

IBM Network Station Manager Version 2



5250 Emulation

IBM Advanced Technical Support
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Agenda



- **IBM Network Station 5250 Emulation**
- **What's New with V2R1 5250 Emulation?**
- **5250 Emulator Setup Tips**
 - Device Naming
 - Keyboard Remapping
- **Additional Information Sources**

Notes



The purpose of this session is to introduce you to the IBM Network Station 5250 emulation, learn about some key Network Station Manager (NSM) Version 2 Release 1 (V2R1) 5250 enhancements, and provide you with several useful tips regarding device naming and keyboard remapping. Additional sources of information are also listed at the end of this presentation.

IBM Network Station 5250 Emulation



- **IBM Network Station Manager for AS/400 product includes the 5250 emulator code**
- **5250 Emulator**
 - Telnet server must be active on AS/400s being accessed
- **Based on NSM settings, emulator(s) support loaded**
 - during IBM Network Station boot up
 - or on demand
- **Session preferences can be changed by administrator and user** (depends on the settings)
 - e.g. 5250 screen location and size, colors, keyboard mapping

Notes



The IBM Network Station Manager for AS/400 product includes a 5250 emulator (in addition to others like 3270 and VTxxx).

Your Network Station users can start the 5250 session on demand by clicking on an icon or the administrator can use the Network Station Manager to set one or more sessions to autostart when the user logs into the Network Station. However, any AS/400 the user wishes to access (and is authorized to) must be running the telnet server. Remember, administrator level userids should be few in number since an administrator userid is one which has the *ALLOBJ and *SECADM special authorities in their AS/400 user profile.

In addition, the administrator and/or the user can change preference settings but certain settings must be change enabled before the user can access them. For example, the default is not to allow users to access the keyboard remapping facility. The administrator must use Network Station Manager to enable its use by one or more users or groups. Other example settings include 5250 session screen location and size and color mapping.

IBM Network Station 5250 Emulation



- **5250 emulation**

- 24x80 and 27x132 displays
 - ▶ 27x132 (1024x768 min. resolution)
- OV/400 text assist supported
- Clipboard functions such as cut, copy, paste supported
- Keyboard mapping, font size changes, color changes supported
- Supports macro record & playback
- GUI help text
- '3489' image/fax support
- User customizable keypads
- Hot spot highlighting

Notes



Let's review the 5250 emulation functions which were available with Version 1 Release 3 (V1R3) of Network Station Manager and continue to be available with Version 2 Release 1 (V2R1).

For example, 5250 emulation provides 24x80 and/or 27x132 wide screen support. However, the monitor desktop resolution must be a minimum of 1024x768 to use the 27x132 wide screen support. This resolution can be changed by using the Network Station hardware Setup Utility. Additional details on this utility can be found in the manuals, Setting Up IBM Network Station Hardware or IBM Network Station Setup and Use. Both of these are available online at the web site www.ibm.com/nc/pubs.

For OfficeVision/400 users, the text assist function is provided and as you might expect, the clip board cut, copy and paste functions are provided.

As I just mentioned, keyboard mapping and color mapping are supported as well as font size changes and other preference settings. By default, the user can record and playback keystrokes, customize a pop-up keypad and click on hot spots (such as the numbered options on a 5250 menu screen).

Last but not least, 5250 emulation provides '3489' image and fax support.

Now let's take a look at the new 5250 emulation enhancements with V2R1.

What's New with 5250 Emulation in V2R1?



- **5250 emulation in Host Access folder icon**
- **Scaleable font sizes**
- **Color JPEG and color TIFF image formats support**
- **Editable macro support**
- **NSM parameter for 'Enter' location (Enter or Control key)**
- **Limit number of sessions (without device naming)**
- **NUM Lock setting support**
- **Increased online help (over 60 'pages')**
- **SSL Version 3 telnet support**
- **Increased memory requirements**
- **No 122 key keyboard support**

Notes



As a result of a new graphical look and feel to the Network Station desktop, the 5250 session icon now resides in the Host Access folder on your launch bar. Unlike V1R3, V2R1 has added scalable fonts to the 5250 emulator which provides enhanced full screen coverage and even better readability. Also, V2R1 adds new support for color JPEG and color TIFF image formats.

V2R1 also adds the ability to edit macros and to change the location of 'Enter' (between the Enter and Ctrl keys) from within Network Station Manager instead of having to create a keyboard mapping file for just this one change.

In V1R3, you could limit the number of 5250 sessions by assigning static device names to the 5250 session. In V2R1, you can limit the number of sessions without having to assign static device names. Additional details on this capability can be found online in the Network Station Manager help text. In addition, to the comprehensive Network Station Manager help text, the 5250 emulation online help has been expanded to more than 60 'pages'. Another useful feature in V2R1 is the ability to force the NUM Lock keyboard setting to on.

The SSL (Secure Sockets Layer) V1R3 telnet support is a very useful feature; for example, it will encrypt the userid and password.

Please note that the above enhancements (and others) do result in increased memory requirements for V2R1 when compared with V1R3. Memory sizing guidelines can be found by going to the www.pc.ibm.com/support Web site, selecting the 'Network Station' brand and then searching on 'memory'. Alternatively, it should also be available at the Web site www.ibm.com/nc by selecting 'Support' and then 'Hot News'.

Finally, also note that the 122 key keyboards are not supported by V2R1. The following foil depicts the 5250 emulation session screen in V2R1. However, note that the screen capture does not show the desktop Launch Bar itself.

IBM Network Station 5250 Emulation



```
v 5250: A
Command Edit Option Control Print Help
MOTN 05/100 Main Menu System: yoursystem
Select one of the followings:
1. User tasks
2. Office tasks
3. General system tasks
4. Files, libraries, and folders
5. Programming
6. Communications
7. Define or change the system
8. Problem handling
9. Display a menu
10. Information Assistant options
11. Client Access/400 tasks
90. Sign off
Selection or command
===>
F3 Exit F4 Prompt F9 Retrieve F12 Cancel F13 Information Assistant
F23=Set initial menu
(C) COPYRIGHT IBM CORP., 1900, 1988.
1 yoursystem
```

Notes



Although the appearance of the 5250 screen has not changed drastically from V1R3, as you have seen there are many enhancements provided in V2R1.

The 5250 session screen shown here has the familiar V1R3 menu action items of Command, Edit, Option, Control, Print, and Help. As with V1R3, V2R1 allows an administrator to hide one or more of these items by using the Network Station Manager.

In my experience, the two most frequently asked questions regarding 5250 emulation pertain to keyboard remapping and assigning static device or display names. We will be discussing both of these during the next several foils.

5250 Emulation Setup Tips



- **Can use default 5250 in Host Access Folder**
- **Optionally, use Network Station Manager to:**
 - Remove and/or add 5250 Sessions to Folder
 - Or set 5250 session(s) to autostart
 - Enable Device Naming
 - ▶ Select Desktop then Launch Bar Setup Task
 - -DISPLAY_NAME parameter
 - Userid or MAC address based
 - Arbitrary (e.g. mfgflr)
 - Host Name (from Domain Name Server)
 - Can limit number of 5250 sessions
 - ▶ Target AS/400 - V3R2, V3R7, V4R1 or later
 - ▶ Remove default 5250 in Host Access Folder (if custom 5250 Session used)
 - ▶ Device naming details in on-line 5250 and NSM help
- **Keyboard Remapping**

Notes



As I mentioned earlier, 5250 emulation can be accessed by clicking on the Host Access folder on the desktop. However, the administrator can set 5250 sessions to autostart and remove and/or add customized 5250 sessions to the Host Access or other folders.

By default, when this 5250 session starts, the sign on screen which appears will show the standard QPADEVxxxx display assignment. However, many of you may have a need to assign static device names to your display sessions. For example, you may want to assign a static name of 'MFGFLR' to the Network Station user's session located on the manufacturing floor.

As an administrator, you can set whether or not static device naming is used through the Network Station Manager. This is done through Network Station Manager by selecting the Desktop Setup task and then the Launch Bar Setup task. You can then edit the Launch Bar content for 5250; the parameter to use is `-DISPLAY_NAME parameter` where *parameter* dictates the composition of the virtual static device name. For example, the static device name can be based on the logged in userid, the Network Station's MAC address or host name, or it can be arbitrary (like MFGFLR). In general, it is easier to administer static names based on the userid or MAC address. If you use static device names, the target AS/400 must be at V3R2, V3R7, V4R1 or later. Also, if you choose to add a custom folder for your 5250 icon with static naming, then be sure to remove the default 5250 icon from the Host Access folder since it will use the default QPADEVxxxx session naming.

Please note that more details can be found in the online Network Station Manager and 5250 help text.

Now, let's discuss another commonly asked question.... How can I set up a system wide keyboard remapping file?

5250 Emulation Keyboard Remapping



- **Use IBM Network Station Manager to:**
 - Enable remapping option (e.g. for Administrator userid)
- **System wide keyboard remapping file example**
 - Login to Network Station with 'Administrator' userid
 - Start a 5250 session
 - ▶ Click on Option, click on Keyboard Remapping
 - ▶ Click on key to be changed (current functions appear)
 - ▶ Click on desired action from Available Actions List
 - ▶ Click on Key/action button (e.g. Base, Shift....)
 - ▶ New action will appear next to it
 - ▶ Click on OK (repeat steps for keys to be changed)
 - ▶ Click on Apply Changes to Session (to test changes)
 - ▶ Click on Save (Save as a named key mapping file)
 - ▶ Enter file name (e.g. sysdft) and Click on Save
 - ▶ File extension will be added automatically
 - ▶ Click on Exit
 - Set system keyboard remapping file (use Network Station Manager)

Notes



The first step in setting up a system wide keyboard mapping file is for the administrator to enable the mapping facility by using the Network Station Manager. As the administrator, you can choose who will be able to access the 5250 keyboard remapping facility. It can be enabled for everyone but in many cases it is enabled for a select number of users.

After keyboard remapping has been enabled, log in to the Network Station using an administrator level userid and password and start a 5250 session. Once the session has started click on 'Option' and then click on 'Keyboard Remapping'. On the graphical keyboard which will display, click on the key to be changed and its current functions will appear. To change this key's function, click on the desired action from the 'Available Actions' list and then click on the desired 'Key/Action' button (such as Base or Shift). You should see the new action appear next to the button. You should then click on OK and repeat these steps for any other keys to be changed. After you have changed the desired keys, click on 'Apply Changes to Session' to test the changes made and then click on 'Save' when satisfied. You should then select 'Save as a named key mapping file' and when prompted, enter a name for the mapping file such as 'sysdft'. Click on 'Save' and the file extension is automatically added. You must then click on the 'Exit' button.

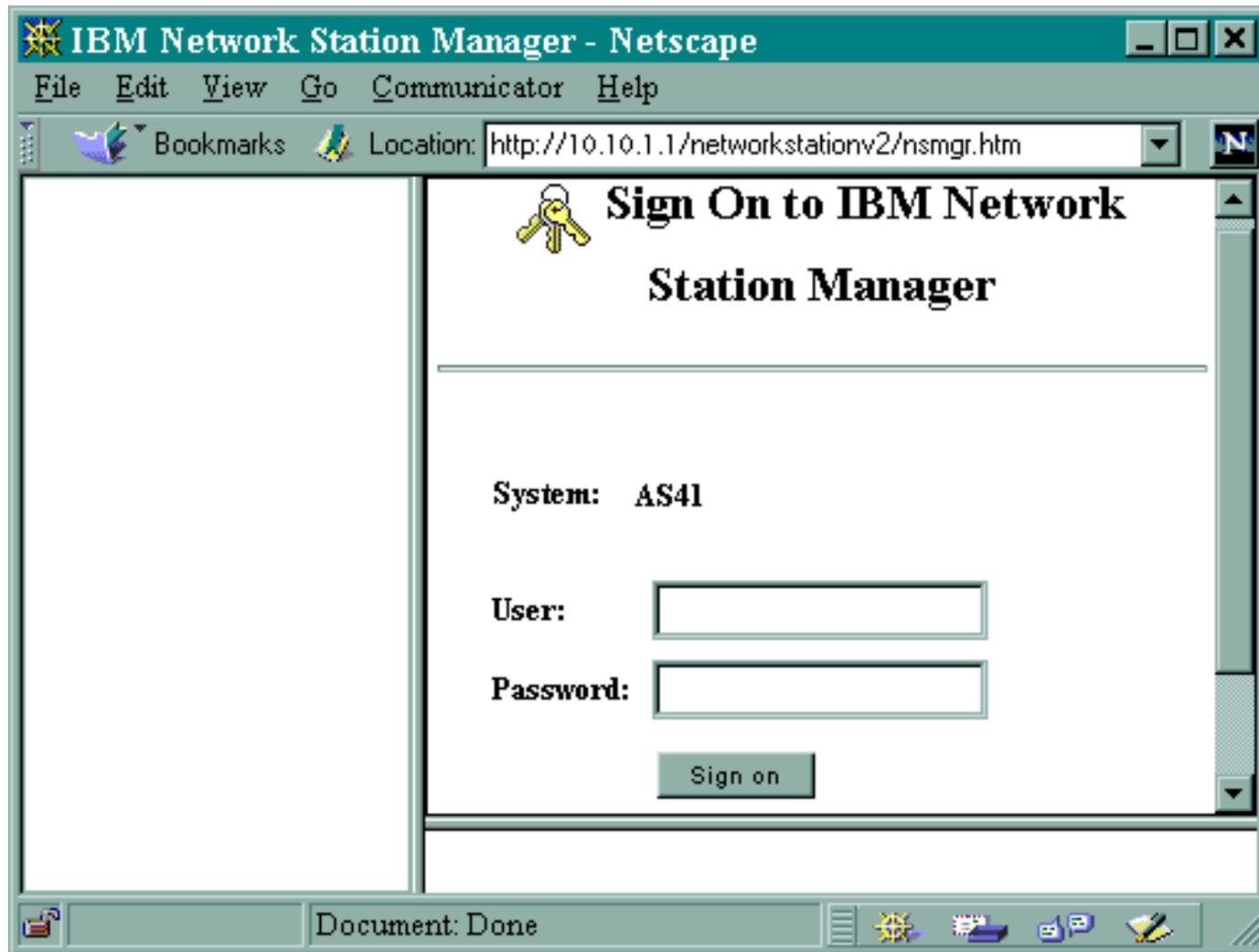
It is important to remember that the keyboard remapping facility is accessible only if the resolution of your monitor is 800x600 or higher.

The final step in setting up a system wide keyboard mapping file involves the use of Network Station Manager. The following screen shows the Network Station Manager sign on screen that appears after entering the URL [http://yoursystemname\(or IP address\)/networkstationv2/admin](http://yoursystemname(or IP address)/networkstationv2/admin) in the Netscape session (or in a supported PC browser session).

IBM Network Station Manager - Sign on



- Sign on with same 'Administrator' userid (used to create keyboard mapping file)



Notes

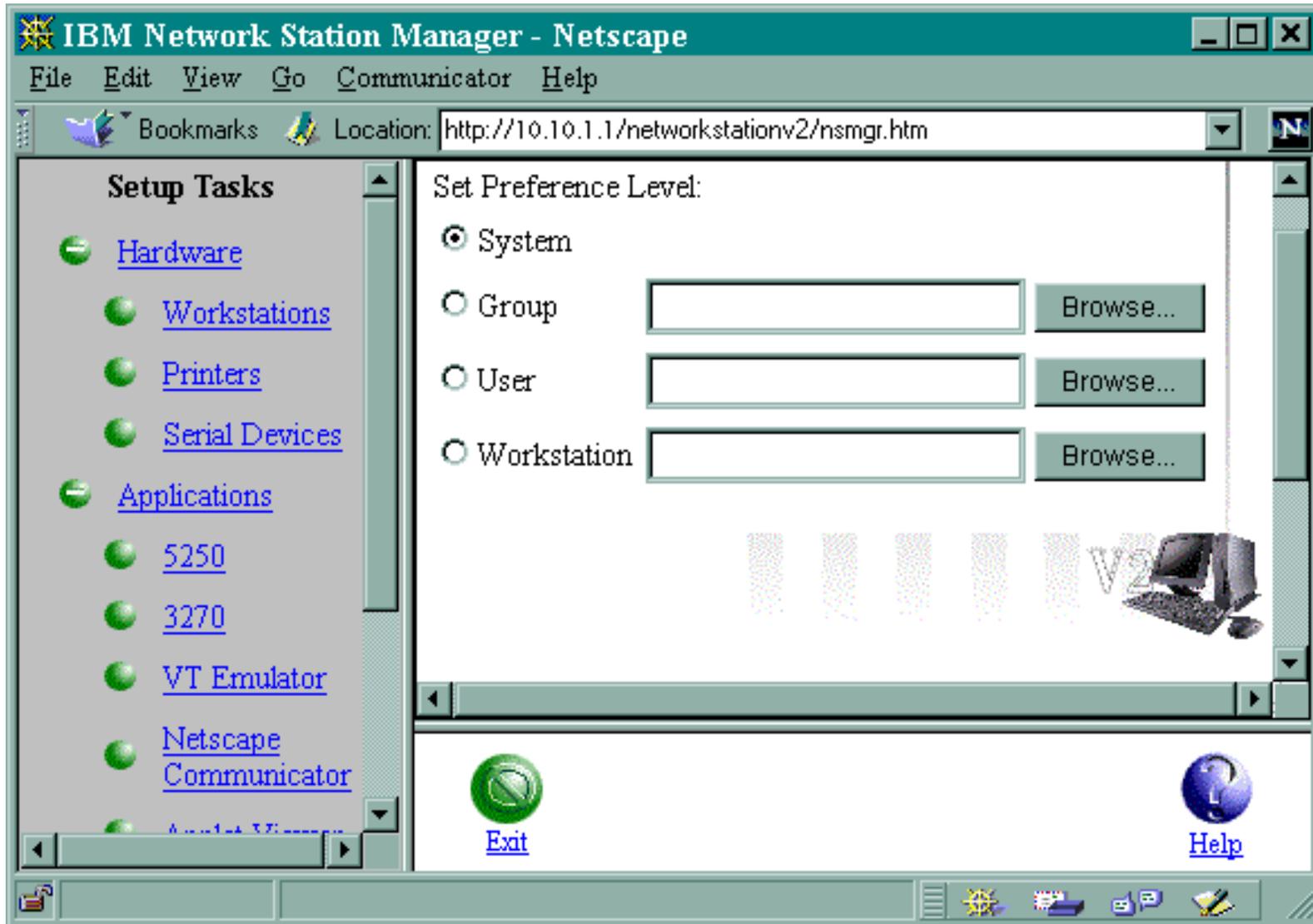


You must sign on to the Network Station Manager using the **same** administrator userid which was used to create the 5250 keyboard mapping file on the Network Station. When you enter the administrator userid and password, click on the 'Sign on' button and the following window will appear.

IBM Network Station Manager - 5250 Setup Task



- Select System Preference Level (for system wide setting)
- Click on Applications, then click on 5250 Setup Task



Notes

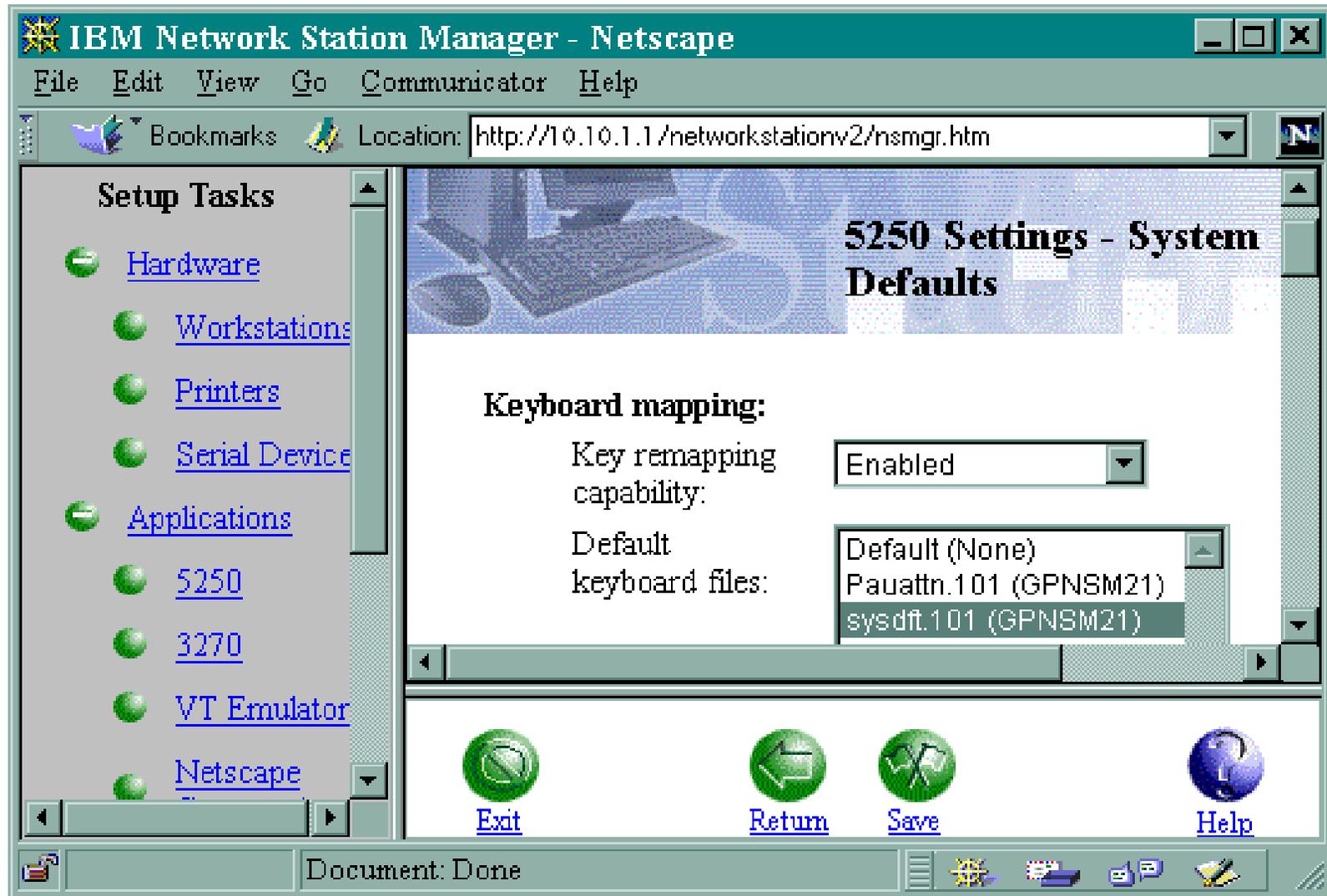


As shown here, there are three primary frames: the Setup Task frame, the Action frame and the Navigational frame along the button. To affect system wide settings, select the 'System' Preference level and then click on the '5250' Setup task. When this is done, the Action frame will be changed so that you can set the desired 5250 preference; in this case, it is the desired system wide keyboard mapping file.

Set 5250 System Default Keyboard File



- Click on desired 'Default keyboard file' (e.g. sysdft.101)
- Click on Save button



Notes



In the frame that appears, you should select the desired 'Default keyboard file', for example sysdft.101, and then click on the 'Save' button in the bottom Navigational frame. After this has been done, users must sign off and back on to use the new system wide 5250 keyboard mapping file.

Also note that the top part of the Action frame indicates to you the level of preferences you are working with. In this case, it is 5250 Settings - System Defaults.

Additional Information Sources



- **On-line Help**

- IBM Network Station Manager program
- 5250 Emulation session

- **Web Sites**

- www.pc.ibm.com/networkstation/support (Technical support and services site)
 - ▶ IBM Network Station related Questions and Answers

- **Product Publications** (www.ibm.com/nc/pubs)

- SC41-0684 Using IBM Network Station Manager

- **Redbooks** (www.redbooks.ibm.com)

- SG24-5844 IBM Network Station Manager V2R1



Notes



I hope that you have found this introductory 5250 emulation session useful. The last page of this presentation lists additional sources of helpful information. As I mentioned earlier, the online 5250 and Network Station Manager help text is very comprehensive. In addition, the Web site and the manuals listed are also excellent resources.

Thank you.