



Session: 450086

## Enhance your 5250 GUI access with HATS LE

Carole A Miner  
i5/iSeries Client Integration  
IBM Rocheser, Mn  
cminer@us.ibm.com

© Copyright IBM Corporation, 2005. All Rights Reserved.  
This publication may refer to products that are not currently available in your country. IBM makes no commitment to make available any products referred to herein.

why "i"? it's simple.



## Agenda

### HATS LE

- What Is It?
- Packaging / Ordering
- System requirements
- How to set up
- Using it

Did you know that HATS Limited Edition (HATS LE) is included in the iSeries Access Family product?

- HATS LE is an on-the-fly 'green screen eliminator' that requires no programming to use. Simply install it and see how your users can work with all their iSeries screens and applications in a modern, GUI view.
- HATS LE eliminates PC network administration and desktop configuration as everything runs on the iSeries as it simply sends HTML to the browser.
- See how HATS LE compares to HATS and iSeries Access for Web. By the end of this session, you will:
  1. Understand the capabilities of HATS LE.
  2. See how to use it in an iSeries network.
  3. Know what steps to take next in order to start using it

## What is HATS LE

### 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
- No additional charge for HATS LE (beyond the cost of 5722-XW1)



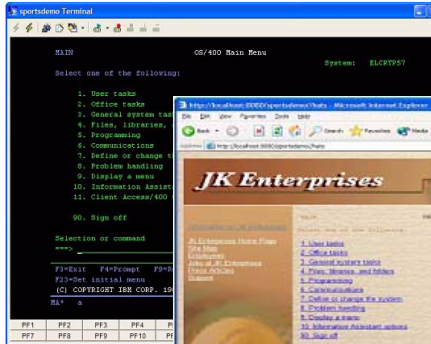
*A quick and easy way to web-enable your iSeries applications and screens*

## HATS LE Features...

- **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



# HATS LE – real-time screen conversion



Traditional green screen



Links



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

Drop-down menu

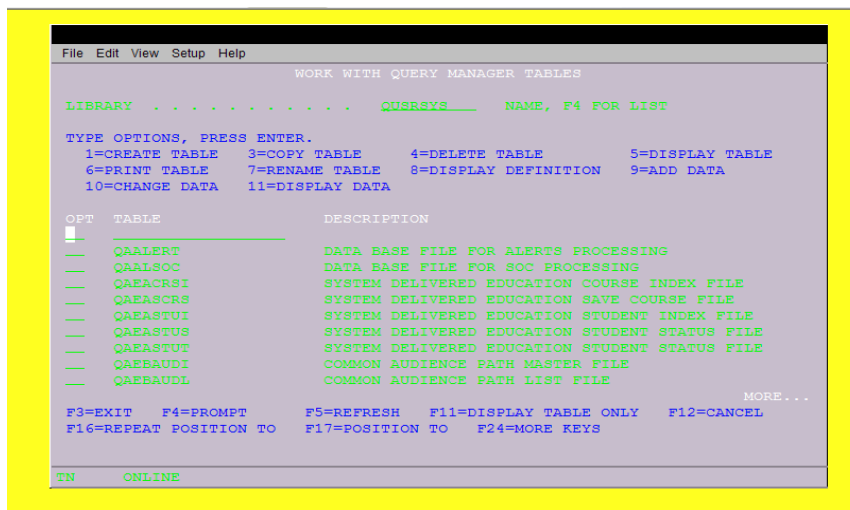
# Special Handling for Subfiles

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

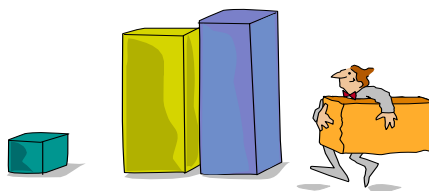
- Ran command 'STRQM'
- Selected 'Work with Query Manager Tables'




## Compare to another 5250-based browser emulator



## Packaging and Ordering



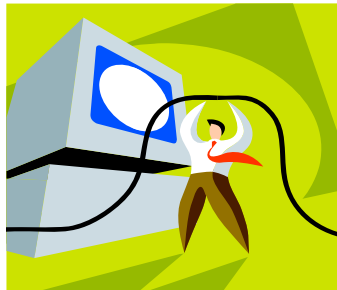
## iSeries Access Family Content

V5R3 iSeries Access Family 5722-XW1	 V5R2 iSeries Access Family 5722-XW1
<ul style="list-style-type: none"> <li>iSeries Access for Web (5722-XH2) – V5R3</li> </ul>	<ul style="list-style-type: none"> <li>iSeries Access for Web (5722-XH2) – V5R2</li> </ul>
<ul style="list-style-type: none"> <li>iSeries Access for Windows (5722-XE1) – V5R3</li> </ul>	<ul style="list-style-type: none"> <li>iSeries Access for Windows (5722-XE1) – V5R2</li> </ul>
<ul style="list-style-type: none"> <li><b>HATS Limited Edition (5724-F97-01) – V5</b></li> </ul>	<ul style="list-style-type: none"> <li>HATS Limited Edition (5724-D34-01) – V4</li> </ul>
<ul style="list-style-type: none"> <li>iSeries Access for Wireless (5722-XP1) – V5R2</li> </ul>	<ul style="list-style-type: none"> <li>iSeries Access for Wireless (5722-XP1) – V5R2</li> </ul>
<ul style="list-style-type: none"> <li>iSeries Access for Linux (5722-XL1)</li> </ul>	<ul style="list-style-type: none"> <li>WebSphere Host Publisher (5724-B81, V4.0, 5724-B81, V4.01)</li> </ul>
	<p>V5R2 customers not wanting to upgrade to OS/400 V5R3 but want the new V5R3 iSeries Access Family clients can order <b>no-charge Feature No. 2647 of Product No. 5722-XW1</b></p>



**OS/400 V5R1**  
 • EOM was 12/2003  
 • EOS was extended from 5/31/2004 to 9/30/2005

## Hardware and Software Requirements



## Client Requirements

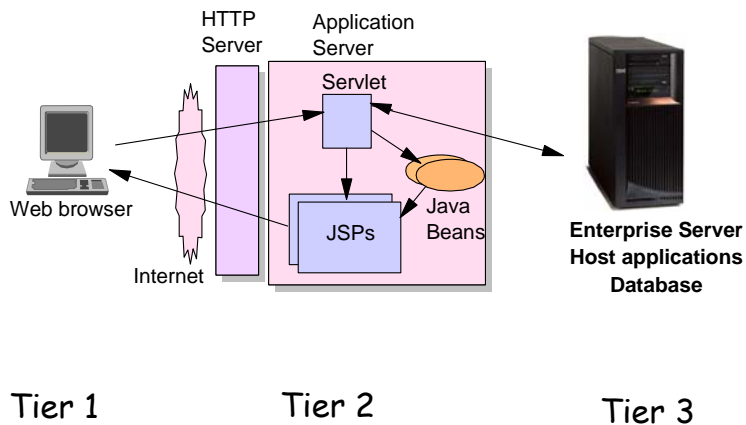
Browser	Windows	Solaris	Linux	Macintosh	AIX
Internet Explorer 5.2.3+				✓	
Netscape 6.2+	✓				
Netscape 7.0+	✓	✓		✓	✓
Opera 5.0+	✓		✓		
Konqueror 3.1+			✓		
Safari 1.0+				✓	
Mozilla 1.2.1	✓	✓	✓		✓
Internet Explorer 5.5+	✓				

OS/400 V5R2 and V5R3



Any desktop with one of the above browsers

## First You Need A Web Application Server



## Web Application Server Options

- There are several Web applications servers that can run on iSeries:

- WebSphere Application Server -- Express V5.1



- 300 CPW
- 512 MB memory

- Also WAS Version 5.1 Base and Network Deployment

- WebSphere Application Server Version 5.0 Express for iSeries



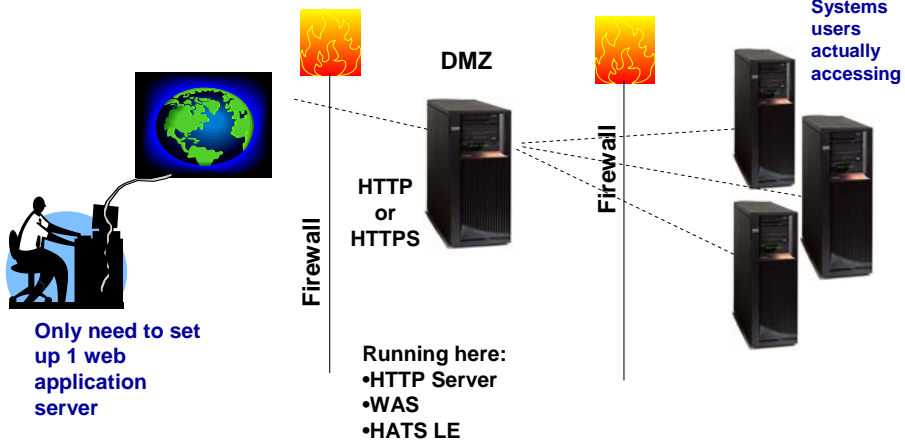
- 300 CPW
- 512 MB memory

- Also WAS Version 5.0 Base and Network Deployment

- WebSphere Application Server Advanced Edition Single Server V4

- WebSphere Application Server Advanced Edition V4

## Setting up your web application server



DMZ = demilitarized zone

## Port Requirements Comparison

- iSeries Access for Windows (5722-XE1)\* or Host On-Demand

- Port 449 for Port Mapper
- Port 8476 (9476) for Sign-on
- Port 8470 (9470) for Central
- Port 8472 (9472) for Data Queues
- Port 8471 (9471) for Database
- Port 8475 (9475) for Remote Commands
- Port 8473 (9493) for Print
- Port 2001 (2010) for Web Admin
- Port 446 (448) for DDM
- Port 23 (992) for Telnet
- Port 137, 138 for NetServer
- Port 8480 for USF
- Port 389 (636) for LDAP
- Port 5555 (5566) for Mgmt Central
- Port 53 if using DNS Server

### HATS LE

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

\*See Information APAR II12227 for detailed information

## Performance Considerations...

### Does running Access for Web affect server performance?

- Products like Access for Web and HATS LE don't put much strain on the system...

### How does the web application server affect performance?

- If you have an older, under-powered iSeries, then performance may not be good...if you have a newer, bigger iSeries, then performance won't be an issue (unless you already are running your system at maximum capacity).
- Use the IBM eServer Workload Estimator to see what performance will be if WAS is added to your system at: <http://www-912.ibm.com/wle/EstimatorServlet>
- **There is also a Workload Estimator for HATS workloads. HATS LE performance is similar to HATS.**

### Fine-tuning your web application server

- The WebSphere Application Server Buying and Selling Guide, Chapter 4, contains many good tips for getting WAS to perform optimally.
- Go to the iSeries WebSphere web page at <http://www-1.ibm.com/servers/eserver/iseries/software/websphere/index2.html>



IBM eServer iSeries

## Workload Estimator for HATS

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

Version: 2004.1  
07-Apr-04  
www512

HATS #1  
HATS Workload Definition

- Host Access Transformation Service (HATS) [version](#)?  V5
- How many [transactions per hour](#) do you anticipate during the busiest hour of the day (one 5250 screen is a transaction)?
- For a typical user of your application, what is the average number of [fields per 5250 screen](#)? Refer to the help text for specific advice.   100
- So far, you have described the HATS processing for the 5250 screens. Would you also like to represent the [5250 application](#) in this estimation?  Yes  No
- [RAID Support](#) for this workload:
- [DBCS Support](#) for this workload:

Back Next

© 2005 IBM Corporation **why "i"? it's simple.**

IBM eServer iSeries

## HATS LE Internationalization

### For Desktop users

- Through the browser interface users set up their code pages, text sizes, colors, etc. Keyboard handling is also set up by the desktop user.
- iSeries server supports extensive numbers of NLVs
  - Since HATS LE is emulating 5250 host screens, all information will be displayed in whatever NLV has been set up on iSeries.

### For HATS LE Administrators

- The HATS LE Administration Console functions are shipped in the following NLVs
  - Turkish (new in V5)
  - English, French, German, Italian, Japanese, Korean, Portuguese/Brazilian, Simplified Chinese, Spanish, Traditional Chinese

© 2005 IBM Corporation **why "i"? it's simple.**

- HTTP running
- WAS running



**Let's Get Started**



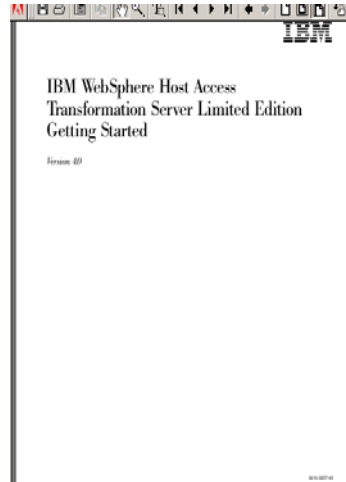
### Steps that need to be done...

1. Install HATS LE on iSeries
2. Configure HATS LE
3. Start using HATS LE



## Find the CD and Print the Documentation...

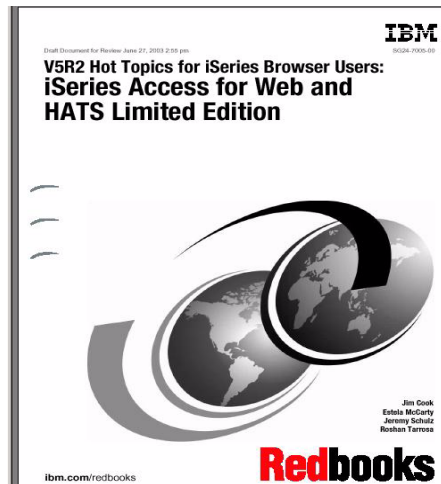
- HATS LE is shipped on a separate CD called "WebSphere Host Access Transformation Services Limited Edition"
  - Number SK3T-8162
- The 'HATS LE Getting Started' documentation and README information is on the above CD
  - These .PDFs are also on iSeries Access Family - HATS LE web page at [www.ibm.com/eserver/series/access/hatsle](http://www.ibm.com/eserver/series/access/hatsle)



## Redbook

Redbook...  
SG24-7005-00

- Download it from iSeries Access Web page at
- [www.ibm.com/eserver/series/access/hatsle](http://www.ibm.com/eserver/series/access/hatsle)



## Install and Start HATS LE V5

1. Copy HATS LE ear file from your CD to WAS directory
  - You must move the HATS5LE.ear file from the HATS LE V5 CD into the InstallableApps directory of WebSphere Application Server.
  - For example, for WebSphere Application Server V5.0 Express for iSeries, you could copy HATS5LE.ear to QIBM/UserData/WebASE/ASE5/<instance>/InstallableApps, where <instance> is the name of the application server instance on which you are installing HATS LE.
2. Start the WebSphere Administrative Console in your browser.
  - In the left column, expand Applications and click Install New Application.
  - Browse the QIBM path above and find HATS5LE.ear
  - Continue clicking Next until you reach the Summary screen. Click Finish.
  - Click the link to Save to Master Configuration. Click Save.
3. You will return to the main page of the WebSphere Administrative Console.
  - In the left column, expand Applications and click Enterprise Applications.
  - In the right frame, click the check box next to HATS5LE.ear, and click Start.
  - In the left column, expand Environment, click on Update Web Server Plugin then Click OK.

Basically follow directions in the 'HATS LE Getting Started' documentation and README information that is on the HATS LE V5 CD to get the .ear file installed under WAS.

http:<myiseries>:2001

(C) IBM Corporation 2000

### iSeries Tasks



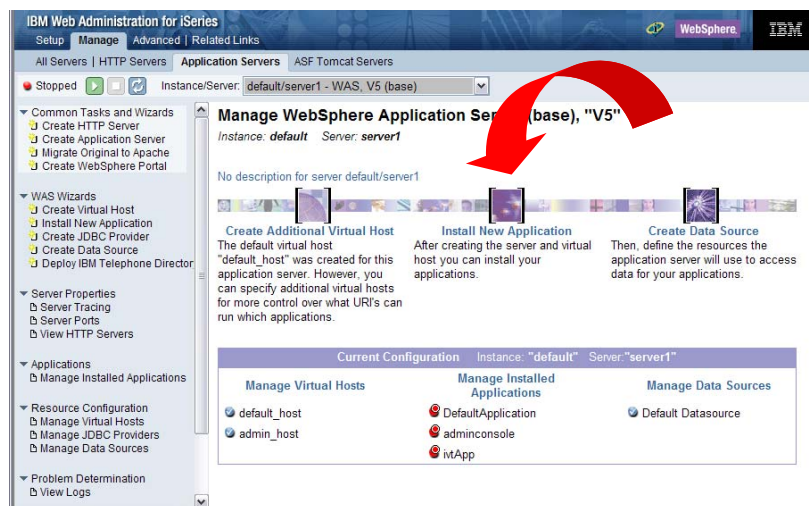
LP116AB.RCHLAND.IBM.COM

- 
- Wizards to work with your WAS server**
- IBM HTTP Server for iSeries**  
 Configure the iSeries HTTP Server and SSL
  - IBM WebSphere Application Server - Express for iSeries**  
 Configure application servers and deploy applications
  - Digital Certificate Manager**  
 Create, distribute, and manage Digital Certificates
  - IBM IPP Server for iSeries**  
 Configure the IBM IPP Server
  - 4758 Cryptographic Coprocessor**  
 Configure the 4758 coprocessor

[Related task information](#)

 Help  
 (Requires JavaScript)

## Install HATS LE into WAS



IBM Web Administration for iSeries

Setup Manage Advanced Related Links

All Servers | HTTP Servers | Application Servers | ASF Tomcat Servers

Stopped Instance/Server: default/serve1 - WAS, V5 (base)

### Manage WebSphere Application Server (base), "V5"

Instance: default Server: server1

No description for server default/serve1

**Create Additional Virtual Host**  
The default virtual host "default\_host" was created for this application server. However, you can specify additional virtual hosts for more control over what URI's can run which applications.

**Install New Application**  
After creating the server and virtual host you can install your applications.

**Create Data Source**  
Then, define the resources the application server will use to access data for your applications.

Current Configuration Instance: "default" Server: "server1"		
Manage Virtual Hosts	Manage Installed Applications	Manage Data Sources
<ul style="list-style-type: none"> <li>default_host</li> <li>admin_host</li> </ul>	<ul style="list-style-type: none"> <li>DefaultApplication</li> <li>adminconsole</li> <li>vApp</li> </ul>	<ul style="list-style-type: none"> <li>Default Datasource</li> </ul>

© 2005 IBM Corporation

why "i"? it's simple.

## Steps that need to be done...

1. Install HATS LE on iSeries
2. **Configure HATS LE**
  - a. Set up connection settings
  - b. Define default template to be used
  - c. Set up default transformation settings
3. Start using HATS LE



© 2005 IBM Corporation

why "i"? it's simple.

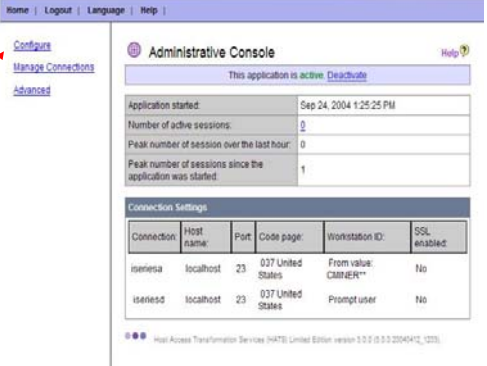
IBM eServer iSeries

## Administrative Console

<http://serverName/HATSLE/admin>

A web-based tool for iSeries administrators to configure and manage the HATS LE environment

- Launch the Configuration Wizard
- Manage active connections
- Tweak configuration changes
- Activate/deactivate the application



Different than the WAS administrative console

- Requires SECADM authority

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

## Configuration Wizard

- You can get to the Configuration Wizard from the Administrative Console or go directly to it by keying in:
  - <http://serverName/HATSLE/config>



© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

## Configuration Wizard consists of 3 screens

**1**

**Set up connection settings**

**2**

**Define template to be used**

**3**

**Set up default transformation settings**

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

## Connection Settings

- **Connection**
  - System I want users to connect to
  - Doesn't have to be system where WAS or HATS LE is running
- **Port**
- **Code page**
- **Workstation ID**
- **Security - SSL**

Configure your host connection settings. Click **Finish** if you are done configuring your application, or **Next** to continue to the next step. For more information, click the Help icon above.

Connection:

Description:

Host name: localhost

Port: 23

Code page: 037 United States

Enable screen reverse (if applicable)  
 Enable Unicode data streaming (if applicable)

Workstation ID:  Server assigned  
 Set to value (wildcards allowed):   
 Set from HTTP session variable:   
 Prompt user

Security:  Enable SSL (Secure Sockets Layer)  
Certificate file:  Upload...

OK Cancel

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

**IBM** @server

### Can set up to connect to any iSeries...

**1**

System A

System B

TELNET

Could have firewall here

Could have firewall here

HTTP or HTTPS

**This iSeries has:**

- WAS
- HATS LE

**This iSeries does not need WAS or HATS LE**

- It is accessible from System A

Administrator runs the Configuration Wizard on System A

Sets it up so users can access System B

**2**

Users key in url of System A and automatically are presented with OS/400 sign-on screen on System B

© 2004 IBM Corporation

**iSeries. mySeries.**

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

**IBM**

### SSL...what this means

- HTTP Server
  - Is where you define SSL between end user and iSeries server that WAS and HATS LE are running
- Check the SSL box only if you want to implement Secure Socket Layer (SSL) security between your HATS LE and the application on the host server
  - If you have a file from which the SSL certificate should be imported, select the file name from the drop-down list or click Upload to locate the file.
  - If a file is selected in the drop-down list but you do not want to use a certificate file, select the blank entry in the list.

Configure your host connection settings. Click Finish if you are done configuring your application, or Next to continue to the next step. For more information, click the Help icon above.

Connection: [ ]

Description: [ ]

Host name: localhost

Port: 23

Code page: 037 United States

Enable screen reverse (if applicable)

Enable Unicode data streaming (if applicable)

Workstation ID:

- Server assigned
- Set to value (wildcards allowed): [ ]
- Set from HTTP session variable: [ ]
- Prompt user

Security:

Enable SSL (Secure Sockets Layer)

Certificate file: [ ] Upload

OK Cancel

© 2005 IBM Corporation

why "i"? it's simple.



IBM eServer iSeries

## Workstation ID Options

**Workstation ID**

- **Server assigned (default)**
  - Server assigned gets a Display name of QPA...
- Set to a value
- Set from an HTTP session variable
- Prompt user

Workstation ID:  Server assigned  
 Set to value (wildcards allowed):  
 Set from HTTP session variable:  
 Prompt user

Sign On System - - - - - 12/1/04  
 Subsystem - - - - - QPA  
 Display - - - - - QPADEV004

User - - - - -  
 Password - - - - -  
 Program/procedure - - - - -  
 Menu - - - - -  
 Current library - - - - -

© 2005 IBM Corporation **why "i"? it's simple.**

IBM eServer iSeries

## Setting Workstation ID to a Value

**Workstation ID**

- **Set to a value (wildcards allowed)**
  - Supply a string from which the workstation ID will be created.
  - Include at least one wildcard character or only the first user will gain access to the application.
    - 1 wildcard character enables 10 sessions to connect

Workstation ID:  Server assigned  
 Set to value (wildcards allowed):  
 Set from HTTP session variable:  
 Prompt user

My Company

Sign On System - - - - - 12/1/04  
 Subsystem - - - - - QPA  
 Display - - - - - CMINER\*

User - - - - -  
 Password - - - - -  
 Program/procedure - - - - -  
 Menu - - - - -  
 Current library - - - - -

RELEASE: VOSR1M00  
 DRIVER: 29071?

USE OF THIS SYSTEM IS FOR IBM MANAGEMENT APPROVED PURPOSES ONLY.  
 THIS IS SUBJECT TO AUDIT AT ANY TIME BY IBM MANAGEMENT.

© 2005 IBM Corporation **why "i"? it's simple.**

IBM eServer iSeries

## Prompt User

### Workstation ID


- **Prompt User**
  - User must enter a workstation ID
  - Then user gets the OS/400 sign-on screen
- **Note: Now the Display name has the Workstation ID provided by the user**

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

## Parameter Override of Workstation ID

 <http://<servername>/HATSLE/entry?workstationID=value>

- Regardless of the method you select for setting the workstation ID, you can also enable your users to override the value by adding it to their HATS LE URL
- Check the Allow workstation ID parameter override in URL box to enable overriding.
  - where value can contain ten characters including A-Z, 0-9, .(period), \_(underscore), @(commercial), #(hash), and \$(dollar sign).
  - You must escape # and \$ with %23 and %24, respectively, so workstationID=abc#\$3 must be coded as workstationID=abc%23%243

Select Connection	Active	Connection Name	Description	Host Name
(default)	<input checked="" type="checkbox"/>	Sales	System in Raleigh	localhost
	<input checked="" type="checkbox"/>	Accounting	System in Rochester	localhost

Allow workstation ID parameter override in URL

© 2005 IBM Corporation

why "i"? it's simple.

## Finished with 'Connection' page

- Will then see the connection we have just configured
- Press Next key to continue with this configuration
- For only 1 connection, remove check for 'Enable user connection list'

Connection Settings Help ?

Configure your host connection settings. Click **Finish** if you are done configuring your application, or **Next** to continue to the next step. For more information, click the Help icon above.

Add  
Edit  
Delete

Select Connection	Active	Connection Name	Description	Host Name	
<input checked="" type="radio"/> (default)	<input checked="" type="checkbox"/>	lp116ab	Catalog List	localhost	Move Up Move Down

Default

Enable user connection list  
When the above option is disabled, the default connection in the list will be used to connect to the host, regardless of activation status.

Allow workstation ID parameter override in URL

Back Next Finish Cancel

## Steps that need to be done...

1. Install HATS LE on iSeries
2. Configure HATS LE
  - a. Set up connection settings
  - b. **Define default template to be used**
  - c. Set up default transformation settings
3. Start using HATS LE



IBM eServer iSeries

## Select a Template to use

- **Templates included in HATS LE**
  - Templates have different characteristics
  - Can add own templates to list
- **Set if you want to show keypads and allow use of keyboards**

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

## Customize your template

- **Set up your:**
  - **Windows title**
  - **Banner text**
  - **Banner background**
    - .GIF
    - .JPG
  - **Style sheet**
- **Preview it**

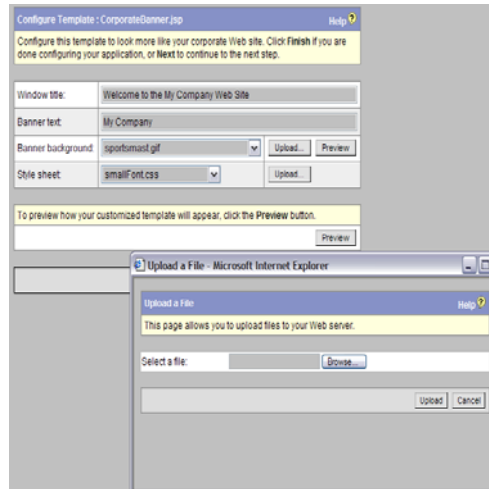
© 2005 IBM Corporation

why "i"? it's simple.

## Options vary on Template selected

Depending on which template you select, you may have more selection options.

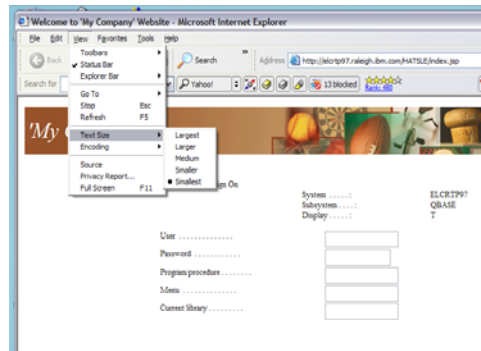
- Here you can upload your own banner background
  - .GIF
  - .JPG
  
- Select a Style sheet
  - Or upload your own



## Preview

Preview your template

If screen characters are too big / too small, end user can change them by using the 'View' (on browser toolbar) to change font size



## Steps that need to be done...

1. Install HATS LE on iSeries
2. Configure HATS LE
  - a. Set up connection settings
  - b. Define default template to be used
  - c. **Set up default transformation settings**
3. Start using HATS LE



## Transformation Settings

### Define 'look and feel' of host screens for end users

- Detect Function (PF) keys
- Detect Selection lists
- Detect Tables
- Detect Subfiles
- Detect Fields

This panel has been reorganized from HATS LE V4 to V5

Transformation Settings		Help ?
Select how to render your transformed host screens. Click <b>Finish</b> if you are done configuring your application, or <b>Next</b> to continue to the next step.		
<input checked="" type="checkbox"/> Detect function keys	Render as: <input type="radio"/> Button <input checked="" type="radio"/> Link	Settings...
<input checked="" type="checkbox"/> Detect selection lists	Render as: <input type="radio"/> Button <input type="radio"/> Button table <input checked="" type="radio"/> Link <input type="radio"/> Dropdown list <input type="radio"/> Option list	Settings...
<input type="checkbox"/> Detect tables		Settings...
<input checked="" type="checkbox"/> Detect subfiles		Settings...
<input checked="" type="checkbox"/> Detect fields	Fields are always detected.	Settings...
Back   Next   Finish   Cancel		

IBM eServer iSeries

## Configure Function Keys

**Example of how you might set up function keys**

- Buttons
- Links

MAIN OS/400 Main Menu System:

Select one of the following:

- 1. [User tasks](#)
- 2. [Office tasks](#)
- 3. [General system tasks](#)
- 4. [Files, libraries, and folders](#)
- 5. [Programming](#)
- 6. [Communications](#)
- 7. [Define or change the system](#)
- 8. [Problem handling](#)
- 9. [Display a menu](#)
- 10. [Information Assistant options](#)
- 11. [Client Access/400 tasks](#)

90. [Sign off](#)

Selection or command

====>

Exit Prompt Retrieve Cancel

Set initial menu

Work with Job

Job: T User: NPT33T Number: 111744 System: ELCR

Select one of the following:

- 1. [Display job status attributes](#)
- 2. [Display job definition attributes](#)
- 3. [Display job execution attributes](#)
- 4. [Work with spooled files](#)
- 11. [Display job log of actions on job queue](#)
- 11. [Display job status of action](#)
- 11. [Work with links of action](#)
- 11. [Display history list of action](#)
- 14. [Display open files of action](#)
- 11. [Display file attributes of action](#)
- 14. [Display command control codes of action](#)

Selection or command

====>

Exit Exchange Printscreen EndCancel

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

## Configure Selection Lists

**Example of how you might set up your selection lists**

- Buttons
- Links
- Dropdown lists

My Company111

JK Enterprises

MAIN

Select one of the

- User tasks
- Office tasks
- General system tasks
- Files, libraries, and folders
- Programming
- Communications
- Define or change the sys
- Problem handling
- Display a menu
- Information Assistant opt
- Client Access/400 tasks
- Sign off

© 2005 IBM Corporation

why "i"? it's simple.

# Subfile Rendering

**Subfile rendering is a key differentiator of HATS LE from other browser-based 5250 emulators**

Subfile Settings <span style="float: right;">Help ?</span>	
Select how to recognize and render subfiles on the host screens.	
<input checked="" type="checkbox"/> Recognize using default algorithm	
<b>Action Recognition</b>	
The subfile actions are recognized based on a text pattern. Configure the text pattern and specify if other attributes should be used to recognize the actions.	
String before leading token:	<input type="text"/>
Leading token type:	Digit <input type="button" value="v"/>
Delimiter:	= <input type="text"/>
<input type="checkbox"/> Must be specified color	
Color:	BLUE <input type="text"/>
<input type="checkbox"/> Must check for high intensity	
<input checked="" type="checkbox"/> Must be high intensity	

# More Settings for Subfile Rendering...

- Header recognition
- Table recognition

- Marker recognition

Header Recognition	
Specify the attributes to be used to recognize subfile headers. A header will be recognized if any of the checked attributes is true.	
<input checked="" type="checkbox"/> Recognize by text	
Begins with:	Opt <input type="text"/>
<input type="checkbox"/> Must be specified color	
Color:	BLUE <input type="text"/>
<input type="checkbox"/> High intensity	
<input type="checkbox"/> Specified color	
Color:	BLUE <input type="text"/>
<b>Table Recognition</b>	
Column delimiter:	<input type="text"/>
<b>Marker Recognition</b>	
Specify the attributes to be used to recognize subfile end marker. The end marker will be recognized if any of the checked attributes is true.	
<input type="checkbox"/> Done	

Marker Recognition	
Specify the attributes to be used to recognize subfile end marker. The end marker will be recognized if any of the checked attributes is true.	
<input checked="" type="checkbox"/> Recognize by text	
Text:	More...Bottom <input type="text"/>
Start row:	1 <input type="text"/>
Start column:	1 <input type="text"/>
End row:	24 <input type="text"/>
End column:	80 <input type="text"/>
<input type="checkbox"/> High intensity	
Start row:	1 <input type="text"/>
End row:	24 <input type="text"/>
Start column:	1 <input type="text"/>
End column:	80 <input type="text"/>
<input type="checkbox"/> Empty row	
Start row:	1 <input type="text"/>
End row:	24 <input type="text"/>
<input type="checkbox"/> Done	



## More Settings for Subfile Rendering...

- Caption Type
- Autosubmit on Select
- Dropdown style class
- List option style class
- ...
- Render subfile end marker More...

## Try Different Settings

### Different default settings

- Templates
- Links, Pull-downs, Buttons, Option lists...
- Different Keypads



## Configuration Summary

- Review the configuration settings you have selected and try it out...
- The 'Activate Application' box defaults to on. If you leave it checked, then as soon as you press the 'Finish' button users will be able to start accessing your iSeries through HATS LE
- You can now click on the link of the iSeries you just configured and sign on

Summary

Confirm the following settings are correct. Click **Finish** to commit your changes.

**Connection Settings**

Connection	Host name	Port	Code page	Workstation ID	SSL enabled
q111ab (default)	localhost	22	837 United States	From value: CHP42R1*	No
ibmtest	localhost	22	837 United States	Promptuser	No

**Template**

Template: sports.jsp

Show application keypad: Yes

Show host keypad: No

Keyboard support enabled: Yes

**Complete Configuration**

Window title: Welcome to My Company Web Site. Banner text: %MY\_CONF%\_MSG. Banner background: sportsmast.gif. Navigation panel background: sportsolebar.gif. Style sheet: whitehome.css

**Transformation Settings**

Automatically detect function keys, selection lists, subtitles, fields:

Activate application

Back Finish Cancel

Configuration Complete!

You have successfully configured this application. It is active and can be accessed by navigating to the following URL:

<http://myiseries.abc.ibm.com:2044/HATSLE>

Note: This application can be reconfigured by accessing the Configuration Wizard. It can be administered by accessing the Administrative Console.

Log Out

## Steps that need to be done...

1. Install HATS LE on iSeries
2. Configure HATS LE
  - a. Set up connection settings
  - b. Define default template to be used
  - c. Set up default transformation settings
3. Start using HATS LE



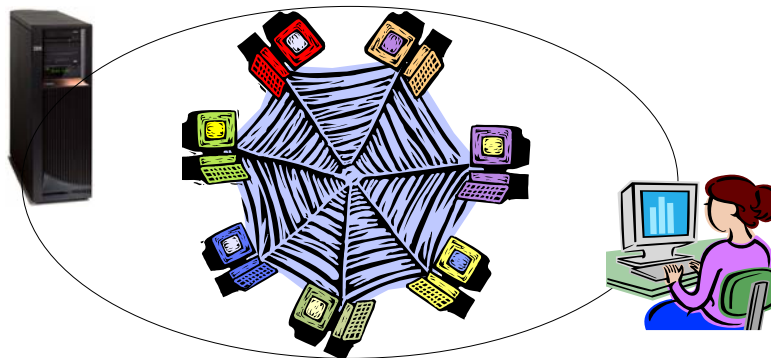
You're done!

## Connect to iSeries via HATS LE

Users start their browsers and enter url of HATS LE  
<http://serverName/HATSLE>



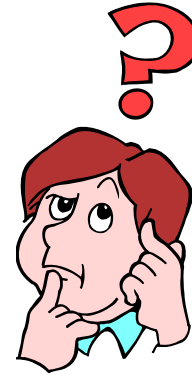
## Other Administrative Functions



## Connect to multiple systems

Can I configure HATS LE to enable users to connect to multiple iSeries servers?

- Yes, HATS LE V5 configuration wizard was enhanced to allow the administrator to configure multiple system connections



## Multiple Connection Settings

To add more connections

- Go back into the Configuration wizard
- Press **Add** button to add more connections
  - Set up Connection Page

Connection Settings Help ?

Configure your host connection settings. Click **Finish** if you are done configuring your application, or **Next** to continue to the next step. For more information, click the **Help** icon above.

**Add**

**Edit**

Select Connection	Active	Connection Name	Description	Host Name	Delete
(default)	<input checked="" type="checkbox"/>	lp116ab	My Inventory System	localhost	Move Up
					Move Down
					Default

Enable user connection list

When the above option is disabled, the default connection in the list will be used to connect to the host, regardless of activation status.

Allow workstation ID parameter override in URL

**Back** **Next** **Finish** **Cancel**

IBM eServer iSeries

## Now you have multiple connections

- **Now check box to Enable User Connection List**
- **You can click on Finish**
  - **If you want to use settings previously selected for Templates and Default Transformation Settings**
- **Or do to Next to change some settings**

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

## User selects system connection

- **User has single url address**
  - **http://<myiseries>:<port>/hatsle**
- **User then selects which system to connect to**
- **User will then be required to provide a valid user-id and password to the connecting system**

© 2005 IBM Corporation

why "i"? it's simple.

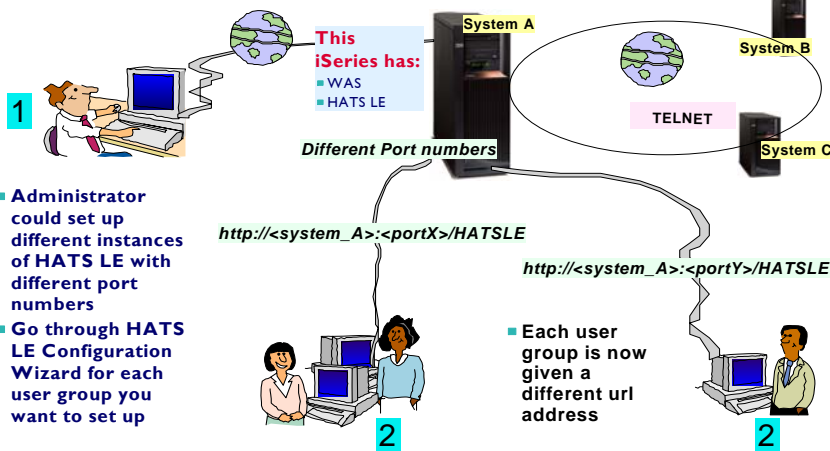
## Specialized Customization

How do I customize one set of users one way and another set of users another way?

- The HATS LE Configuration Wizard has no options to assign different configuration settings for some users versus other users.
- The only way to accomplish this would be to provide url's with different port numbers to each set of users.



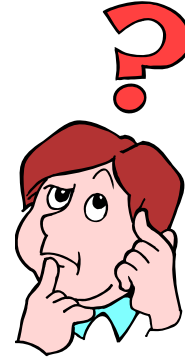
### Set up differently for different user groups...



## Workstation ID

I want all my users to run under the same workstation ID. How do I guarantee that each user has a unique workstation ID?

- You can have HATS LE assign workstation ID values based on a string you supply.
  - Be sure to include an equal sign (=) before the wild-card character.
  - For example, if you specify ABC\* (without an equal sign) as the string from which workstation IDs will be created, HATS LE cannot always assign unique workstation IDs. If you specify ABC=\*, HATS LE will assign unique workstation IDs.



## Example: Unique Workstation IDs

Connection Settings Help

Configure your host connection settings. Click **Finish** if you are done configuring your application, or **Next** to continue to the next step. For more information, click the Help icon above.

Host name:	localhost
Port:	23
Code page:	037 United States
<input type="checkbox"/> Enable screen reverse (if applicable)	
Workstation ID:	
<input type="radio"/> Server assigned	
<input checked="" type="radio"/> Set to value (wildcards allowed): <input type="text" value="wuser*"/>	
<input type="radio"/> Set from HTTP session variable:	
<input type="radio"/> Prompt user	
<input type="checkbox"/> Allow workstation ID parameter override in URL	
Security:	
<input type="checkbox"/> Enable SSL (Secure Sockets Layer)	
Certificate file: <input type="text"/> <input type="button" value="Upload..."/>	

```

System . . . . . ISERIESD
Subsystem . . . . . QINTER
Display . . . . . WUSER_011
    
```

```

On
System . . . . . ISERIESD
Subsystem . . . . . QINTER
Display . . . . . WUSER_000
    
```

```

On
System . . . . . ISERIESD
Subsystem . . . . . QINTER
Display . . . . . WUSER_0YY
    
```

IBM eServer iSeries

## Manage Connections

<http://serverName/HATSLE/admin>

- This page lists the sessions connected via HATS LE

The screenshot shows the 'Manage Connections' page with a table of active sessions. A red arrow points to the 'Manage Connections' link in the left sidebar.

<input type="checkbox"/>	Session ID	Connection Name	IP Address	Status	Start Time
<input type="checkbox"/>	WzAksTocxJqifCvd9G5Fs	iseriesd	9.10.110.192	Ready	5/18/04 4:11 PM
<input type="checkbox"/>	9prSgikKdSjndqITrnN2rbjp	Ip116ab	9.10.110.192	Ready	5/18/04 4:18 PM
<input type="checkbox"/>	3kmXHFv93lp7iO7nf-morfA	Ip116ab	9.10.110.192	Ready	5/18/04 2:42 PM

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

## Manage Connections

From the Manage Connections page you can:

- Review the list of sessions connected to your application
  - Click the refresh icon to refresh the list.
- Sort the list by any column by clicking the column heading
  - Click the same heading again to sort in the opposite direction. The arrow icon identifies the column and direction used for sorting.
- Click a session ID to view detailed information about the session.
- Disconnect a session
  - Check the box on the line representing that session and click Disconnect
  - You can select all the sessions by checking the box in the title bar

© 2005 IBM Corporation

why "i"? it's simple.



IBM eServer iSeries

## Administration – Advanced Functions

**Additional administration capabilities**

- Application settings
- Connection list
- Template options
- Packaging for migration
- Import for migration
- Communication parameters

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

## Edit HATS LE – XML files

**Application Settings Editor**

- To modify HATS LE application.hap XML file

**Communications Parameters Editor**

- To modify HATS LE main.hco XML file

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

## HATS LE – XML Files

Enables you to do further customization of HATS LE

The screenshot shows the 'Application Settings Editor' and 'Communications Settings Editor' in the HATS LE interface. The Application Settings Editor contains XML code for application configuration, including fields for active status, template, connections, and event priority. The Communications Settings Editor contains XML code for connection parameters, including fields for SSL, code page, description, enable screen, host, screen size, session type, workstation ID source, and other parameters like delay intervals and timeouts.

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

## Modify Appearance of Host Keypads

I want to modify the appearance of the host keypads... For example, I want to display the host keypads, but I do not want

Application settings: Choose the Edit button to modify the application.hap XML file

- Click the 'Edit' button under **Application Settings**
  - Find the <classSettings> section, and <class name="com.ibm.hats.common.HostKeypadTag">
  - Make the following change: "showFXX=false" where XX is a number form 1-24.
- This will hide that particular button (and disable keyboard support) for each particular function key.

© 2005 IBM Corporation

why "i"? it's simple.

## Use Access for Web 'Printer Output' function

I want to use HATS LE for my 5250, and I would like them to click on a link and be able to use the iSeries Access for Web printer output function to work with their spool file output (ie, PDF conversion)



Add a link to iSeries Access for Web 'Printer Output'

## 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/td/hats.tld" prefix="HATS" %>

<HEAD>
<title><HATS:TemplateSetting name="PAGE_TITLE"
caption="%PAGE_TITLE_FIELD"
defaultValue="%WELCOME_TO_MY_SITE_MSG" type="string" helpID=""
configurables="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">
<HATS:ApplicationKeypad/>
<input type="button" class="ApplicationButton" value="Manage
Spool Files"
onClick="goToURL('http://myseries/webaccess/WASpool?')>

```

IBM eServer iSeries

## Access for Web – Printer Output Screen

**CMINER user profile customized in Access for Web**

- To not show 'Navigation Bar' (ie, no access to other functions)
- Different logo

**User must sign on again to use iSeries Access for Web**

1

Please type your user name and password.

Site: myseries  
Realm: MYSERIES.IBM.COM

User Name: \_\_\_\_\_  
Password: \_\_\_\_\_

Save this password in your password list

OK Cancel

Formal Gowns by Carole

Printer Output for cminer

File Name	User Data	Creation Date/Time	Pages Per Copy	Copies	Status	Action	Preview	User	Job Name	Number	File Number	Output Queue
QP1A0Q WRKSPFLFRM		12/19/02 5:36 PM	1	1	Ready	<a href="#">Print</a> <a href="#">New</a> <a href="#">Delete</a> <a href="#">PDF</a> <a href="#">GIF</a>		CMINER	QOFTJOB	667121	1	<a href="#">QUSRSYSPRT11</a>
QP1A0Q WRKSPFLFRM		12/19/02 5:37 PM	1	1	Ready	<a href="#">Print</a> <a href="#">New</a> <a href="#">Delete</a> <a href="#">PDF</a> <a href="#">GIF</a>		CMINER	QPRTJOB	667120	2	<a href="#">QUSRSYSPRT11</a>
QP1A0Q WRKSPFLFRM		12/19/02 5:35 PM	1	1	Ready	<a href="#">Print</a> <a href="#">New</a> <a href="#">Delete</a> <a href="#">PDF</a> <a href="#">GIF</a>		CMINER	QPRTJOB	667120	1	<a href="#">QUSRSYSPRT11</a>

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

## Modify Connection Settings

**Connection list:** Choose the Edit button to modify the connection list settings.

Edit

**You can use the Connection List Display Editor to modify your connection parameters**

- You could also go into 'Configuration' and then 'Connection Parameters' and do this

Home | Logout | Language | Help

Configure  
Manage Connections  
Advanced

Connection List Display Editor

Modify the user-displayed connection list

Choose the orientation for the displayed connection list

Vertically, with the headers across the top

Horizontally, with the headers across the left side

Number of headers to display: 1 2 3 4 5 6 7

Header item	Header item
Connection	Description
<input type="radio"/> Display as a button	<input type="radio"/> Display as a button
<input checked="" type="radio"/> Display as a link	<input type="radio"/> Display as a link
<input type="radio"/> Display as text	<input type="radio"/> Display as text
<input checked="" type="checkbox"/> Use translated header	<input checked="" type="checkbox"/> Use translated header
Text: Connection	Text: Description

Add any additional text that should be displayed on the index page

Use Cancel

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

## Personalize a Template


I would like to create a template for my screens that has our own company logo, etc. How do I do that?

Template options: Choose the Add button to use additional files, or select a template from the dropdown list below and Edit, Export, or Delete the selected file.

Blank.jsp

Add Edit Export Delete

- Pick a template from the list of HATS LE templates, and use 'Export' button to store on your PC
- Modify the template using your favorite HTML/JSP editor, and save the template with a different name
- Then use the 'Add' button under the Template Options to include it with the other HATS LE templates.
- Then go into the Configuration Wizard. You will see the template in the list with the shipped templates.
- Later if you want to modify your template, you could use the 'Edit' function under Template Options to do this.



© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

## Upgrading from HATS LE V4 to V5

Import for migration: Choose the Migrate button to import a previous release into this application.

Migrate

If you are currently using HATS LE V4 and wish to preserve your configurations, templates, etc, follow these directions:

- Go into HATS LE V4 Advanced Administration, and select the **'Migrate'** option.
  - This will save the HATS LE V4 .zip file in a directory
- Go into WAS Administration Console and remove HATS LE V4 (hats4le.ear -- Enterprise Archive Record)
- Now install HATS LE V5 to WAS
- Go into HATS LE V5 Advanced Administration, and select the **'Import for Migration'** option.
  - When you are prompted to 'Upload a File', enter the path of HATS LE V4 that you saved in step 1
  - Update your templates
  - The HATS LE V4 templates will be re-designated with "\_V4LE" appended to the original name. Change the desired V4 templates to use the new stylesheet style references before using in production

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

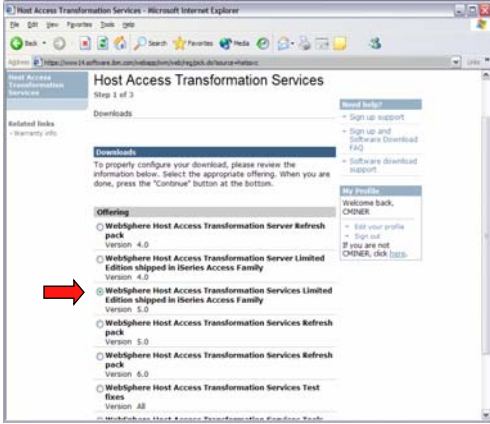
## Check for a Fix Pack

Check Web page to find out if there is a Fix Pack available for HATS LE

- Link is on iSeries Access HATS LE web page at <http://www.ibm.com/eserver/series/access/hatsle>
- Click on link to HATS LE fix packs
- Download latest Fix Pack for HATS LE

Get the latest fix pack number as all the fixes are in the latest one

- HATS LE fixes not shipped with iSeries CUMTAPES
- Only available via this download method



Go to [www.ibm.com/eserver/series/access/hatsle](http://www.ibm.com/eserver/series/access/hatsle) and click on Fix Packs link

© 2005 IBM Corporation **why "i"? it's simple.**

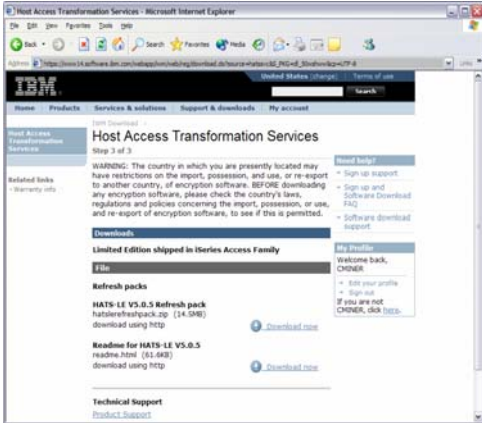
IBM eServer iSeries

## Get Fix Pack from web

### HATS LE Fix Pack 5.0.5 :

- **Functional enhancements**
- **Fixes for reported problems**
- **Many Fixes for reported problems**

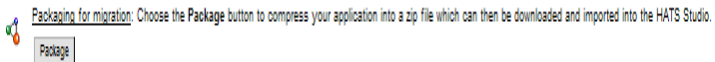
- **HATS LE Fix Pack 5.0.5**
- **Contains all enhancements and fixes provided in previous HATS LE Fix Packs 5.0.4 and 5.0.3**



June 2005

© 2005 IBM Corporation **why "i"? it's simple.**

## Install HATS LE Fix Pack



### Use **Package for Migration** function in Advanced Settings

- Click on 'Package for Migration' to automatically save HATS LE V5 in the QIBM directory
- Now you can install the new Fix Pack, and still have a working backup if you need it

## Other new functions in HATS LE V5

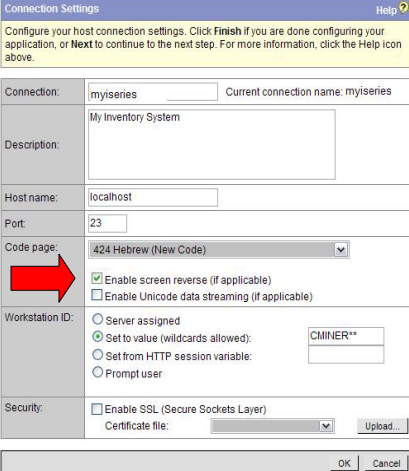


IBM eServer iSeries

## Reverse Image

### Enable Screen Reverse

- For example, suppose a host screen has a field with a black background, and red text.
- When the reverse video attribute is turned on for this field, the host terminal displays black text with a red background.
  - Be sure to review the README document if you plan to use this



© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

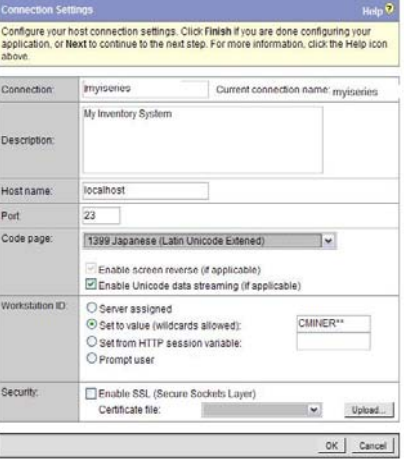
## 5250 Unicode datastream support

### SBCS-based sessions

- Bidirectional text that appears in Unicode fields will be processed correctly by checking the Enable Unicode Data Streaming checkbox. Instead of using visual input field these fields will have a contextual orientation (according to first strong character).
- This includes Latin 1&2, Cyrillic, Turkish, Greek, and Baltic support

### DBCS-based sessions

- Unicode fields support DBCS characters for the base EBCDIC CCSID for all simple script, including left-to-right SBCS character sets



© 2005 IBM Corporation

why "i"? it's simple.



## Other Enhancements

- Recognition of 'More...' on the screen
  - Notes: Problems may exist with non-English applications. 'More...' is used to tell the user there is more data and to page down. When 'More...' has been changed to non-English text it may not be properly handled.
  
- Expanded Emulator Functions
  - Are designated from DDS check keywords and include auto-advance, validity checking, input restriction, and reset ability for locked screens
  - Settings that are universal (such as auto-advance) will be preset to 'on' for the default transformations.
  - The host function keypad presented, and the browser keyboard mappings have additional keys associated with the expanded functionality.
    - These include: the Field Exit, Field +, Field -, and the Reset Keys.

## Differences Access for Web (5722-XH2, V5R3) VS HATS LE



IBM eServer iSeries

## iSeries Access for Web provides many functions in addition to 5250 emulation

- 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**



Items marked in red are new in the V5R3 version

© 2005 IBM Corporation


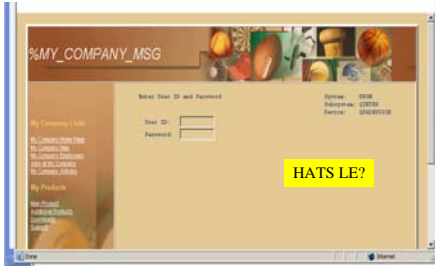
why "i"? it's simple.

IBM eServer iSeries

## We will look at only the differences between the 5250 interface

The iSeries Access Family now provides two unique ways to start a 5250 session to an iSeries

1. Access for Web
  - Product 5722-XH2 includes an integrated 5250 emulation function
2. HATS LE
  - Offers 5250 emulation that is quick and easy to set up and define

© 2005 IBM Corporation

why "i"? it's simple.

## Special Handling for Subfiles

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

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



## Access for Web – Subfile look

Same OS/400 command screen viewed by 5250 emulator in Access for Web



Capability	Access for Web	HATS LE
<b>5250 display emulation</b> <ul style="list-style-type: none"> <li>• Can enable 'More...' on a button, cursor positioning help (ie, will perform function that pressing F1, F9, etc would do)</li> <li>• Can specify to have drop down lists</li> <li>• Can detect selection lists and tables and provide an enhanced GUI look</li> <li>• Provides special handling for Subfiles</li> <li>• Can start multiple 5250 sessions to multiple iSeries servers from single browser connection</li> <li>• Macro support to eliminate entering repetitive commands or even bypass the second sign-on screen.</li> <li>• One centrally administrated user interface applies to all 5250 users</li> </ul>	Yes  No No No Yes  Yes  Yes	Yes  Yes Yes Yes No No  Yes
<b>Keyboard support</b> <ul style="list-style-type: none"> <li>• Internet Explorer/Netscape - can press Function keys, page up/down, etc</li> </ul>	Yes	Yes
<b>Web page customization</b> <ul style="list-style-type: none"> <li>• Templates included for setting up GUI (ie, company logos, etc)</li> <li>• Can build different front pages ('window) for different users</li> </ul>	No Yes	Yes No
<b>Web application servers supported:</b> <ul style="list-style-type: none"> <li>• WAS - all V4 and V5 versions</li> <li>• Runs as a portlet in WebSphere Portal Express</li> <li>• ASF Tomcat</li> </ul>	Yes Yes Yes	Yes No No
<b>GUI access to iSeries resources</b> <ul style="list-style-type: none"> <li>• Database , Printers, Printer Output, IFS, NetServer</li> </ul>	Yes	No

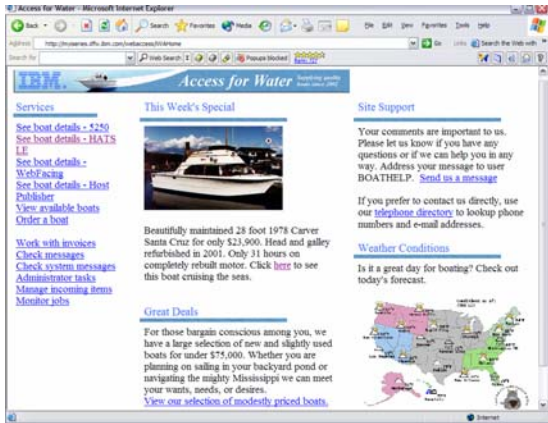
© 2005 IBM Corporation

why "i"? it's simple.

## Use Access for Web and HATS LE

From iSeries Access for Web 'customized' front page you could start HATS LE

- Include a link in here that starts HATS LE and a 5250 application (maybe on another system)



© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

## RPG Application - AS/400 WSG BOAT DEMO

- Using Access for Web 5250 interface
- Using HATS LE 5250 interface

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

## Try out HATS LE tonight!

HATS LE Demo web site

- <http://iseriesd.dfw.ibm.com:2034/HATSLE/>
- Key in user-id of WUSER
- Key in password of DEMO2PWD

Note that Workstation ID also starts with WUSER for each session (used the Workstation ID wildcard support)

© 2005 IBM Corporation

why "i"? it's simple.

## Use HATS LE from Access for Web

Access for Web Demo web site

- <http://iseriesd.dfw.ibm.com/webaccess/iWAHome>
- Key in user-id of BOATADMIN
- Key in password of DEMO2PWD

Select the HATS LE link



## Differences


HATS  
vs  
HATS LE

Powered by Eclipse™ technology  
Windows®



WebSphere Welcome to IBM WebSphere Host Access  
Transformation Server (HATS)



© Licensed Materials - Property of IBM Corp. © Copyright by IBM Corp. and others 2000, 2002. All Rights Reserved.  
Eclipse and WebSphere are trademarks or registered trademarks of IBM Corp. Windows and Allround IT are registered  
trademarks of Microsoft Corp. Java and all Java-based marks or strategies are trademarks or registered trademarks of  
Sun Microsystems, Inc. and all terms are trademarks or registered trademarks in the United States or other countries,  
or both. 

IBM eServer iSeries

IBM @server

### WebSphere Host Integration Solution

3270, 5250, VT

1) Personal Communications  
Industry Leading Emulator  
File Transfer / Printer Sessions

3270, 5250, VT

2) Host on Demand  
Java Applet for 5250 or GUI  
File Transfer / Printer Sessions

3270, 5250

3) HATS  
Rules Based Transformation  
Real Time Transformation

Host Integration Solution includes WebSphere App Server and WSAD

© 2004 IBM Corporation

iSeries. mySeries.

© 2005 IBM Corporation

why "i"? it's simple.

IBM eServer iSeries

IBM

### Web Catalog Options

Part Number	Title
D52WALL	HATS FOR MULTIPLATFORMS, CONCURRENT, LIC+SW MAINT 12 MONTHS
D52WTLL	HATS FOR ISERIES, CONCURRENT, LIC+SW MAINT 12 MONTHS
D53H4LL	HOST ACCESS TRANSFORMATION SVC INTR REG LIC+SW MAINT 12 MO
D53H7LL	HATS FOR ISERIES, REGISTERED, LIC+SW MAINT 12 MONTHS

<http://www-306.ibm.com/software/sw-atoz/>

© 2005 IBM Corporation

why "i"? it's simple.

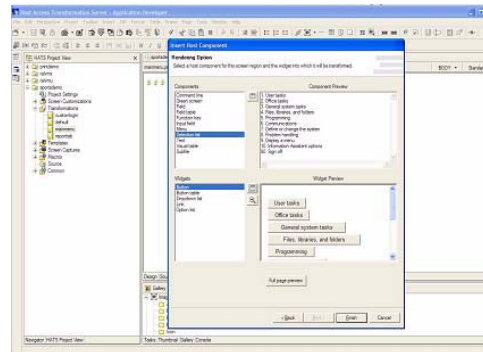
## Host Access Transformation Services (HATS)

- **Converts green screens to GUIs on the fly, in real time**
  - A web-to-host 3270, 5250 HTML emulator...
  - Preserves existing application flow...
  - Translates system screens too...
- **Easy Web-to-host first step**
  - Has a rules-based transformation engine...
  - "Near" load-n-go implementation
  - Low skills requirement
- **Zero footprint on the desktop**
- **Industry-standards**
  - HTML, HTTP, HTTPs



## HATS Capabilities

- **Eliminates need to customize every screen**
  - Rules-based data stream translator
- **Additionally customizable**
  - Customize individual screens
  - Play and record macros
  - Add tabbed folders and graphs
  - Store and retrieve global variables
  - Can integrate with WebSphere Portal
  - Skip and combine screens

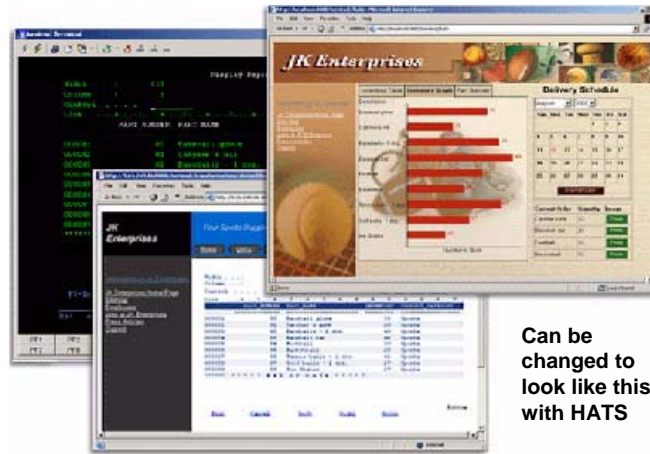


HATS Studio is a plug-in to the Eclipse-based WebSphere Studio Development Tools. It provides an easy-to-use wizard-based environment for converting host screens to a web-like appearance and functionality



## HATS Example

Traditional Green Screen



Can be changed to look like this with HATS

## Differences – HATS vs HATS LE

### Features in both HATS and HATS LE

- Default host screen transformation
- Configuration of host connection settings
- Ability to chose a standard template
- Ability to turn on/off application and host pads
- Keyboard support



### Features in HATS, not in HATS LE

- Customize individual screens
- Play and record macros
- Add tabbed folders and graphs
- Store and retrieve global variables
- Runs on WebSphere Portal
- Skip and combine screens



## Comparison Table

Function	HATS	HATS LE
On-the-fly rules-based conversion of host screens to HTML GUIs	Yes	Yes
No need to access or modify source code	Yes	Yes
Host applications can be deployed to the Web within hours	Yes	Yes
Does not require modification when changes are made to host applications	Yes	Yes
Zero-footprint, zero-download - only code needed on the client is a Web browser	Yes	Yes
Supports iSeries subfiles	Yes	Yes
Provides native keyboard support	Yes	Yes
Secure HTTP (HTTPS) and Secure Socket Layer (SSL) security	Yes	Yes
Runs with WebSphere Application Server V4 & V5, including V5 Express	Yes	Yes
Leverages reliability and scalability of WebSphere Application Server	Yes	Yes
Works with Internet Explorer and Netscape Web browsers	Yes	Yes
Supports 5250 hosts	Yes	Yes
Supports 3270 hosts	Yes	No
Requires a WebSphere Studio installed on PC (either V4 or V5) to customize HTML	Yes	No
Uses Web-based Configurator and Management tool to customize HTML	No	Yes
Runs on iSeries Server Platform	Yes	Yes
Runs on AIX, Windows, Solaris, and zSeries Server Platforms	Yes	No

## Differences (continued)

Function	HATS	HATS LE
Any individual screen can be fully customized	Yes	No
Generate and run macros	Yes	No
Skip and combine screens	Yes	No
Store & retrieve data in global variables	Yes	No
Enter data on behalf of end user	Yes	No
Convert text entry fields to valid value lists	Yes	No
Create tabbed folders (with easy to use wizards)	Yes	No
Create bar & line graphs (with easy to use wizards)	Yes	No
Redirect users to other URLs	Yes	No
Globally replace text	Yes	No
Add business logic	Yes	No
Print locally with PDF printing function	Yes	No (1)
Use HATS portlet to integrate with WebSphere Portal	Yes	No

(1) Can combine use of iSeries Access for Web to work with spooled printer output and convert to PDF



## Try it out!

- **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 exclusively with iSeries Access Family, 5722-XW1**
  - Automatically ships with 5722-XW1 orders
  - No additional charge for HATS LE (beyond the cost of 5722-XW1)



## Trademarks and Disclaimers

© IBM Corporation 1994-2003. All rights reserved. References in this document to IBM products or services do not imply that IBM intends to make them available in every country.

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

AS/400	e-business on demand	OS/400
AS/400e	IBM	i5/OS
eServer	IBM (logo)	iSeries

Rational is a trademark of International Business Machines Corporation and Rational Software Corporation in the United States, other countries, or both. Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both. Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both. Intel, Intel Inside (logos), MMX and Pentium are trademarks of Intel Corporation in the United States, other countries, or both. UNIX is a registered trademark of The Open Group in the United States and other countries. SET and the SET Logo are trademarks owned by SET Secure Electronic Transaction LLC. Other company, product or service names may be trademarks or service marks of others.

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

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

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

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

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

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

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