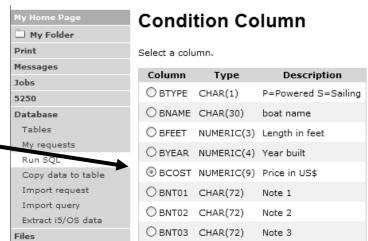
## **Specify Conditions**

#### 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







## Choose the operator type

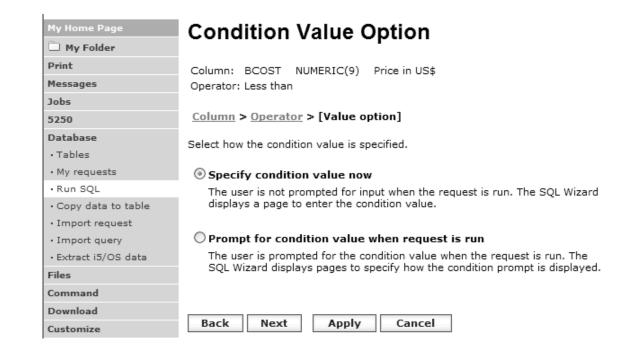
- The SQL wizard allows you to choose the operator to use in the condition
- The condition shows up both in the SQL statement and in a condition list. You may edit or delete the condition.
- You may also add additional conditions.





## 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





## **Specifying a Static Value**

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

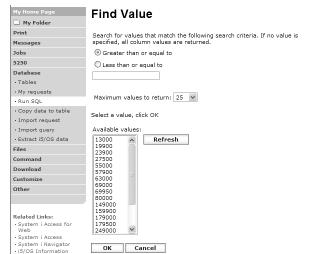
#### The value can be:

- Constant or
- Other specific function



Can find values in table

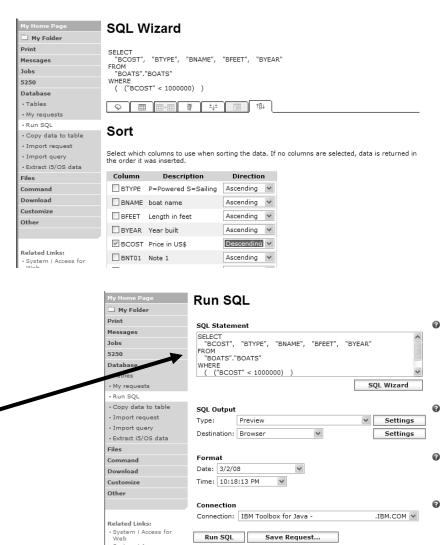
Center





### 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





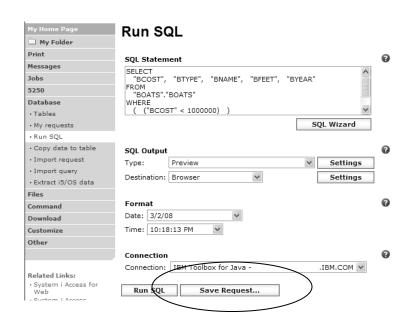
#### Save the SQL Request

After creating a statement (by hand or with the SQL Wizard) you have the option to save it for later use

#### Can Run it now

Or

Run it later from "My Requests"







#### **Dynamic Query – condition value**

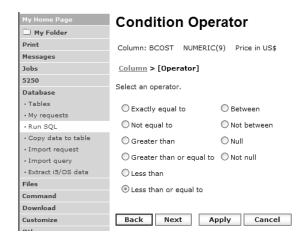
Select to prompt for values when the request is run



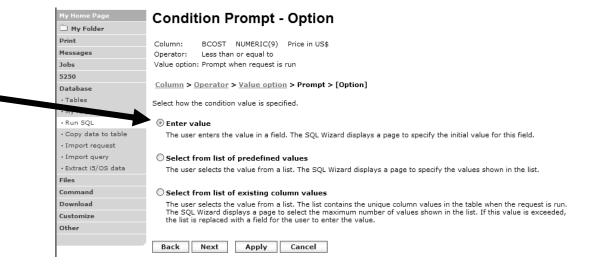


#### **Chose Operator and Prompt Type**

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



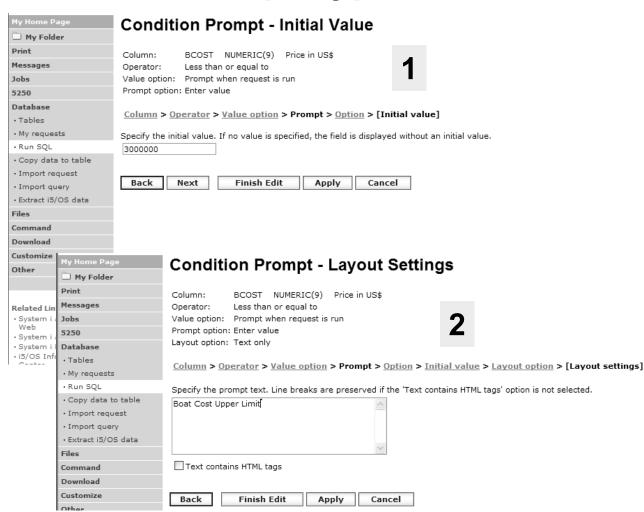
 Select how the user will be prompted for the values





#### **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





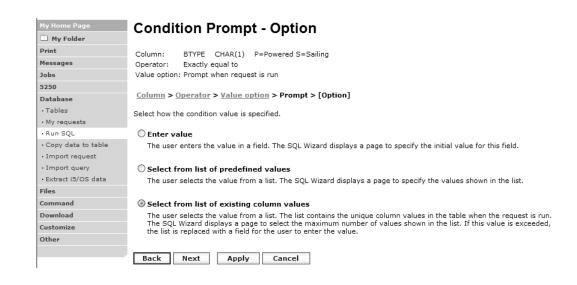
# **Can Include Multiple Conditions on Dynamic SQL Requests**

My Home Page SQL Wizard My Folder Let's add another Print SELECT "BCOST", "BTYPE", "BNAME", "BFEET", "BYEAR" Messages condition to this Jobs BOATS.BOATS 5250 ( ("BCOST" <= ?) ) Dynamic SQL Database Tables Request · My requests · Run SQL Condition · Copy data to table Import request Condition Prompt Label Prompt Text Prompt Option Action Import query 5/OS data ("BCOST" <= ?) Boat Cost Upper Limit Enter value Files To add a condition, click Add New Condition. To continue, click Next. Command Add New Condition Download Customize Other Back Next Finish Cancel



# 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



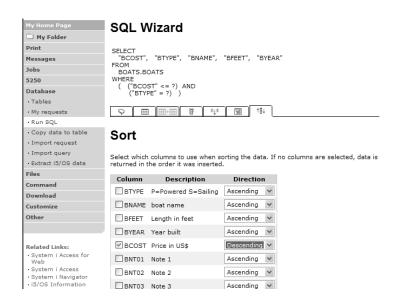


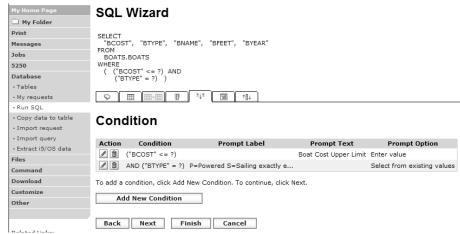


#### Set Display Order and See Conditions Set

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

 Shows how SQL has been written based on 2 Conditions







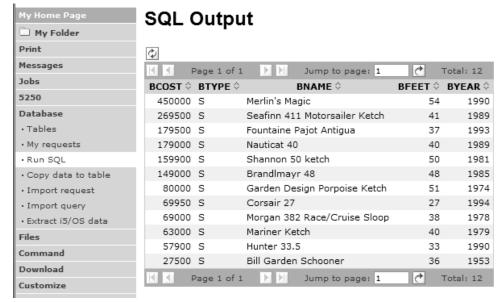
#### **User Runs Dynamic Query built with 2 Conditions**

#### User selects

- Maximum cost of boat
- Type of Boat

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





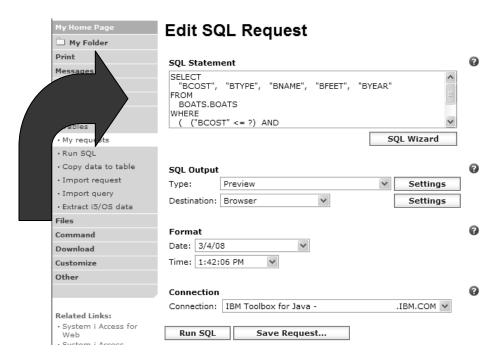


#### Dynamic query – wizard warning

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



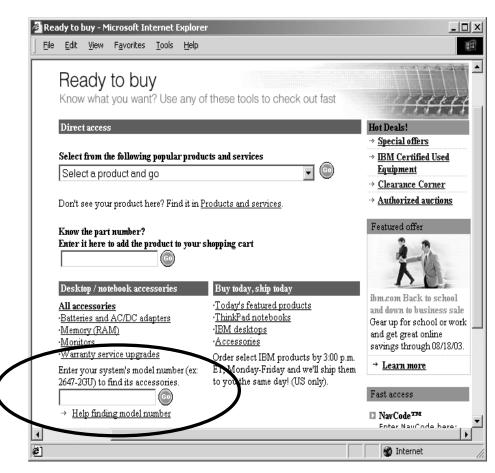
 If you wish to create your own you will need to manually add parameter markers directly into the SQL statements and create your own web page to prompt for the values





#### **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/webaccess/iW ADbExec" method="get">
- Hidden element:
  - <input type="hidden" name="request" value="req" />
- Entry field:
  - <input type="text"</p>
  - name="iwaparm\_1" value="" />



Great way to add Database requests to your existing web pages





#### **SQL Output Destinations**





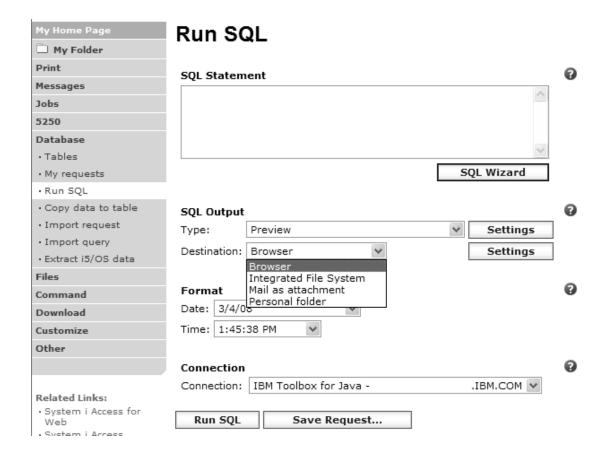


#### **SQL Output Destinations**

#### Choosing a destination

# Choose from 4 different output destinations:

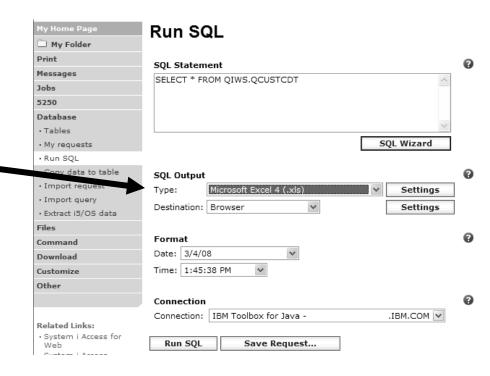
- Browser
- Email
- Personal folder
- Integrated File System





#### Run SQL – Output Browser

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

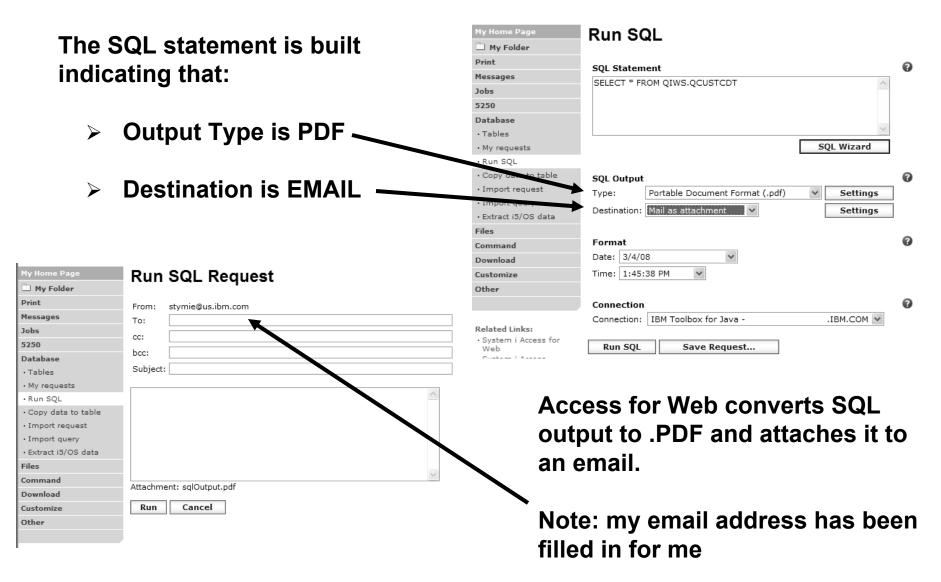




Browser sees the .xls format type, starts Excel, and displays the results in a spreadsheet



#### **Run SQL – Destination EMAIL**



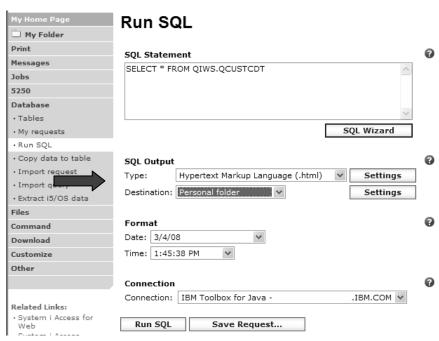


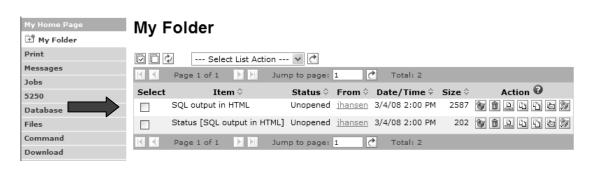
#### Run SQL – My Personal Folder

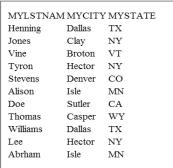
# The SQL statement is built indicating that:

- Output Type is HTML
- Destination is My Folder

- Click on My Folder link
- > Select SQL Output
- > Shown to me in HTML





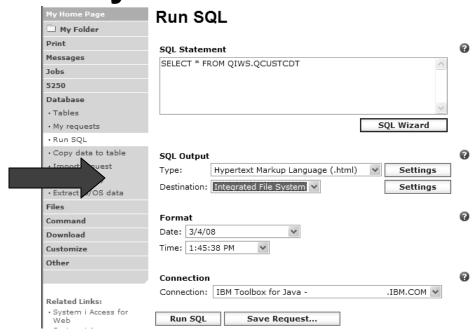


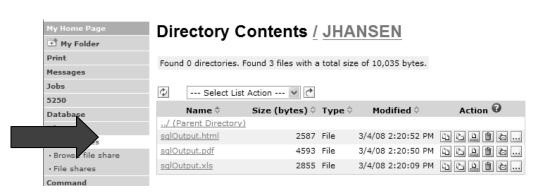


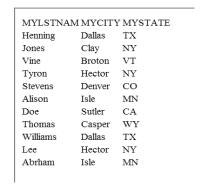
#### Run SQL – Integrated File System

## The SQL statement is built indicating that:

- 1. Output Type is HTML
- 2. Destination is Integrated File System
- 3. Next screen select '/JHANSEN' directory
- 4. Click on 'Files' tab
- 5. Open JHANSEN directory
- 6. Click on file name
- 7. Results shown in HTML





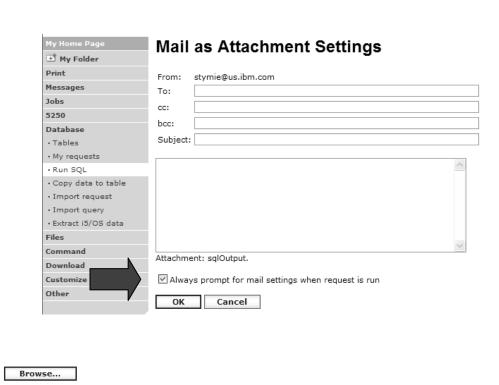




#### **Destination Settings**

You can specify the folder, mail, and integrated file system settings before the request is run

Or you can wait until the request is run





My Home Page	Integrated File System Settings
Print	File: Browse
Messages	
Jobs	Replace if exists
5250	✓ Always prompt for file settings when request is run
Database	OK Cancel
• Tables	Cancel



### My Requests

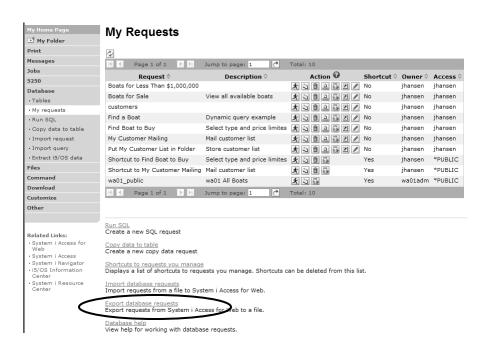
# Other ways to manage and use database requests





#### **Export Database Requests (V6R1)**

- Save System i Access for Web requests to a file
  - Move requests to another system
  - myDBRequests.requests
- Only requests can be exported
  - Shortcuts can not be export
- Connection information is not exported with the request
  - Same connections may not be available when importing







#### Import Database Requests (V6R1)

- Import System i Access for Web database requests from a file
  - Move requests to another system
- Default connection is associated with imported requests
  - Can specify other connection
  - Important to select a connection appropriate for the request so that it will work properly



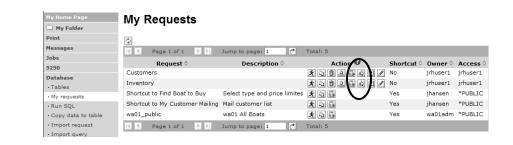




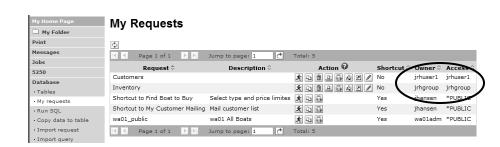


#### Transfer Requests to a Group (V6R1)

- Transfer requests
  - Transfer to a group (must be a group member)
  - Group members can manage request
  - Group members can transfer requests to themselves



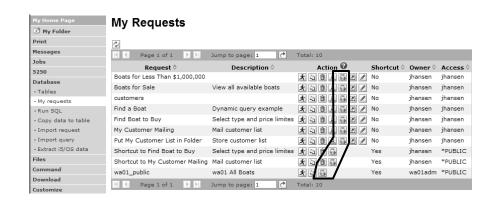


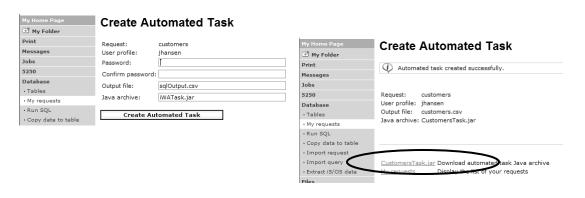


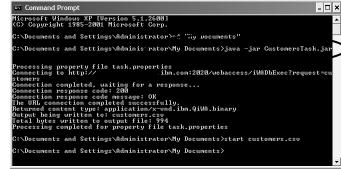


#### **Create Task to Run Request (V6R1)**

- Create automated task
  - Create Java archive (.jar) that will run request or shortcut
  - Only static queries (not dynamic)
  - Run anywhere that has java and network access
  - Can be scheduled









#### **Shortcuts**

# Give users access to upload/download requests you have created





#### Shortcuts – working with, managing

# Under "Action" column, you can:

 Create shortcuts to existing requests

## At bottom of screen, you can:

- List shortcuts you have created
- Delete shortcuts from the list





#### Shortcuts – giving users access

**Under "Actions" select Create Shortcuts.** 

Click Add... 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





#### **Set Policies for Requests/Shortcuts**

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

## Decide what users can do with your shortcuts

- Copy them
- Delete them

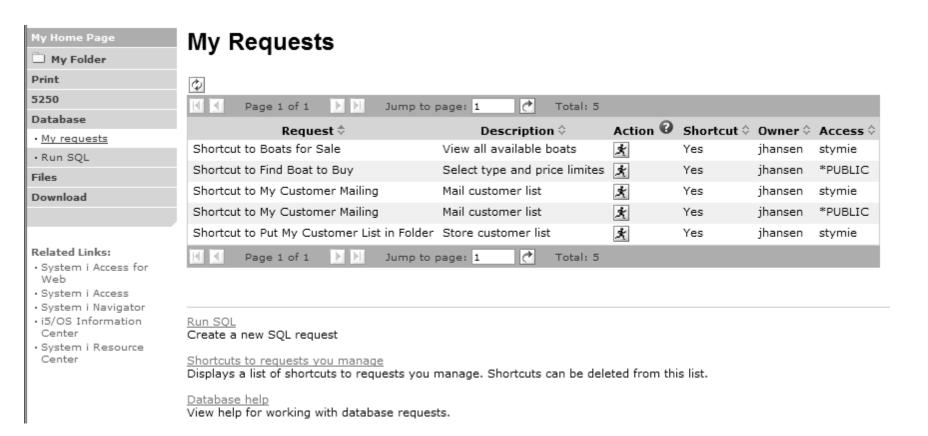
#### **Set up Policies to:**

- Allow users to create and modify requests
   or
- Run only previously defined shortcuts





# User can only run shortcuts previously built by someone else





#### **Import Requests and Import Queries**

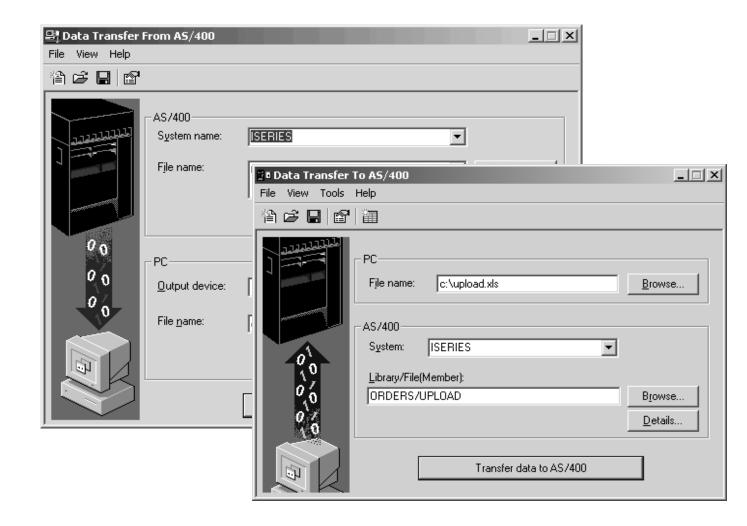






#### Importing Client Access Data Transfer Requests

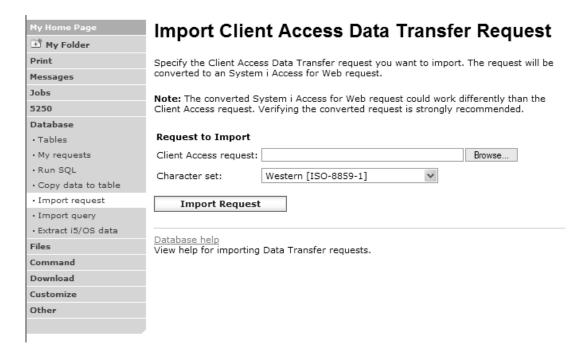
Import your existing
System i
Access for
Windows and
Client Access
Data Transfer
requests into
System i
Access for
Web!





#### **Import Function**

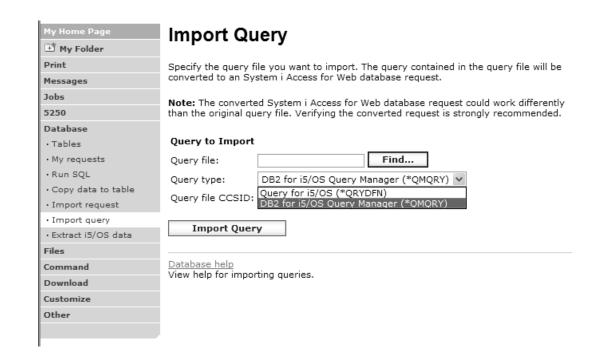
- Don't lose your investment in existing Data Transfer requests
- Import them into System i Access for Web
- The imported transfer request may be run or saved as a System i Access for Web request
- Then users can run them from their browsers!





#### **Import Query Requests**

- Bring your existing queries to a browser environment
- Use the Import Query tool to bring them into System i Access for Web
  - IBM Query for i5/OS (5761-QU1)
  - DB2 for i5/OSQuery Manager(5761-ST1)



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



#### Extract i5/OS Data

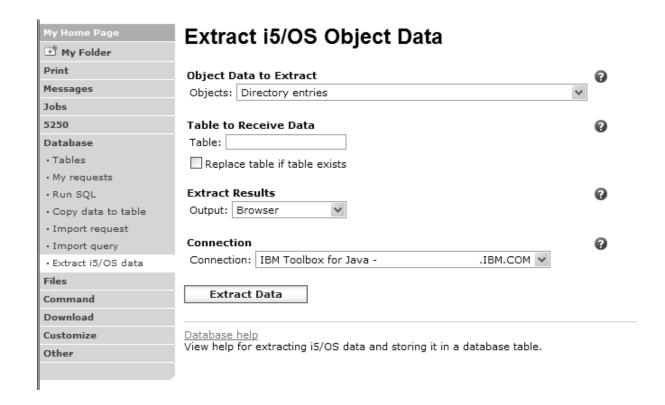






#### **Extract i5/OS Object Data**

- Extract i5/OS
   object information
   into a database
   table or tables.
- Then use Tables or Run SQL functions to retrieve relevant data.





#### **Extract i5/OS Object Data**

Extract i5/OS Object Data can be used to retrieve information about i5/OS objects and store the results in a database table

- General object information can be retrieved for any i5/OS 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
  - 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 i5/OS object information in any manner that is of importance to you.



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

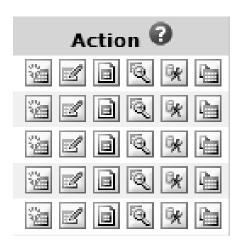




#### Tables - work with i5/OS database information

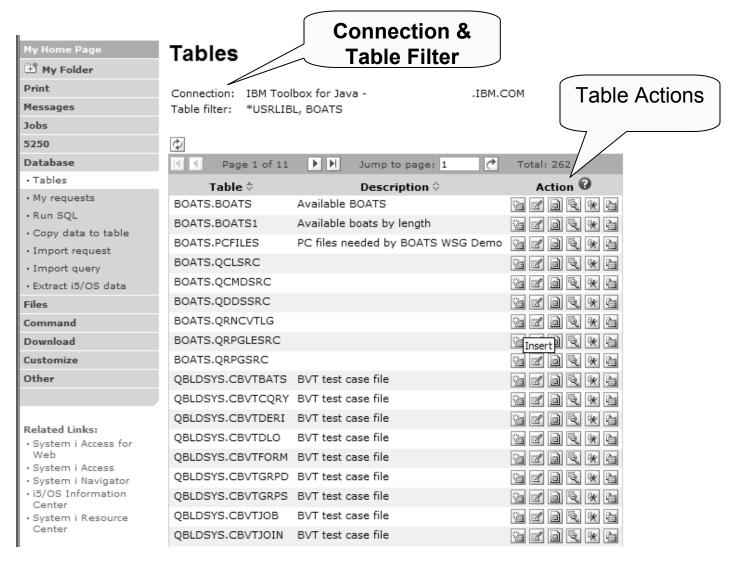


- Insert
- Update
- Quick View
- Find Record
- Run SQL
- Copy Data to Table





## **Working with Tables**





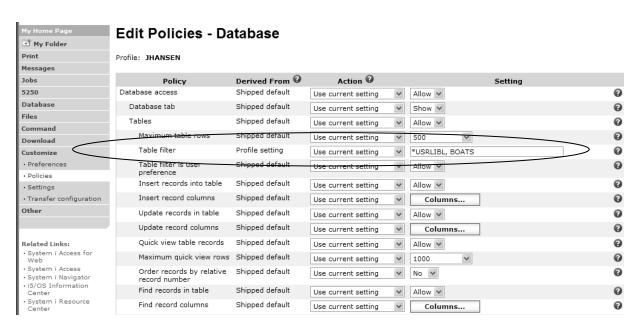
#### **Table Filter**

#### 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.

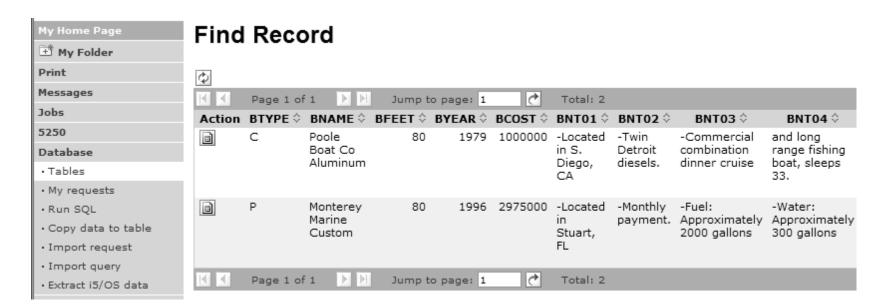


\*USRLIBL is a special value to identify all tables in the user portion of the library list.



#### Tables → Find Record

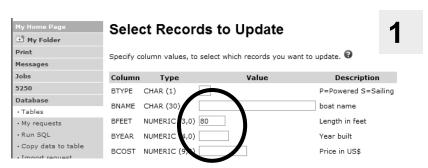
- If you don't want users 'updating', 'inserting' or 'deleting' records,
- then let them use only the Find Record function



#### New in V5R4

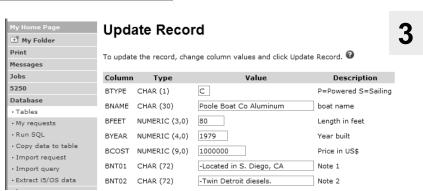


## **Tables** → **Update Function**



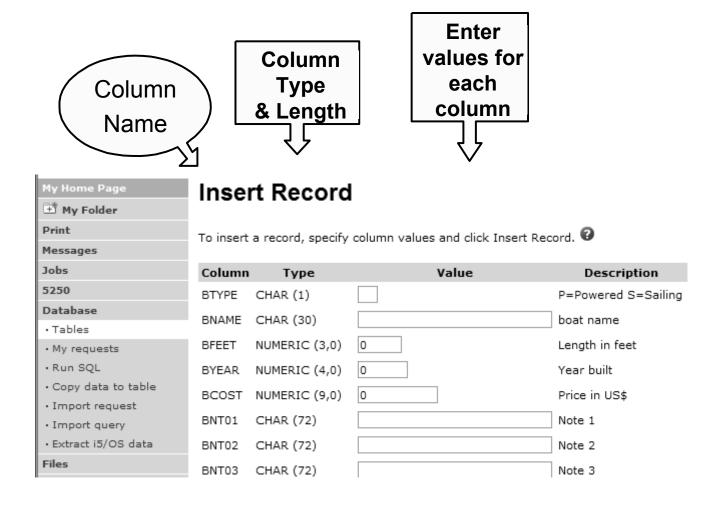
Wildcards may be used in the selection







# **Inserting New Records into A Table**

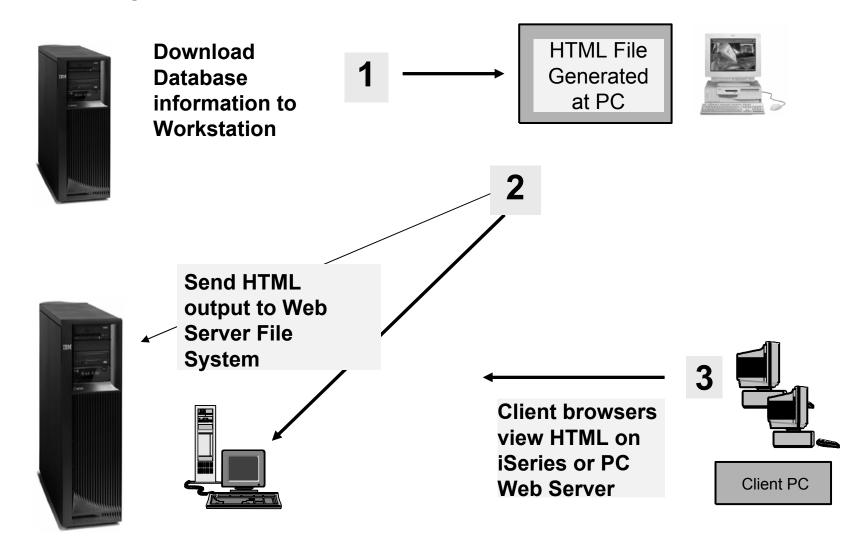




# **Appendix A. HTML Output Types**



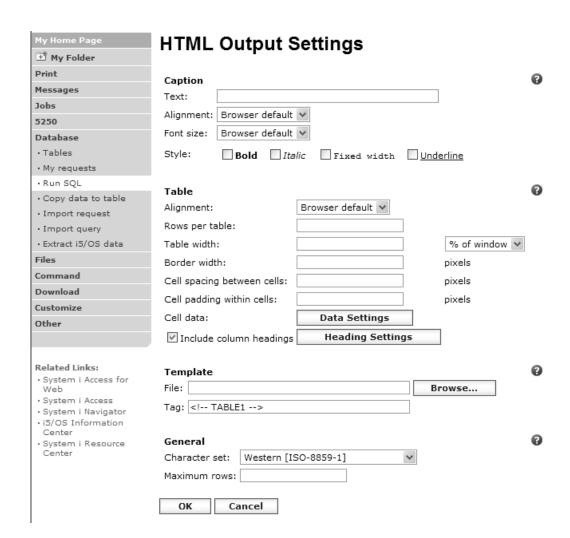
# Use HTML File support Updating a Web server





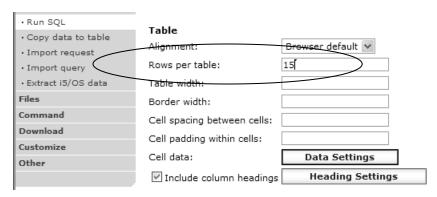
#### **HTML Output Settings**

- Many settings from:
- Caption
- Table
- Cell data

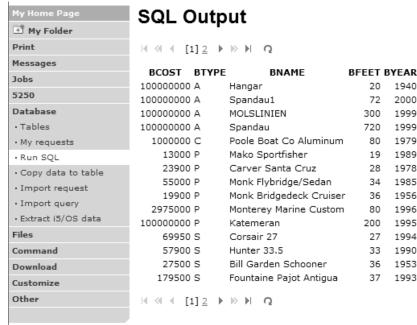




# Displaying output in a paged list iSeries Access for Web (continued)



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



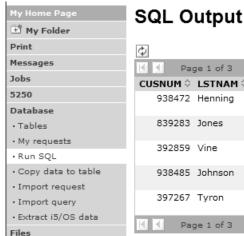


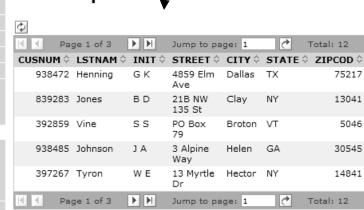
#### **Contrasting other layouts**

				Custo	mer Info	rmatic
CUSNUM	LSTNAM	INIT	STREET	CITY	STATE	ZIPC
938472	Henning	GΚ	4859 Elm Ave	Dallas	TX	7521
839283	Jones	ΒD	21B NW 135 St	Clay	NY	1304
392859	Vine	SS	PO Box 79	Broton	VT	5046
938485	Johnson	JΑ	3 Alpine Way	Helen	GA	3054
397267	Tyron	WΕ	13 Myrtle Dr	Hector	NY	1484
389572	Stevens	ΚL	208 Snow Pass	Denver	CO	8022
846283	Alison	JS	787 Lake Dr	Isle	MN	5634
475938	Doe	J W	59 Archer Rd	Sutter	CA	9568
693829	Thomas	ΑN	3 Dove Circle	Casper	WY	8260
593029	Williams	ΕD	485 SE 2 Ave	Dallas	TX	7521
192837	Lee	F L	5963 Oak St	Hector	NY	1484
583990	Abraham	МТ	392 Mill St	Isle	MN	5634

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

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



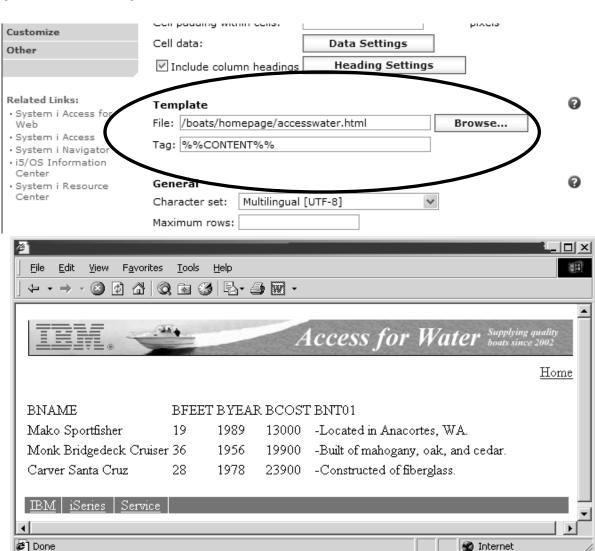




#### iSeries Access for Web (continued)

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





#### **Example of template file**

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



# **Appendix B: Comparisons: Similarities / Differences**

- System i Access for Web
- System i Access for Windows





## **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
Text - Delimited	Yes	No
Basic Random	No	Yes
Basic Sequential	No	Yes
DOS Random	No	Yes
DOS Random Type 2	No	Yes



#### **Supported File Formats** (continued)

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



# **Comparison of Database Capabilities**

Feature / Function	System i Access for Windows	System i Access for Web	System i Access for Linux
ODBC driver	Yes	No	Yes
OLE DB provider	Yes	No	No
.NET provider	Yes	No	No
From i5/OS, start programs/commands on PC  — Incoming Remote Command	Yes	No	No
GUI to find, add, update, delete selected records in an i5/OS database Table	No	Yes	No
GUI to convert query results to .PDF format	No	Yes	No
GUI to convert query results to a chart	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 System i Access for Windows Data Transfer requests	No	Yes	No
Programming Support  - ActiveX automation Objects  - Limited support using java.net.URL and the documented URL Interfaces	Yes No	No Yes	No No



**Comparison of Data Transfer and Access for Web Database** 

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



# **Request Types**

	<u> </u>				
iSeries Access for Web			iSeries Access for Windows		
Database Requests From i5/OS		Data Transfer From iSeries			
1.	Requests are saved by User name, extension types are not displayed	1.	.DTF - New request type used by System i Access for Windows		
2. An "Import" Facility (*) can be used to convert System i Access for Windows Data Transfer requests to System i Access for Web requests		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 i5/OS		Data Transfer To iSeries			
1.	Requests are saved by User name, extension types are not displayed	1.	.DTT - New request type used in System i Access for Windows		
2.	An "Import" Facility (*) can be used to convert System i Access for	2.	.TFR - Request type used in 5763-XD1 and DOS Extended clients		
Windows Data Transfer requests to System i Access for Web requests		3.	.DT - Request type used in Windows 3.1 client		
		4.	.RTO - Rumba transfer request file		

<sup>(\*)</sup> RTO files are not supported by Import Facility in System i Access for Web



# C - 1000

## **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 System i 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. System i Access for Windows enables you to work with large amounts of rows using BIFF5, BIFF7, BIFF8 file types.

Supported file formats	System i Access for Web Database (servlets)	System i 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



#### Overall Strengths – database function

System i 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

#### System i Access for Web

#### Database

- Runs on an i5/OS 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 convert results to SVG charts
- Can create Requests and give to other users to run
- Can Import Client Access Data Transfer requests; and IBM Query for i5/OS (5761-QU1) and DB2 Query Manager SQL requests.



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