



Dialing Into PittNet Using PPP on Your Macintosh

What is PPP?

Point-to-Point Protocol (PPP) is a method for connecting a Macintosh personal computer to PittNet and the Internet using a standard phone line and a modem. The difference between PPP and other older dial-up procedures is that a PPP setup will establish a direct Internet connection that allows the Mac to use TCP/IP (Internet-based) applications as if it had its own direct Internet port instead of just a phone jack. Communication programs such as Telnet, FTP and EudoraMail as well as the Netscape World Wide Web browser will all run from a Macintosh with a good PPP connection. The University of Pittsburgh offers PPP communication to its computing community through all available dial-up lines. In order to use PPP, however, your Macintosh must have the proper communication software configured for PPP.

What is PittPPP?

PittPPP is the name of the Macintosh PPP installation package. The PittPPP package uses the Internet Setup Monkey utility to assist users with installation of FreePPP communication software.

What is FreePPP?

FreePPP is a "device driver" that is used with the TCP/IP or MacTCP control panel to set up TCP/IP communications over a phone line. The PittNet FreePPP installation package has been assembled for users of all Macintosh PC's that are running at least version 7.5 of the Macintosh operating system. To see what version of the Macintosh operating system that your PC is running, select the "About This Macintosh" command under the Apple pull-down menu. An operating system number higher than 7.5 is acceptable while a lower number indicates that you may have to get a different software package to connect via PPP or upgrade your PC to a newer operating system.

Some older Macintosh models will not be able to use the FreePPP software since it requires at least a 68020 processor. These models include the Mac Plus, Mac Classic and some Macintosh II models that are unable to read high-density disks. If you have a Macintosh II PC that has a 68020 processor but cannot read high-density disks, contact the Help Desk at (412) 624-HELP [4357] for information on obtaining the software on double-density disks.

How to Get a Free Copy of PittPPP

There are a number of ways that students, faculty and staff of the University of Pittsburgh can receive a free copy of PittPPP to install on their computer. Below are the easiest ways to acquire PittPPP.

This helpsheet describes how to install, configure, and use PittPPP. For help with FreePPP without the Internet Setup Monkey and the Pitt-specific additions, go to the help sheet entitled *Dialing Into PittNet Using PPP on Your Macintosh PC with FreePPP Software*.

- **Disk Exchange**

If you do not have a CD-ROM drive, or would like to get PittPPP on 3.5 inch diskettes for any reason, you may do so through a disk exchange. The software is still free of charge, but the disk exchange helps CSSD to recoup the cost of diskettes.

To get PittPPP on disk, go to Software Licensing Services in 203 Bellefield Hall or to any campus computing lab during their normal business hours. Bring about five blank diskettes with you. The consultant will give you FreePPP on diskettes and take the same number of disks from you. You will install and configure the software as described in this document

Installing PittPPP/FreePPP

1. Before you attempt to install PittPPP/FreePPP, you will need to disable any virus protection programs that you may have running. This can easily be done by opening your System Folder, opening the folder named "Extensions" and moving any anti-virus files (such as Disinfectant or Gatekeeper) to your desktop area. This is only a temporary move. Do not throw these files away or move them somewhere in a folder where it would be difficult to find them in the future. After you have installed the FreePPP software, you will have to move these files back into the "Extensions" folder where you found them.
2. Your new version of FreePPP software may not work if old communications software may be engaged, blocking FreePPP's access to your PC's communications port. This software is probably what came with your modem or a previous communications package such as an older version of FreePPP, MacPPP, InterSLIP or anything installed by one of those free America OnLine (AOL) disks.

* The first step to removing old communications settings is to look through the listings of system extensions currently loaded on your Macintosh. These are located in the same "Extensions" folder mentioned in step 1. Use the "By Date" command under the View pull-down menu heading to see the most recently loaded files in the folder. If you notice an extension that looks like it was loaded by your fax/modem software, delete it by dragging it to the trash can icon. If you are not sure that you want to delete a file, drag it out of the "Extensions" folder to the main desktop. Also, look for and delete files from InterSLIP, Versaterm SLIP, MacPPP and anything that features "AOL" in the file name.

* Next, look for and delete similarly-named files in the:

- a. **Control Panels** folder, also located within the **System Folder**
 - b. **Apple Menu Items** folder, located within the **System Folder**
 - c. **Preferences** folder, located within the **System Folder**
3. You must restart your PC after you have moved any anti-virus files or files from previous communications packages out of the "System Folder."
 4. Once the PC has been restarted, you can begin the PittPPP installation by placing the first disk of the set into your PC and double-clicking on the "PittPPP for Mac" icon when it appears. Make sure that you don't have any other applications running before starting the PittPPP installation.



PittPPP for Mac

5. The installer program will present a welcome screen that you can move off of by clicking the "Next" button. The second installer screen is entitled "Software Installation" and includes an option to choose between the "Easy" installation or a "Custom" installation.

The "Easy" installation includes:

- the FreePPP software necessary to initiate Internet connections
- the Netscape Web browser
- the Fetch Macintosh FTP utility
- Telnet software for accessing remote resources such as UNIX or VMS
- TN3270 software, which is used to access IBM mainframes such as the machines that support PittCat and other administrative uses.

The name of your PC's hard drive should appear in a box on the right side of the "Software Installation" window. Select a different drive with this pop-up menu **ONLY** if you wish to install your Internet software on another drive.

Most Pitt Macintosh users will want to use the "Easy" installation on their PC's hard drive which requires nothing more than clicking the "Next" button.

If you wish to use the "Custom" install option, change the installation setting by positioning the mouse pointer over "Easy Install" and holding down the mouse button so that a "pop-up" menu appears with the "Custom Install" option visible. With the mouse button still depressed, move the mouse down until "Custom Install" is selected and release the button.

NOTE: The only reason that you would choose the "Custom" setting is if you wanted to install or re-install the PittPPP package without re-installing Netscape, Fetch Telnet or TN3270.

6. A warning dialog box will appear to remind you that no other applications should be running. This box will appear even if no applications are running, so do not worry when it appears. Click **OK** button to move on with the installation.
7. The installer program will begin the actual installation of the software.

If you are using the floppy disk installation, have the other disks of the set ready as you will be prompted for them.

8. After the actual software has been copied to your PC, the setup utility will prompt you for personal information.

In the "Personal Information" window, enter your name in the "User Name" field. This should not be your University Computer Account username. Click the mouse pointer onto the next field or use the Tab key to move the blinking cursor to the next field. Enter "University of Pittsburgh" in the "User Organization" field. Click the "Next" button.

9. In the "Account Information" window, enter your CSSD University Computer Account username in the "User ID" field. This should NOT be your preferred e-mail address. Click the mouse pointer onto the next field or use the **Tab** key to move the blinking cursor to the next field. Enter your University Computer Account password in the "Password" and "Password (verification)" fields. The letters will not be visible as you type. Your password will be used to set up an automated login to Pitt's PPP dial-up server. Click the "Next" button.

User ID:

Password:

Password (verification):

10. In the "EMail Account Information" window, enter your University Computer Account username in the "EMail ID" field. This should NOT be your entire preferred e-mail address, just the account username.

E-Mail ID:

E-Mail Password:

Password (Verify):

Do not worry about your advertised address for outgoing mail messages as it is specified in the next window. Click the mouse pointer onto the next field or use the **Tab** key to move the blinking cursor to the next field. Enter your University Computer Account password in the "E-mail Password" and "Password (verify)" fields. The letters will not be visible as you type. Click the "Next" button.

11. In the "EMail Return Address" window, enter your preferred e-mail address in the "E-mail Return Address" field. Click the "Next" button.

E-Mail Return Address:

NOTE: This example uses the dummy e-mail address wtlst1+@pitt.edu to illustrate how the screen should look. Obviously, your own e-mail address will be different.

12. After the personal information has been entered, the setup utility will prompt for your actual connection parameters.

In the first field of the "Custom Dialing Configuration" window, enter the area code from where you are dialing from NOT the area code of the dial-up line that you wish to access.

13. In the second field of the "Custom Dialing Configuration" window, what you enter depends on what your dialing situation is:

*** If you are calling from an on-campus office:**

Enter "#9, 9," in the top "Dial" field and nothing in the second and third fields. The "#9" turns off call waiting and the commas act as a time delay.

*** If you are calling from an on-campus dorm room:**

Enter "#9, 9," in the top "Dial" field, nothing in the second field and then two commas and your access code in the third field. The "#9" turns off call waiting and the commas act as a time delay.

Dial before dialing anything else.

Dial when dialing a long distance number.

Dial after dialing the main number.

NOTE: This example uses the dummy access code 123456 to illustrate how the screen should look. Obviously, your own access code will be different.

*** If you are calling from an off-campus location:**

Enter "*70" in the top "Dial" field if you have a touch tone phone and you want call waiting to be disabled. Enter "1170" in the top "Dial" field if you have a pulse-only phone and you want call waiting to be disabled. Make sure that there is a "1" in the second field. The third field should be blank unless you plan to use a calling card to pay for your dial-up computing phone costs.

Dial before dialing anything else.

Dial when dialing a long distance number.

Dial after dialing the main number.

*** If you plan to use a calling card:**

Enter the "1-800" number that you need to access your calling card carrier. If you have to enter a code prior to dialing the number you actually want to reach, you should insert 4 commas between the "1-800" access number and your code and then and four more commas after the access code. If your calling card requires you enter a code AFTER you enter the number that you are trying to reach, place that code in the third "Dial" field. Entering four commas before the code in this is also a good idea since they will cause a small time delay that your calling card carrier may require. If this setup fails to work with your calling card carrier, try inserting additional commas to give the carrier's automated system enough time to absorb your information.

Dial 1 800 950 2001 Nothing before dialing anything else.

Dial 1 when dialing a long distance number.

Dial ,,,,185 494 9991 after dialing the main number.

NOTE: This example uses dummy access numbers to illustrate how the screen should look. Obviously, your own access numbers will be different.

- Make sure that "Tone Dialing" is selected in the "Dial Using" box if you have touch-tone capability in your telephone setup. If you are limited to pulse dialing, make sure that "Pulse Dialing" is selected. Click the "Next" button.

Dial Using

☒ Tone Dialing

☐ Pulse Dialing

- After the custom dialing information has been entered, the setup utility will prompt you for your modem information. Position the mouse pointer over the field next to "Modem Description." Hold down the mouse button so that the numerous brand name and model number choices appear in a pop-up menu. Scroll up and down in this field until you highlight the line that corresponds exactly with the type of modem you have. When you have selected the correct line, release the mouse button. A line of characters will appear in the "Modem Init String" line. If you do not find your brand and model name of modem in the list, select the "Autodetect Modem" choice.

Modem Description:

- Rockwell based 28800 bps V.34/V.F.C Modem
- Rockwell based 28800 bps V.34/V.F.C Modem
- Rockwell based AT&T PCX DataPort 14.4
- Rockwell RPI based AT&T PCX DataPort 14400
- SIIG DASH 28.8i-V.34 Internal Fax/Modem
- Supra Express 144i Plus
- Supra Express 144i Plus
- Supra FAXModem 144 LC
- Supra FAXModem 288
- Supra FAXModem 288i

NOTE: This example uses a specific type of modem to illustrate how the menu should look. Obviously, your own brand and type of modem may be different.

- If you have your modem hooked up to the "Modem" port on the back panel of your Macintosh, make sure that "Modem port" is selected on the "Port" line. The modem port features an embossed icon for a telephone. If you have your modem hooked up to the printer port (features an embossed printer icon), make sure to select the "Printer port" choice. PowerBook users may have to choose between "upper" and "lower" depending on how their PowerBook is set up. Click the "Next" button.

- On the "Advanced Modem Setup" window, make sure that "57600" is selected for the "Port Speed" setting if you have a 14,400 bps or 28,800 bps modem. If you have a slower modem, select the appropriate speed from the "Port Speed" pop-up menu. PowerMac users and owners of 33.6 kbps modems may be able to set higher speeds.

Port Speed: 57600

Flow Control: CTS & RTS (DTR)

The "Flow Control" field" should read "CTS & RTS (DTR)." Click the "Next" button.

- On the "Dialup Number Selection" window, make sure that the campus dial-up number that you wish to use is selected. You can change the selected number by positioning the mouse pointer on the desired line and clicking once. Click the "Next" button.

Greensburg	(724)	836-9997
Oakland	(412)	297-7488
Bradford	(814)	362-7597
Johnstown	(814)	269-7950
Titusville	(814)	827-4486

- On the "Configuration Summary" window, check all of the information that you have entered. If any of it is incorrect, click the "Back" button at the bottom of the window and of the preceding windows until you get back to the window that contains the erroneous information. Otherwise, click "Next" and the setup utility will write your configuration information to a number of files.
- When the screen displays "Configuration complete," click the "Done" or "Restart" button. You will be ready to attempt your first PPP login.

Making a PPP Connection

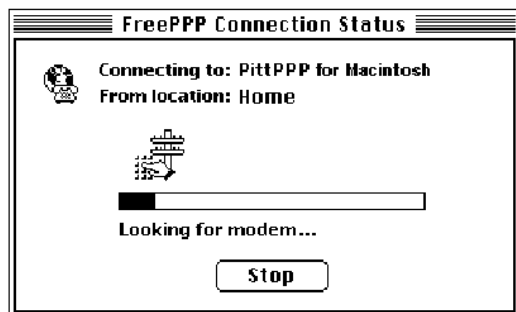
- Select the "Open PPP Connection" command under the telephone icon in the upper-right corner of your display.

Open PPP Connection

Close PPP Connection

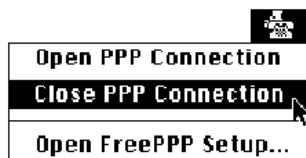
Open FreePPP Setup...

- The FreePPP software will engage the modem and will attempt to make a connection to the dial-up location that you specified in step 18 of the previous section. The "FreePPP Connection Status" box will appear.



If your modem is able to successfully make a connection to the dial-up line of your choice, you will hear a low pitch sound, a high pitch sound, one or two brief bites of loud static and then silence.

3. If your login information is accepted by the dial-up modem, FreePPP will instruct the dial-up server that you wish to use PPP. When this happens, the "FreePPP Connection Status" box will indicate that you have made a successful PPP connection.
4. With a PPP connection established, you can begin using Internet utilities such as Telnet and Netscape. Remember that the University enforces a four-hour limit on logins and a 20 minute limit on inactivity (no keystrokes) so keep track of your elapsed time carefully.
5. To close your PPP connection and hang up your phone, quit all Internet applications and select the "Close PPP Connection" command under the telephone icon.



Adjusting Your FreePPP Settings

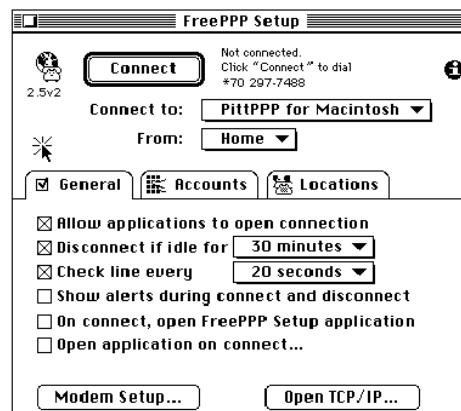
The following instructions are included in case anyone should need to change any attribute of their FreePPP dial-up profile. For example, you should follow relevant instructions in this section to troubleshoot your modem settings or if you decide to change your University Computer Account password.

Select the "Open FreePPP Setup..." command from under the telephone icon that should have recently appeared in the upper right corner of your display.



The "FreePPP Setup" dialog box will appear featuring a "Connect" button and two pop-up menus.

The "Connect to:" line should read "PittPPP for Macintosh." This choice should be in a pop-up menu format. However, the default setup will feature no other choices for this menu or for the "From" menu below unless you specifically add other choices.



Changing your FreePPP settings is relatively simple if you know where to look for specific attributes. What you have to do all depends on what setting you wish to change. The following procedures detail how to accomplish the most common changes.

In order to access the menus on the "FreePPP Setup" window, you may have to click the small triangular icon that appears on the left side of the window. The ensuing menu choices will be set up in "index-card" setup. In order to access a specific menu, click on its index card tab icon.

Changing Your Password

This is the procedure that you will need to follow if you change your University Computer Account password. If you change your password and do not change your Macintosh FreePPP password setting, you will be unable to access Pitt's PPP dial-up service.

1. Click on the "Accounts" tab.



2. A menu will appear with only the "PittPPP for Macintosh" option selected. Click the "Edit" button.
3. A configuration screen will appear with connection attributes listed in a number of fields.

- Position the mouse cursor onto the "Password" field and click the button once. Once the blinking cursor is in the field, you can delete the old password and enter in a new one. Again, the letters will not be visible as you type.
- Click the "OK" button and you will be ready for your next PPP login.

Connecting to a different location

This is the procedure that you will need to follow if you want to log into a different University dial-up number.

- Click on the "Accounts" tab.



- A menu will appear with only the "PittPPP for Macintosh" option selected. Click the "Edit" button.
- A configuration screen will appear with connection attributes listed in a number of fields.

- Position the mouse cursor onto the "Phone Number" field and click the button once. Once the blinking cursor is in the field, you can delete the old phone number and enter in a new one. The University's dial-up numbers are:
 - Pitt-Pittsburgh (412)-297-7488 (PITT)
 - Pitt-Greensburg (724)-836-9997
 - Pitt-Johnstown (814)-269-7950
 - Pitt-Bradford (814)-362-7597
 - Pitt-Titusville (814)-827-4486

NOTE: The parentheses and the dashes are important, so enter these numbers exactly as they appear here.

If you are attempting to dial long distance, your initial login will not work if your telephone company requires you to dial a "1" or an area code before making a toll call. If this is the case, read the instructions in the next section on modifying numbers that are dialed before the actual dial-up telephone number.

- Click the "OK" button and you will be ready for your next PPP login.

Do not use this procedure to connect to other on-line services other than the University. The "PittPPP for Macintosh" setup is specifically geared for the University's PPP dial-up servers. If you wish to configure a setup for another PPP service, click the "New" button on the "Accounts" section and fill in connection parameters according to instructions from the other service provider.

Changing what is dialed before and after the dial-up access number

The instructions in this section are for anyone who has to adjust what is dialed before or after the actual dial-up telephone number is dialed by the modem. For example, if you need to enter an area code in order to access the local Pitt dial-up number (see the list in the previous section), then you need to do some minor editing in order for your modem to do the dialing correctly. This is also an option to keep in mind if you wish to begin using a calling card or you wish to change your calling card number. Students who wish to change what STS access code is used should also read this section

Using local long distance

- Click the "Accounts" tab.



- A menu will appear with only the "PittPPP for Macintosh" option selected. Click the "Edit" button.
- A configuration screen will appear with connection attributes listed in a number of fields.

- * If your telephone company requires you to enter a "1" prior to making toll calls, click the box next to "Dial as long distance" so that an "x" appears in the box.

☒ **Dial as long distance**

- * If your telephone company requires you to enter an area code in order to make a toll call, click the box next to "Dial as area code" so that an "x" appears in the box.

☒ **Dial area code**

4. Click the "OK" button and you will be ready to attempt your next PPP login.

Students changing an STS access code:

1. Click the "Locations" tab icon.



2. A menu will appear with only the "Home" option selected. Click the "Edit" button.
3. A configuration screen will appear with dial-up information. The STS access code should appear in the "Dial Suffix" field preceded by two commas. Position the mouse pointer in this field and click the button once to edit the numbers in this field.

Dial suffix:

.,123456

NOTE: This example uses the dummy access code 123456 to illustrate how the screen should look. Obviously, your own access code will be different.

4. Click the "OK" button and you will be ready to attempt your next PPP login.

Using a Calling Card:

These instructions are for anyone who wishes to use a "1-800" accessed calling card number to pay for dial-up calls.

1. Click on the "Locations" tab.
2. A menu will appear with only the "Home" option selected. Click the "Edit" button.
3. A configuration screen will appear with dial-up information. Position the cursor in the "Dial Prefix" field. If your calling card requires you to enter a "1-800" number followed by an access code, enter this number followed by four commas and then the access code followed by four commas. The commas may not be necessary, but they provide a time delay that the calling card service may require. If your calling system needs more time between numbers, consider adding more commas.

Dial prefix:

1 800 950 2001,,,185 494

If your calling card service requires you to enter an access code AFTER you dial the number you wish to reach, this code would be entered into the "Dial Suffix" field.

Dial prefix:

1 800 950 2001,,,

Long distance access code:

Dial suffix:

,,,185 494 9991

NOTE: This example uses the dummy access numbers to illustrate how the screen should look. Obviously, your own access numbers will be different.

4. Click the "OK" button and you will be ready to attempt your next PPP login.

Changing your modem speed setting

1. Click the "Accounts" tab.



2. A menu will appear with only the "PittPPP for Macintosh" option selected. Click the "Edit" button.
3. Click the icon for the "Connection" tab.



In this section, you can adjust the correct speed in bits per second (bps) at which your PC will communicate. The number that you should select from the "Port Speed" pop-up menu depends on the advertised speed of your modem in bps and whether or not your modem is capable of data compression.

NOTE: modems capable of data compression require a "hardware handshaking" (flow control) cable. Check your modem's documentation for cable information and specific data compression instructions. Set the "Port Speed" pop-up menu as follows:

9600 - If you have a 9600 bps modem, select "38400" from the "Port Speed" pop-up menu. If this does not work, try using a lower speed on successive attempts.

14,400 - If you have a 14,400 bps (14.4 kbps) modem, select "57600" from the "Port Speed" pop-up menu. If this does not work, try using a lower speed on successive attempts.

28,800 - If you have a 28,800 bps (28.8 kbps) modem, select "115200" from the "Port Speed" pop-up menu if you have a Power Mac or "57600" for an older PC. If this does not work, try using a lower speed on successive attempts.

33,600 - If you have a 33,600 bps (33.6 kbps) modem, select "115200" from the "Port Speed" pop-up menu if you have a Power Mac or "57600" for an older PC. If this does not work, try using a lower speed on successive attempts.

57,000 - If you have a 56,000 bps (56 kbps) modem, select "115200" from the "Port Speed" pop-up menu if you have a Power Mac or "57600" for an older PC. If this does not work, try using a lower speed on successive attempts.

4. Click on the "OK" button at the bottom of the dialog box. You are ready to attempt your next PPP login.

A Brief Guide to Using Telnet and Netscape

NOTE: The PittPPP installation from CSSD will place these utilities as well as the Fetch and TN3270 utilities in a folder named "Internet Applications" on your hard drive. Remember, you must establish a successful PPP connection prior to using any Internet-based applications such as Netscape or Telnet.

Telnet

1. Double-click the Telnet icon to start up the utility.



2. Select the "Open Connection" command under the **File** menu to set up a remote session.
3. In the **Host/Session Name** field, enter the address of the service to which you wish to connect. For example, if you wanted to connect to the UNIX Timesharing Service, you would enter "unixs.cis.pitt.edu" in the connection box. Click the "Connect" button.
4. Once you are finished and have logged off of the remote service, select the "Quit" command from the File menu.

Netscape

In order to get Netscape running on your Macintosh, you will have to install it from the Netscape installation package that is included in your "Internet Applications" folder. You do not necessarily have to be connected via PPP in order to install Netscape. However, it is recommended that you do have a PPP connection up and running if you wish to take advantage of Netscape's optional setup menus that will appear the first time that you run Netscape.

1. Double-click on the Netscape installer icon to install Netscape on your Macintosh.



NOTE: You only need to install Netscape once. Do not repeat this step in future Netscape sessions.

Click "Continue" and then "Install" for the "Easy Install" option. As with the initial PittPPP installation, you would only choose the "Custom Install" option if you wished to install just specific components of the Netscape package.

The Netscape installer will place the appropriate software on your system, as well as configure the program using the information that you provided when you ran the PittPPP installation. You should not need to adjust any of your Netscape settings once the installation is complete.

2. Double-click the Netscape icon to start the utility.

Netscape is one of the most popular Web browsing utilities. The Web is a refined service of the Internet that displays documents in hypertext (HTML) format. Hypertext documents are stored on-line as plain text, but Web browsing programs like Netscape interpret the HTML code so that documents are presented with refined formatting such as bolding and italics, graphics, sounds and direct links to other hypertext documents nearby or at other sites.

3. The Pitt home page will appear after the program loads. To set a different default home page upon start up, select the "General Preferences" command under the Options menu.

NOTE: Disabling the "Auto-Load Images" option under the Options menu will speed up your Web browsing since it stops the time-consuming loading of images that may not interest you.

4. When you see a highlighted phrase (usually in bold or blue), this indicates a link to another document located elsewhere on the Web. If you move the mouse pointer to the highlighted text and click the button, the browsing utility will load that document to your screen. Every site on the web is identified by a Uniform Resource Locator (URL) which is a string of characters similar to an e-mail address in that it is unique on the Internet and can be accessed directly. If you find a site that you may want to visit again, you can write down the URL for inclusion in your own hypertext documents or you can commit the location to your copy's list of "bookmarks."
5. Select the "Quit" option under the File menu to exit from Netscape.

Getting Help

For software usage or PPP setup questions, contact the Help Desk 24 hours a day, 7 days a week by phone at (412) 624-HELP [4357] or via the Web at <http://technology.pitt.edu>.

Documentation is also available in the campus computing labs and online at <http://technology.pitt.edu>.