Documentation Library

Terminal Session

User Guide

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Welcome to Terminal Session

This guide provides information about using the aXes terminal in the browser. The information provided here is intentionally brief. Refer to the on-line help for more information about using a terminal session.

If the aXes terminal client is not displayed correctly then read the information in the Troubleshooting section of the aXes Reference.

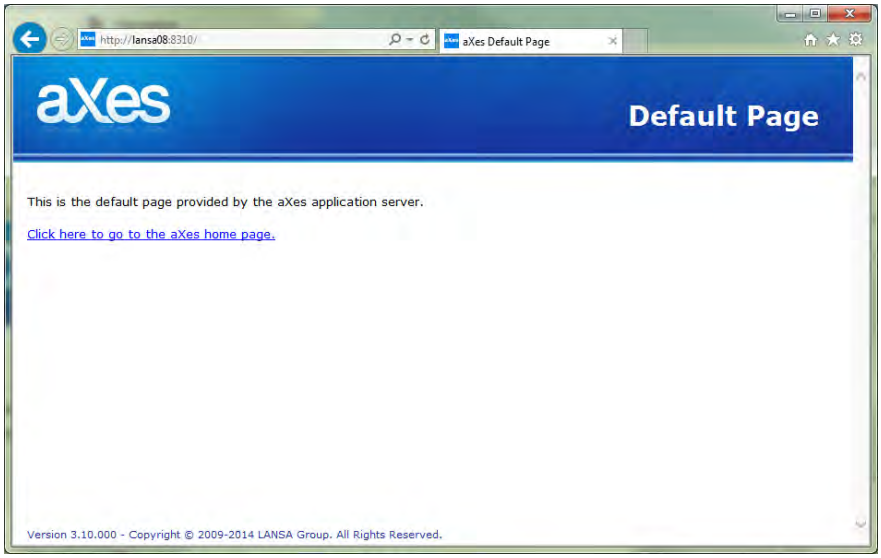
Starting a Terminal Session

A terminal session can be started by one of the following methods.

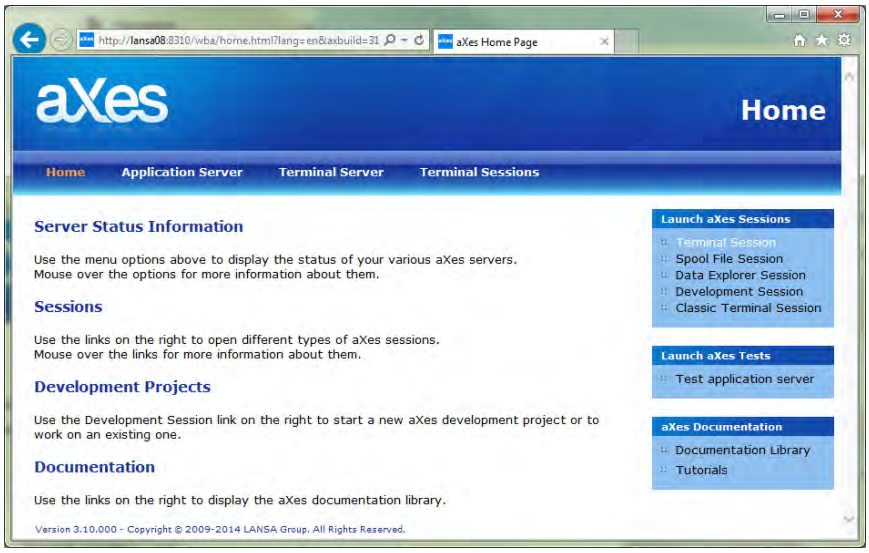
Specify the system name and port, if other than 80, and follow the link to the aXes home page. From there click on the link to launch the aXes terminal session.

http://system:port

Where **system** is the name of your IBM i server and **port** is the port on which the aXes Application Server is listening. The port number is required only if it is not 80.



You can then navigate to the aXes main homepage and click on Terminal Session on the right hand side.



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Specify the full URL for the terminal in the form:

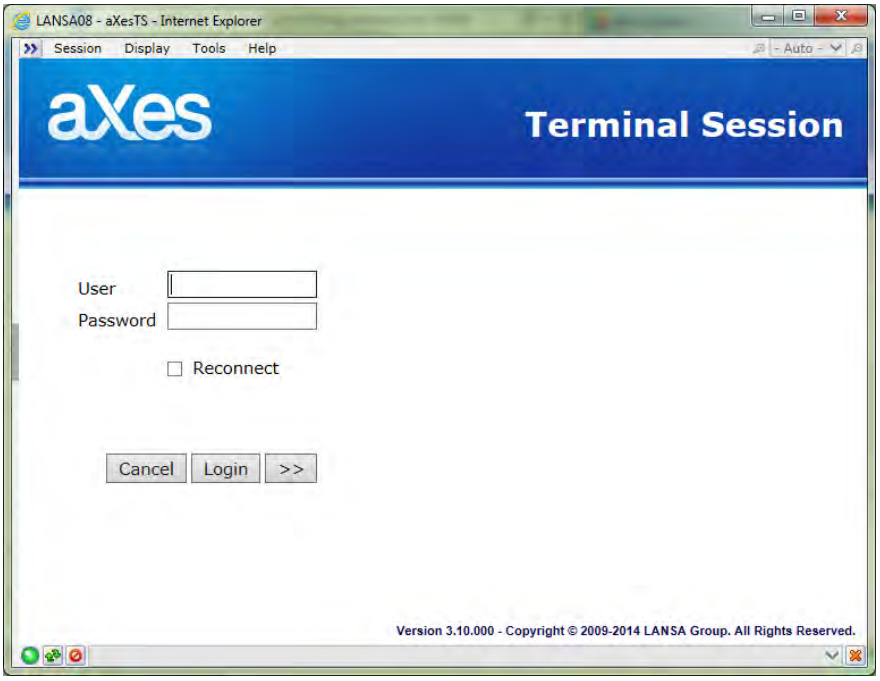
http://system:port/ts/ts2/index.html?definitionSet=your_project&lang=your_language

where

your_project	The name of your project you would like to apply to this terminal session instance.
your_language	The language you would like your Terminal Session to display into.

This URL will launch aXes terminal session with your language and your project definition.

The first panel displayed is a logon panel.



If you click the >> button in the middle of the page, additional fields will be displayed allowing you to select the device type and device name, and override the initial program, initial menu, and current library.

The system administrator may have removed this button or may have configured aXes Terminal Server to ignore client overrides for these fields.

Specifying the initial program, initial menu, and current library is an arcane 5250 method and should not be used in a modernized and web-enabled application. Instead you should use the initial program (INLPGM) associated with the user profile to call the required program.

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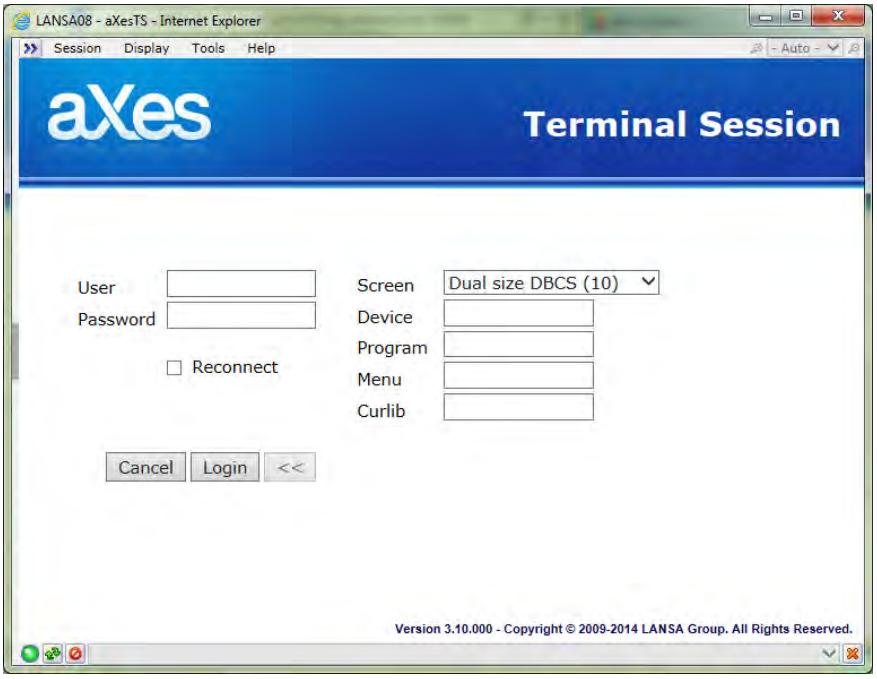
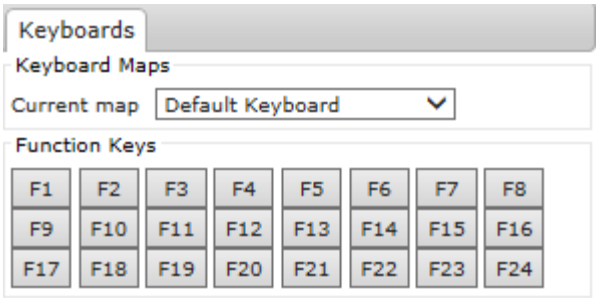


Enter your IBM i user profile name and password.

A successful logon will cause your initial program to run and your normal initial IBM i panel will be displayed. The default terminal view displays only the terminal but you can click the icon in the top-left corner to make the Action Tabs panel appear.

The Action Tabs panel (click on » in the top left corner) let you select different keyboard maps and provides access to IBM i keys not normally available on a PC keyboard.



Keyboard Mapping

Two keyboard layouts are supplied with the aXes terminal:

- PC-style
- 5250-style

The primary difference is that PC-style uses the PC Enter key for Enter and the PC Right-Control key for Field Exit while the 5250-style uses the PC Enter key for Field Exit and the PC Right-Control key for Enter.

The default key map is the PC-style but you can choose the one you prefer by opening the sidebar of the terminal and selecting a keyboard map from the list box.

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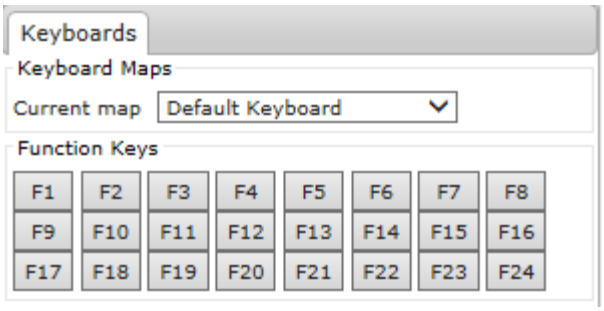
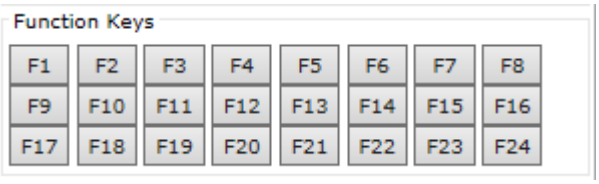
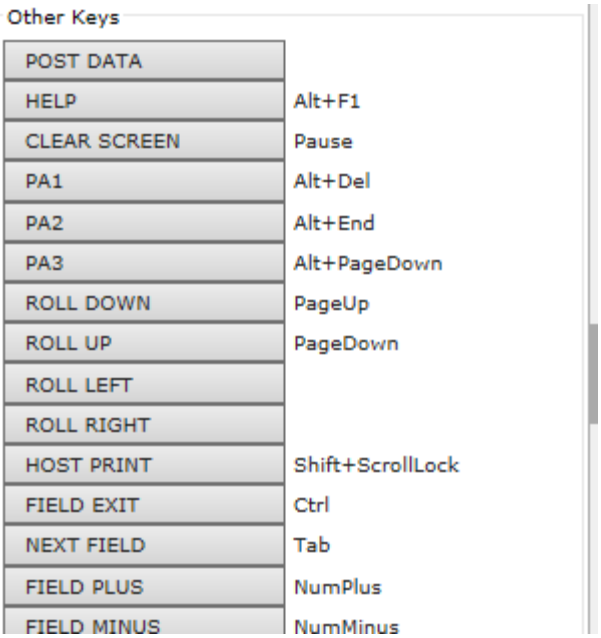


See the aXes Reference for information about creating your own keyboard mapping files and how to add them to the aXes list.

You can apply function keys to the current application panel by pressing the key or by clicking the function key button in the Function Keys section.



You can apply other 5250 terminal keys by pressing the mapped key combination or by clicking the appropriate button in the User Defined Keys section.



Automatic GUI Recognition

The default behaviour of the aXes terminal client is to perform automatic GUI recognition, which involves the client searching each screen for recognisable identifiers such as function keys, menus, subfiles, and URLs. The system administrator can disable this function and can also control the various aspects of the recognition algorithm. You can control whether GUI recognition is active or not via the check box in the menu bar.

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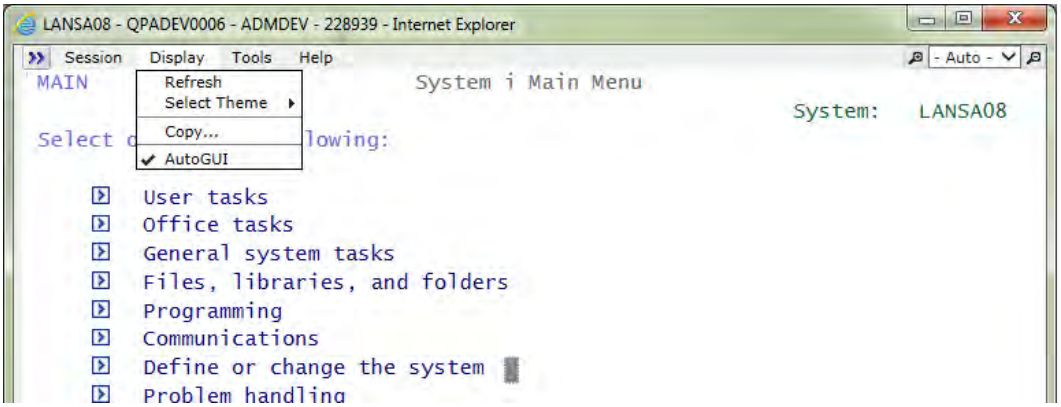

Cursor Focus

When the mouse cursor is clicked on a browser element that is outside the aXes terminal frame, such as a browser menu item, the focus is no longer on the terminal frame. This has the side effect of causing subsequent keystrokes to be sent to the browser component that currently has the focus and thus are not received by the terminal.

If you use the mouse to perform actions such as selecting options from the browser menu bar, selecting options from the terminal menu bar, or selecting items from the Favourites or History panels, then you must click the mouse cursor within the terminal frame to return the focus to the terminal before continuing your work.

You are most likely to notice this effect when you press function keys and find they are handled by the browser rather than being passed on to the server-based application.

aXes Terminal Server catches most of these errors and will send a message indicating the function key has been ignored and that you should try it again. Focus will automatically be returned to the terminal if this occurs.

Disconnecting from the Server

Because the browser does not maintain a permanent connection to the server, aXes Terminal Server cannot determine when a browser no longer requires its services. The TSExpiryTime= directive in the aXes Terminal Server configuration file is used to handle terminal sessions that are no longer required.

When no request has been received from a browser for a period of time that is greater than the value specified for TSExpiryTime, aXes Terminal Server will disconnect the session. If the display device used by the session is a QPADEV* device automatically assigned by the system the session will be ended by IBM i. If the device is a named device, even if the name is a QPADEV* device, then the session will be disconnected. Named sessions will remain disconnected for the time specified by the QDSCJOBITV system value. The operating system will attempt to reconnect a disconnected session the next time the user signs on to the named device.

To explicitly suspend an aXes terminal session, use the mouse to select Session->Suspend from the aXes terminal menu bar.

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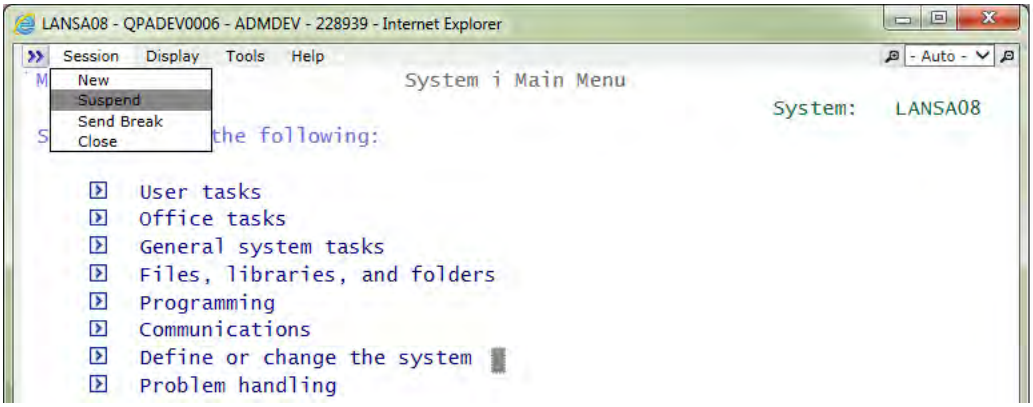
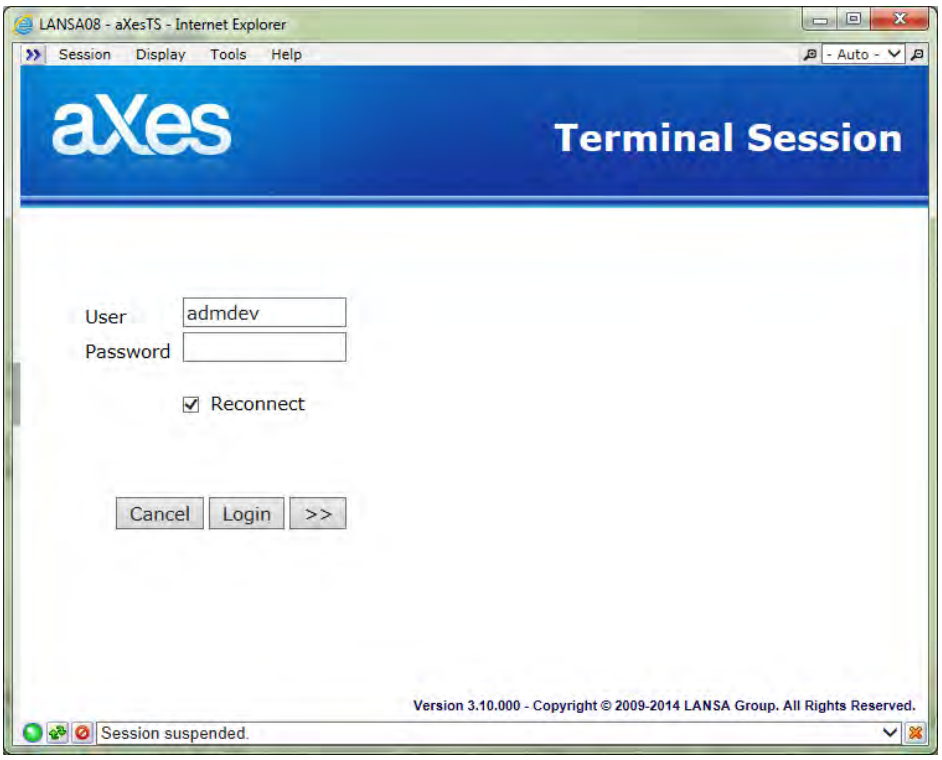


Reconnecting to the Server

If the user checks the Reconnect box when they sign on and aXes Terminal Server is aware of a session for that user then the user will be reconnected to that session. If the session has ended then a new session will be started. If multiple sessions exist for that user then a new session will be started. aXes Terminal Server does not present a list of available sessions because customers frequently, and incorrectly, share user profiles. aXes Terminal Server cannot know if a given user is allowed to connect to another session just because the user name is the same.

aXes Terminal Server attempts to resolve such conflicts by using the IP address of the client PC to reconnect to sessions that were started by that PC.



aXes terminal sessions are also subject to the control imposed via the IBM i system values QINACTITV and QINACTMSGQ. If a session is inactive for a period that exceeds the time limit specified in QINACTITV then the IBM i disconnects the session and returns to the sign-on display. The IBM i job associated with the display device is still available and can be re-established if the user signs on again.

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Browser Timeout

Because the browser expects a response from the server it waits for a specified amount of time before sending a message to the user indicating that the application is busy. The user has the choice of pressing OK which will cause the browser to wait for a response until the time limit is reached again.

Pressing cancel will cause the browser to stop waiting for the server to respond. The user will have to refresh the display to synchronise the browser with the application running on the server.

The amount of time the browser will wait is specified on the **TSInactiveLimit** directive in the aXes Terminal Server configuration file. See the Terminal Server tuning section in the aXes Reference for more information about setting this value correctly.

Browser Limitations

Connection

Users of aXes must be aware that a browser does not maintain a permanent connection to a server. The browser connects to the server when a request is made and disconnects once the request has been answered. This means that some aspects of terminal emulation cannot be handled as gracefully as would be possible with a permanently connected client (or terminal).

The lack of a permanent connection means that a server cannot send data to the browser unless the browser has first requested it. This means that break messages, automatic screen refresh, and similar 5250 functions cannot be received by the browser until the browser connects for another request. In this case the aXes will display a message indicating that the screen has changed.

Clicking the OK button will cause aXes to display the updated screen.

Specific IBM i functions that will cause this problem are:

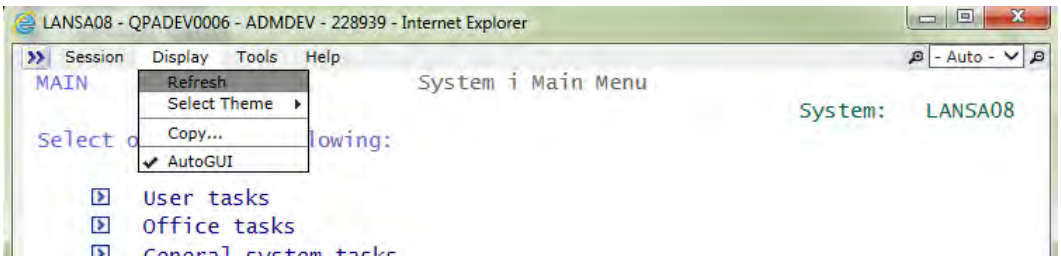
- A break message arriving at the terminal
- Pressing F19 in Work with Active Jobs (WRKACTJOB) to start auto-refresh
- Pressing F19 in Work with System Activity (WRKSYSACT) to start auto-refresh

Applications can also cause this condition by updating the screen data in the background while the user is processing the screen.

Responses

Additionally, the browser always expects a response from the server when it issues a request to the server. In some cases the server is unable to respond and the browser will time out while waiting for a response. You can either wait for the browser to time out and then issue a refresh of the terminal, or you can interrupt the timeout by issuing a Break from the terminal.

To refresh the terminal display, use the mouse to select Display->Refresh from the aXes terminal menu bar.



To issue a Break, use the mouse to select Session->Send Break from the aXes terminal menu bar.

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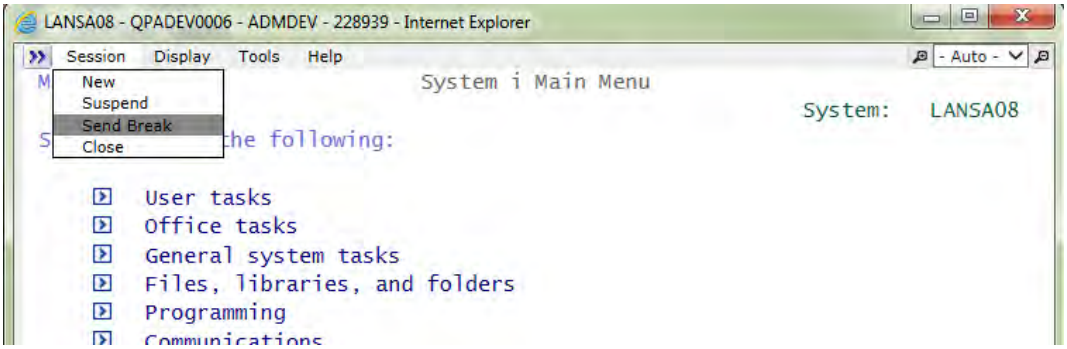


Input Method Editors

Dynamic HTML does not allow full control over the Input Method Editor (IME). aXes Terminal Sessions will activate the IME for the current language when the cursor enters a DBCS-capable or Katakana-shift field.

Although aXes Terminal Server will activate the IME for Katakana-shift fields it cannot switch to Half-width Katakana input mode. The user must do that using the mouse or a keyboard shortcut.

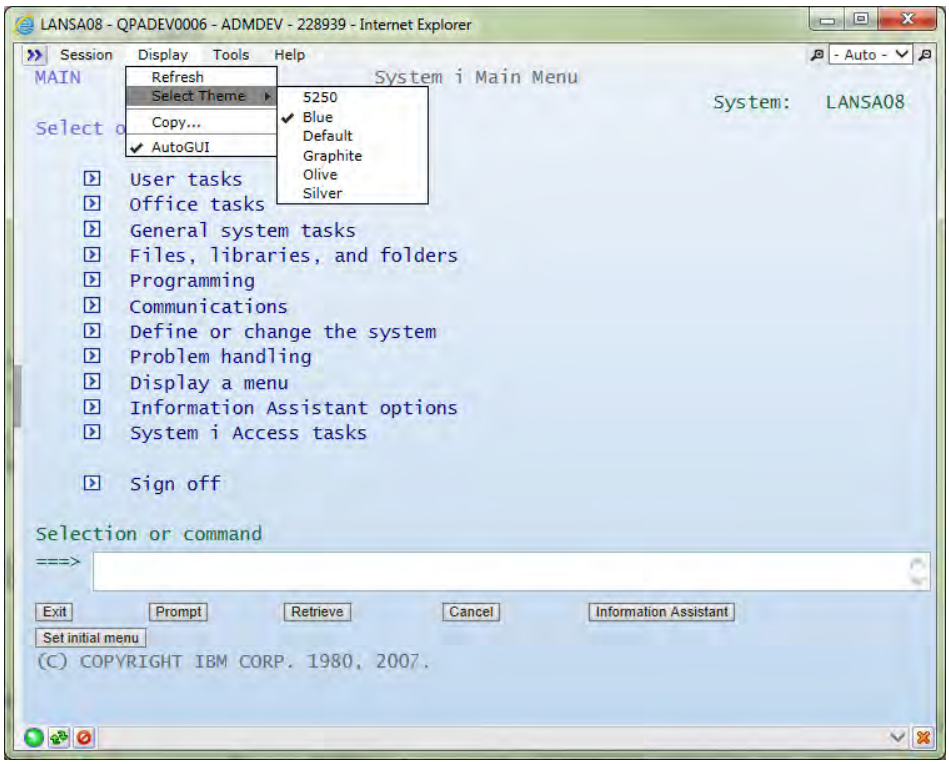
Normally the IME is in Direct Input mode.

For DBCS-Open and DBCS-Either fields the IME will retain its previous setting. For DBCS-Only and DBCS-Graphic fields the IME is switched to DBCS input for Chinese and Korean.

If the current language is Japanese the IME is switched to Hiragana input.

Changing Theme

Terminal session comes with 4 different themes besides the default theme. The user can choose the theme by clicking on display, select theme



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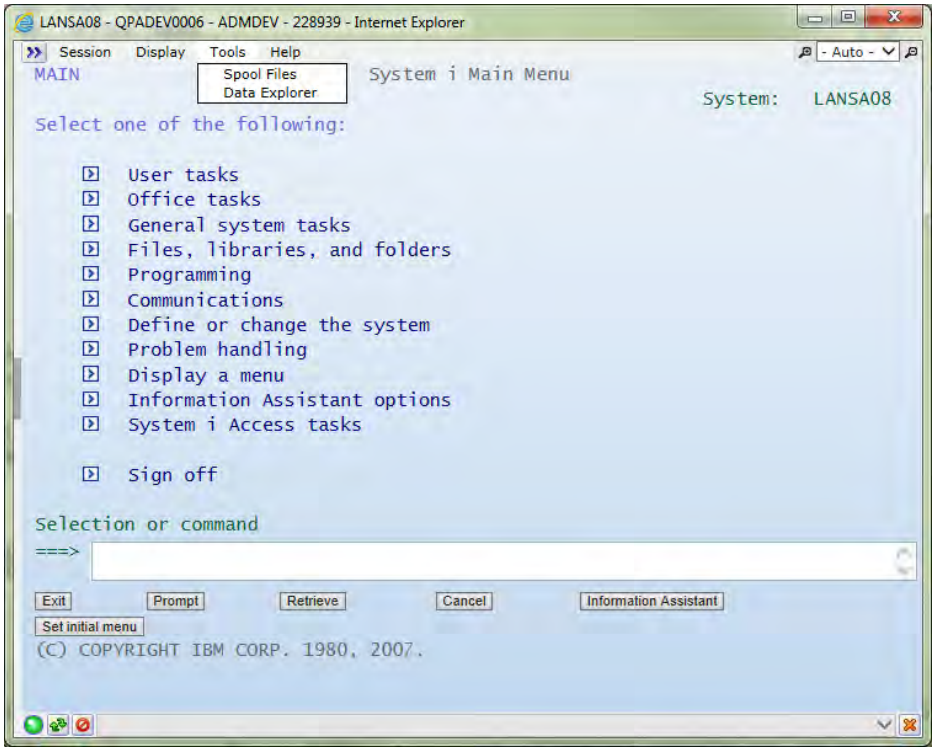
Using Tools from Terminal Session

Terminal Session integrates a link to aXes Data Explorer and Web Spooled File Manager. To open those tools from Terminal Session, click on Tools and choose between Spool Files or Data Explorer.

The user will be logged in the Data Explorer or the Web Spooled Files Manager with the username used to log into the Terminal Session.



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