



Sun™ MTP J3270 User's Guide

Release 7.2

Sun Microsystems, Inc.
901 San Antonio Road
Palo Alto, CA 94303-4900 U.S.A.
650-960-1300

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Send comments about this document to: docfeedback@sun.com

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This document describes how to install and use the MTP J3270. J3270 is a 3270 terminal emulator that provides support for 3278 models 2, 3, 4 and 5 in both extended and non-extended mode. MTP J3270 allows you to connect to any Telnet3270 Server, such as MTP running the **unikixtnemux** server.

This chapter lists text and command notation conventions and explains how to contact technical support.

[Chapter 2](#) explains how to install MTP J3270.

[Chapter 3](#) describes how to invoke and use MTP J3270.

1.1 Typographic conventions

[Table 1.1](#) lists the typographic conventions used in this document.

Table 1.1 Typographic Conventions

Description	Example
Pathnames, directories, file names and extensions are in italics.	<i>C:\j3270</i>
Commands, error messages and text user must enter are shown in bold.	j3270
User-defined items are shown as bold italicized characters.	<i>3278-3-E</i>
Indicates actions or situations that pose possible serious damage to equipment, data or software.	 Caution
Indicates actions or situations that pose a hazard to any person or irreversible damage to data or the operating system.	 Warning
Information that appears on screens, including field labels, is shown as Arial characters.	Terminal Type

1.2 Notation conventions

This format is used for commands

command required_argument [*optional_argument*]

Table 1.2 Notation Conventions

Notation	Description
[]	Square brackets indicate optional arguments.
{ }	Braces that contain information separated by a vertical bar represent alternative options, one of which must be present
	Vertical bars between arguments indicate to select only one of the arguments.
...	Ellipses indicate that the preceding argument may be repeated one or more times.

If a command does not support an *optional_argument*, enter the command and press Return.

Chapter 2

Installing MTP J3270

MTP J3270 runs on Windows 95, Windows 98, Windows NT, and Windows 2000 systems.

2.1 Prerequisites

For each MTP region you wish to connect to with MTP J3270, you must configure the **unikixtnemux** server. Refer to the *Configuration Guide*.

2.2 Installing MTP J3270

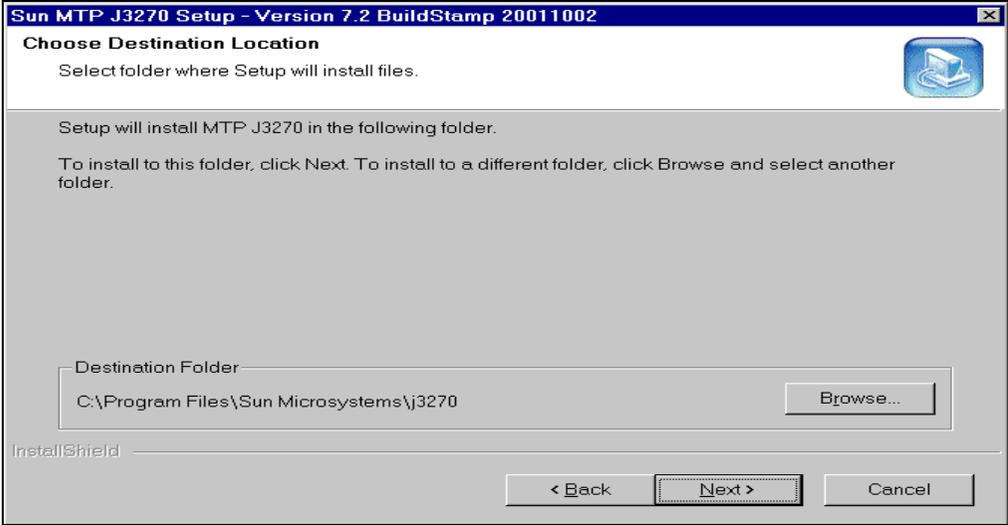
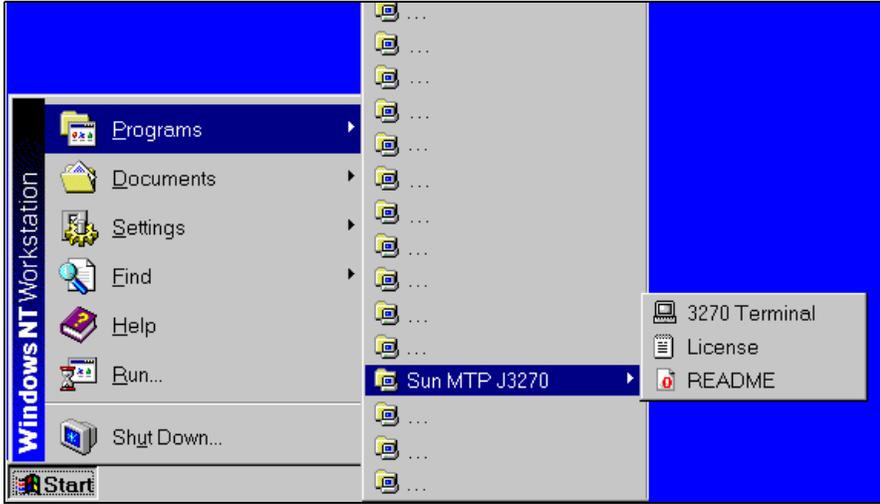
MTP J3270 is shipped as an InstallShield executable on all MTP distribution media.

- After you install MTP on a UNIX system, the InstallShield executable is located in the \$UNIX/MTP_J3270 directory. If you wish to use MTP J3270, you must copy the executable to a Windows platform.
- On the Windows NT CD-ROM, the file is a stand-alone executable. Run this executable to begin the installation process.

The MTP J3270 InstallShield executable contains the Java Runtime Environment (JRE) and code necessary to MTP J3270. Run the installation executable and follow the on-screen prompts to uncompress the files to the hard drive.

Follow these steps to install MTP J3270.

Step #	Description
1	Start the installation by either double-clicking the <i>.exe</i> file, or on the Windows desktop, select Start -> Run Enter the name of the MTP J3270 executable and click OK.
2	When the Welcome screen appears, read it and click Next.
3	When the Software License Agreement screen appears, read it and if you agree to the conditions, click Yes to continue.
4	On the User Information screen, enter user and company names and click Next.

Step #	Description
5	<p>When the Choose Destination Location screen appears, select where you wish to install MTP J3270, and click Next.</p>  <p style="text-align: center;">Figure 2.1 MTP J3270 Installation Destination Location Screen</p>
6	<p>Follow the on-screen prompts to complete the installation.</p>
7	<p>When the installation is complete, you can start MTP J3270 from the Start Menu. You can use MTP J3270 without having to reboot your system.</p>  <p style="text-align: center;">Figure 2.2 MTP J3270 Start Menu Option</p>

Chapter 3 Using MTP J3270

3.1 Invoking MTP J3270

There are three ways to invoke MTP J3270.

From the Windows Start Menu	Select Start -> Programs -> Sun MTP J3270 -> 3270 Terminal
From a shortcut	You can set up a Windows shortcut to start the <i>j3270.exe</i> program.
From a command prompt	If you are in the MTP J3270 <i>bin</i> directory or if the MTP J3270 <i>bin</i> directory is in your path, type j3270

With all of these methods, you can specify startup parameters. You can modify the properties of the Start button entry for the 3270 Terminal or the properties of a shortcut you created. From a command prompt, specify the options on the command line. [Section 3.2](#) describes these parameters.

3.2 Command line parameters

You can invoke MTP J3270 with a series of parameters on startup. Supplying a URL or host and port causes the emulator to automatically attempt a connection to the specified host.

Format

```
j3270 [ -h hostname [ -p portnumber ] ] | [ -u URL ] [ -m model ]  
[ -f font ] [ -n netname ] [ -a ] [ -t timeout_value ] [ -s print_style ]  
[ -c codepage ] [ -x ]
```

where

-h <i>hostname</i>	Name of TN3270 server host.
-p <i>portnumber</i>	Port number of TN3270 server. This is the same as the port number specified as the TNServer*ListenPort in the <i>.unikirc</i> file.
-u <i>URL</i>	TN3270 host and port specified as a URL. For example tn3270://myserver.com:2002
-m <i>model</i>	Terminal model; valid values are 2 2-E 3 3E 4 4-E 5 5-E The default model is 2-E.
-f <i>font</i>	font is in the format <i>name.style.size</i> . For example -f Monospaced.PLAIN.12 .
-n <i>netname</i>	If you allow TN3270E, you may request a specific netname for this terminal.
-a	Use the alternate key map. See Section 3.5 for keyboard mapping.

- t *timeout_value*** Host inactivity *timeout_value* in seconds. MTP J3270 automatically disconnects from the host after a period of inactivity. Inactivity is determined from the last time any network activity between the host and MTP J3270 occurred. The default is not to time out, which is the same as specifying **-t 0**.
- s *print_style*** Style to use for printing. Valid values are
- | | |
|---------------------|--|
| normal | Print same as appears on screen |
| reverse | Print by reversing the display on the screen |
| whiteonblack | Print in white on a black background |
| blackonwhite | Print in black on a white background |
- The default is normal.
- c *codepage*** *codepage* to use. One of these
- Default
 - IBM-037 (US English, Portuguese, Canadian French)
 - IBM-273 (German)
 - IBM-277 (Danish, Norwegian)
 - IBM-278 (Finnish, Swedish)
 - IBM-280 (Italian)
 - IBM-281 (Japanese)
 - IBM-284 (Spanish)
 - IBM-285 (UK English)
 - IBM-297 (French)
 - IBM-500 (Belgian, Swiss German)
 - IBM-875 (Greek)
 - IBM-930 (Japanese DBCS)
 - IBM-933 (Korean DBCS)
 - IBM-935 (Simplified Chinese DBCS)
 - IBM-1025 (Bulgarian, Macedonian, Serbian Cyrillic, Russian)
 - IBM-1047 (Open edition)
- x** Excludes the use of the TN3270E protocol when connecting to the remote system. Only TN3270 is used.

3.3 3270 emulator window functions

When you start MTP J3270, this emulator window appears.

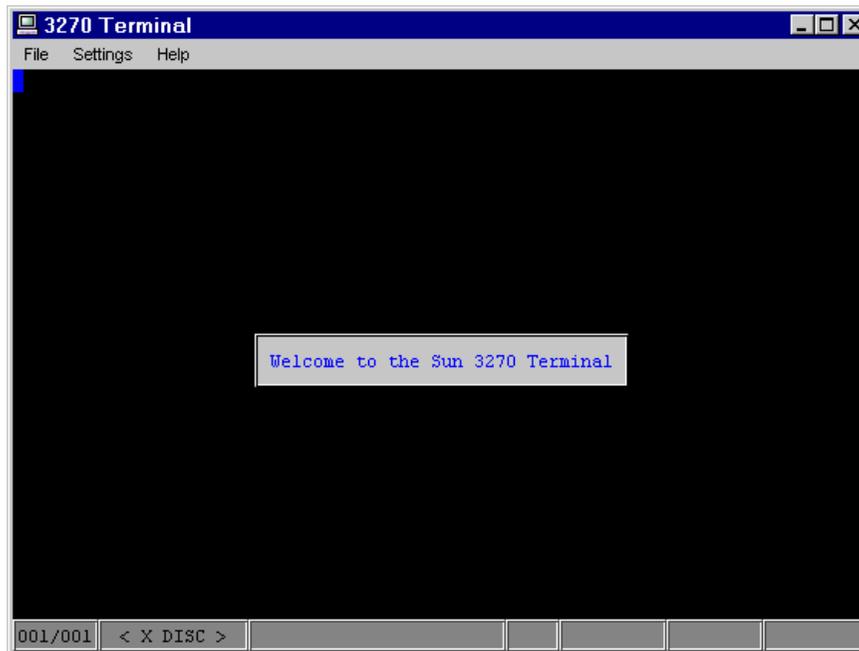


Figure 3.1 Disconnected Emulator

The menu bar of the MTP J3270 emulator allows you to

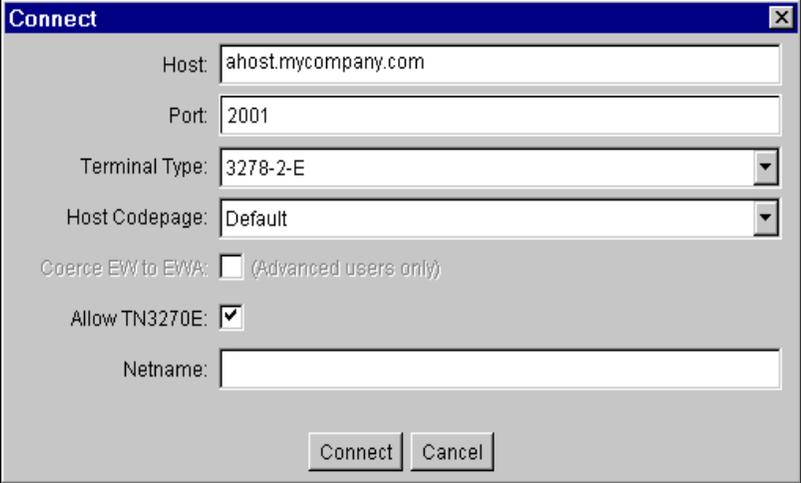
- Connect to a TN3270 system, if the emulator is in a disconnected state
- Disconnect from the currently connected system, if the emulator is in a connected state
- Print the current display
- Change the font of the display
- Get help with the keyboard mapping

When MTP J3270 is connected, it responds to keyboard input like a standard 3270 terminal. For information on how 3270 keys are mapped to keys on your PC keyboard, see [Section 3.5](#).

Note To specify an alternate key map, set a terminal *timeout_value* or connect to a region using a URL, you must invoke MTP J3270 with the appropriate parameters. See [Section 3.2](#).

3.4 Connecting to a 3270 system

If you specify the **-h *hostname*** or **-u *URL*** parameters when starting MTP J3270, the emulator automatically attempts to connect to the specified host system. If you do not specify the **-h** or **-u** parameters, follow these steps to connect to a host.

Step #	Description																
1	Invoke MTP J3270 by selecting it on the Start menu or by typing j3270 at a command prompt.																
2	<p>When the emulator window appears, click File -> Connect and set these attributes.</p>  <p style="text-align: center;">Figure 3.2 Emulator Connect Window</p> <table border="0"> <tr> <td>Host</td> <td>Host name.</td> </tr> <tr> <td>Port</td> <td>The default is 2001. This is the same as the port number specified as the TNServer*ListenPort in the <i>.unikirc</i> file.</td> </tr> <tr> <td>Terminal type</td> <td>The default is 3278-2-E.</td> </tr> <tr> <td>Host Codepage</td> <td>The default is Default. The supported codepages are listed in Section 3.2.</td> </tr> <tr> <td>Coerce EW to EWA</td> <td>For Terminal types 3278-3, 3278-3-E, 3278-4, 3278-4-E, 3278-5 and 3278-5-E. Some TN3270 Servers do not generate correct 3270 datastreams for these terminal types. When you check this box, MTP J3270 will display the screens correctly.</td> </tr> <tr> <td></td> <td>Note This function is only available on the Connect window. There is no equivalent command line parameter.</td> </tr> <tr> <td>Allow TN3270E</td> <td>Allow the use of the TN3270E protocol when connecting to the remote system.</td> </tr> <tr> <td>Netname</td> <td>If you checked Allow TN3270E, you may request a specific netname for the terminal.</td> </tr> </table>	Host	Host name.	Port	The default is 2001 . This is the same as the port number specified as the TNServer*ListenPort in the <i>.unikirc</i> file.	Terminal type	The default is 3278-2-E .	Host Codepage	The default is Default . The supported codepages are listed in Section 3.2 .	Coerce EW to EWA	For Terminal types 3278-3, 3278-3-E, 3278-4, 3278-4-E, 3278-5 and 3278-5-E. Some TN3270 Servers do not generate correct 3270 datastreams for these terminal types. When you check this box, MTP J3270 will display the screens correctly.		Note This function is only available on the Connect window. There is no equivalent command line parameter.	Allow TN3270E	Allow the use of the TN3270E protocol when connecting to the remote system.	Netname	If you checked Allow TN3270E, you may request a specific netname for the terminal.
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	Note This function is only available on the Connect window. There is no equivalent command line parameter.																
Allow TN3270E	Allow the use of the TN3270E protocol when connecting to the remote system.																
Netname	If you checked Allow TN3270E, you may request a specific netname for the terminal.																
3	Click Connect to start the connection process. A message appears if MTP J3270 fails to connect to the specified host. If you connect successfully, the first screen of the 3270 host appears.																

3.5 Specifying keyboard mapping

A real 3270 emulator has a number of special keys, such as PF Keys, Clear and Reset, that are not provided on the standard PC keyboard. MTP J3270 maps certain keys and key-combinations to the actions of these special keys.

There are two key maps, selectable when you start MTP J3270 using command line parameters. The **-a** parameter specifies the use of the alternate key map. If you omit this parameter, the standard key map is used.

Note To change to a different key map, you must stop MTP J3270 and restart it.

[Table 3.1](#) shows the supported 3270 actions and the standard and alternate key maps.

Table 3.1 MTP J3270 Key Maps

Action	Standard Key Map	Alternate Key Map
Enter	enter	enter
NewLine	<ctrl> enter	<ctrl> enter
Clear	escape	pause
Reset	<ctrl> r	Scroll lock
Erase Input	<alt> end	<alt> end
Erase EOF	<ctrl> e	<end>
Attention	<ctrl> a	<ctrl> a
SysReq	<ctrl> s	<ctrl> s
Home	<ctrl> h	<ctrl> h
Insert	<ctrl> i	<ctrl> i
Cursor Select	<ctrl> f	<ctrl> f
PA1	<ctrl> F1	<ctrl> F1
PA2	<ctrl> F2	<ctrl> F2
PA3	<ctrl> F3	<ctrl> F3
PF1 to PF12	F1 to F12	F1 to F12
PF1 to PF10	<ctrl> 1 to <ctrl> 0	<ctrl> 1 to <ctrl> 0
PF11	<ctrl> -	<ctrl> -
PF12	<ctrl> +	<ctrl> +
PF13 to PF24	<shift> F1 to <shift> F12	<shift> F1 to <shift> F12

3.6 Using MTP J3270 in DBCS mode

To use MTP J3270 in DBCS (Double-byte Character Set) mode, choose one of the available DBCS codepages on the Connect window or specify a DBCS codepage using the `-c` parameter of the `j3270` command.

3.6.1 Available 3270 field types

When running in DBCS mode, each 3270 field is one of these

- A pure single-byte field
- A pure double-byte field
- A mixed single- and double-byte field known as a SOSI (Shift-Out, Shift-In) field

3.6.1.1 Restrictions on a pure single-byte field

A pure single-byte field may only contain single-byte characters. Any attempt to type a character into a pure single-byte field that is not a single-byte character results in a terminal alarm.

3.6.1.2 Restrictions on a pure double-byte field

A pure double-byte field may only contain double-byte characters. A double-byte character occupies two display positions and is twice the physical width of a single-byte character. Any attempt to type a character that is not a double-byte character into a pure double-byte field results in a terminal alarm.

A character is considered double-byte if its representation in the selected host codepage is two bytes.

3.6.1.3 Restrictions on mixed (SOSI) fields

A SOSI (Shift-Out, Shift-In) field may contain both single- and double-byte characters. You must enclose all double-byte characters in a SOSI field within a pair of SOSI characters.

- SO and SI characters each occupy a display position.
- A SO character appears as a “less than” symbol, `<`.
- A SI character appears as a “greater than” symbol, `>`.
- SO and SI characters are inserted automatically as a terminal user types. The terminal user does not have to enter them.
- Any keyboard entry operation that would leave DBCS characters outside an enclosing SOSI pair is invalid and is rejected with a terminal alarm. For example, an attempt to delete a SI character that would leave a DBCS character immediately adjacent to an SBCS (single-byte character set) character.
- An attempt to enter DBCS characters that does not leave room for the required SO and SI characters to be automatically inserted in the field is rejected with a terminal alarm. For example, an attempt to enter a DBCS character in the last two display positions of a SOSI field.

3.7 Making an association with an Internet browser

You can configure some web browsers so that any links to TN3270 hosts are started with MTP J3270. When you click on the link, the browser starts MTP J3270 and attempts to make a connection to the TN3270 system.

On your Windows system, associate files of type URL:TN3270 Protocol with **j3270 -u**. You must have MTP J3270 in your path or you must specify the complete pathname where the **j3270** executable is installed. Refer to Windows Help for instructions on associating files.

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