IBM

e server

Session: 450086

iSeries. mySeries.

Enhance your 5250 GUI access with HATS LE

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Agenda

e server

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

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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

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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

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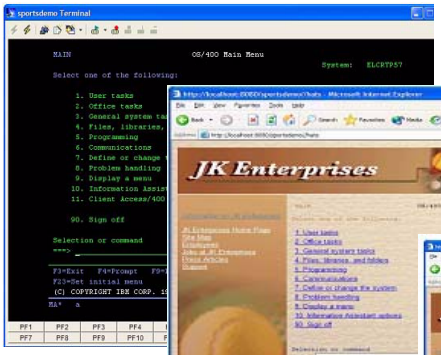
HATS LE – real-time screen conversion



Traditional green screen

Links

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

Drop-down menu

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Special Handling for Subfiles

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

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

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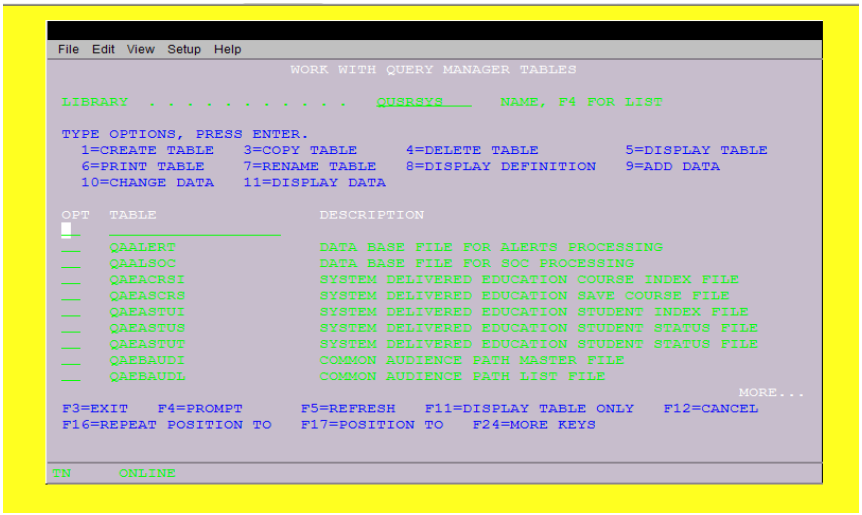
Compare to another 5250-based browser emulator



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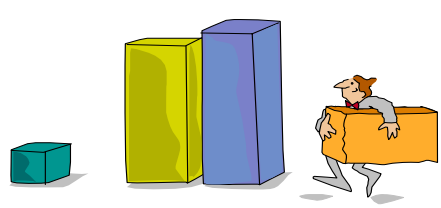
Packaging and Ordering



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iSeries Access Family Content

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

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

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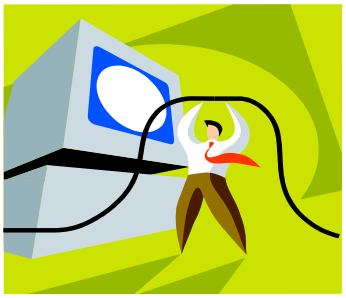
Hardware and Software Requirements



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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+	✓				

Any desktop with one of the above browsers

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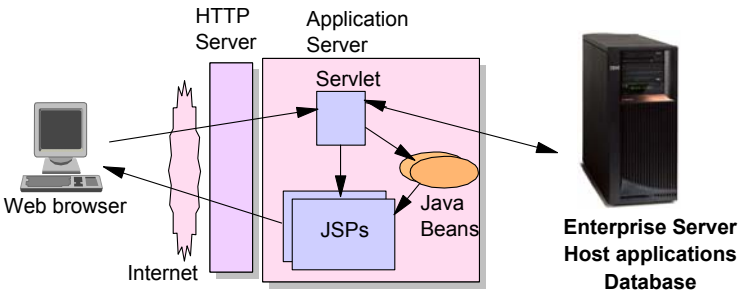
First You Need A Web Application Server



Tier 1 Tier 2 Tier 3

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Web Application Server Options

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

- WebSphere Application Server -- Express V5.1
- Also WAS Version 5.1 Base and Network Deployment
- WebSphere Application Server Version 5.0 Express for iSeries
- Also WAS Version 5.0 Base and Network Deployment
- WebSphere Application Server Advanced Edition Single Server V4
- WebSphere Application Server Advanced Edition V4

- 300 CPW
- 512 MB memory

- 300 CPW
- 512 MB memory

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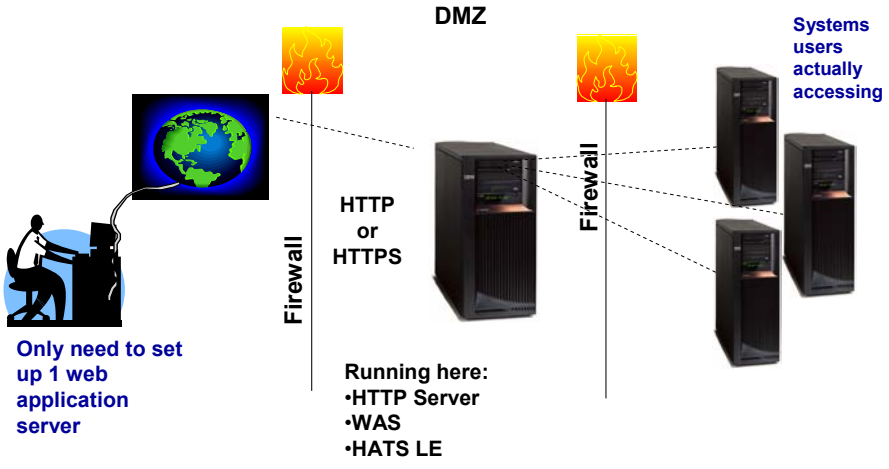
Setting up your web application server



DMZ = demilitarized zone

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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**

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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

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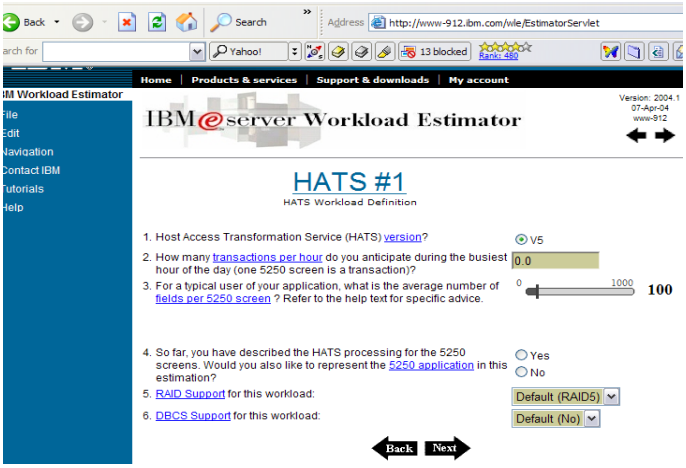
Workload Estimator for HATS

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



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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

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e server

- HTTP running
- WAS running

Let's Get Started

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Steps that need to be done…

e server

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

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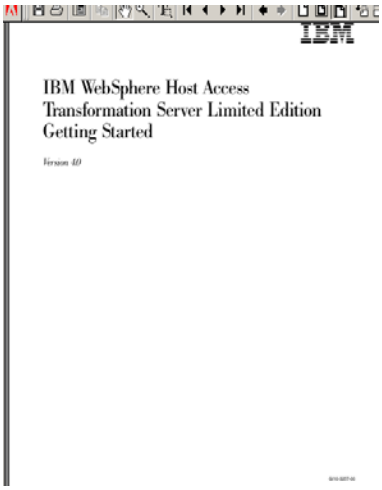
Find the CD and Print the Documentation…

- 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/iseries/access/hatsle



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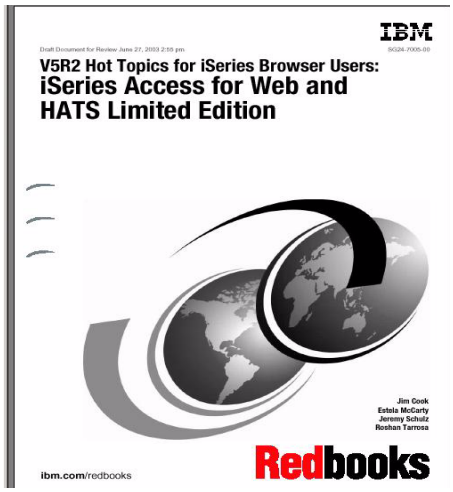
Redbook

- Redbook...

SG24-7005-00

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



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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 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.

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http:<myiseries>:2001

Wizards to work with your WAS server

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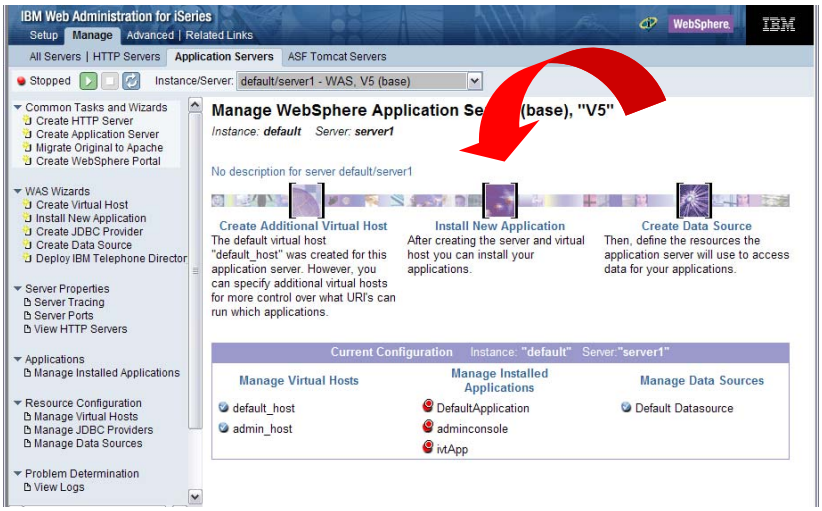
Install HATS LE into WAS



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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

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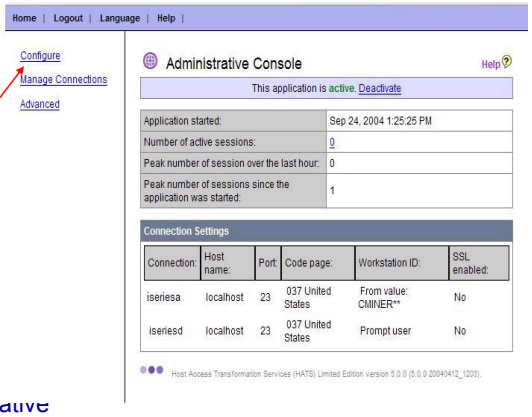
Administrative Console

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

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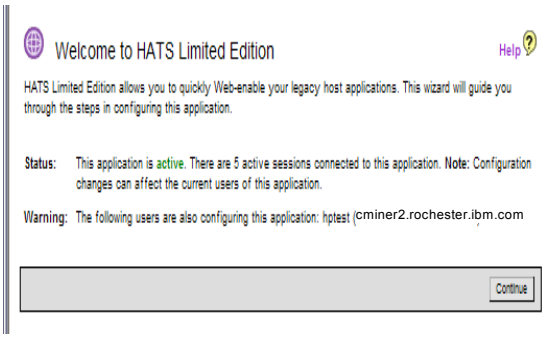
Configuration Wizard

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



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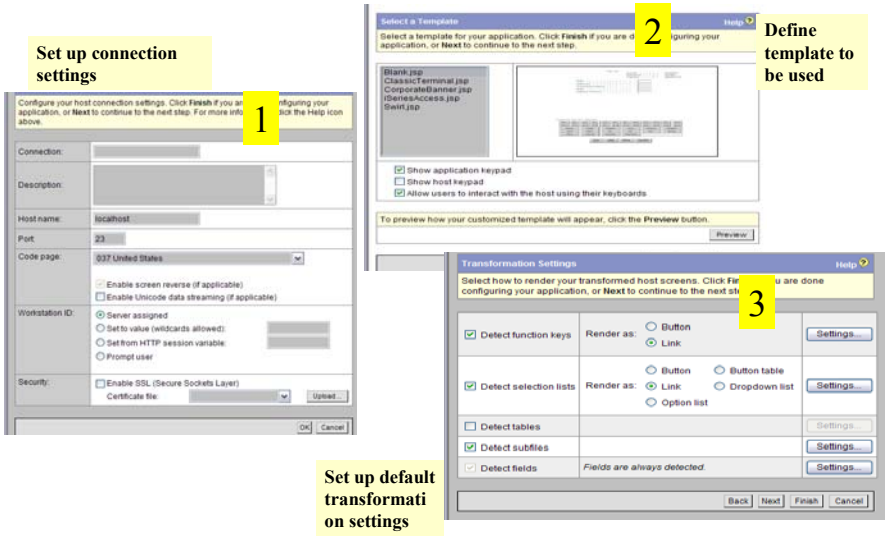
Configuration Wizard consists of 3 screens



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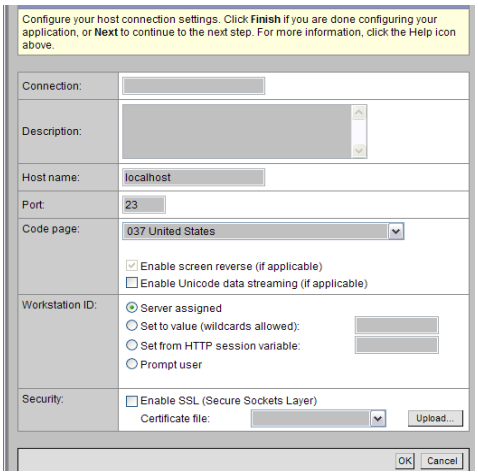
Connection Settings

- 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



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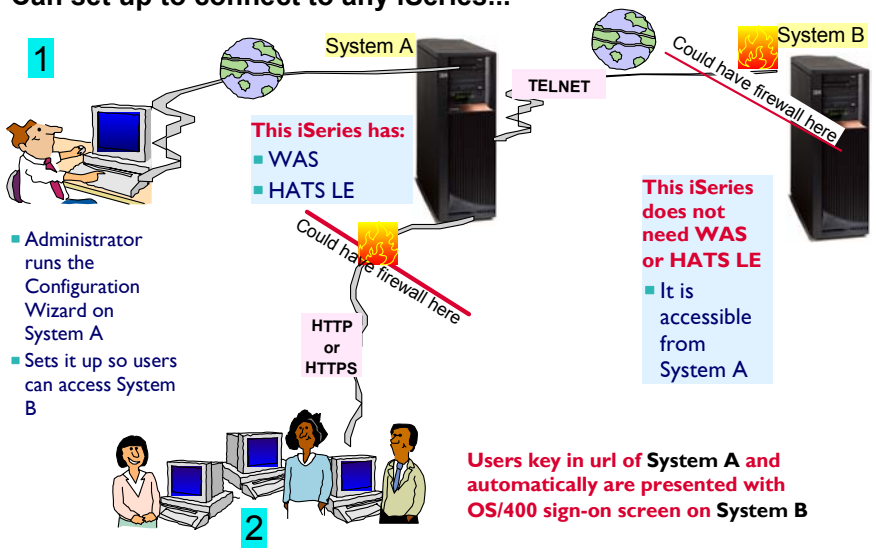
Can set up to connect to any iSeries...



- Administrator runs the Configuration Wizard on System A
- Sets it up so users can access System B

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

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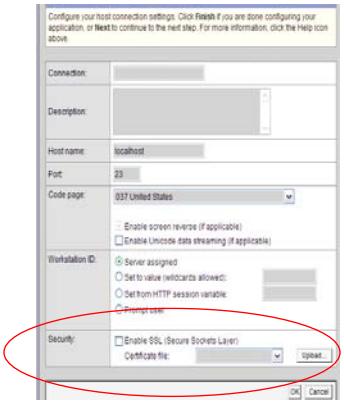
SSL…what this means

- 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.



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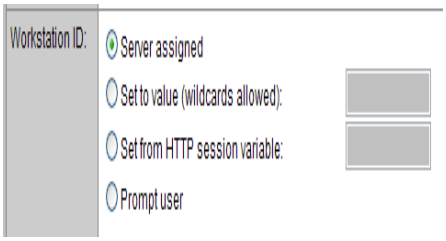
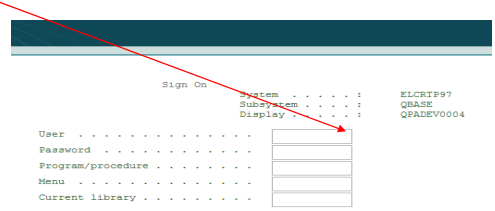
Workstation ID Options

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





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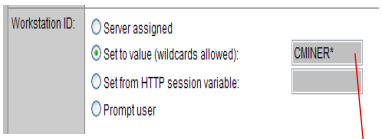
Setting Workstation ID to a Value

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



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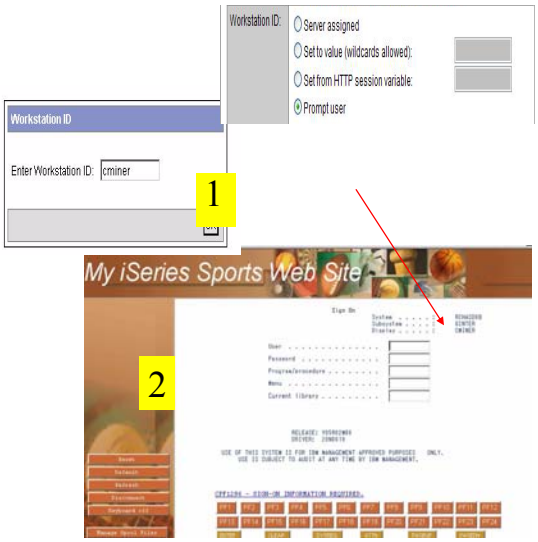
Prompt User

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



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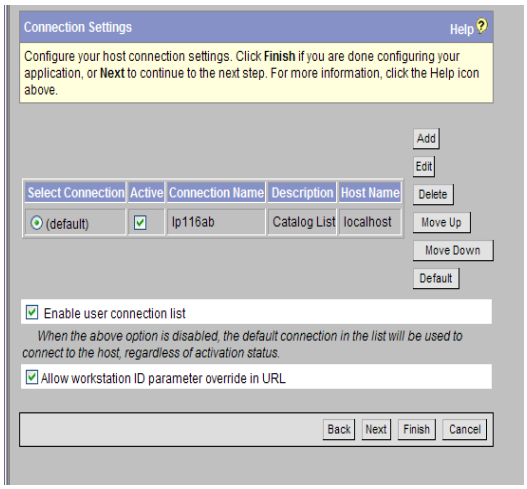
Finished with 'Connection' page

- 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'



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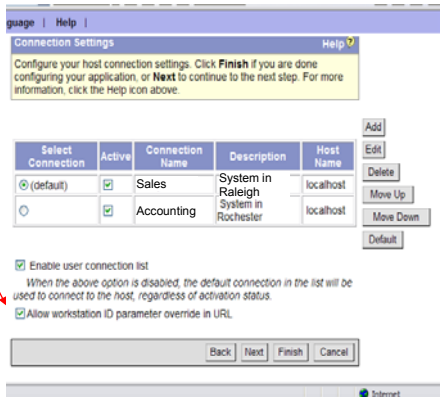
Parameter Override of Workstation ID

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



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Steps that need to be done…

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   a. Set up connection settings
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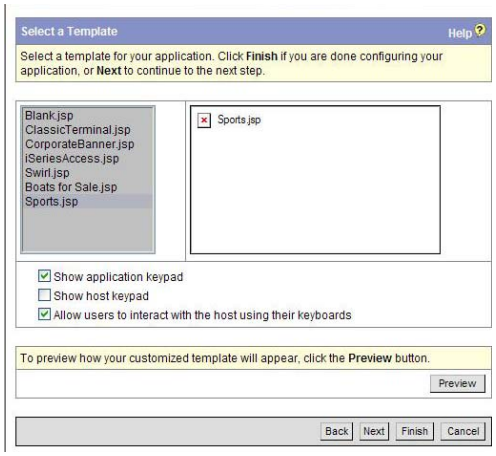
Select A Template

- 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



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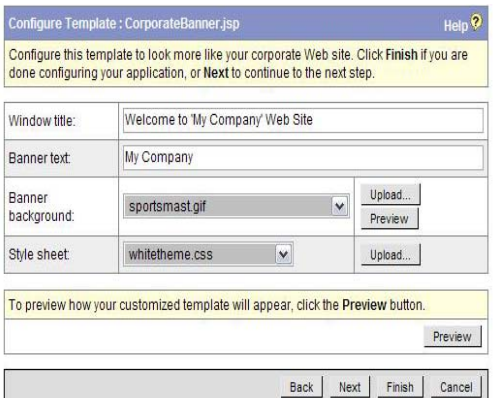
iSeries. mySeries.

Customize your template

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



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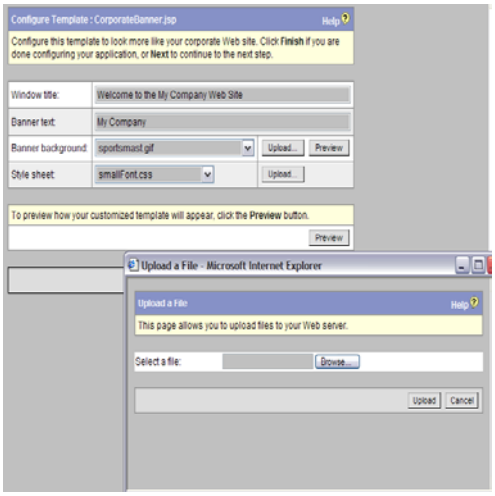
iSeries. mySeries.

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



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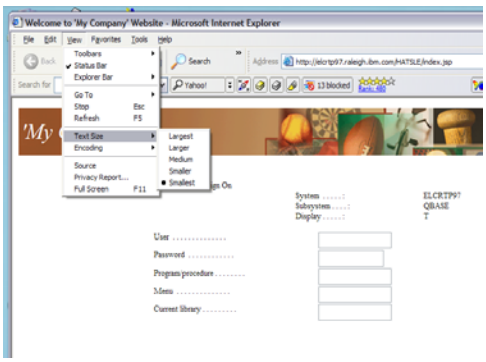
Preview

- 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



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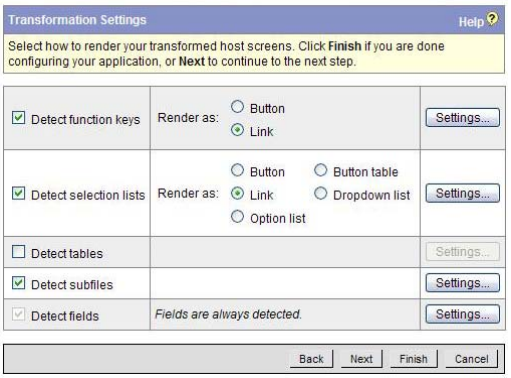
Transformation Settings

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



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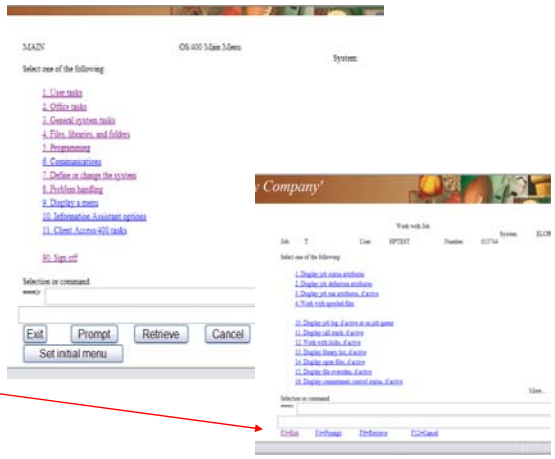
Configure Function Keys

Example of how you might set up function keys

1. Buttons
2. Links



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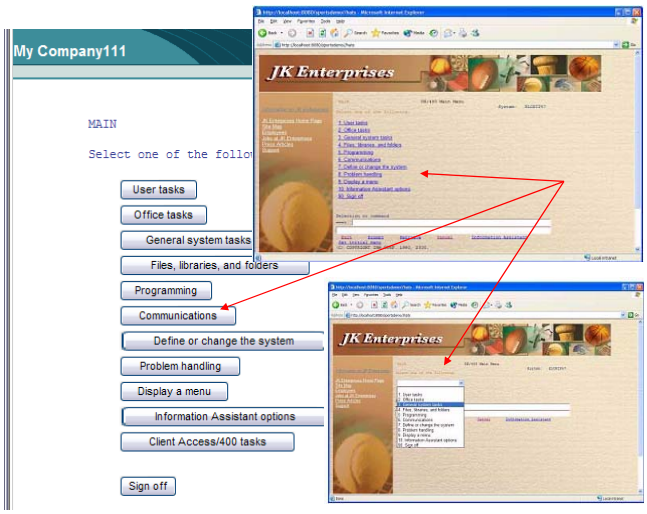
Configure Selection Lists

Example of how you might set up your selection lists

- Buttons
- Links
- Dropdown lists



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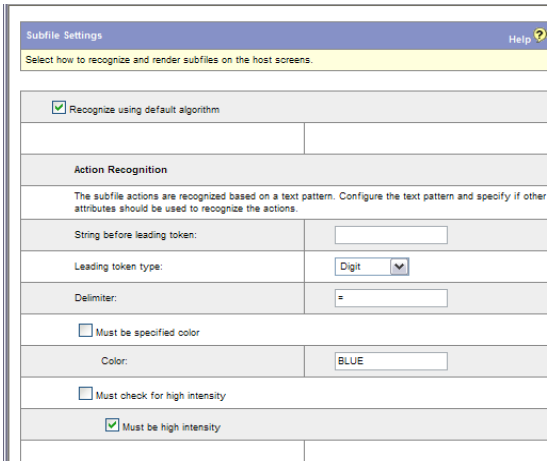
Subfile Rendering

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



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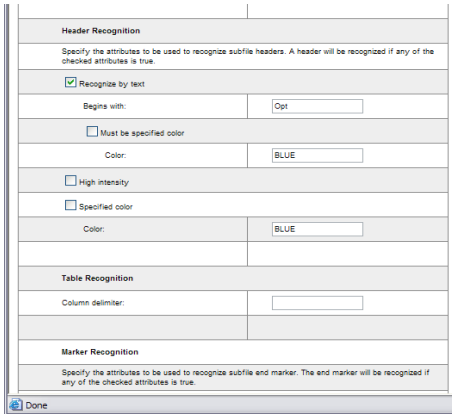
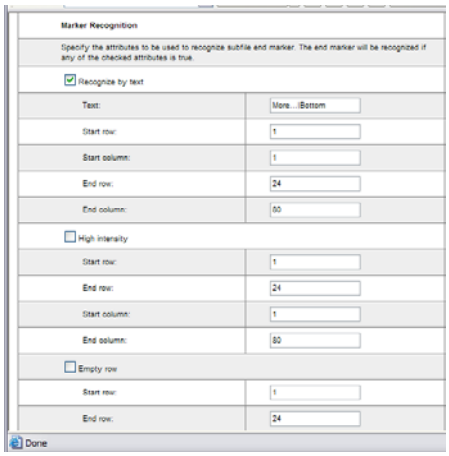
More Settings for Subfile Rendering…

- Header recognition
- Table recognition



- Marker recognition



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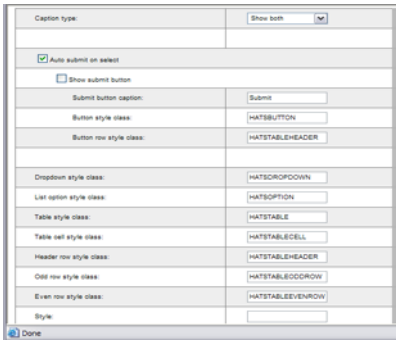
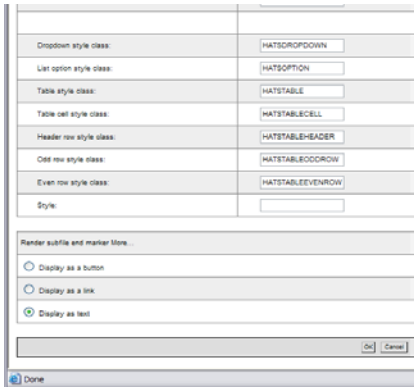
More Settings for Subfile Rendering…

- Caption Type
- Autosubmit on Select
- Dropdown style class
- List option style class
- …



- Render subfile end marker More...



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Try Different Settings

Different default settings

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

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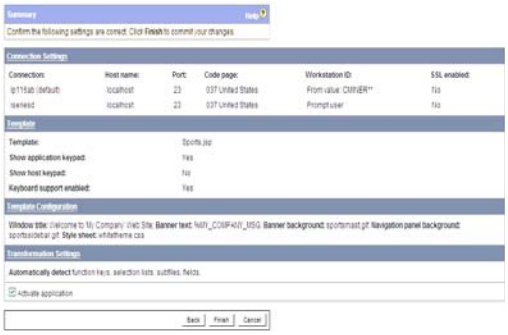
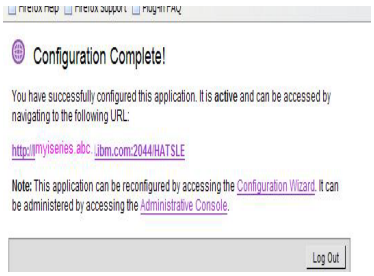
Configuration Summary

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





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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!

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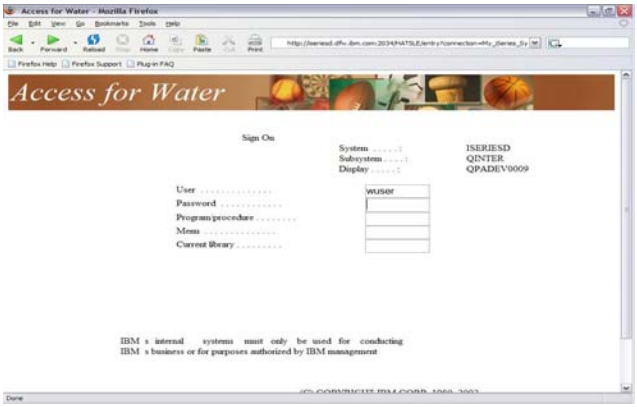
Connect to iSeries via HATS LE

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



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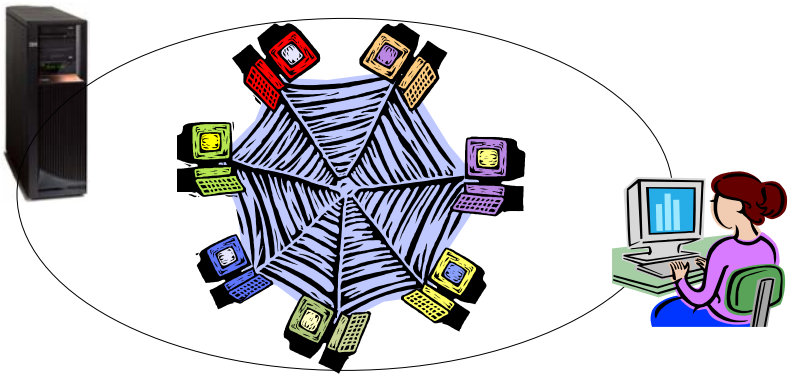
Other Administrative Functions



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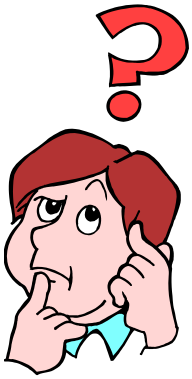
Connect to multiple systems

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



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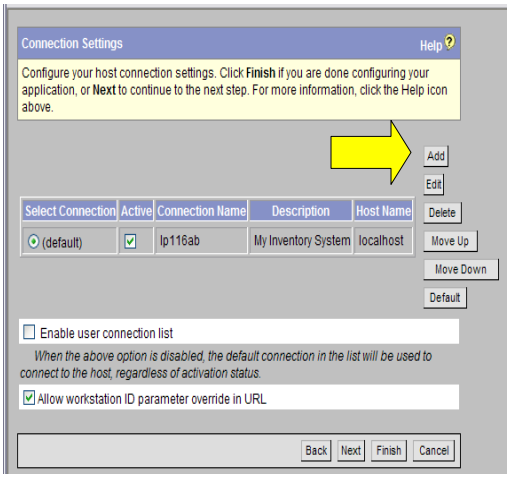
Multiple Connection Settings

To add more connections

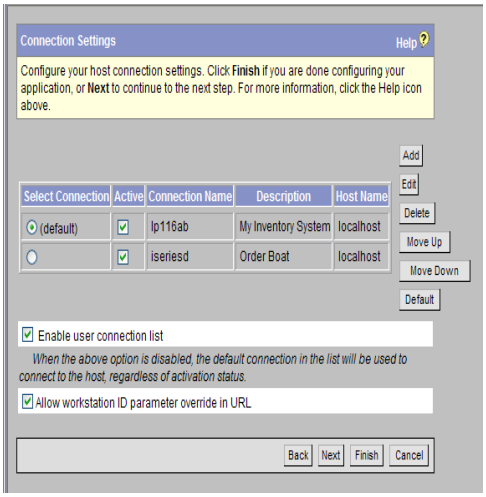
- Go back into the Configuration wizard
- Press Add button to add more connections
  - Set up Connection Page



© 2004 IBM Corporation

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



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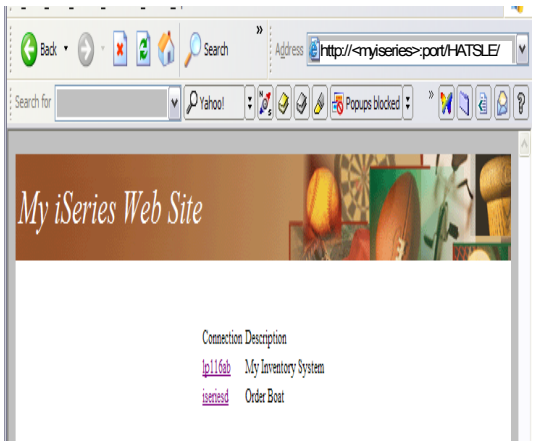
User selects system connection

- 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



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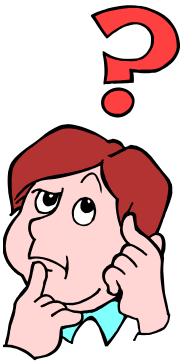
Specialized Customization

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.



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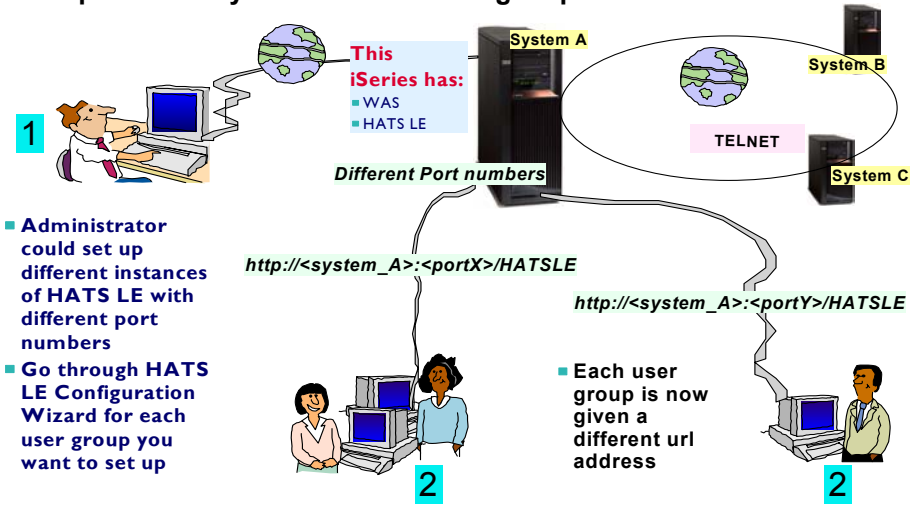
Set up differently for different user groups...



- Administrator could set up different instances of HATS LE with different port numbers
- Go through HATS LE Configuration Wizard for each user group you want to set up
- Each user group is now given a different url address

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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.

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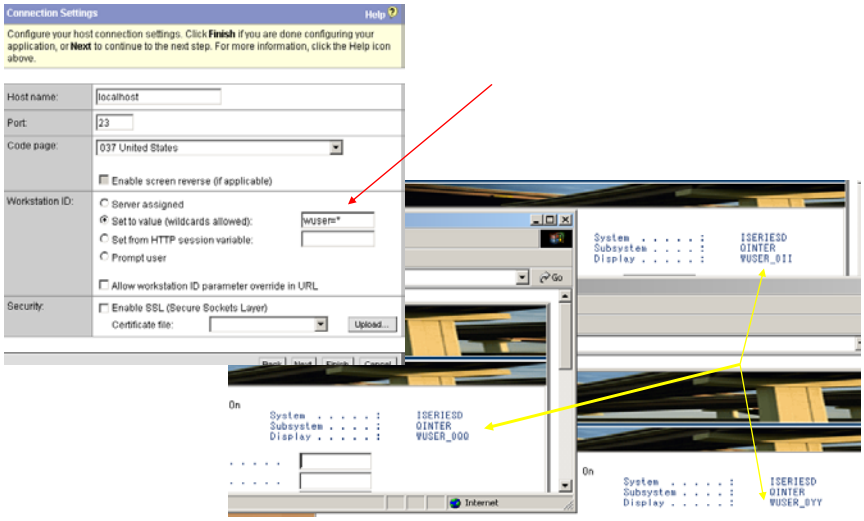
Example: Unique Workstation IDs



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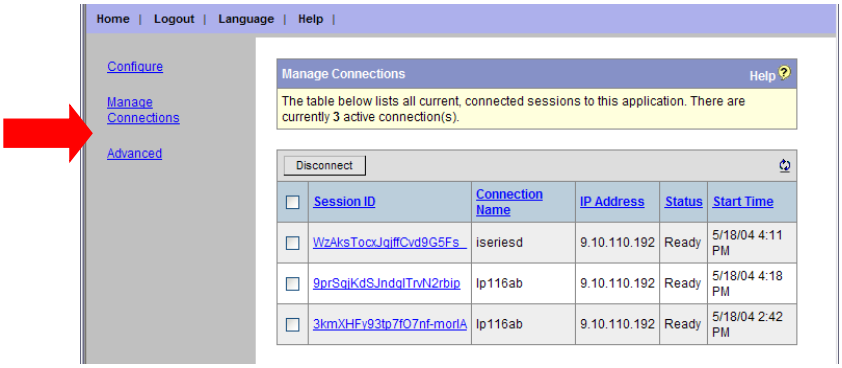
Manage Connections

http://serverName/HATSLE/admin

- This page lists the sessions connected via HATS LE



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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

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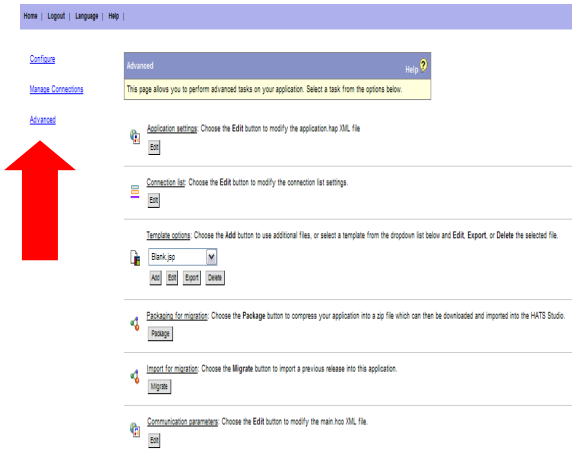
Administration – Advanced Functions

Additional administration capabilities

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



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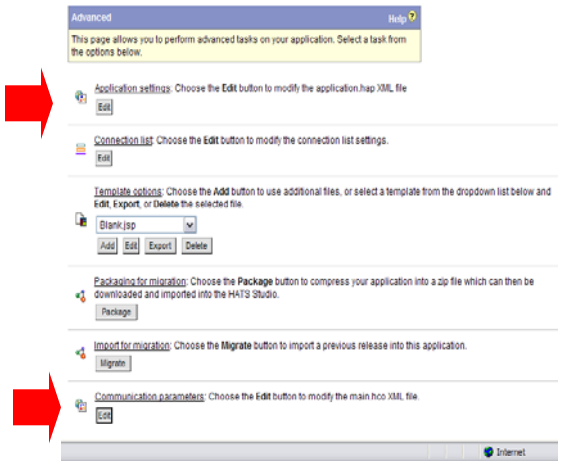
Edit HATS LE – XML files

Application Settings Editor

- To modify HATS LE application.hap XML file

Communications Parameters Editor

- To modify HATS LE main.hco XML file



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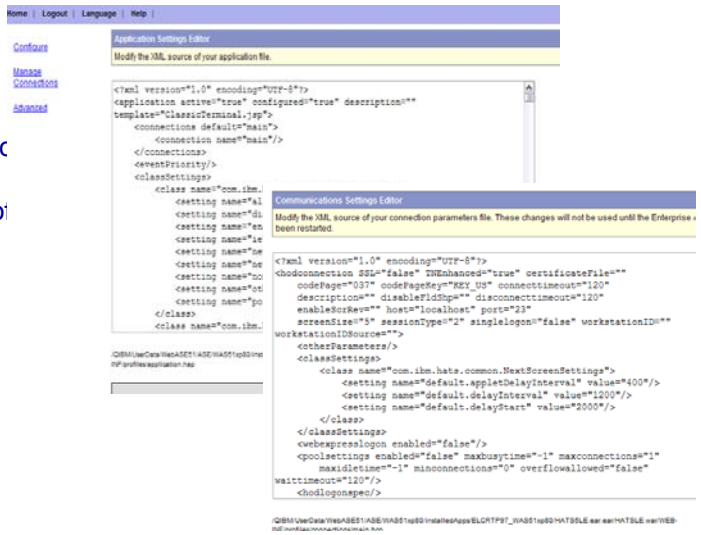
HATS LE – XML Files

Enables you to dc
further
customization of
HATS LE



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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 all the function keys (F1-F24) displayed. Can I do that?

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

Edit

- 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.

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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'

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Add Access for Web PDF link to HATS LE

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

Note the circled additions put in the template...

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

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

Further down in the template note the circled additions added:

```
<CENTER>
        <TABLE height="100%" cellpadding="3" cellspacing="3"
border="0" width="100%">
                                        <TBODY>

                        <TR>
<TD nowrap width="145">

                <BR>

        <BR>
                                        <BR>

                                        <BR>

                                        <BR>

                                        <BR>

                                        <BR>

                                        <BR>

                                        <BR>

                                        <BR>

                                        <BR>

                                        <BR>

                                        <BR>

                                        <BR>

                                        <BR>

                                        <BR>

                <HATS:ApplicationKeypad/>
<input type="button" class="ApplicationButton" value="Manage
Spool Files"
onClick="goToURL('http://myiseries/webaccess/iWASpool')">

                                </TD>
```

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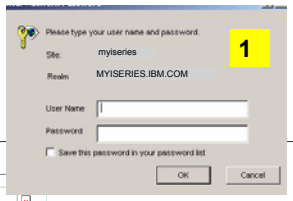
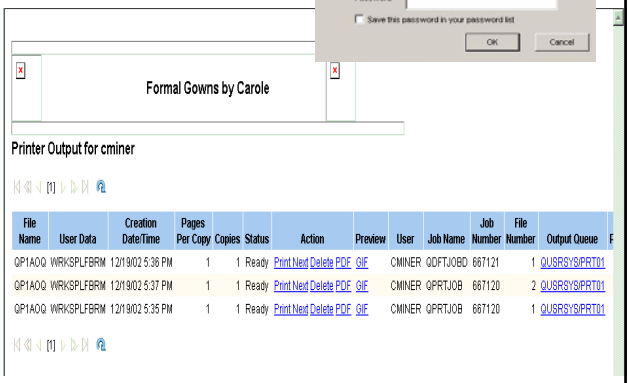
Access for Web – Printer Output Screen

CMINER user profile customized in Access for Web
- To not show 'Navigation Bar' (ie, no access to other functions)
- Different logo

Once user is finished here, they press browser back button to return to HATS LE screen

User must sign on again to use iSeries Access for Web





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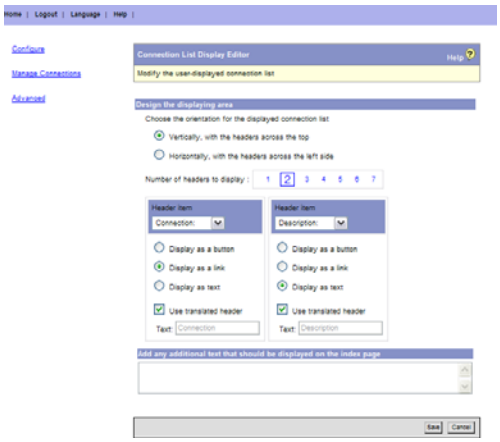
Modify Connection Settings

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



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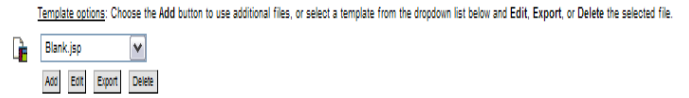
Personalize a Template

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



- 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.

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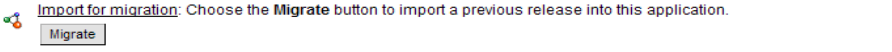
Upgrading from HATS LE V4 to V5



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

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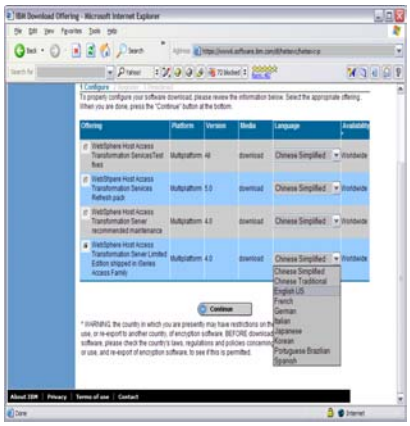
Check for a Fix Pack

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/iseries/ 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/iseries/access/hatsle and click on Fix Packs link

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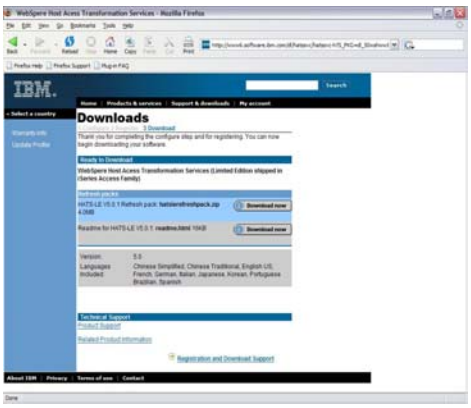
Get Fix Pack from web

New HATS LE Fix Pack 5.0.1 contains:

- **A new Dialog added to aid HATS default rendering in recognizing modal frames (pop-ups) on the host screen.**
- **Option added to keep or remove spaces for SI/SO characters in unprotected fields on DBCS host systems**
- **You can now specify the location of log, trace, and license tracking output files**
- **Many Fixes for reported problems**



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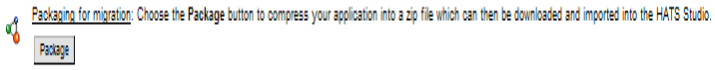
Install HATS LE Fix Pack



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

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Other new functions in HATS LE V5

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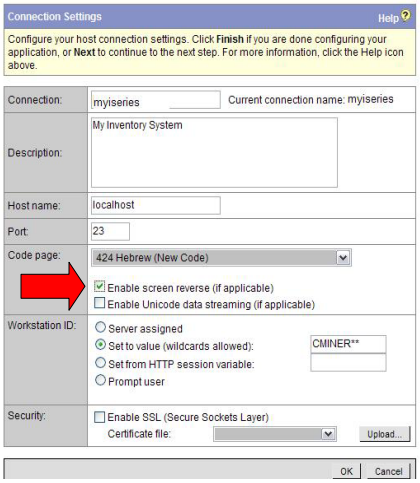
Reverse Image

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



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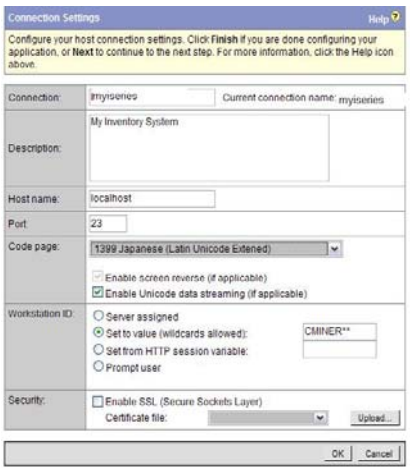
5250 Unicode datastream support

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**



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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.

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

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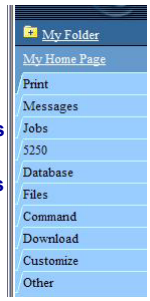
iSeries Access for Web provides many functions in addition to 5250 emulation

- 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

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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

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Special Handling for Subfiles

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

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

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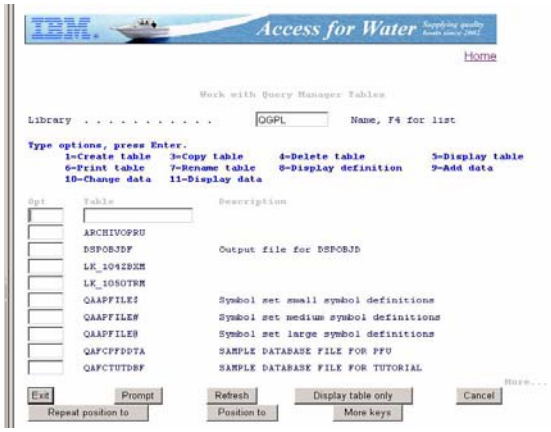
Access for Web – Subfile look

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



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Differences

Capability	Access for Web	HATS LE
5250 display emulation		
•Can enable 'More...' on a button, cursor positioning help (ie, will perform function that pressing F1, F9, etc would do)	Yes	Yes
•Can specify to have drop down lists	No	Yes
•Can detect selection lists and tables and provide an enhanced GUI look	No	Yes
•Provides special handling for Subfiles	No	Yes
•Can start multiple 5250 sessions to multiple iSeries servers from single browser connection	Yes	No (1)
•Macro support to eliminate entering repetitive commands or even bypass the second sign-on screen.	Yes	No
•One centrally administrated user interface applies to all 5250 users	Yes	Yes
Keyboard support		
•Internet Explorer/Netscape - can press Function keys, page up/down, etc	Yes	Yes
Web page customization		
•Templates included for setting up GUI (ie, company logos, etc)	No	Yes
•Can build different front pages ('window) for different users	Yes	No
Web application servers supported:		
•WAS - all V4 and V5 versions	Yes	Yes
•Runs as a portlet in WebSphere Portal Express	Yes	No
•ASF Tomcat	Yes	No
GUI access to iSeries resources		
•Database , Printers, Printer Output, IFS, NetServer	Yes	No (2)

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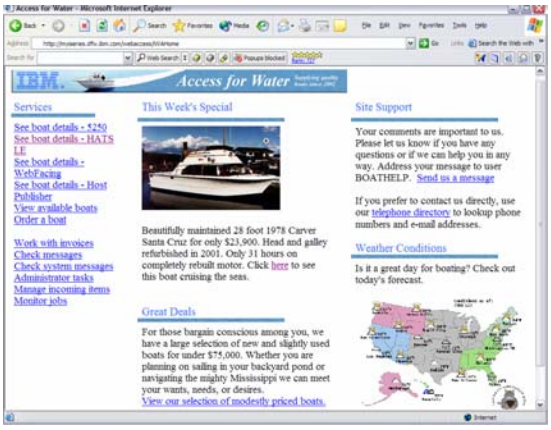
Use Access for Web and HATS LE

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)



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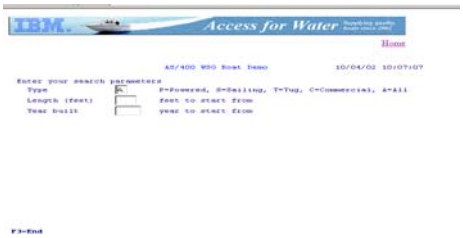
RPG Application - AS/400 WSG BOAT DEMO

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



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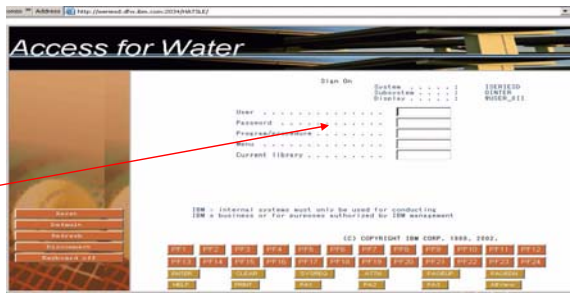
Try out HATS LE tonight!

HATS LE Demo web site

- http://iseriesd.dfw.ibm.com:2034/HATSLE/
- Key in user-id of WUSER
- Key in password of GUEST1
  - (that is a one, not an L)



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

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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 ADMIN1BOAT
  - (that is a one, not an L)

Select the HATS LE link

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Differences

HATS

vs

HATS LE

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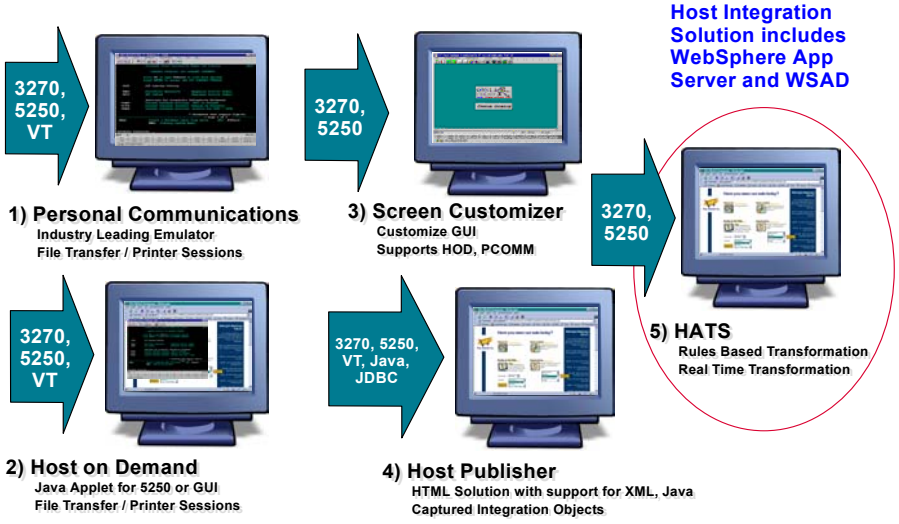
WebSphere Host Integration Solution



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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

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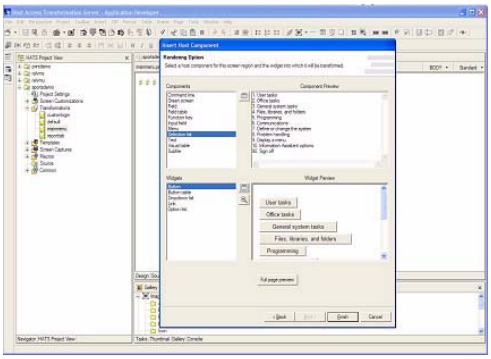
HATS Capabilities

- 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-into 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

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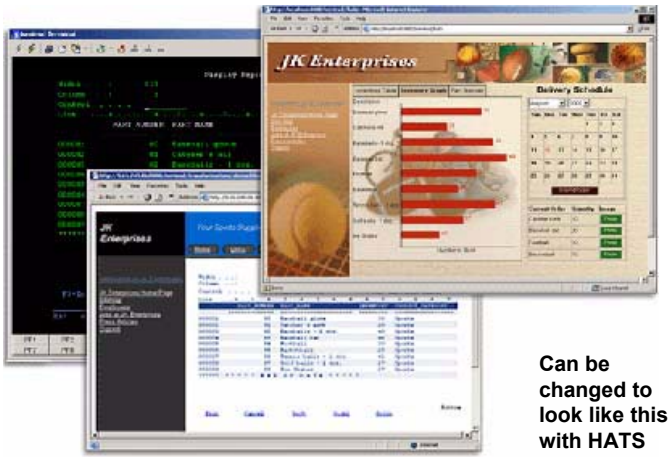
HATS Example

Traditional Green Screen



Can be changed to look like this with HATS

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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

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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

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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

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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)

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