

Deep Dive Into System i Access for Web Session 3:

Run 5250 Through a Browser

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System i Access for Web 5250 Interface

Runs as an interactive job

 Only function in System i Access for Web that is interactive

TN5250 port

 Only function in System i Access for Web that uses TN5250 port



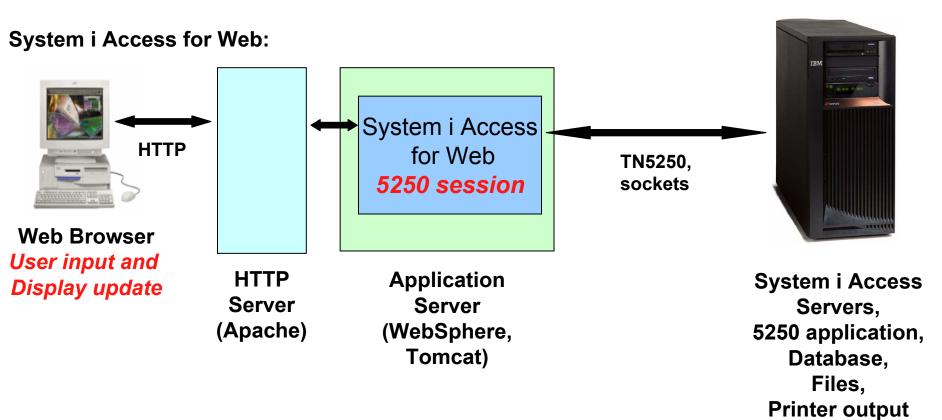
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5250 Environment: Windows PC5250 v. Web 5250

System i Access for Windows:





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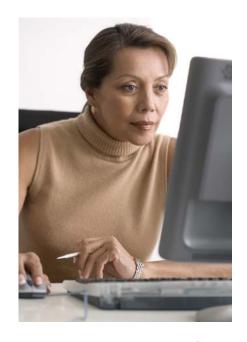


Things to know

Because 5250 session is implemented using HTML, considerations to be aware of:

- Not intended to replace full function emulators like PC5250, Host On Demand, etc. for purposes of "heads-down" data entry type of operations
 - Does not include graphics, EHLAPPI, DDE functionality
 - Does not provide keyboard mapping
 - Does not support certain keys the way PC5250 does (i.e., Field Exit)
- Does not include Printer Emulation (push to printer)
 - i5/OS strategy is Internet Printing Protocol (IPP) printing
 - System i Access for Web provides capability to convert spooled files to PDF
- No direct interaction with server, so unsolicited server messages can't be received.
 - Need to request refresh to see break messages
- Does not include file transfer from session





This is the only 5250 function you will likely extend to your users

Preconfigured Sessions

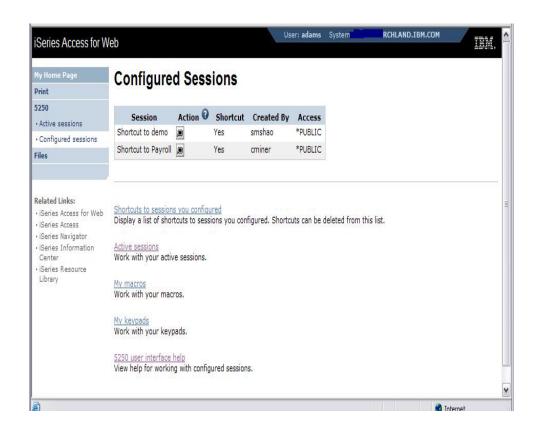


Run Pre-Configured 5250 Sessions

You can limit users to connecting to only specific systems or running only specific applications.

- Create preconfigured 5250 sessions
- Then set policies to restrict users to only preconfigured sessions
- User selects 'Configured Sessions'
 - Only link provided
 - User has only one action→ to start a session

http://<systemi>:<port>/webaccess/iWAMain



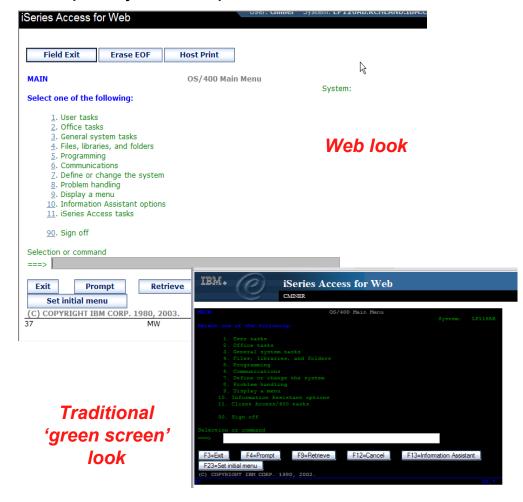


Run Pre-Configured 5250 Sessions

If you do not want users using anything in System i Access for Web except 5250, you could:

- Simply give them the 5250 url address (i.e., http://systemi/webaccess/iWA52 50)
- Set policies so users end up where you want them to be
 - Could include a macro so user bypasses i5/OS sign-on screen
- Predefine what screens will look like:
 - Colors
 - No Navigation pane

http://<systemi>:<port>/webaccess/iWA5250







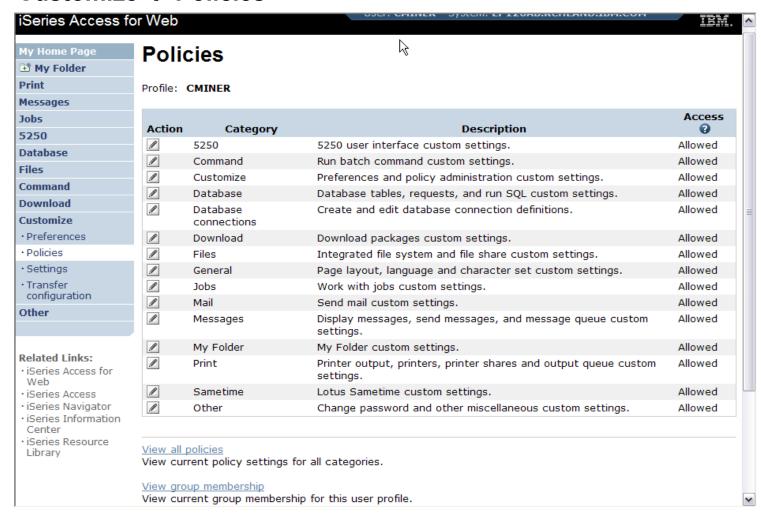
Policies

Policies are used by administrators to control the System i Access for Web functions and behavior



Policies

Only i5/OS user profiles with *SECADM authority can access "Customize → Policies"





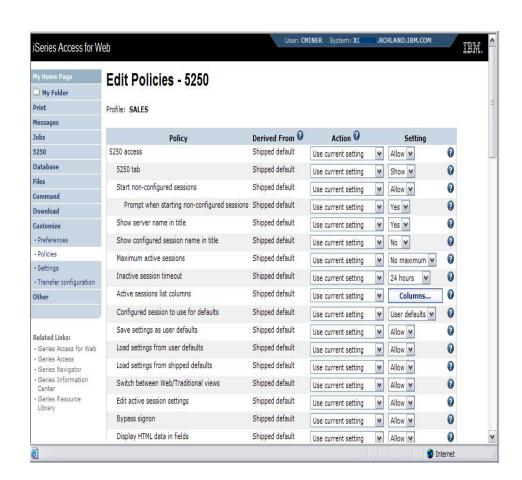


Setting Policies for 5250

When any user attempts to start a 5250 session to i5/OS using System i Access for Web, a check is made to see what policies have been set for this i5/OS user profile prior to displaying any information.

The following sequence of checks are made to authenticate user access:

- User profile
- Group profile
- *PUBLIC profile
 (*every System i Access for
 Web user is a member of
 *PUBLIC user group)





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Policy settings to use only Preconfigured sessions

Set all the policies listed below to "deny" in order to limit users to using only preconfigured 5250 sessions.

- Start non-configured sessions
- Create configured session
- Copy configured session
- Delete configured session
- Rename configured session
- Edit configured session
- Create configured session shortcut
- Copy configured session shortcut
- Delete configured session shortcut
- Rename configured session shortcut

http://<systemi>:<port>/webaccess/iWAMain



In this example, other policies were also set to remove other functions from the Navigation pane



Policy settings to use only 5250 (no navigation pane)

Here are some policies you could set to enable a user to go directly to a 5250 session and not see anything else in System i Access for Web

- Leave "Start non-configured sessions" on Allow
- Set "Prompt when starting nonconfigured sessions" to No
- In "Configured session to use for defaults", add a previously created Configured session that you have given this user/group profile a shortcut to

To entirely remove the Navigation pane, go to category "General"

– Navigation = Deny

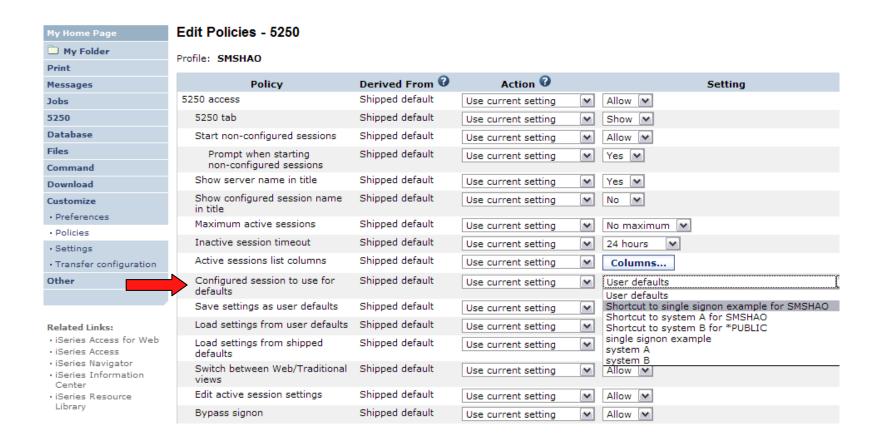
http://<systemi>:<port>/webaccess/iWA5250





Setting Default Session

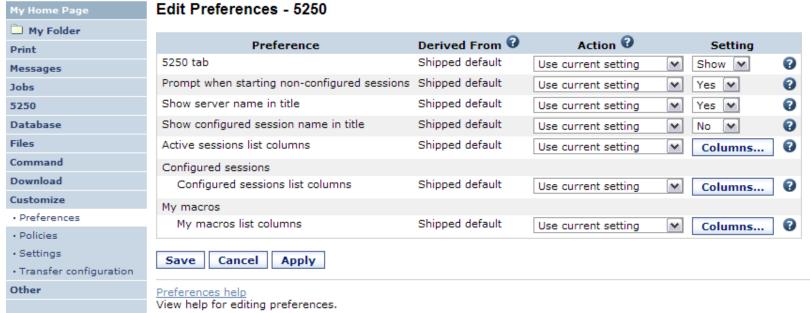
Select the shortcut to the session to use as the default and apply the policy



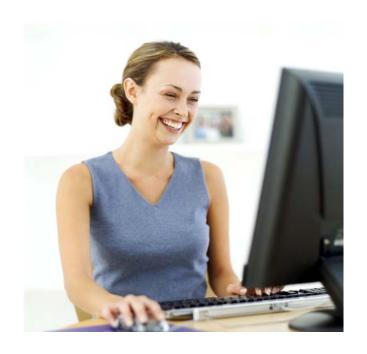


5250 Preferences

Preferences are settings that the user can modify







Starting a 5250 session



How to Start a 5250 Session

Two options:

1. Select 'Start Session'

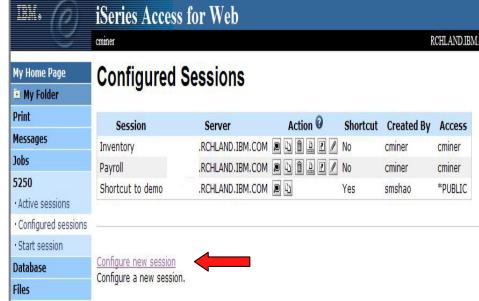
- Fill in information on Start
 Session and connect
- To save the session, select 'Active Session Settings' link at bottom of screen, modify any information you wish, then click on 'Save'

2

2. Select 'Configured Sessions'

- Select 'Configure New Session' link on lower screen
- Set up as you wish, then click on 'Save'



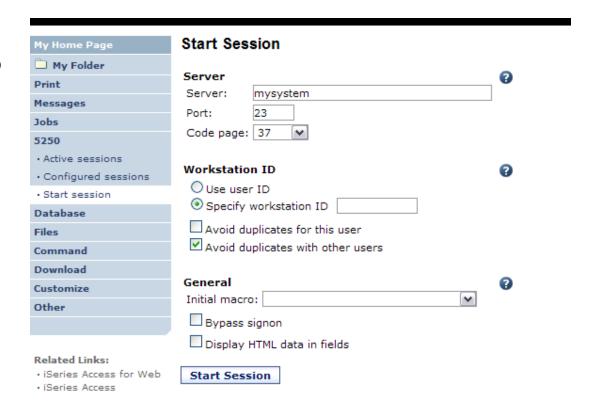


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Use "Start Session" Dynamically

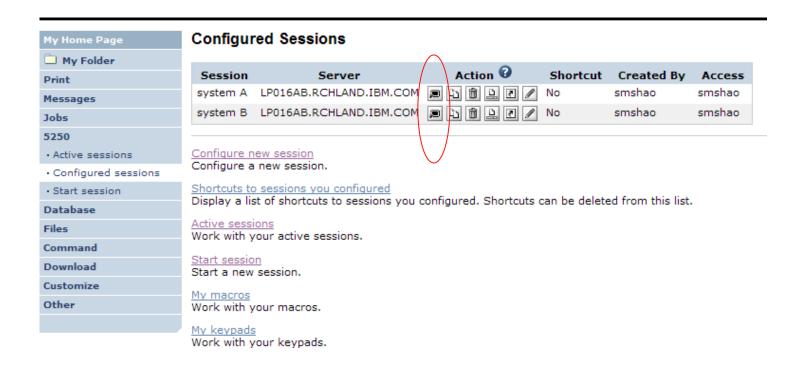
- Specify the system to connect
- Select the session attributes
 - Port, code page, workstation ID, etc.
- Start session





Start a Configured Session

- Configured sessions list shows the list of sessions for the logged in user
- Select the "Start" icon for the session to start





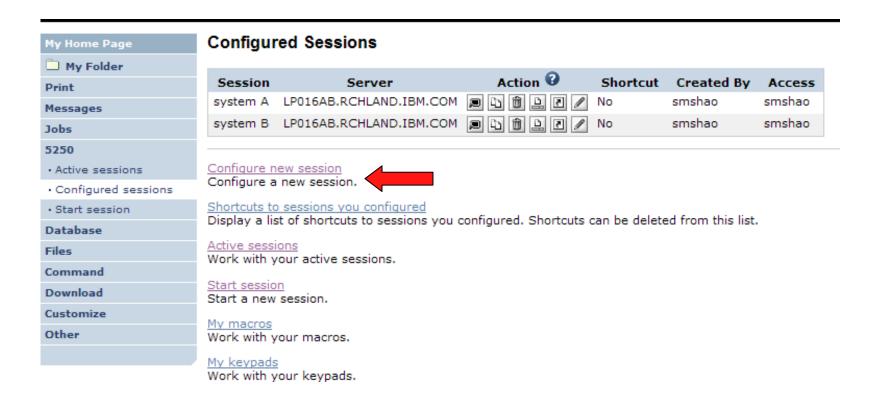


Configuration options for 5250 sessions



Configure a New Session

Select the "Configure new session" link





Setting up a 5250 Session

Select Session Name

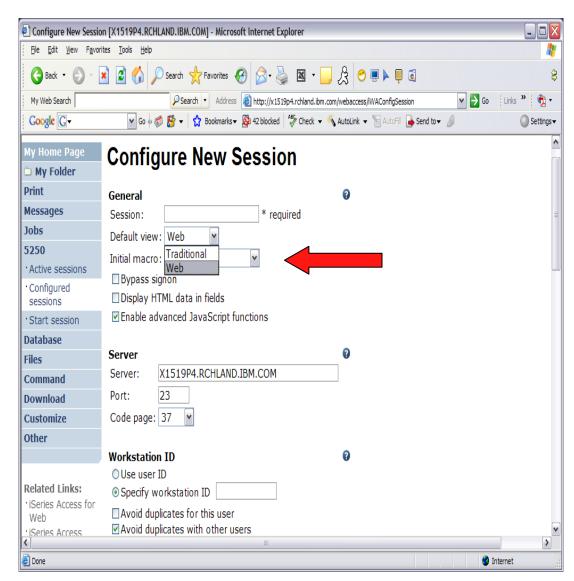
Name of this 'Configured' session

Determine screen look

- Web View is default
- Traditional View can be selected

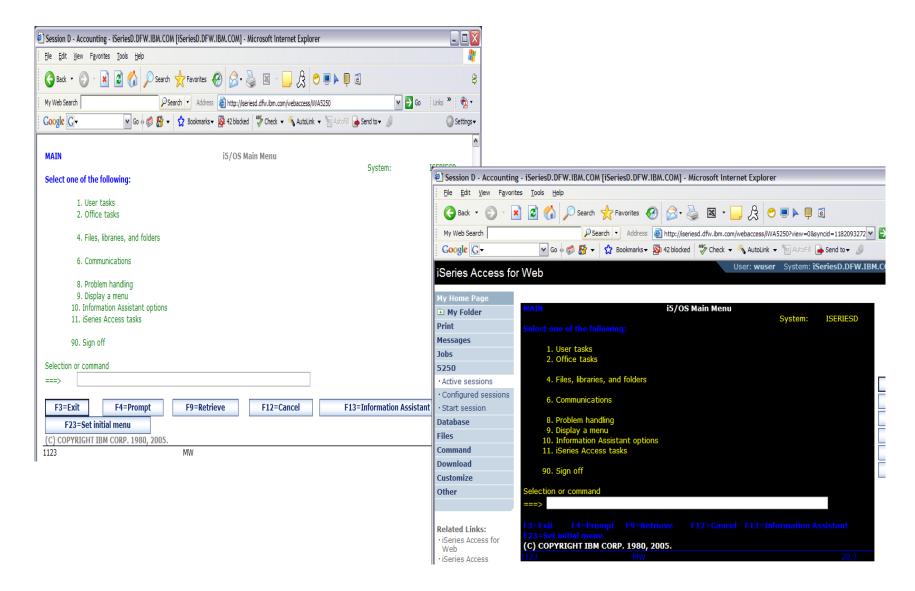
Select System i to connect to

- Enter System Name or TCP/IP address
- Port Address





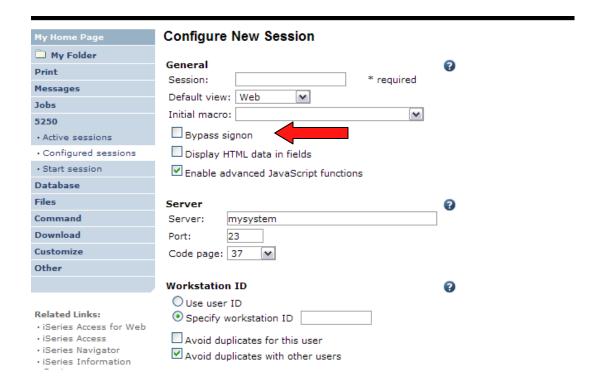
Web View Vs Traditional View





Bypass Signon – V5R4 and later

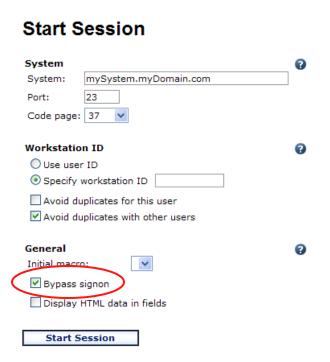
- Uses the credential the user used to login to System i Access for Web
- Option available for configured and dynamically started session





Bypass Signon – V5R4 and later

- QRMTSIGN system value must be *VERIFY
- Select bypass signon when starting or configuring a session



Configure New Session



- System i Access for Web must be configured for application authentication or application server authentication with Kerberos for bypass signon to be available
 - CFGACCWEB2 AUTHTYPE(*APP) ...
 - Uses the credential the user used to log in to System i Access for Web
 - CFGACCWEB2 AUTHTYPE(*APPSVR)
 AUTHMETHOD(*KERBEROS) ... new in V6R1!

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Configuring a New Session – Workstation ID

Workstation ID		
O Use user ID		
Specify workstation ID		
Avoid duplicates for this user		
✓ Avoid duplicates with other users		

Use user ID	System i Access for Web authenticated user ID is used for the workstation ID, up to ten characters.
Specify workstation ID	Enter a workstation ID of your choice, up to ten characters. If you select the radio button and leave the text field blank, a value is generated by i5/OS. The default device name starts with <i>QPADEV</i> .
Avoid duplicates for this user:	When this option is enabled, a wild card character is added to the device name to make it unique for the current user.
Avoid duplicates with other users:	When this option is enabled, the server adds a wild card character to the device name to make it unique for all users on the server.



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Workstation ID

You can enter keyword and special characters, like you do for PC5250. Here is how they are handled.

Computer name or User name (&COMPN, &USERN): These keywords are accepted.

- However, they will not resolve to the PC name and the Windows login user ID like they do in PC5250
- Computer name: resolved to the System i name
- User name: resolved to the user profile name of the web application server job.
- Also note that using the &COMPN and &USERN keywords could result in workstation IDs that are longer than ten characters which would then be truncated.

Session Type ID (%):

- This will add an "S" to workstation ID, indicating that this is a display session.
- With PC5250, a "P" would replace the "%" if a printer session was started. However, System i Access for Web only has display sessions.



Workstation ID (continued)

Keyword and special characters, continued...

Short session ID (*): Adding this character will make the ID unique for this user.

- The System i Access for Web option Avoid duplicates for this user causes the "*" character to be added at the end of the ID.
- Therefore, if you use both the "*" and Avoid duplicates for this user, then two special characters will be added to the workstation ID.

Collision Avoidance ID (=): Adding this character will make the session ID unique.

- The System i Access for Web option Avoid duplicates with other users causes the "=" character to be added at the end of the string.
- Therefore, if you use both the "=" and Avoid duplicates with other users, then two "=" will be added to the string..

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Configuring a New Session (continued)

Web View and Traditional View settings

- Many keyboard and screen settings can be set to improve end user productivity and satisfaction
- Can also set up different text colors

Create a consistent 'look' for all your users...

View	0
Web	Traditional
✓ Show navigation bar	✓ Show navigation bar
✓ Show action links	✓ Show action links
Show hotspot links	Show hotspot links
☑ Show JavaScript indicator	✓ Show JavaScript indicator
Display text using fixed width font	☑ Display text using fixed width font
☑ Enable "More" as button	☐ Enable "More" as button
▼ Enable menu items as links	☐ Enable menu items as links
Show function key bar	☑ Show function key bar
✓ Show macros section	✓ Show macros section
Show operator information area (OIA)	✓ Show operator information area (OIA)
Show active sessions	☐ Show active sessions
☑ Enable cursor positioning	☐ Enable cursor positioning
Position cursor at exact location	Position cursor at exact location
✓ Enable message text line as help link	☐ Enable message text line as help link
☑ Enable active function keys as buttons	☐ Enable active function keys as buttons
☐ Show function key text (Fxx=) on button	
Foreground colors 5250 Browser Black: Black Blue: Blue Green: Green Cyan: Teal Red: Red Magenta: Fuchsia Brown: Yellow White: Gray	Foreground colors 5250 Browser Black: Black Blue: Blue Green: Green Cyan: Teal Red: Red Magenta: Fuchsia Brown: Yellow White: White
Operator information area (OIA) Color: Black	Operator information area (OIA) Color: Blue

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Example: 5250 - Proportional Width vs. Fixed Width

Default for 'Web View' is to display output using Proportional width fonts

To change to Fixed width fonts, check the box that says:

Display text using fixed width fonts

Users can also do this on-the-fly by clicking on the "Active session settings" link and change the setting for this connection, or by switching to Traditional view.







Fonts

System i Access for Web 5250 is rendered with HTML

- Fonts are controlled by the browser
- Use browser options to change the font style and font size

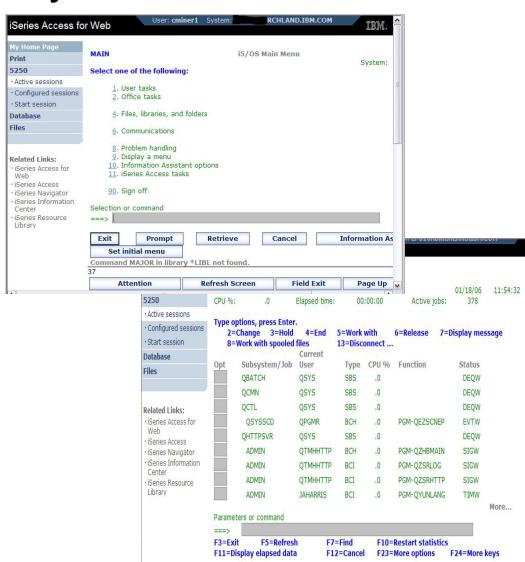


Enable Active Function Keys As Buttons

Defaults:

- Display ActiveFunction Keys asButtons
- Show More... as a button

Can uncheck these boxes to deliver a more traditional view

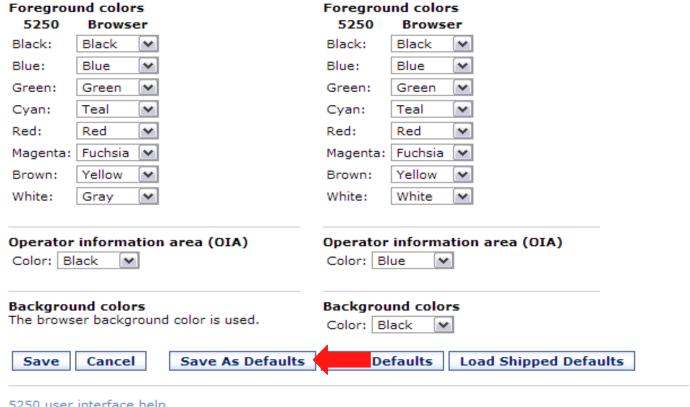




Setting User Defaults

"Save As Default" saves this session configuration as the default for the current user.

Can be performed from active session settings or configured session settings.

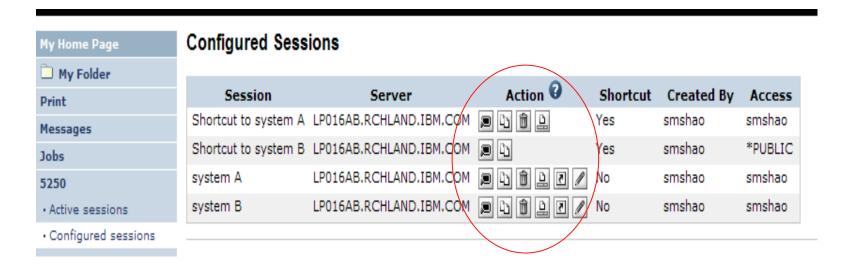


5250 user interface help

View help for editing a configured session.



Configured Session Actions



Start	Start the configured session
Сору	Make a copy of the configured session for yourself
Delete	Delete the configured session
Rename	Rename the configured session
Create Shortcut	Share the configured session with another user or group of users
Edit	Change the configured session settings



Creating Shortcuts to your configured sessions



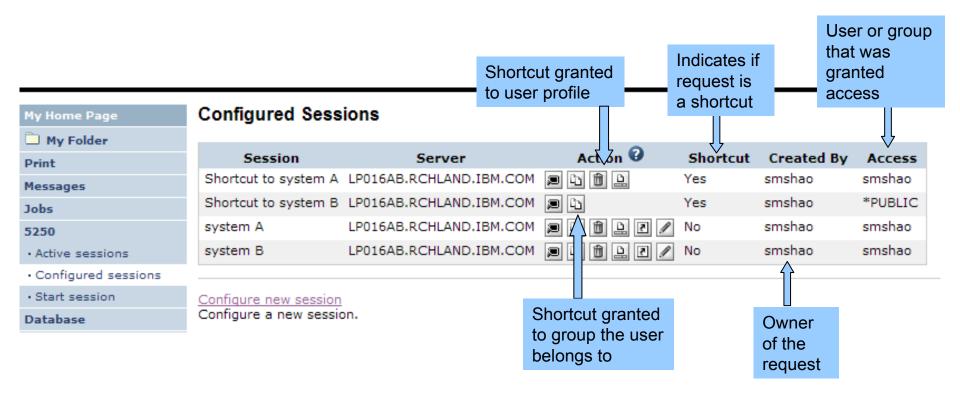


Shortcuts

- Shortcut is a pointer to a System i Access for Web object
 - Configured 5250 session
 - Database request
 - Shortcuts to an object are deleted when the object is deleted
- The objects is only accessible to the user that created it
- Can share the object with other users
 - Create shortcut for user or group to share with user or group
- User of the shortcut has read only access to the object
 - Cannot modify or delete the object



Shortcut Example





Create 'Shortcuts' to Configured Sessions

Your Configured Session

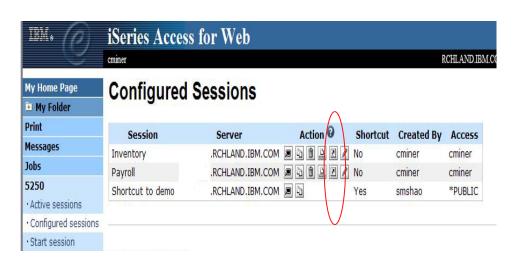
-Create 'Shortcuts' for other users

Can set Policies

-To restrict what users can do with your shortcut.

-Do not allow users to:

- Copy your shortcut
- Delete your shortcut
- Rename your shortcut

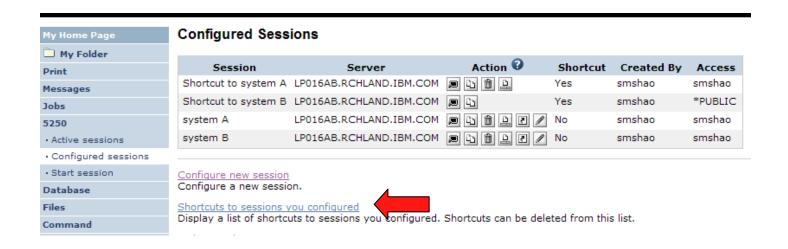






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Finding Shortcuts You Created

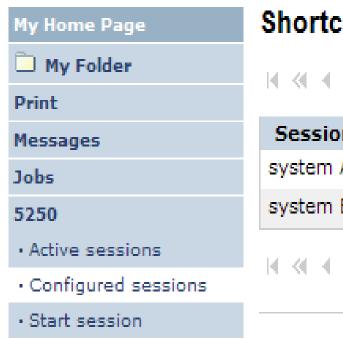


Click the "Shortcuts to sessions you configured" link

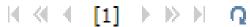


Managing Shortcuts You Created

- List of shortcuts you created
- Delete shortcuts you created



Shortcuts to Sessions You Configured



Session	Shortcut	Access	Action
system A	Shortcut to system A	smshao	Û
system B	Shortcut to system B	*PUBLIC	Û



- - -





Creating Macros

Shortcuts to Macros

Adding Macros to
Preconfigured Sessions



Macros

Behave differently than PC5250

- Keys processed on a screen by screen basis
 - PC5250 every key is recorded and played back
 - System i Access for Web cursor positioned in field and keys entered into field
- On a given screen, keys may not be processed in the same order as they are entered
- Functionally equivalent, but behaves differently



Recording Macros

	Sign On				
				· -	
		Display :		V000G	
Uses					
	,				
USE OF THIS SYSTEM IS FOR IBM MANAGEMENT APPROVED PURPOSES ONLY.					
					SSE IS SSSEET TO ASSET AT THE STEET PARTICIPATION
(C) COPYRIGHT IBM CORP. 1980, 2005. 6,53					
Attention	Refresh Screen	Field Exit	Page Up	Enter	
System Request	Stop Session	Reset	Page Down		
Macros Macro: Shortcut to My macro for *PUBLIC ▶ Play Macro Start Recording					
	Password . Program/pr Menu Current libr RELI DRI USE OF THIS SYSTEM IS F USE IS SUBJECT TO A 37 Attention System Request Macros Macro: Shortcut to My mac	User	System: Subsystem: Display: User	System: LP016// Subsystem: QINTEI Display: QPADE User	



Stop Recording

My Home Page		Sign On	System:	LP016AB		
Print			Subsystem :	QINTER		
Messages			Display :	QPADEV00	00G	
lobs	User					
5250						
· Active sessions		ocedure				
Configured sessions	Menu					
Start session	Current library					
Database						
Files						
Command	RELEASE: V05R04M00 DRIVER: 4501130					
Download	DRIV	/ER: 4501130				
Customize	USE OF THIS SYSTEM IS FOR IBM MANAGEMENT APPROVED PURPOSES ONLY. USE IS SUBJECT TO AUDIT AT ANY TIME BY IBM MANAGEMENT.					
Other	USE IS SUBJECT TO A	UDITAL ANT TIME BT ID	M MANAGEMENT.			
Related Links:	elated Links: (C) COPYRIGHT IBM CORP. 1980, 2005.					
· iSeries Access for Web	37		R		53	
 iSeries Access 	Attention	Refresh Screen	Field Exit	Page Up	Enter	
 iSeries Navigator iSeries Information Center 	System Request	Stop Session	Reset	Page Down		
iSeries Resource Library	Macros					
	Macro: Shortcut to My macro for *PUBLIC ▶ Play Macro					
	Stop Recording Paus	se Recording				

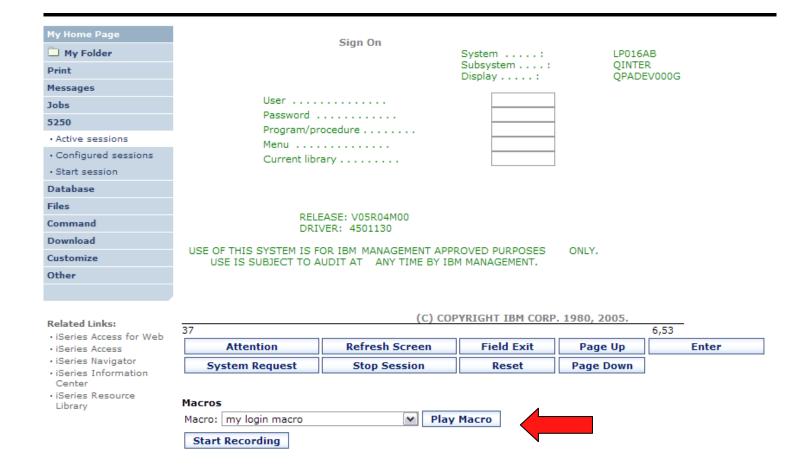


Naming the Macro





Playing Macro

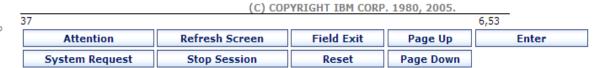




Managing Macros

Related Links:

- · iSeries Access for Web
- · iSeries Access
- · iSeries Navigator
- iSeries Information Center
- iSeries Resource Library



Macros

Macro: my login macro Play Macro

Start Recording

Traditional view

Switch this session to traditional view.

Active session settings

Change the settings for this session.

Active sessions

Work with your active sessions.

Configured sessions

Work with your configured sessions.

My macros

Work with your macros.



My keypads

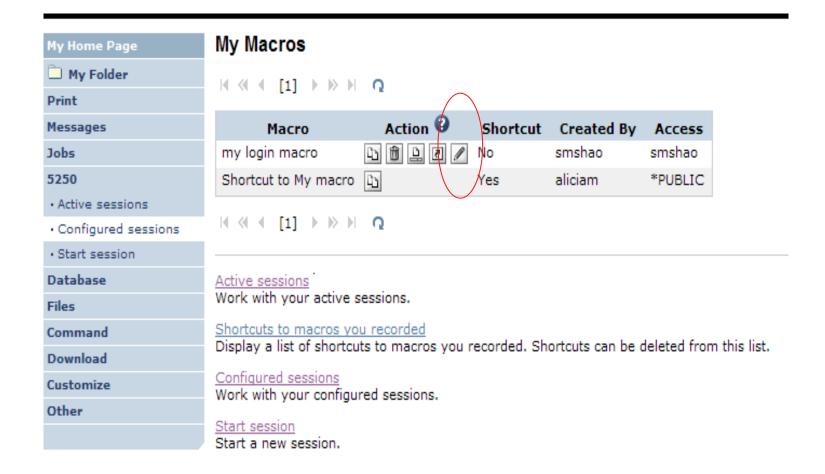
Work with your keypads.

5250 user interface help

View help for using the 5250 user interface.



My Macro List → Edit Macro





Single Sign On with Macro

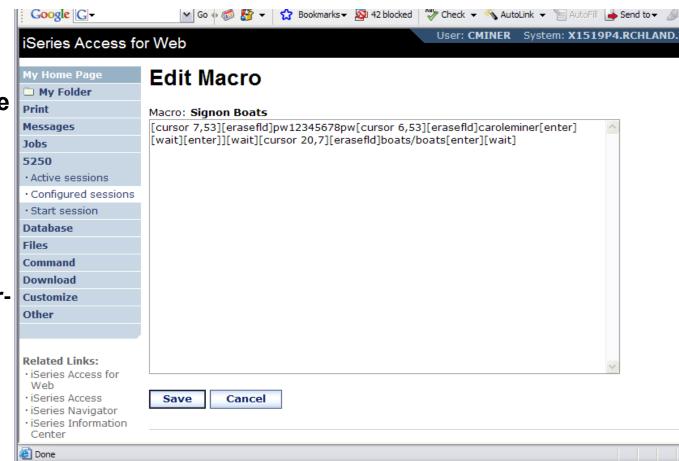
- Create a macro to login to 5250
 - Using your own user ID and password
- Edit the macro and replace your user ID and password with directives to use the user's login
- Share the macro (create shortcut) with the user or group
- Associate the macro with a session so the macro is executed when the session starts
- Share the session (create shortcut) with the user or group



Editing a Macro

This macro was created to bypass the i5/OS sign-on screen and to put the user directly into an RPG application called BOATS.

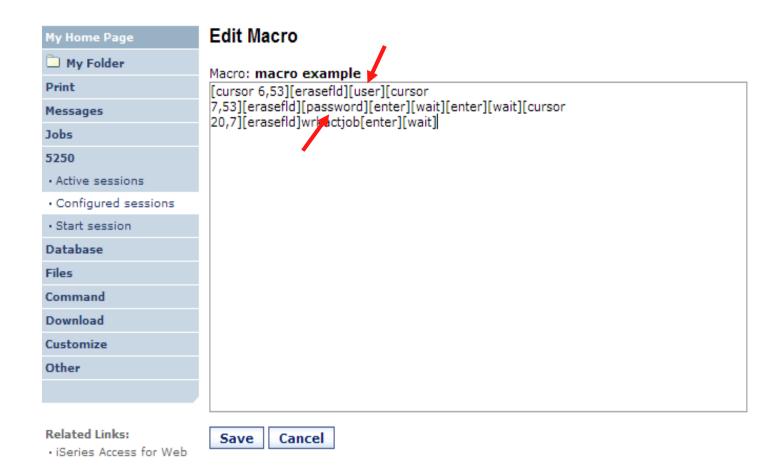
 Note that the user-ID and password are listed in clear text.





Edit Macro

Replace the recorded user ID with [user] Replace the recorded password with [password]





Supported Commands for Macros

The supported cursor positioning commands are:

General macro commands

[attn] - Attention [altview] - Alternate View [backspace] - Backspace [backtab] - Backtab [bof] - Beginning of field [clear] - Clear [down] - Cursor down [left] - Cursor left [right] - Cursor right [cursel] - Cursor select [up] - Cursor up [delete] - Delete character [dspsosi] - Display SO/SI [dup] - DUP field [enter] - Enter [eof] - End of field [eraseeof] - Erase EOF [erasefld] - Erase field [erinp] - Erase input [fldext] - Field exit [fieldmark] - Field mark [field-] - Field minus

[field+] - Field plus

Canaral macro commande

General macro commands				
[pf12] – F12				
[pf13] – F13				
[pf14] – F14				
[pf15] – F15				
[pf16] – F16				
[pf17] – F17				
[pf18] – F18				
[pf19] – F19				
[pf20] - F20				
[pf21] – F21				
[pf22] – F22				
[pf22] - F23				
[pf24] – F24				

Bi-directional text support commands

[base] - Base [close] - Close [fldrev] - Field reverse [latinlayer] - Latin layer [screenrev] - Screen reverse

Other macro commands

[cursor row,column] - Locate cursor at specified row and column. Row and column must be numbers. [password] – authenticated password [pause] - Pause 1 second [pause n] - Pause n seconds [user] - authenticated user-ID [wait] - Wait for input

[pageup] - Page up

[pa2] - PA2

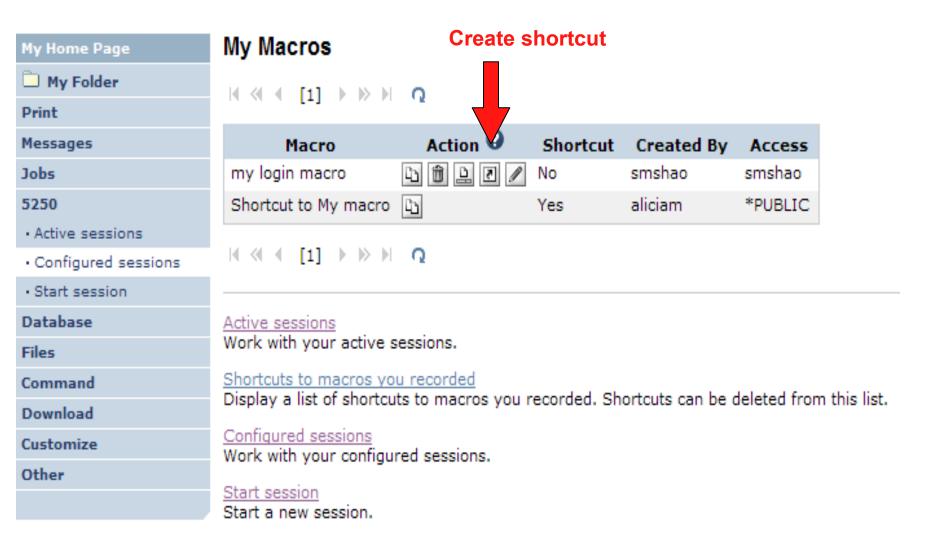
[pa3] - PA3

[sysreq] - System request

[tab] - Tab field [test] - Test request

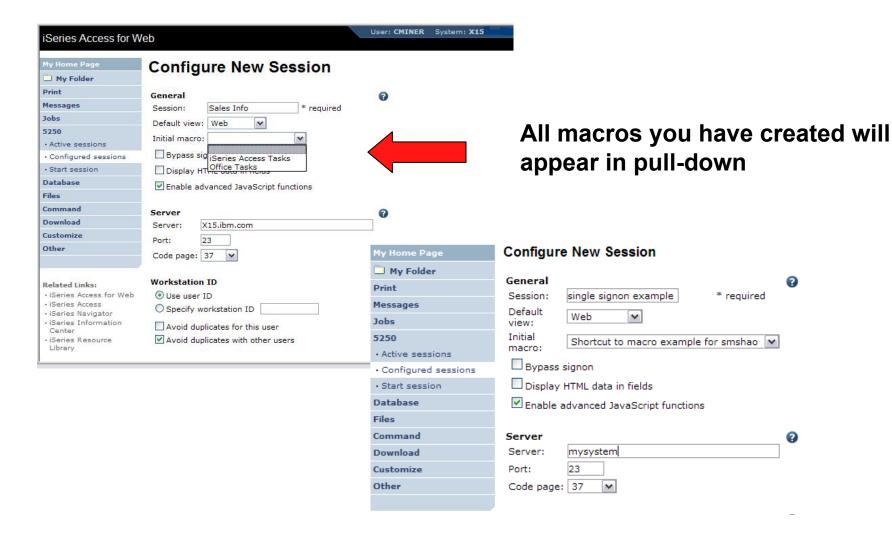


Sharing a Macro





Add a macro to a New Session





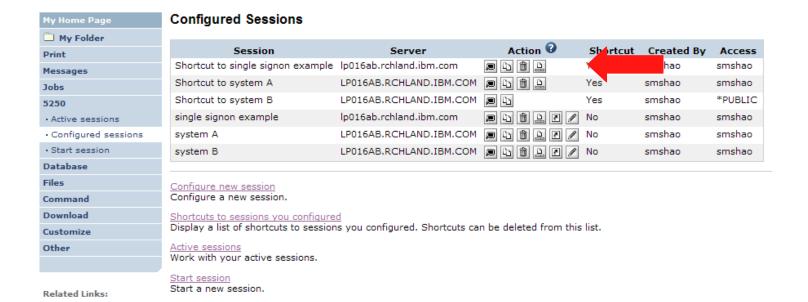
Share the Session / Share the Macro







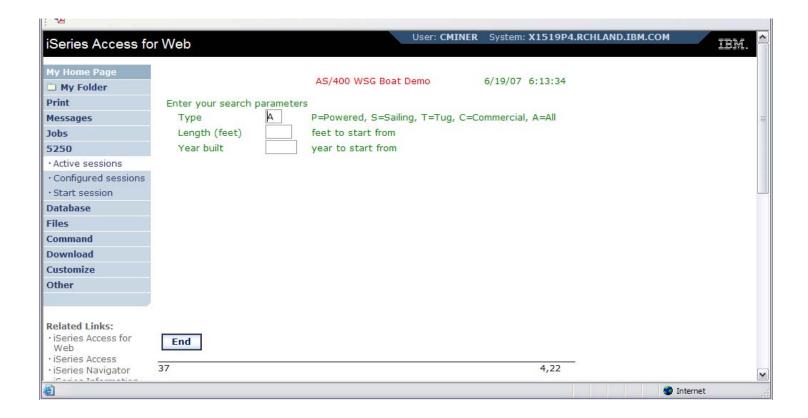
Starting the Session





Start Session Result

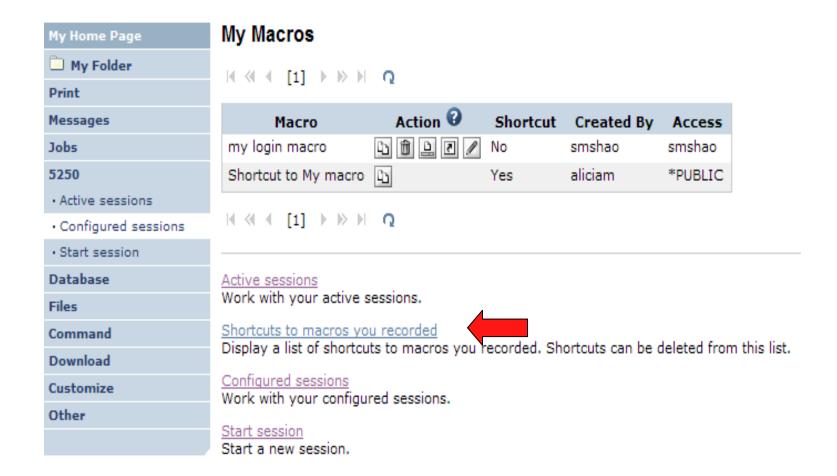
- User is taken directly to the application
- 5250 session is logged in using the user's ID and password





Managing Macro Shortcuts

Shows all macros I have created, plus shortcuts





Macro Shortcut List

Shows just shortcuts I have created





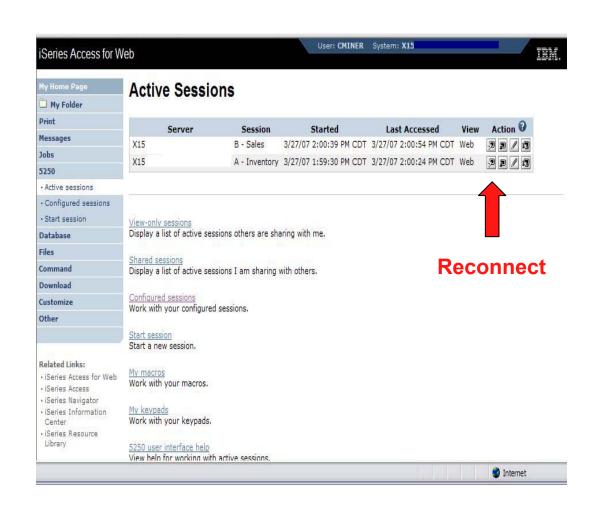


Active Sessions



Active Session

- An active session is a session that has been started
 - Dynamically or configured session
- A user may have more than one active session





Active Session Life Span

- Session resides on the server, not the workstation
- Session remains active until
 - User ends (stops) the session, or
 - Session time out due to inactivity
 - Time out value is configurable through Access for Web



Taking advantage of active session behavior

- Leave the session and browse on the web, or
- Leave your workstation and go to another workstation and
- Reconnect to your session

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Ending a Session

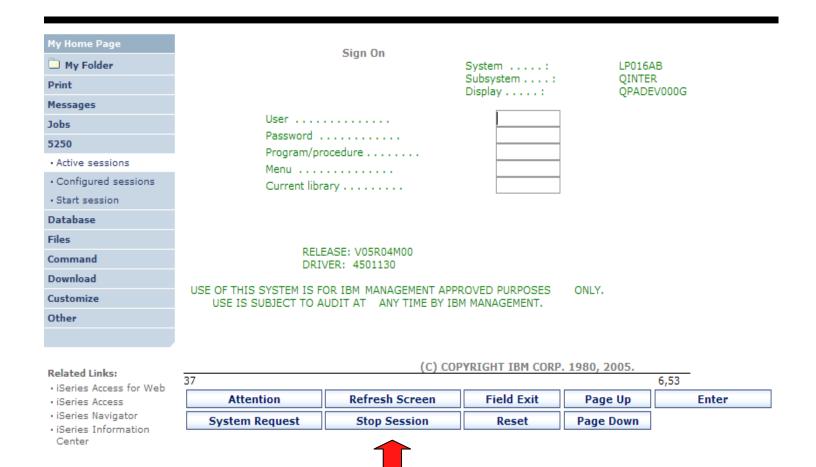
Closing the browser or turning off the workstation does not end the session

- Two ways to end a session
 - From an active session
 - From active session list
- Properly cleaning up TN5250 connection
 - Frees up resources in application server (Access for Web)
 - Frees up resources on target server (TN5250)

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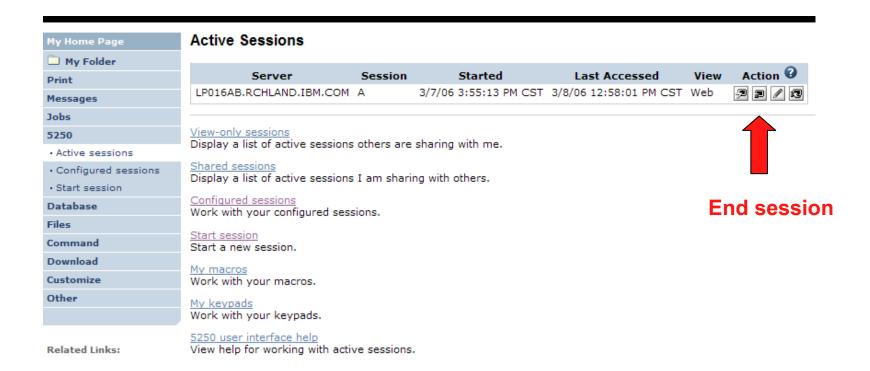
Ending a Session from Active Session







Ending a Session from Active Session List





Changing Active Session Settings

Does not affect the configured session settings

- The changes are tied to the running instance of the session
- Changes only affect how this particular active session behaves

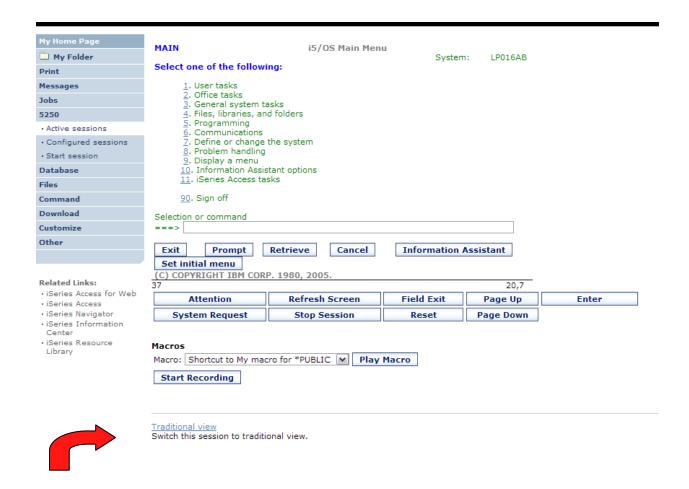
Some settings are not modifiable

- Server name
- Port
- Code page
- Workstation ID
- Default view (web or traditional)
- Initial macro





Active Session - Web View



Switch to traditional view by selecting the "Traditional view" link



Active Session - Traditional View



Switch to web view by selecting the "Web view" link



Web View vs. Traditional View

Web View

- Proportional font
- Menu displayed as links
- Active function keys displayed as buttons
- Allows cursor positioning at non-input fields
- Display "More..." as button
- Message line (25th line) treated as help

Traditional View

- Fixed width font
- Function key bar (F1-F24)
- Background color configurable (default is black)

- All the view settings are configurable.
- Configure web and traditional view settings for your environment.



Cursor Positioning







Keypads



My Keypads

Configuring a Keypad is a very effective way to simplify many end user tasks

 For example, a button to do a 'Host Print' of a screen





Cancel

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5250

Active sessions

Configured sessions



Keypads

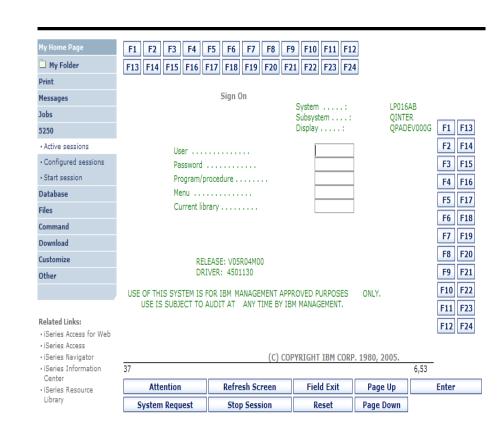
Three sets of keypads

- Top, right, and bottom
- Each set can be customized
- Each set can be turned on or off

Macros can be assigned to keypad

Configuration is per user

- One keypad configuration per user
- Global across all session configurations
- Not tied to session configuration



Keypads cannot be set by administrator for users



Configuring Keypad

Download Customize Other

USE OF THIS SYSTEM IS FOR IBM MANAGEMENT APPROVED PURPOSES ONLY.

USE IS SUBJECT TO AUDIT AT ANY TIME BY IBM MANAGEMENT.

Related Links:

- · iSeries Access for Web
- iSeries Access
- iSeries Navigator
- iSeries Information Center
- iSeries Resource Library



Macros

Macro: Shortcut to My macro for *PUBLIC ▶ Play Macro

Start Recording

Traditional view

Switch this session to traditional view.

Active session settings

Change the settings for this session.

Active sessions

Work with your active sessions.

Configured sessions

Work with your configured sessions.

My macros

Work with your macros.

My keypads

Work with your keypads.

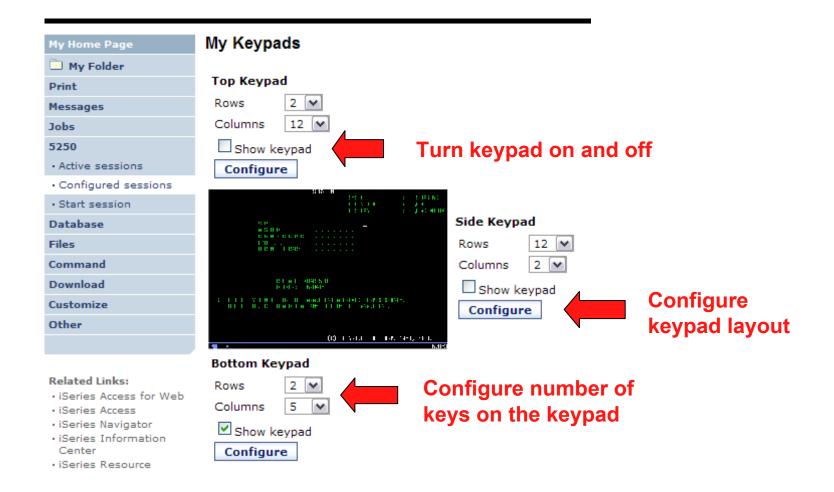
5250 user interface help

View help for using the 5250 user interface.



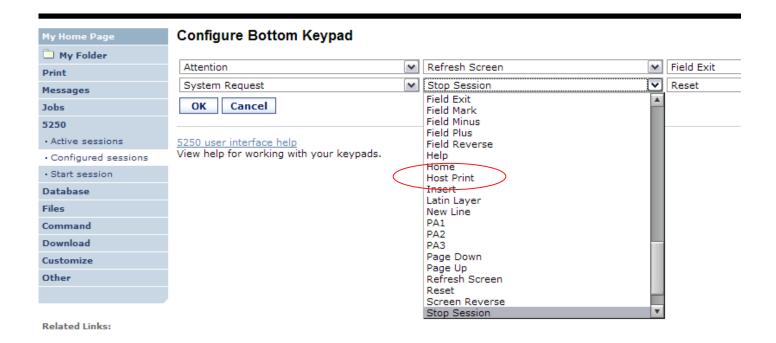


Configuring Keypad

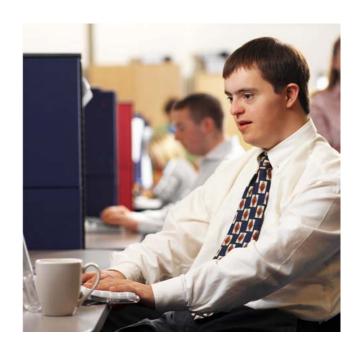




Configuring Keypad







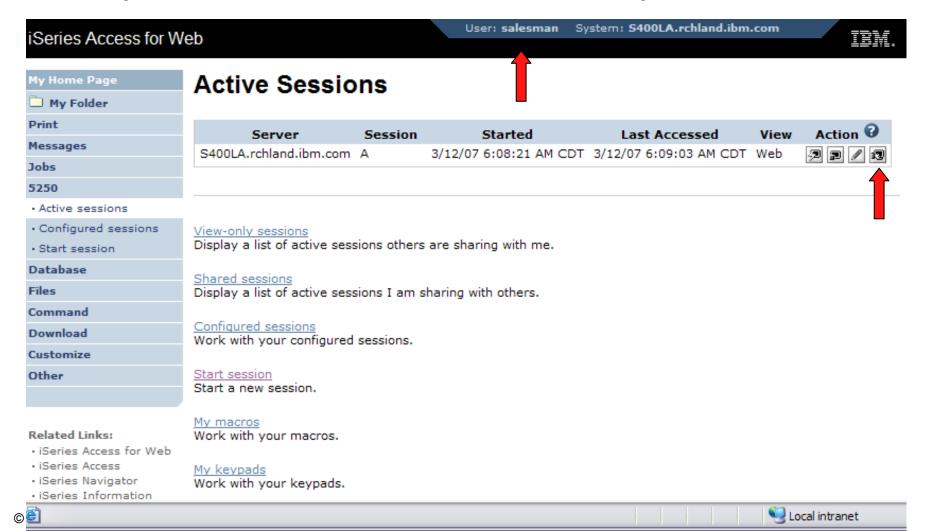
Shared Sessions



Sharing an Active Session

Give another user or group a read-only view into an active session

- Example: user SALESMAN shares session with help desk-JOE





Sharing an Active Session

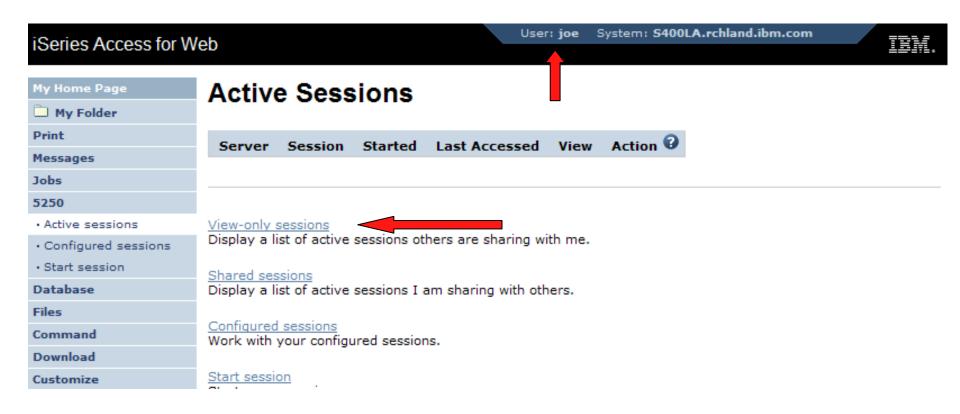
SALESMAN enters the user or group profile to share the session with Joe





View-only Sessions

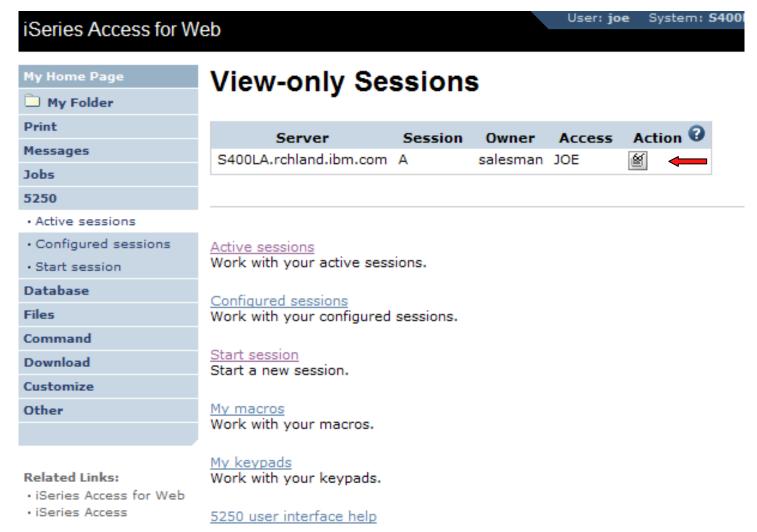
Help desk (Joe) now selects "View-only sessions" link to display the list





View-only Session List

Joe clicks the "View" button to view the session



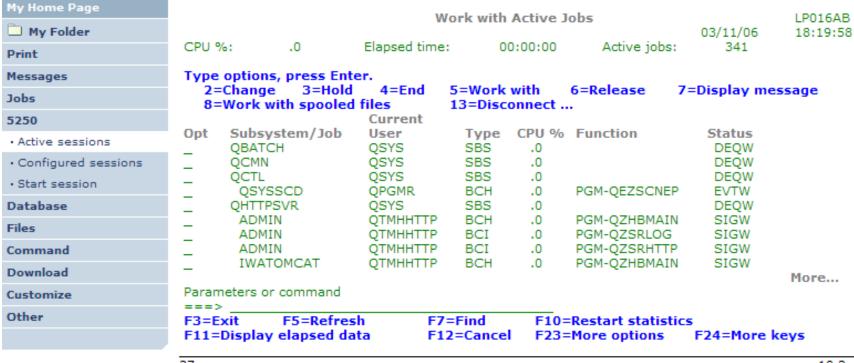
80



View-only Session

View-only session: input fields are disabled.

Use the browser "Refresh" button to display updated screens.

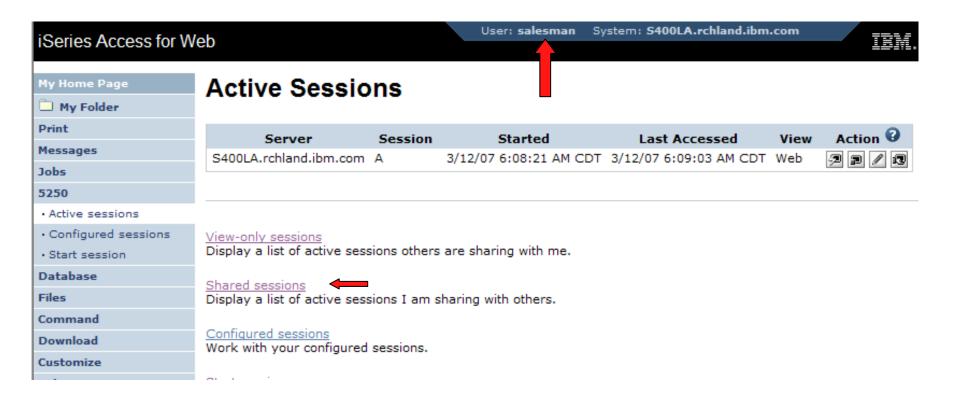


37 10,2



Managing Shared Sessions

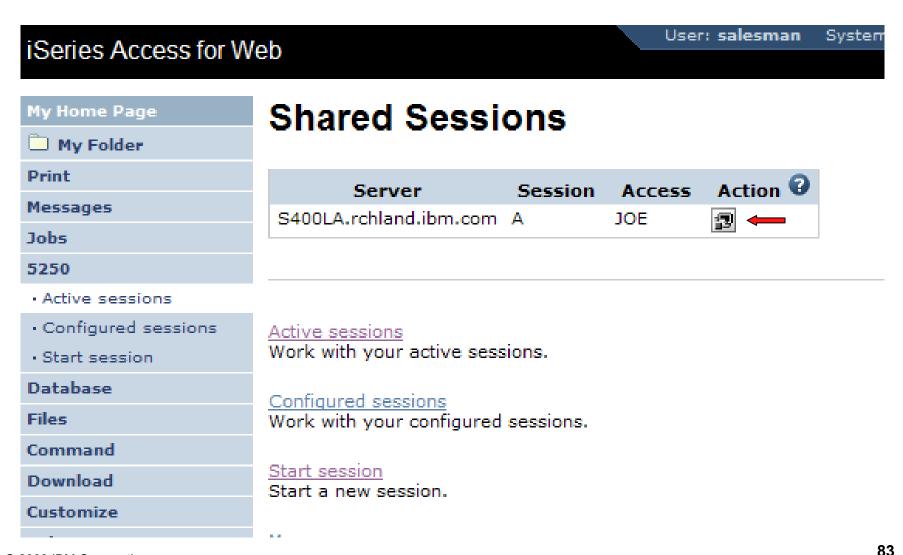
SALESMAN selects "Shared sessions" from the "Active Sessions" list to display the list of active sessions that are being shared





Shared Session List

SALESMAN uses the "Stop sharing" button to stop sharing this session



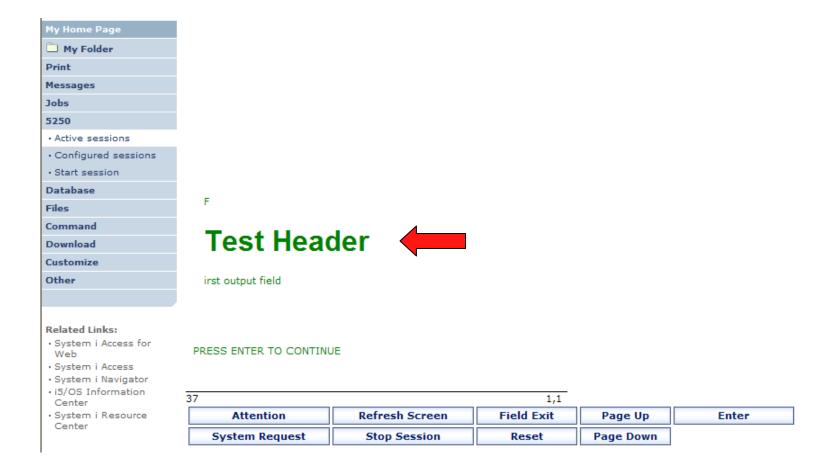


Other



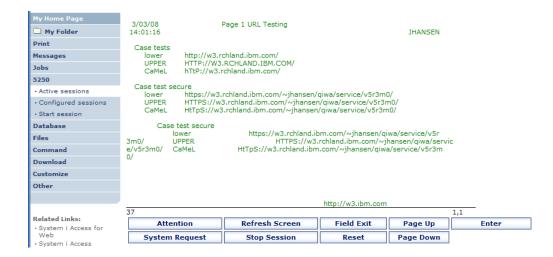
DDS HTML Support

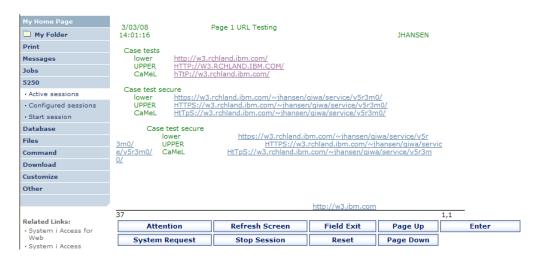
HTML contained within 5250 screen





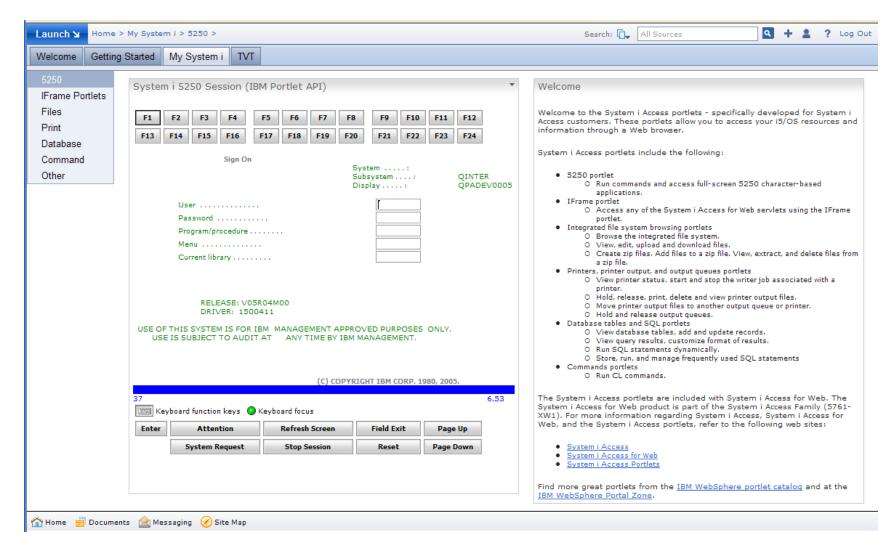
Hotspot







5250 and Portal Server





Try out System i Access for Web for yourself!

Start your browser and connect to the following web site:

http://iseriesd.demos.ibm.com/webaccess/iWAHome (case sensitive)

User ID = WACUST Password = demo2pwd	This shows the basic look of System i Access for Web as we ship it. You can try various functions including working with printer output, creating database requests, etc. Click on the 5250 tab, sign onto the iSeries, then start an RPG application called BOATS and run it.
User ID = BOATADMIN Password = demo2pwd	This is an example of how a customer might design a web page for their use. You will see that an end user could start the same BOATS application by clicking on the 5250 session, or they could have used HATS to run the application. You will also see other links that would let a user work with spoolfile information, work with IFS, run database requests, etc

Send email to: LLHIRSCH@us.ibm.com to reset the user profiles on iseriesd.demos.ibm.com if either one gets disabled.



Questions?



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