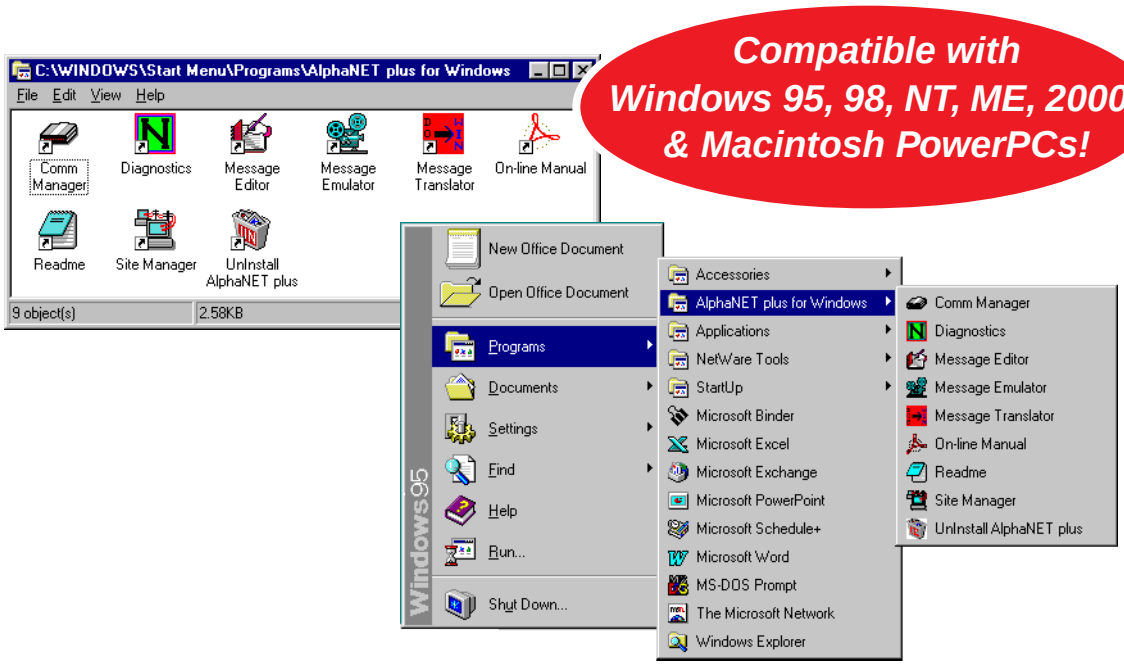
Version 1.3

AlphaNET™ *plus*

for Windows



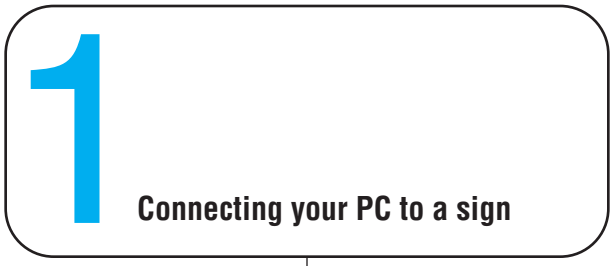
User Manual

For latest updates, go to:
http://www.adaptivedisplays.com/alphanetplus/

ADAPTIVE

Form No. 9708-8081C
Revision date: 10/25/00

Manual Map



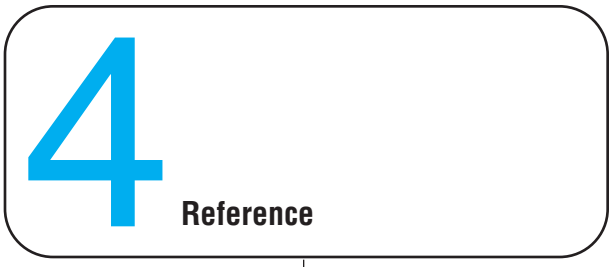
This chapter explains the basics of connecting your personal computer to a sign.

This chapter shows how to install the AlphaNet *plus* for Windows software on your personal computer.

Also, a step-by-step tutorial explains the basics of creating sites using the **Site Manager** program.

This chapter explains how to create messages with the **Message Editor** program. Using graphics and animations or "flicks" in messages is also covered.

Finally, using the **Message Editor** and the **Site Manager** to send messages to signs is explained.



This chapter contains Quick Reference summaries of the **Message Editor**, **Emulator**, **Site Manager**, **Comm Manager**, **Message Translator,** and **Diagnostics** programs.

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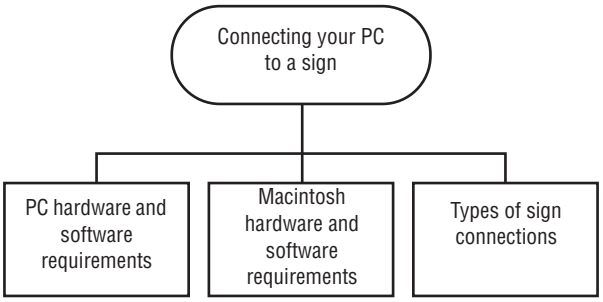
Connecting your PC to a sign

Chapter 1 map



PC hardware and software requirements

Minimum hardware and software requirements

- Windows 95, 98 or NT workstation
- Processor requirements appropriate to selected operating system
- 16 MB RAM
- 10 MB of hard disk space
- CD drive
- RS232 (serial port) or LAN access

Other hardware requirements

Additional hardware, such as connectors and cabling, is also required and depends on the type of sign and connection you will be using.

Macintosh hardware and software requirements

See “Appendix A — Macintosh PowerPC setup” on page 137 for details.

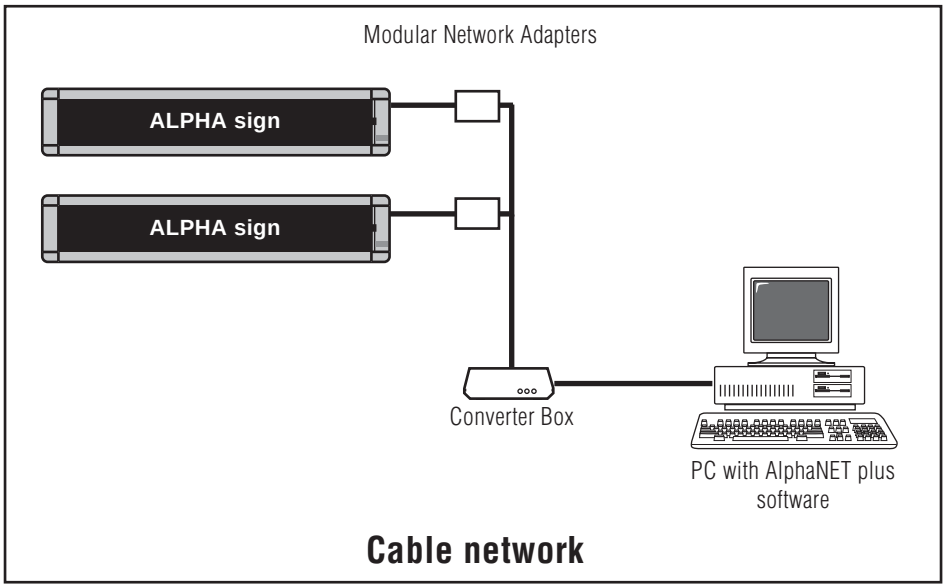
Types of sign connections

An overview of the methods of connecting signs is presented on the following pages.

For more detailed information, see the document **Network Configurations** (part number 9708-8046).

Cable network

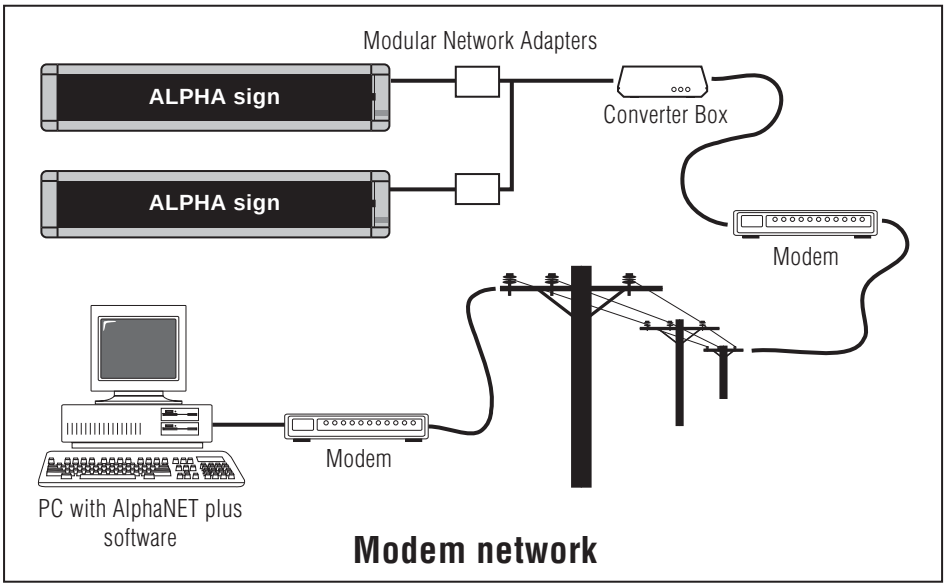
In this type of network, one or more signs are connected with RS485 cabling to a PC running **AlphaNET *plus* for Windows** software:



Cable network

Modem network

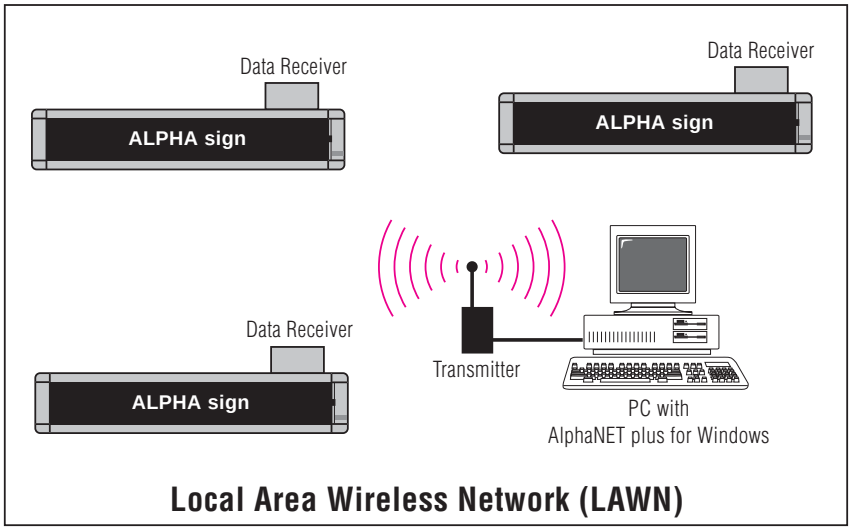
In this configuration, modems are used to connect one or more signs to a PC running **AlphaNET *plus* for Windows** software:



Wireless networks (LAWN)

AlphaNET *plus* for Windows software can be used with a Local Area Wireless Network (LAWN) — also called an "on-site" wireless network.

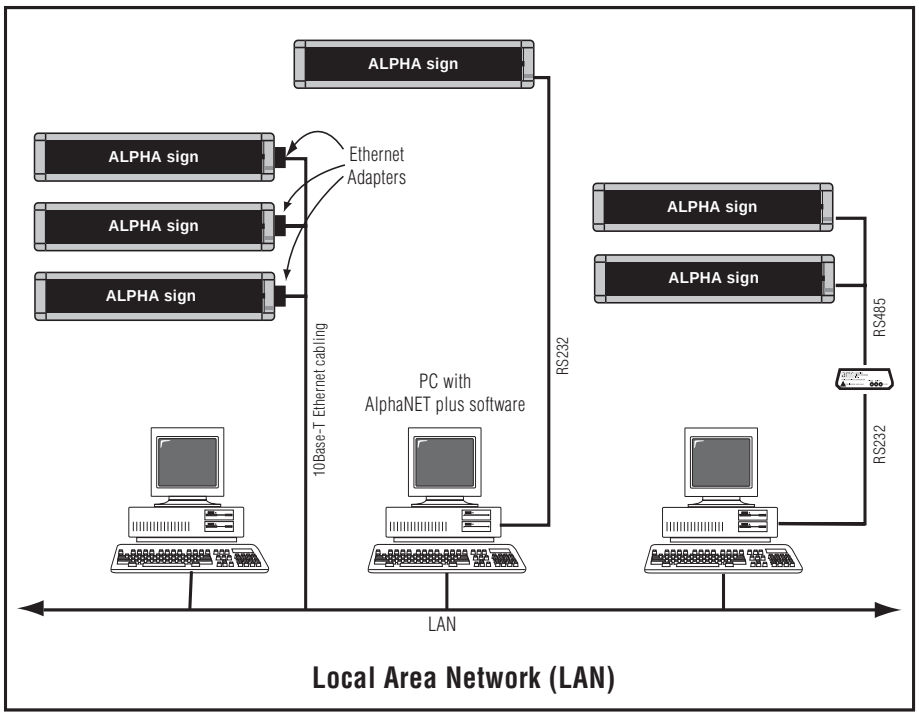
A LAWN operates by using a transmitter attached to a PC which broadcasts either text or graphics to one or more signs, each equipped with its own Data Receiver. The range of a LAWN is usually limited to a few miles:



Local Area Network (LAN)

In this configuration, one or more signs are connected to an existing Local Area Network:

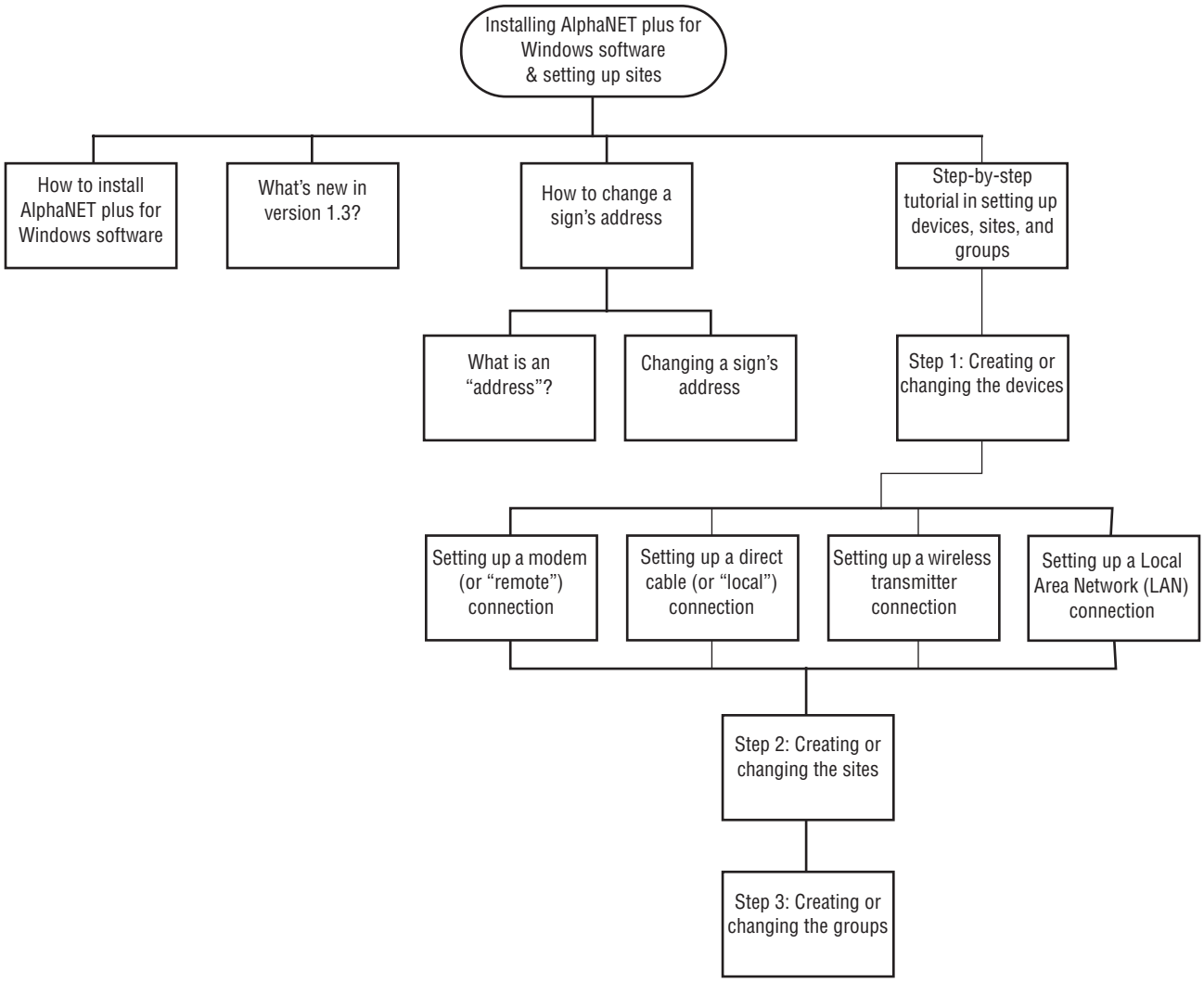
For more detailed information, see the document **Networking ALPHA signs with ALPHA Ethernet Adapters** (part number 9708-8093).



Local Area Network (LAN)

2 Installing AlphaNET *plus* for Windows software and setting up sites

Chapter 2 map



How to install AlphaNET *plus* for Windows software

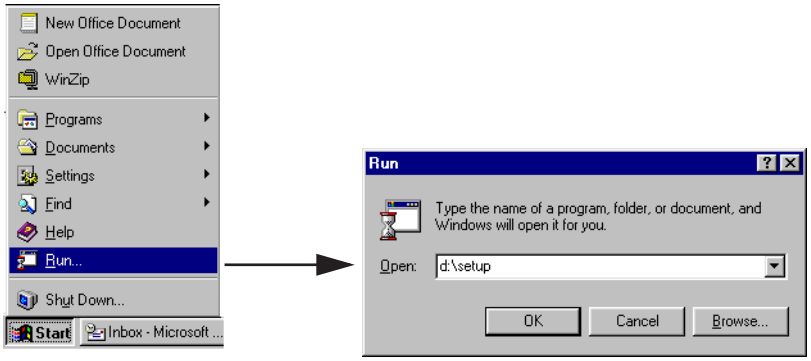
HINT

Before starting the software installation, check to see if there is a README file.

Look at this file before installing the software because it may contain late-breaking information about the software.

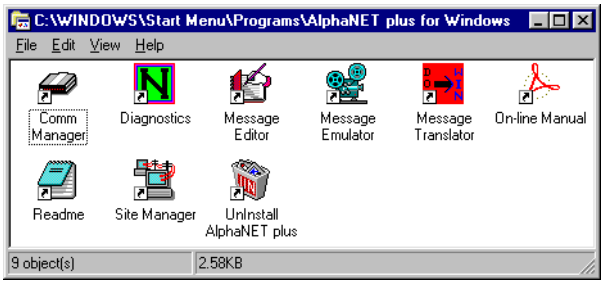
1. Start Microsoft Windows and be sure to have all other applications closed.
2. Insert the **AlphaNET *plus* for Windows CD** into your CD drive. The installation process should start automatically.
3. If installation does not start automatically, you can either...

   a. Select **Start > Run.** Next, type *d:\setup* using the correct letter for your CD drive instead of "*d:*". Finally, select **OK**.



   b. Or...Using Windows Explorer, you can double-click on *Setup.exe* in your CD drive folder.

3. Follow the instructions when the installation program prompts you.
4. When the installation program is done, these program icons appear:



5. This completes the software installation.

What's new in version 1.3?

1. Version 1.3 supports Windows 95, 98, NT, 2000, ME, and Macintosh Power PCs.
2. Version 1.3 supports Adaptive's new outdoor signs and redesigned 4000 and 7000 signs (available first quarter of 2001) for both messaging and emulating messages.
   - Messages can be triggered by date as well as by day or time. Messages can be issued as recurring (displayed multiple times with the same start day/date/time and end day/date/time.)
   - In messages, characters can be "condensed" or "custom".
   - Modes to be used in the Automode sequence can be set by the user.
3. Networking (TCP/IP) capability has been added for messaging using Ethernet Adapters on a Local Area Network (LAN).
4. Version 1.3 supports real-time string variables from external applications, including ActiveX applications. You can use an application to send the variable data to a sign's memory, to be merged with text in a message.
5. Icons for modes have been updated.
6. Installation starts automatically (if the operating system feature for autorun is turned on.)
7. Version 1.3 no longer supports:
   - Windows 3.1
   - Networking to signs using print servers
   - Networking to signs using wide-area wireless paging transmitters

What has *not* changed?

Version 1.3 supports version 1.2 data: existing site definitions, messages and message scheduling are still valid.

Version 1.3 supports older Alpha signs.

Version 1.3 supports networking to signs using local wireless transmitters.

How to change a sign's address

What is an "address"?

About Address 00

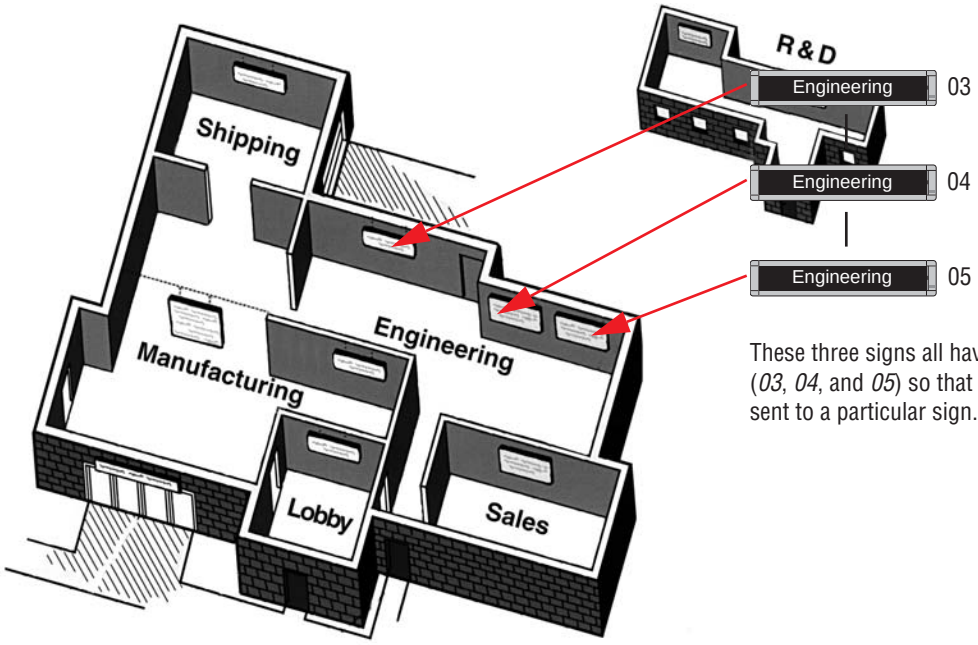
If more than one sign will be connected to a device (modem, wireless, or local connection), then give each sign a unique address, like *01*, *02*, *03*, etc.

Otherwise, sending a message to the sign with address *00* will also send the message to *all* the other connected signs.

An Alpha sign has a feature which allows a unique number or "address" to be assigned to it. This address permits you to send messages to an individual sign on a network.

All Alpha signs leave the factory with a default address of *00*. However, another address—like *01*, *02*, *03*, etc.—can be given to a sign. Addresses for signs should be assigned before setting up devices, sites, and groups so that messages go to the correct signs.

For example, in the company used in the next sections's tutorial, several signs are connected into a network (below), and each of these signs is given a unique address so that a message can be sent to a particular sign:



These three signs all have unique addresses (*03*, *04*, and *05*) so that a message can be sent to a particular sign.

Changing a sign's address

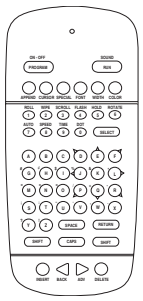
Alphavision Note

To change the address of an Alphavision sign, an access panel on the back of the sign must be removed. Then a DIP switch must be set to change the address.

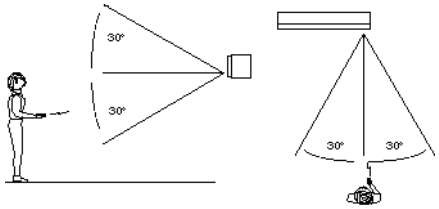
1. To change the address of a particular sign, first make sure that sign is connected to a power supply and is functioning.

2. Point the front of the Remote Control at the sign's infrared receiver window as shown below:

Point the front of the Remote Control at the sign's infrared receiver window.



Remote Control
(front and top views)



The person using the Remote Control should be from 5 to 30 feet from the front of the sign.

3. Press the PROGRAM button on the Remote Control. PROG TEXT FILE A will appear on the sign.

4. Next, press the BACK button until SET ADDRESS appears.

5. Press the ADV button until ADDRESS = 00 appears. (The sign may have an address other than 00.)

Address Note

Normally, a sign's address is a *decimal* number from 00 to 99.

However, if you need more addresses, a *hexadecimal* number from 00 to FF (0 to 255) can be used as an address. For example, hexadecimal 1F = decimal 31.

6. Set the sign's address by pressing any of the number keys. For example, to enter an address of 15 press the button and then the button.

7. Finally, press the RUN button *two* times to set the sign's new address.

Step-by-step tutorial in setting up devices, sites, and groups

What are “sites” and “groups”?

Sites and groups are terms used by the **AlphaNET *plus* for Windows** software to describe how messages are sent to signs. You create sites and groups to make sending messages to multiple signs flexible and easy.

A site is a collection of one or more signs, and a group is made up of one or more sites.

To help you better understand, a tutorial is presented below. In this tutorial a complex example is created in a series of easy-to-understand steps.

Overview of the tutorial

In this tutorial, we’ll set up sites and groups for an imaginary company pictured below. The table shows how signs are assigned in this company:

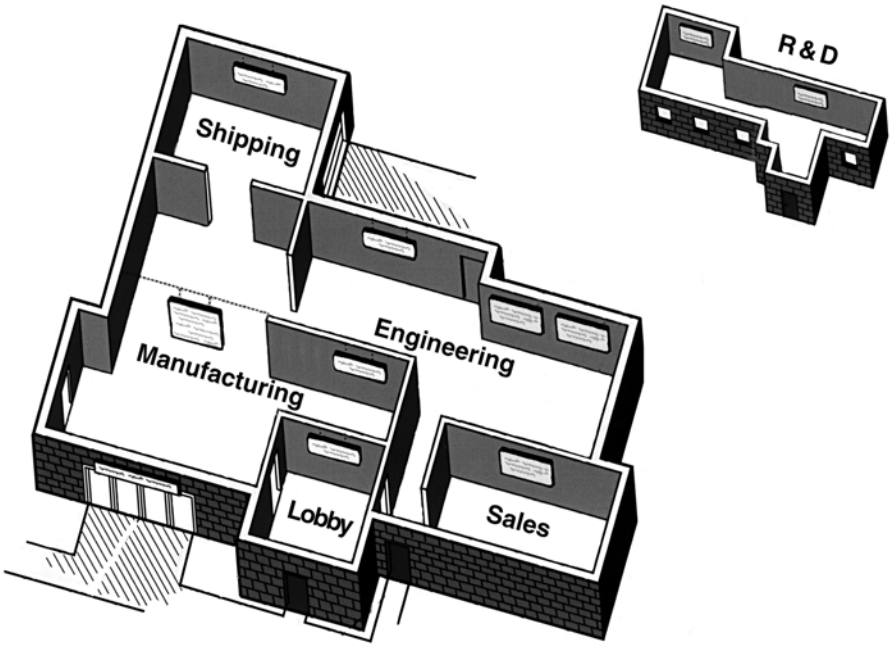
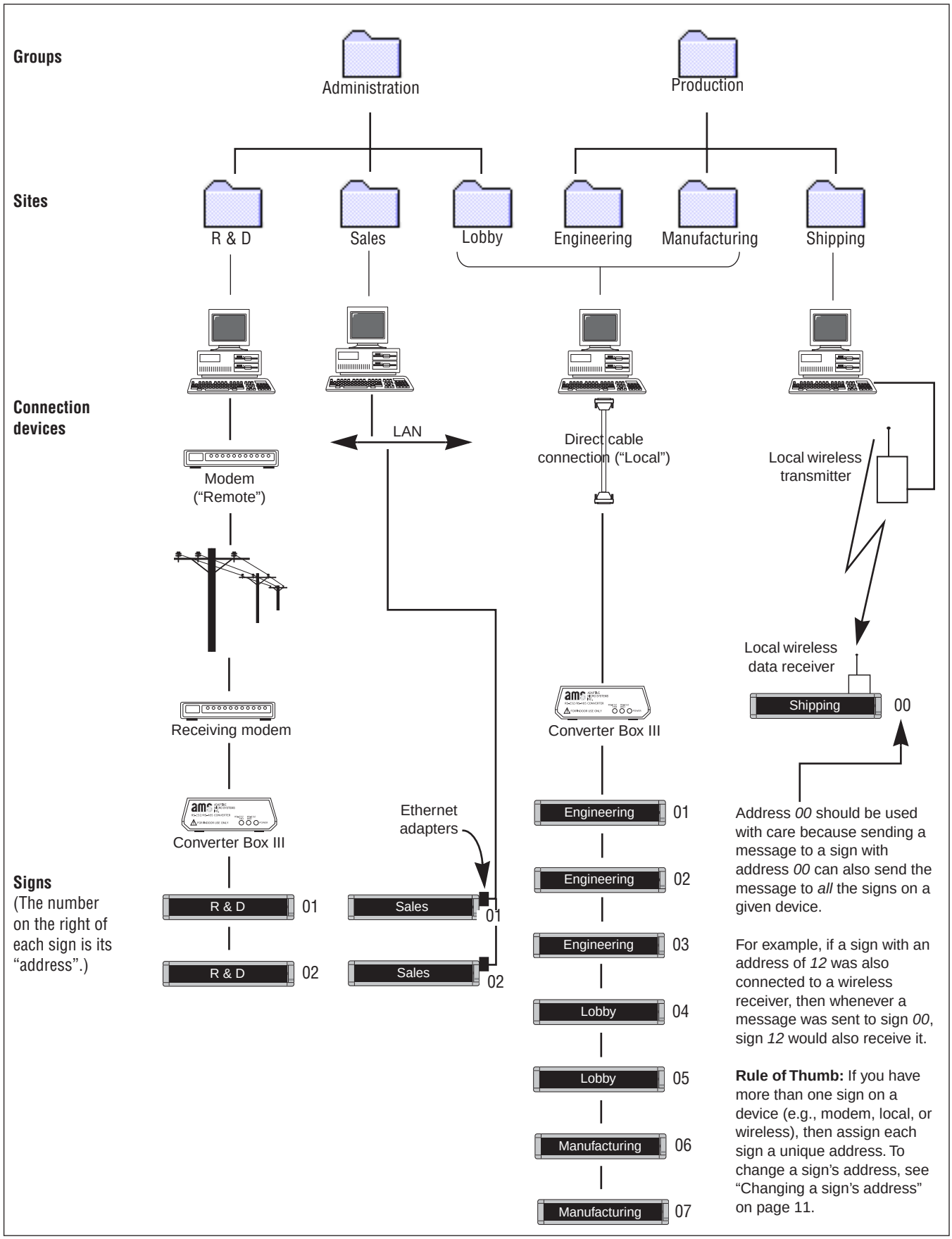


Table 1: Overview of the tutorial company

Group	Site	# signs	[1]Connection device
Production	Manufacturing	2	• local
	Shipping	1	• wireless
	Engineering	3	• local
Administration	Sales	2	• LAN
	Lobby	2	• local
	R & D	2	• modem

[1]A sign is connected to a PC running **AlphaNET *plus* for Windows** software by a direct cable (or “local”) connection, by a modem (or “remote”) connection, or by a wireless transmitter.

Table 2: Schematic of the tutorial company



Step 1: Creating or changing the devices

A "device" is a way to connect a sign to a PC that is running **AlphaNET *plus* for Windows** software. See chapter 1 for detailed instructions on how to connect signs.

For more information on networking signs, see the **Network Configurations** (pn 9708-8046) manual or **Networking ALPHA signs with ALPHA Ethernet Adapters** (pn 9708-8093).

The basic devices or types of networks are:

- **Direct cable (or "local") connection** — This method uses cables to connect signs into a network, and messages to each sign are sent over this cabling. A local connection works best when all the signs are in one building.

- **Modem (or "remote") connection** — Typically, this method is used when the signs you wish to send messages to are signs that are not in the same building (or city, etc.) as your PC. In this type of connection, a modem is attached to your PC and another modem is attached to one or more signs at the other location. At times which you specify, messages are transmitted to the signs when the PC modem "calls" the signs' modem.

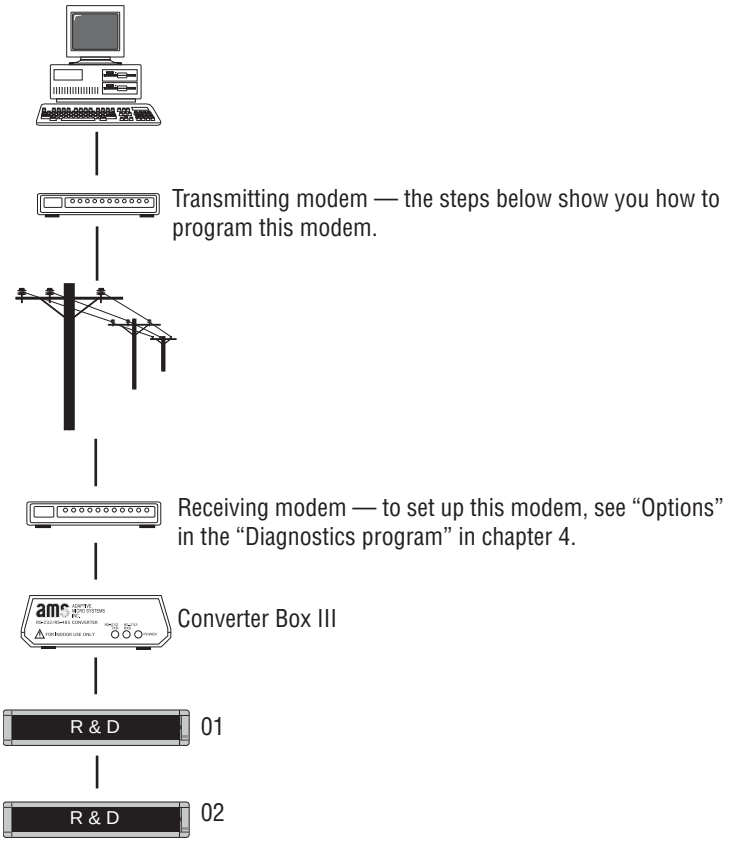
- **Wireless connection** — In this setup, each sign is equipped with a wireless Data Receiver. The advantage of this connection method is that wiring does not have to be strung between each sign.

  Messages are sent from your PC to signs via a transmitter, attached to your PC, which broadcasts messages to these Data Receivers. The distance from your PC (i.e., the transmitter) to the receivers on the signs is limited.

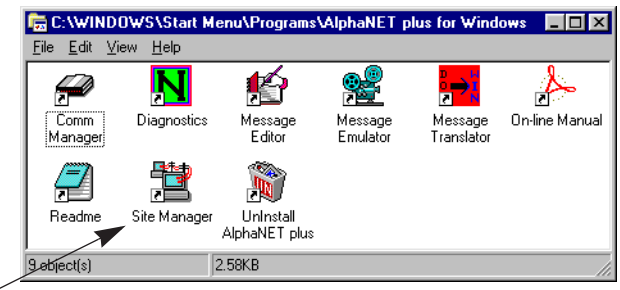
- **LAN (Local Area Network) connection** — This option allows you to connect one or more signs to a Local Area Network (LAN) using an Alpha Ethernet Adapter. There is no maximum to the number of Alpha Ethernet Adapters that can be used with **AlphaNET *plus* for Windows** version 1.3 software. See the document **Networking ALPHA signs with ALPHA Ethernet Adapters** (pn 9708-8093) for detailed information.

Setting up a modem (or "remote") connection

In our imaginary company, the following signs are connected by modem:

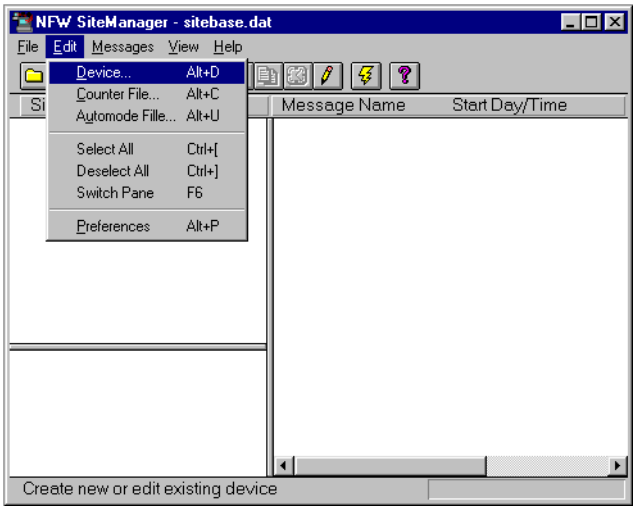


1. To create a modem device, open the **Site Manager** program:



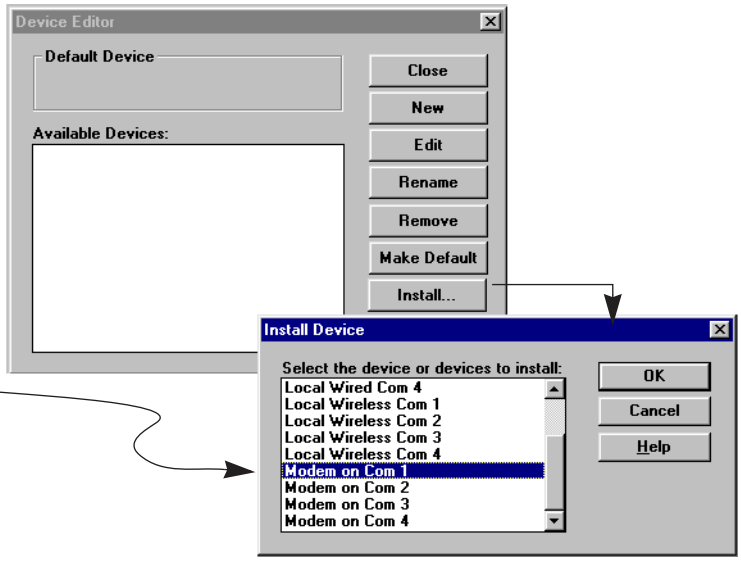
Double click on this icon to open the **Site Manager**:

2. Next, select **Edit** and then **Device**:

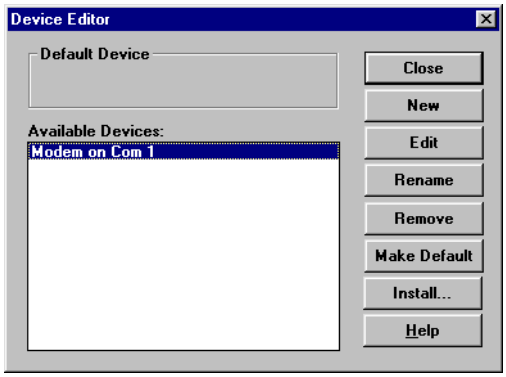


3. When the **Device Editor** window appears, select **Install.** Then select *Modem on Com 1* from the list and **OK**. (If you have a modem on a different communications port, choose the modem on that port.)

These default devices make your job easier because they are the most common methods of connecting signs to your PC.



4. Select **OK** and the following window will appear.



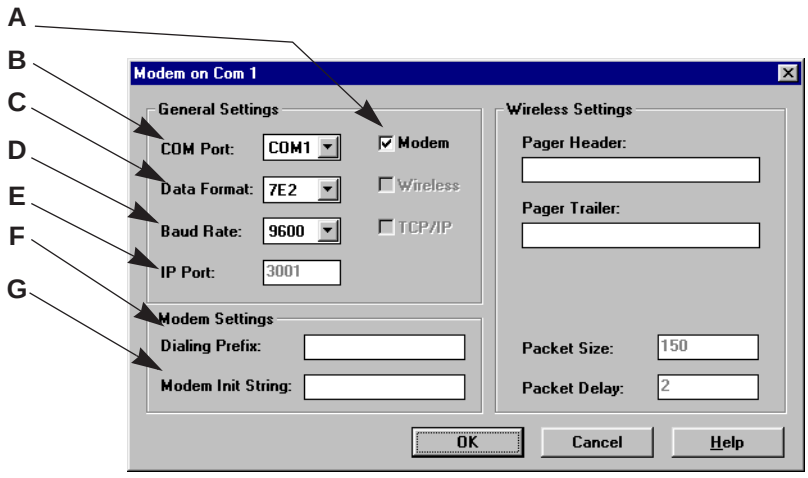
NOTE

To finish setting up a modem connection, you have to set up a modem site using the **Site Manager**.

To see an example of this, see "Creating the R & D site — a modem example" on page 25.

5. If you want to change any of the modem settings, make sure *Modem on Com 1* is highlighted as above and then select **Edit**. Use the following window to change the modem settings and then select **OK**:

Table 3: Modem setup



Item	Name	Directions
A	Modem	Check this box.
B	COM Port	Select the port on your PC that connects to your modem.
C	Data Format	Use **7E2** for 7 data bits, even parity, 2 stop bits Use **8N1** for 8 data bits, no parity, 1 stop bit (The **7E2** setting is compatible with most signs.)
D	Baud Rate	Alpha signs can receive at baud rates between 1200 and 9600 baud. However, a Converter Box III with a serial number greater than AF00004525 (e.g., AF00004526, AF00004527, etc.) has a minimum baud rate of 2400, and baud rates of 300 or 1200 will not be accepted even though these rates are shown in the Device Editor.
E	IP Port	Not needed for a modem device.
F	Dialing Prefix	If you must dial a number (like "9") for your modem to reach an outside phone line, enter the number here.
G	Modem Init String	Consult your modem documentation.

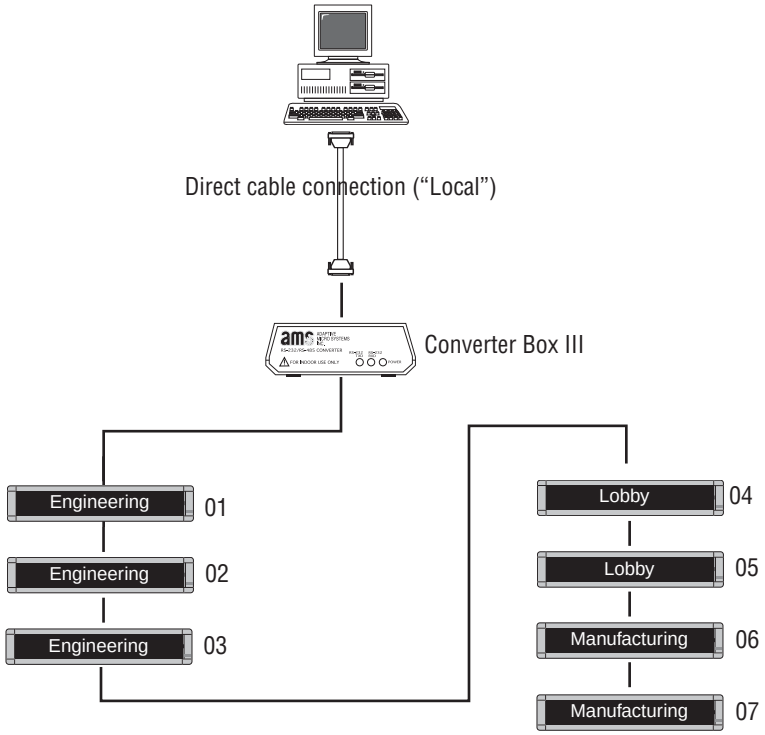
NOTE

The modem setup shown here is for the *transmitting* modem.

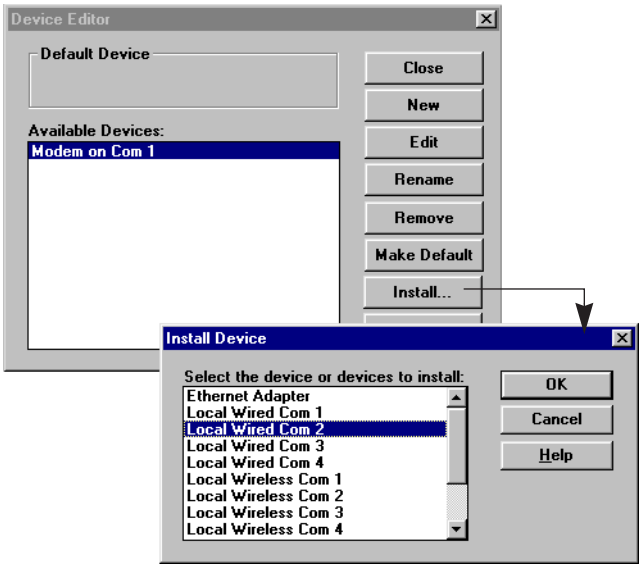
The *receiving* modem must also be set up properly. (See "Options" in the "Diagnostics program" on page 129.)

Setting up a direct cable (or "local") connection

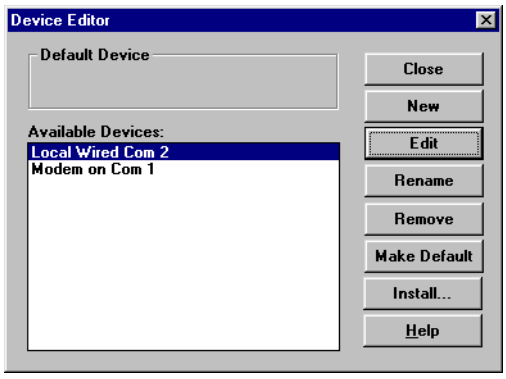
In our imaginary company, the following signs are connected by a local connection:



6. Continuing from the previous step, select **Install** in the **Device Editor** window. Then select *Local Wired Com 2* from the list and **OK**:



7. Select **OK** and the following window will appear.



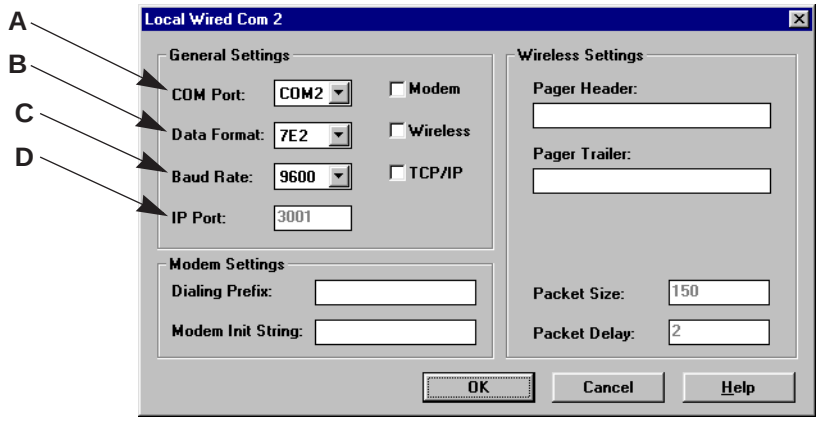
NOTE

To finish setting up a local connection, you have to set up a local site using the **Site Manager**.

To see an example of this, see "Creating the Lobby, Engineering, and Manufacturing sites — a wired example" on page 32.

8. If you want to change any of the local settings, make sure *Local Wired Com 2* is highlighted as above and then select **Edit**. Use the following window to change the local settings:

Table 4: Local setup



Item	Name	Directions
A	COM Port	Select the port on your PC that is cabled to your sign(s).
B	Data Format	Use **7E2** for 7 data bits, even parity, 2 stop bits Use **8N1** for 8 data bits, no parity, 1 stop bit (The **7E2** setting is compatible with most signs.)
C	Baud Rate	Alpha signs can receive at baud rates between 1200 and 9600 baud. However, a Converter Box III with a serial number greater than AF00004525 (e.g., AF00004526, AF00004527, etc.) has a minimum baud rate of 2400, and baud rates of 300 or 1200 will not be accepted even though these rates are shown in the Device Editor.
D	IP Port	Not needed for a local wired device.

Setting up a wireless transmitter connection

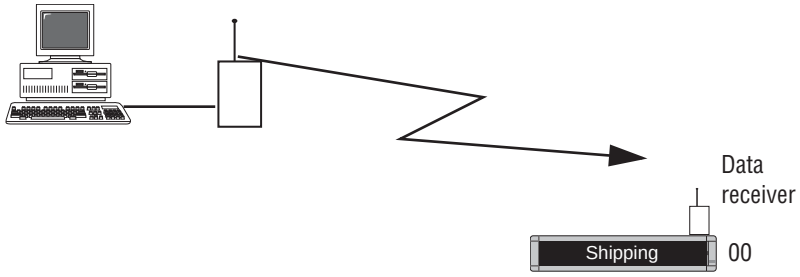
About Address 00

If more than one sign will be connected to a wireless device (or a modem or local connection), then give each sign a unique address, like *01*, *02*, *03*, etc.

Otherwise, sending a message to the sign with address *00* will also send the message to *all* the other connected signs.

To change a sign's address, see "Changing a sign's address" on page 11.

In our imaginary company, there is just one sign that uses a wireless connection. In this example, messages are sent to the sign using a wireless transmitter which is attached to a PC:

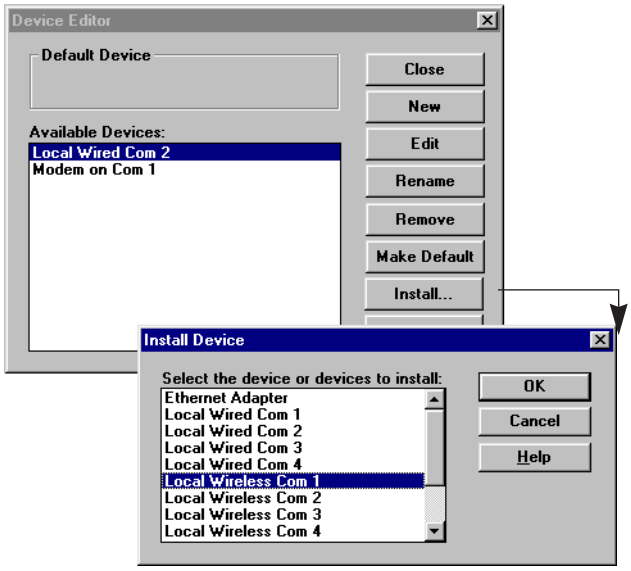


9. Continuing from the previous step, select **Install** in the **Device Editor** window. Then select *Local Wireless Com 1* from the list and **OK**:

NOTE

Why can we choose **Wireless** on COM1 when we already set up a **Modem** on COM1?

Site Manager assumes that perhaps you have an "AB switch" attached to both a modem and a wireless transmitter. Or perhaps you unplug one device and plug in the other based on your needs.

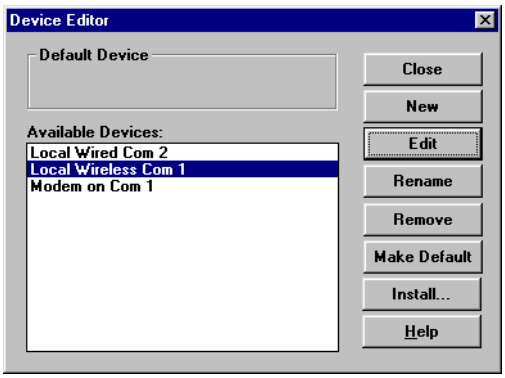


10. After entering the wireless settings, select **OK** and the following window will appear.

NOTE

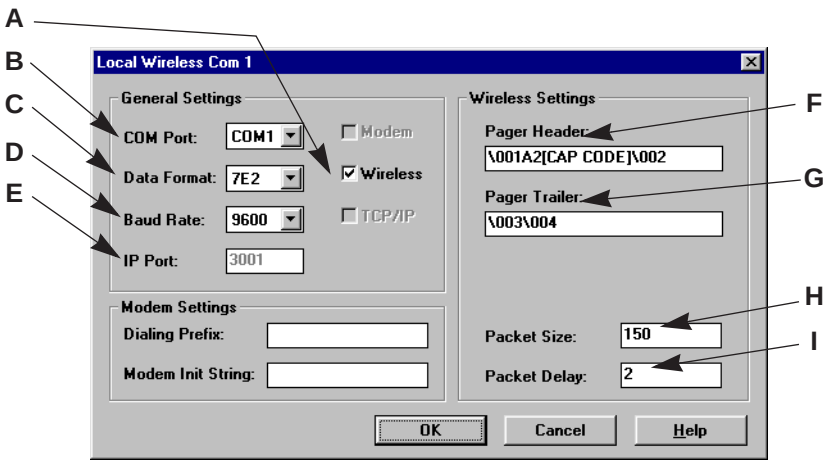
To finish setting up a wireless connection, you have to set up a wireless site using the **Site Manager**.

To see an example of this, see "Creating the Shipping site — a wireless example" on page 36.



11. If you want to change any of the wireless settings, make sure *Local Wireless Com 1* is highlighted as above and then select **Edit**. Use the following window to change the wireless settings and then select **OK**.

Table 5: Wireless setup



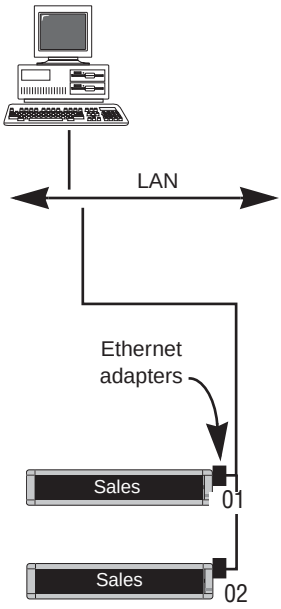
Item	Name	Directions
A	Modem	Don't check for a wireless connection.
	Wireless	Check ONLY **Wireless** if you are sending messages to signs using a transmitter attached to your PC.
B	COM Port	Select the port on your PC that connects to your modem or transmitter.
C	Data Format	Use **7E2** for 7 data bits, even parity, 2 stop bits Use **8N1** for 8 data bits, no parity, 1 stop bit (The **7E2** setting is compatible with most signs.)
D	Baud Rate	Alpha signs can receive at baud rates between 1200 and 9600 baud. However, a Converter Box III with a serial number greater than AF00004525 (e.g., AF00004526, AF00004527, etc.) has a minimum baud rate of 2400, and baud rates of 300 or 1200 will not be accepted even though these rates are shown in the Device Editor.
E	IP Port	Not needed for a local wireless device.
F	Pager Header	Use these for your specific transmitter. Consult your transmitter documentation for details.
G	Pager Trailer	
H	Packet Size	
I	Packet Delay	

Setting up a Local Area Network (LAN) connection

NOTE

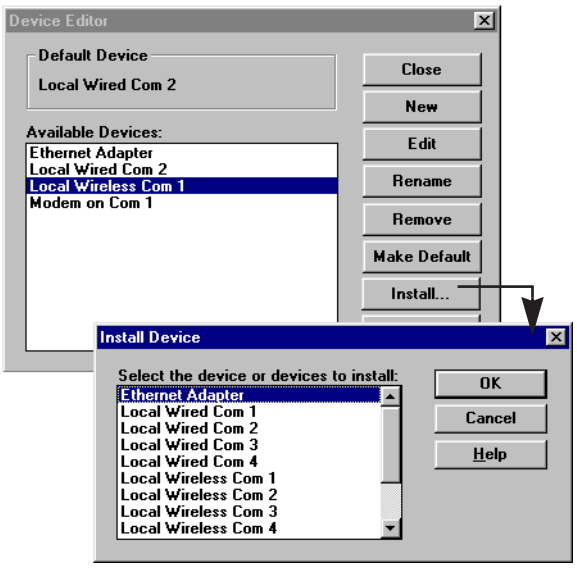
For more detailed information, see **Networking ALPHA signs with ALPHA Ethernet Adapters** (pn 9708-8093).

In our imaginary company, there are two signs that use a LAN connection. In this example, messages are sent to the two signs using an ALPHA Ethernet Adapter which is connected to a LAN:

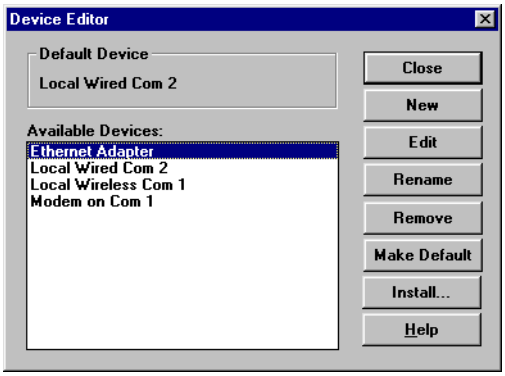


Signs: The number to the left of each sign is its "address".

12. In the **Device Editor** window, select **Install**. Then select *Ethernet Adapter* from the list:



13. Select **OK** and the following window will appear:



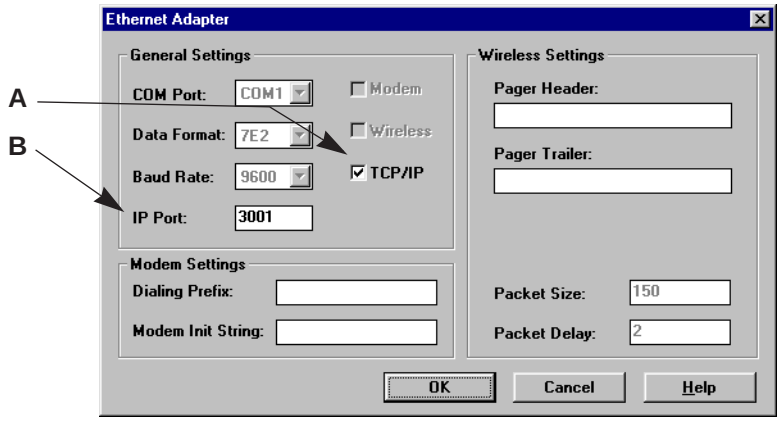
NOTE

To finish setting up an Ethernet Adapter connection, you have to set up an Ethernet Adapter site using the **Site Manager**.

To see an example of this, see "Creating the Sales site — a LAN example" on page 29.

14. If you want to change any of the Ethernet Adapter settings, make sure that *Ethernet Adapter* is highlighted as above and then select **Edit.** After entering the Ethernet Adapter settings, select **OK**:

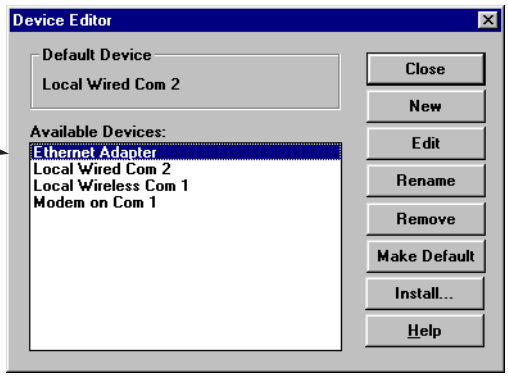
Table 6: Ethernet Adapter setup



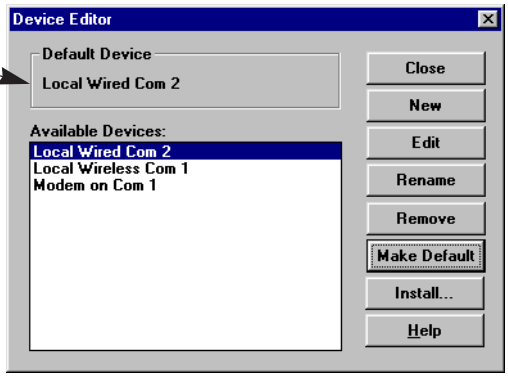
Item	Name	Directions
A	TCP/IP	This must be checked for an Ethernet Adapter.
B	IP Port	Specify the IP Port for your Ethernet Adapter. The default setting is 3001 for ALPHA Ethernet Adapters.

15. Since we're finished adding devices, select **Close** to exit, but first, choose one of the devices and then select **Make Default**. Sites you create will use the chosen device unless you specify otherwise.

Before selecting **Close**, choose one of these devices and then select **Make Default**.



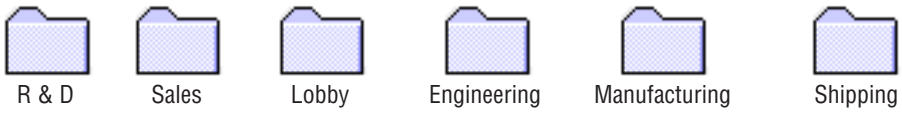
This shows *Local Wired Com 2* as the default device.



Step 2: Creating or changing the sites

Before creating the sites, there must be a device for each of the sites. Since we did this is Step 1, we can continue.

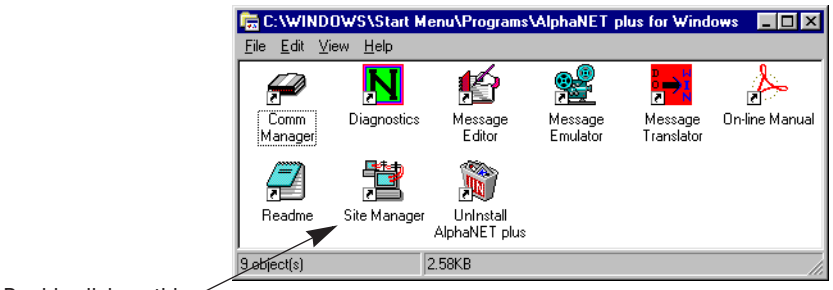
These are the sites we have to make for our imaginary company. Notice that many of them are just departments within the company. Sites/signs typically are named by location:



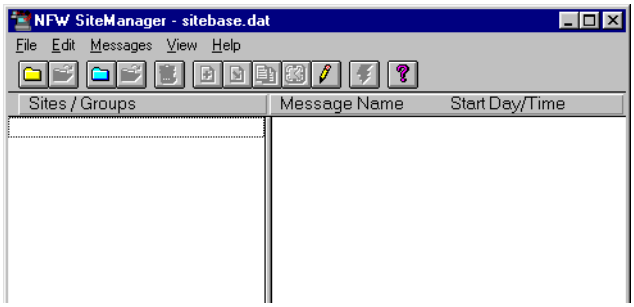
Creating the R & D site — a modem example

1. There are two signs in the R & D site (see "Schematic of the tutorial company" on page 13). One of these signs must be given an "address" of *01* and the other sign an address of *02* (see "How to change a sign's address" on page 10).

2. Next, to create the R & D site, open the **Site Manager** program if it is not already opened:



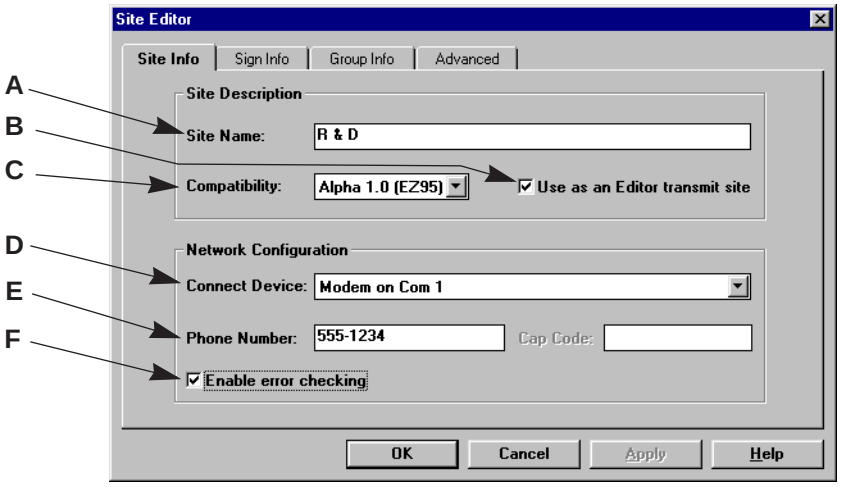
Double click on this icon to open the **Site Manager**:

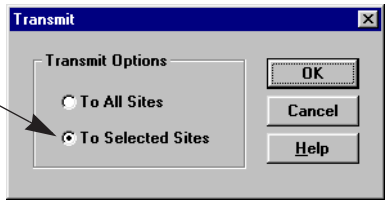


3. Next, select **File** and then **New Site**:

4. After selecting **New Site**, the **Site Editor** window will appear:

Table 7: R & D setup (1 of 4): Site Editor (Site Info) window



Item	Name	Directions
A	Site Name	Type *R & D.*
B	Use as an Editor transmit site	When this is checked, the signs in the current site (in this case the two R & D signs) will receive messages sent from the **Message Editor** program. For example, if a message is sent from the **Message Editor** with **To Selected Sites** chosen (see below), then both the R & D signs would receive that message. Select this in the **Message Editor** software  This option is useful when you're testing to see what a message looks like before sending it to many signs.
C	Compatibility	**Alpha 1.0 (EZ95)** – If all of your signs use the EZ95 protocol. **EZ KEY II** – For the EZII protocol or Infrared Loader. **Incandescent** – If all the signs on this site are either a 790i, 430i, 440i, or 460i. **Alpha 2.0** – For new Alpha (4000, 7000, and outdoor) signs scheduled for first quarter of 2001. NOTE: If a site includes signs which use different protocols, some of the AlphaNET *plus* features may not work. Different sites should be created for signs with different protocols.
D	Connect Device	Because both R & D signs are connected by a modem, select **Modem on Com 1**.
E	Phone Number	Enter the phone number that the PC modem should dial.
F	Enable error checking	Check if you want the software to check that each sign correctly received each message sent to it. When this option is on, errors will be recorded in the error log of the **Comm Manager** program. This option cannot be selected for wireless or LAN connections.

NOTE

Be careful when you check **Use as an Editor transmit site** for more than one site, since whenever you transmit **To Selected Sites** in the **Message Editor** software, the message will go to all sites designated as "transmit site" and you may have messages going to signs you didn't intend to use.

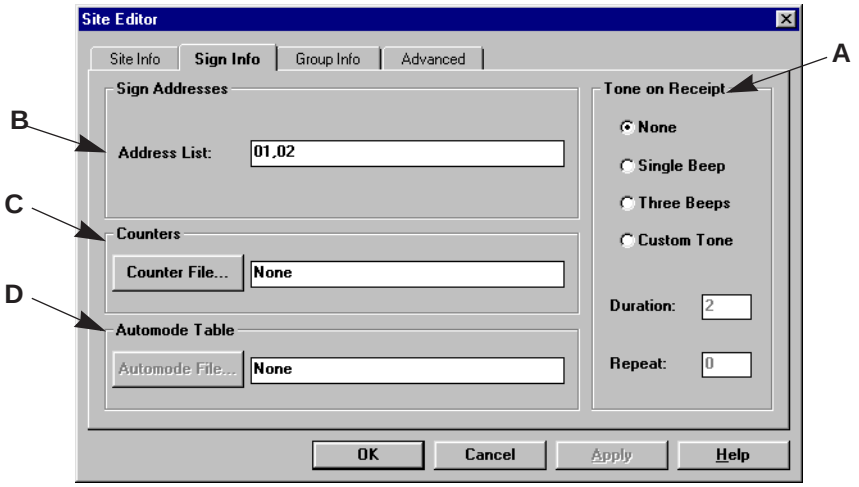
5. Next, information is entered for **Sign Info**:

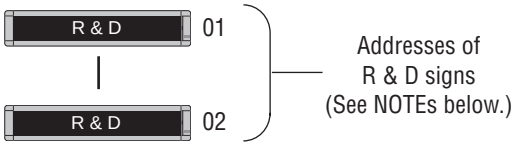
HINT

A long sequence of sign addresses can be entered using a hyphen.

For example, the address list: *5,6,7,8,9* could also be entered as *5-9*.

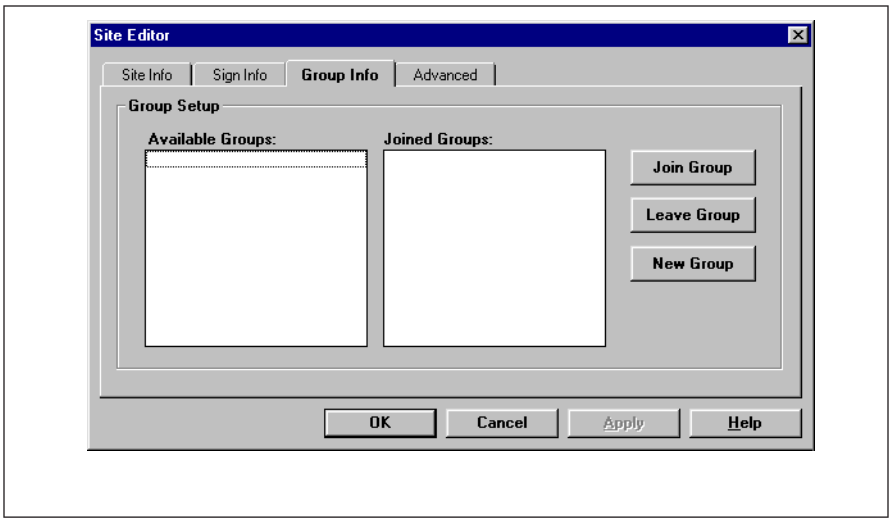
Table 8: R & D setup (2 of 4): Site Editor (Sign Info) window



Item	Name	Directions
A	Tone on Receipt	Select **Single Beep**, **Three Beeps**, or **Custom Tone** (where you can create your own tone) if you want the signs in the **Address List** to beep each time they receive a new message.
B	Address List	The addresses of all the signs in this particular site (in this case, *01* and *02* for the R & D site):  NOTE: Alpha signs are set to address 00 when they leave the factory, but in this example new addresses must be entered. To change the address of a sign, see “How to change a sign’s address” on page 10. NOTE: If you had entered the address 00 in **Address List**, then *all* messages would *always* be sent to both the R & D signs. (Address 00 “broadcasts” a message to every sign.)
C	Counter File...	See “How to edit a Counterfi le” on page 76.
D	Automode Table...	Choose an Automode table, if desired. (**Compatibility** on the **Site Info** tab must be *Alpha 2.0* for **Automode Table…** to be available.) In this example, **Compatibility** on the **Site Info** tab is not *Alpha 2.0*, so **Automode Table…** is not available. See “How to create and use a custom automode sequence” on page 103 for more information.

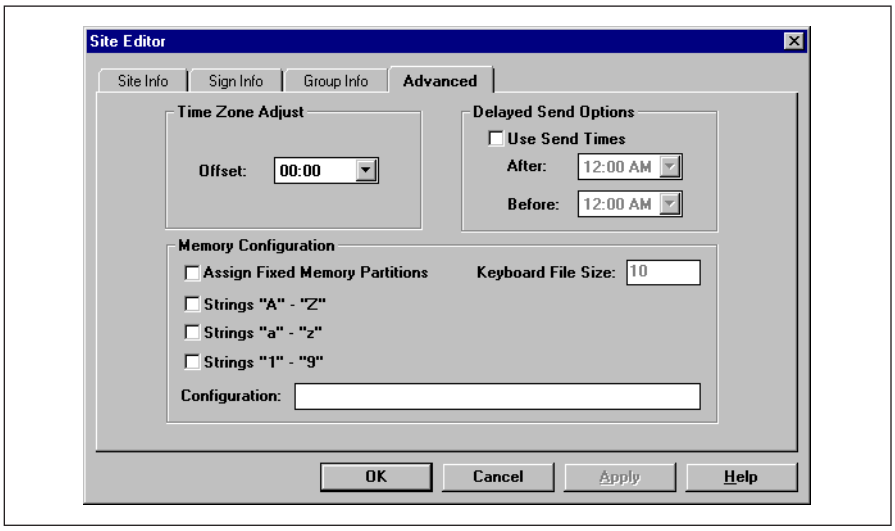
6. In this example nothing needs to be entered or changed for **Group Info**:

Table 9: R & D setup (3 of 4): Site Editor (Group Info) window



7. Also, nothing is changed for **Advanced**:

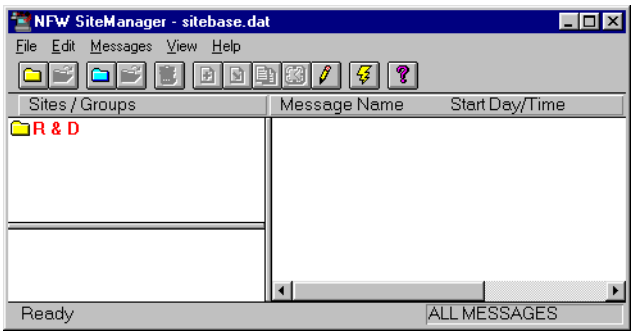
Table 10: R & D setup (4 of 4): Site Editor (Advanced) window



8. Select **OK** and the following will appear:

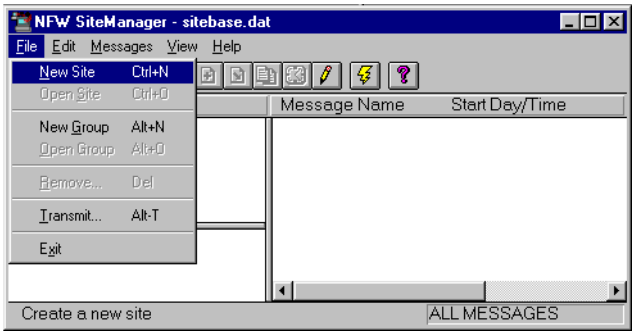
Sites, like the new R & D site you just created, will appear in this part of the window.

When a site appears in red, this means that it has not been updated.



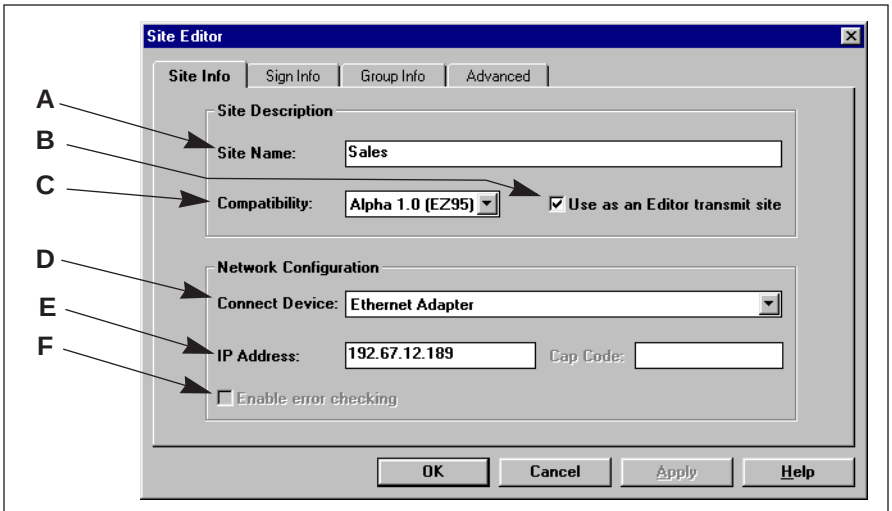
Creating the Sales site — a LAN example

9. After making the R & D site, we'll create the Sales site which consists of two signs (see "Schematic of the tutorial company" on page 13). First, select **File** and then **New Site**:



10. After selecting **New Site**, the **Site Editor** window will appear:

Table 11: Sales setup (1 of 4): Site Editor (Site Info) window



Item	Name	Directions
A	Site Name	Type *Sales*.
B	Use as an Editor transmit site	See "R & D setup (1 of 4): Site Editor (Site Info) window" on page 26.
C	Compatibility	
D	Connect Device	Because the Sales sign is connected via an ALPHA Ethernet Adapter, select **Ethernet Adapter**.
E	IP Address	Specify the 4-node Internet Protocol address for this sign. See your network administrator if you do not know this address. See **Networking ALPHA signs with ALPHA Ethernet Adapters** (pn 9708-8093) for information about assigning an address to an ethernet adapter.
F	Enable error checking	This option is not available for an ALPHA Ethernet Adapter connection.

11. Next, information is entered for **Sign Info**:

HINT

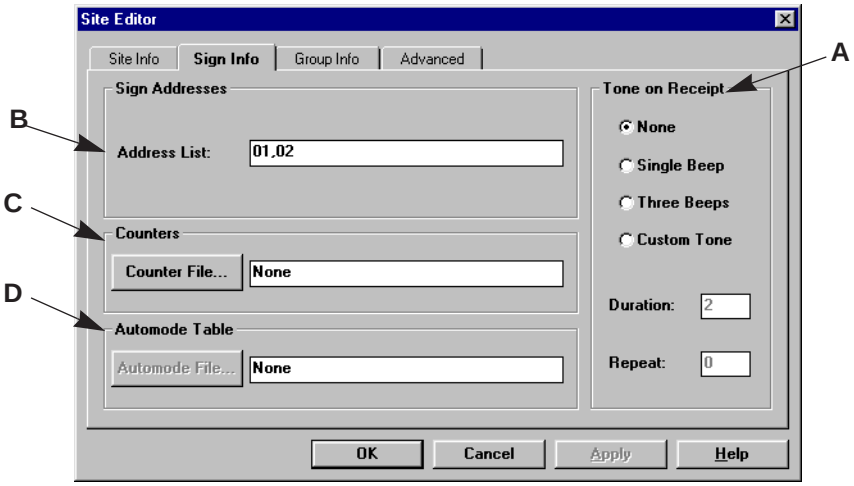
A long sequence of sign addresses can be entered using a hyphen.

For example, the address list: *5,6,7,8,9* could also be entered as *5-9*.

However, if you include more than one sign in the list, then any message sent to this site will appear on all the signs in the list. You will not be able to send a message to any individual sign in that site.

In addition, more than one sign in the list for a site may cause problems if error checking is enabled on the **Site Info** tab.

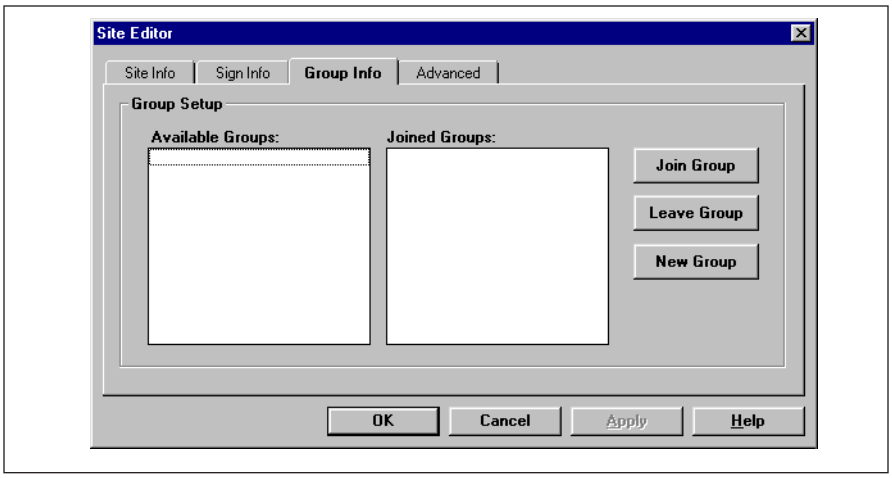
Table 12: Sales setup (2 of 4): Site Editor (Sign Info) window



Item	Name	Directions
A	Tone on Receipt	See "R & D setup (2 of 4): Site Editor (Sign Info) window" on page 27.
B	Address List	The addresses of the Sales signs are *01* and *02*: Sales 01 Sales 02 Addresses of the Sales signs (See NOTE below.) NOTE: Alpha signs are set to address 00 when they leave the factory, but in this example new addresses must be entered. To change the address of a sign, see "How to change a sign's address" on page 10.
C	Counter File...	See "How to edit a Counterfile" on page 76.
D	Automode Table…	Choose an Automode table, if desired. (**Compatibility** on the **Site Info** tab must be *Alpha 2.0* for **Automode Table…** to be available.) In this example, **Compatibility** on the **Site Info** tab is not *Alpha 2.0*, so **Automode Table…** is not available. See "How to create and use a custom automode sequence" on page 103 for more information.

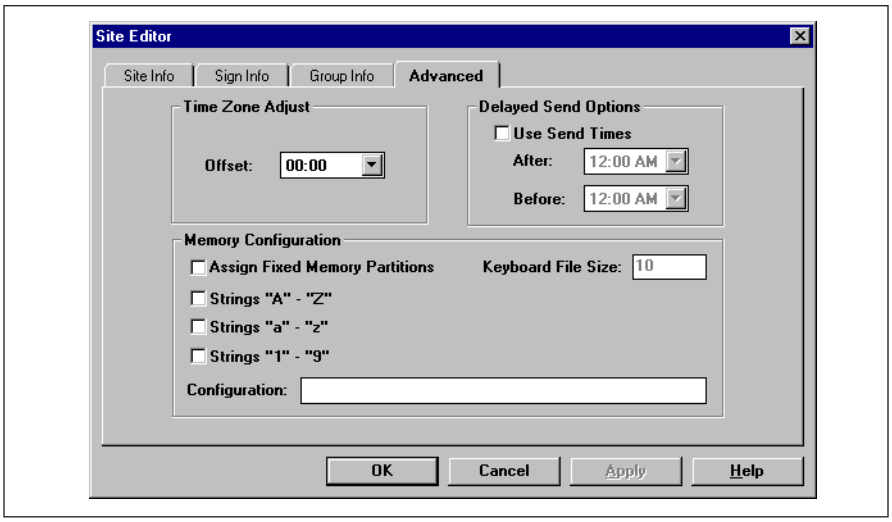
12. In this example nothing needs to be entered or changed in **Group Info**:

Table 13: Sales setup (3 of 4): Site Editor (Group Info) window



13. Also, nothing is changed in **Advanced**:

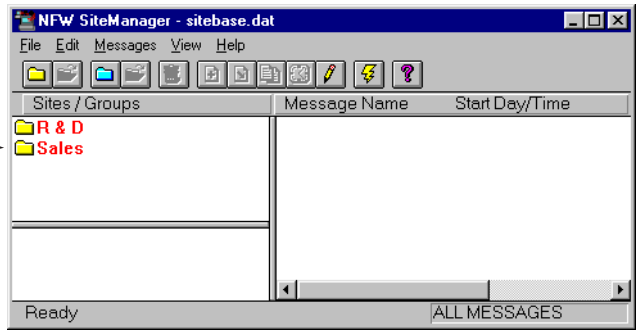
Table 14: Sales setup (4 of 4): Site Editor (Advanced) window



14. Select **OK** and the following will appear:

The new Sales site will appear in this part of the window along with the R & D site.

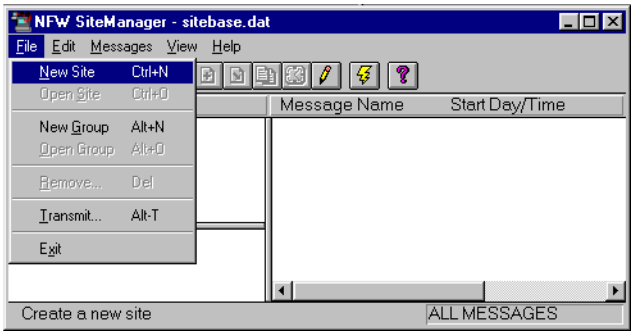
When a site appears in red, this means that it has not been updated.



Creating the Lobby, Engineering, and Manufacturing sites — a wired example

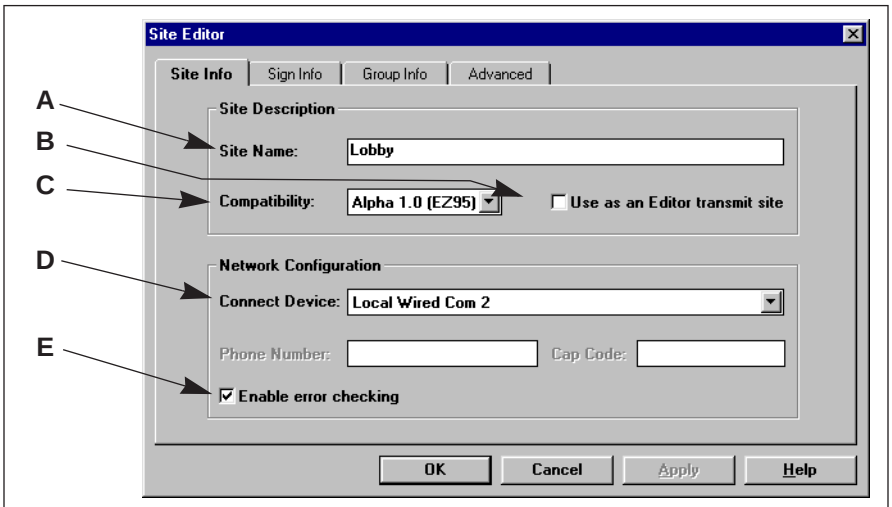
15. After making the Sales site—we'll create the local sites. First, we'll create the two Lobby signs.

Select **File** and then **New Site**:



16. After selecting **New Site**, the **Site Editor** window will appear:

Table 15: Lobby setup (1 of 4): Site Editor (Site Info) window



Item	Name	Directions
A	Site Name	Type *Lobby*.
B	Use as an Editor transmit site	See "Sales setup (1 of 4): Site Editor (Site Info) window" on page 29.
C	Compatibility	
D	Connect Device	
E	Enable error checking	

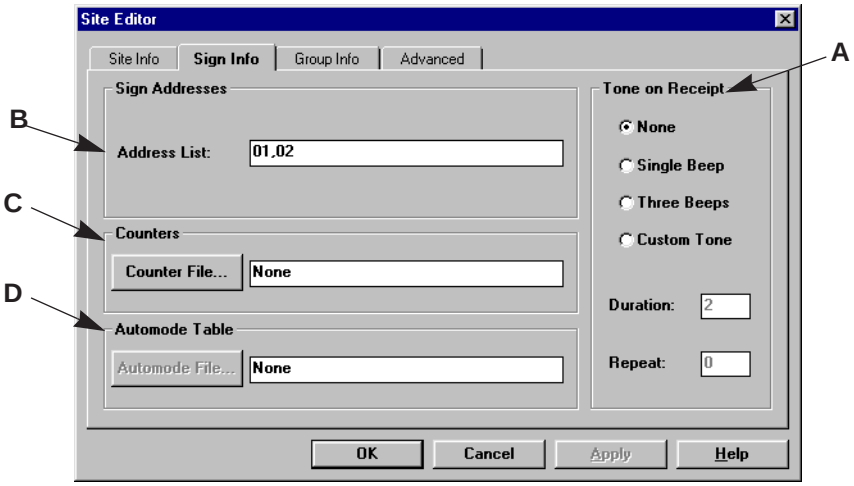
17. Next, information is entered in **Sign Info**:

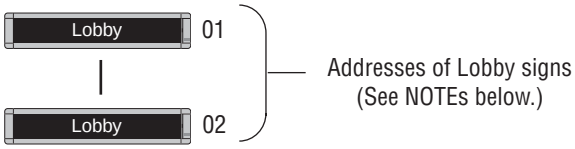
HINT

A long sequence of sign addresses can be entered using a hyphen.

For example, the address list: *5,6,7,8,9* could also be entered as *5-9*.

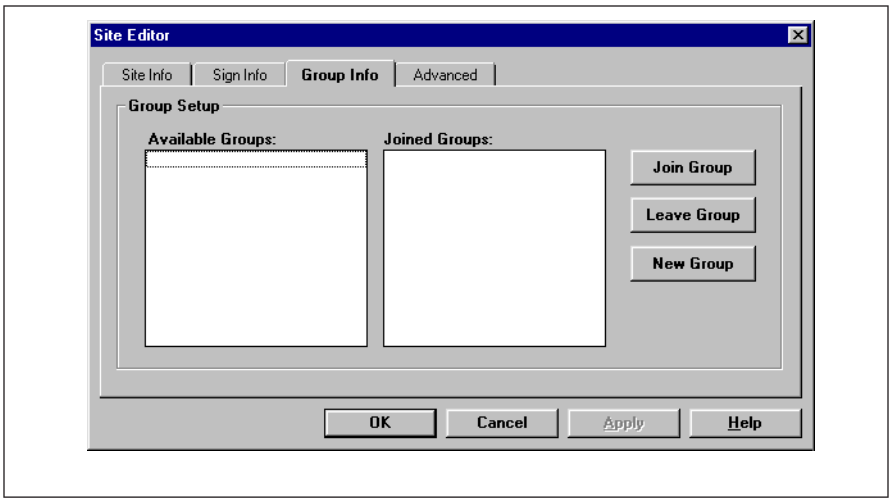
Table 16: Lobby setup (2 of 4): Site Editor (Sign Info) window



Item	Name	Directions
A	Tone on Receipt	See “Sales setup (2 of 4): Site Editor (Sign Info) window” on page 30.
B	Address List	The addresses of the two Lobby signs are *02* and *03*:  NOTE: Alpha signs are set to address 00 when they leave the factory, but in this example new addresses must be entered. To change the address of a sign, see “How to change a sign’s address” on page 10. NOTE: If you had entered the address 00 in **Address List**, then *all* messages would *always* be sent to both Lobby signs. (Address 00 “broadcasts” to every sign.)
C	Counter File...	See “How to edit a Counterfi le” on page 76.
D	Automode Table...	Choose an Automode table, if desired. (**Compatibility** on the **Site Info** tab must be *Alpha 2.0* for **Automode Table…** to be available.) In this example, **Compatibility** on the **Site Info** tab is not *Alpha 2.0*, so **Automode Table…** is not available. See “How to create and use a custom automode sequence” on page 103 for more information.

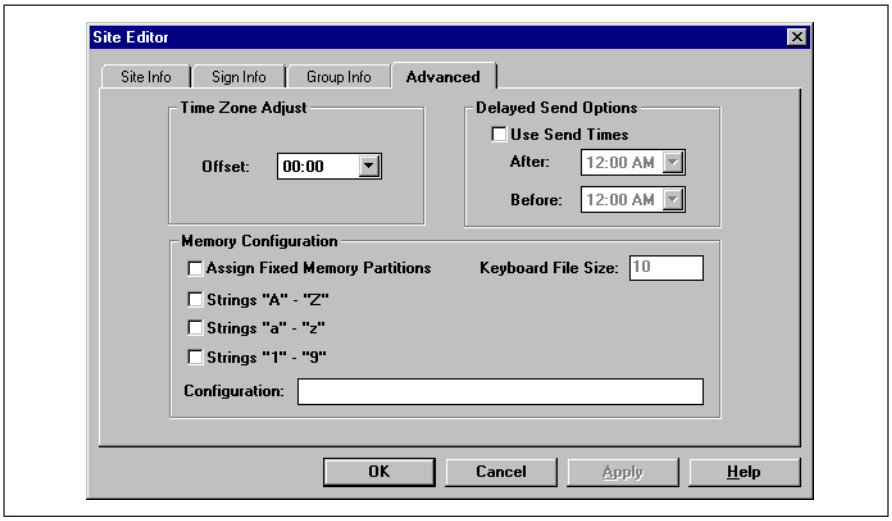
18. In this example nothing needs to be entered or changed in **Group Info**:

Table 17: Sales setup (3 of 4): Site Editor (Group Info) window

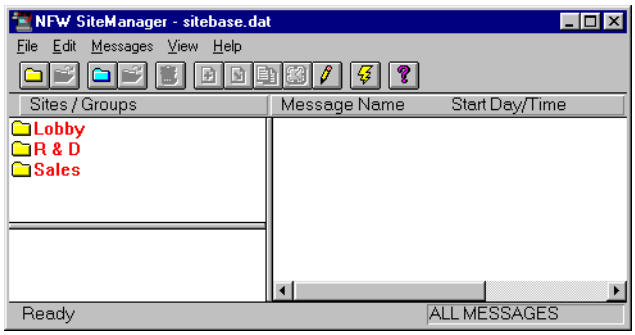


19. Also, nothing is changed in **Advanced**:

Table 18: Sales setup (4 of 4): Site Editor (Advanced) window



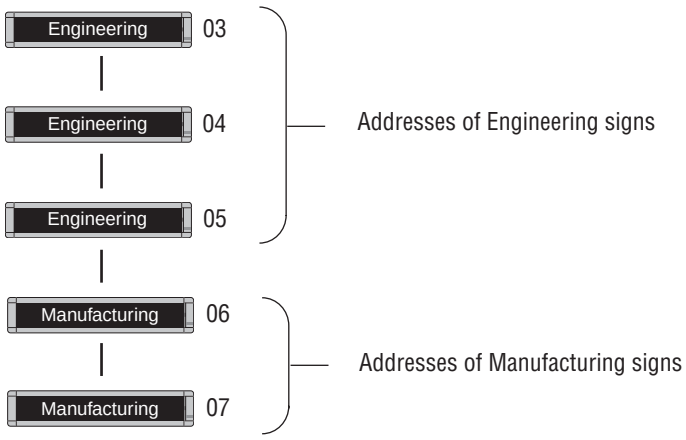
20. Select **OK** and the following will appear:



The new Lobby site will appear in this part of the window along with the other sites you created.

When a site appears in red, this means that it has not been updated.

21. The Engineering and Manufacturing sites are created just like the Lobby site. However, make sure that addresses of the Engineering and Manufacturing signs are set as follows:

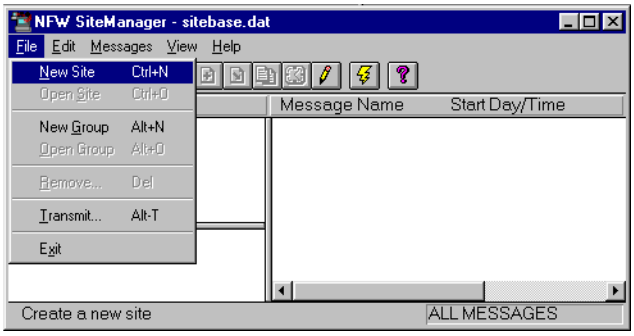


NOTE: To set the address of a sign see "How to change a sign's address" on page 10.

Creating the Shipping site — a wireless example

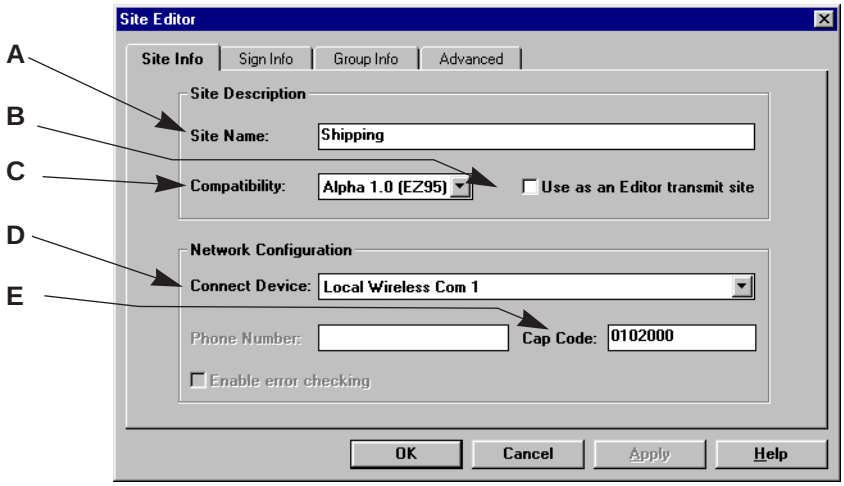
22. The last site we have to make is Shipping which is a wireless site:

Select **File** and then **New Site**:



23. After selecting **New Site**, the **Site Editor** window will appear:

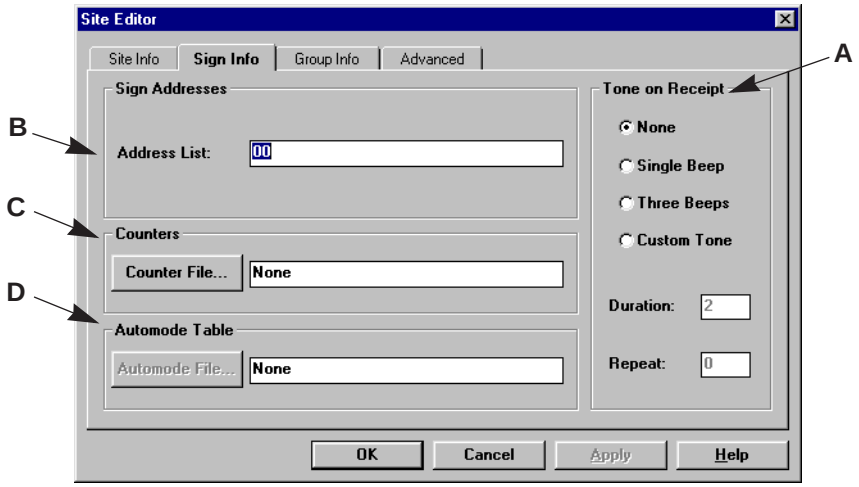
Table 19: Shipping setup (1 of 4): Site Editor (Site Info) window



Item	Name	Directions
A	Site Name	Type *Shipping*.
B	Use as an Editor transmit site	See “Sales setup (1 of 4): Site Editor (Site Info) window” on page 29.
C	Compatibility	
D	Connect Device	Select **Local Wireless Com 1**.
E	Cap Code	Complete this as appropriate for your specific pager/receiver. Consult your pager/receiver documentation for details.

24. Next, information is entered in **Sign Info**:

Table 20: Shipping setup (2 of 4): Site Editor (Sign Info) window



Item	Name	Directions
A	Tone on Receipt	See "Sales setup (2 of 4): Site Editor (Sign Info) window" on page 30.
B	Address List	The address of the Shipping sign can be left at its factory default value of *00*: Shipping 00
C	Counter File...	See "How to edit a Counterfi le" on page 76.
D	Automode Table…	Choose an Automode table, if desired. (**Compatibility** on the **Site Info** tab must be *Alpha 2.0* for **Automode Table…** to be available.) In this example, **Compatibility** on the **Site Info** tab is not *Alpha 2.0*, so **Automode Table…** is not available. See "How to create and use a custom automode sequence" on page 103 for more information.

About Address 00

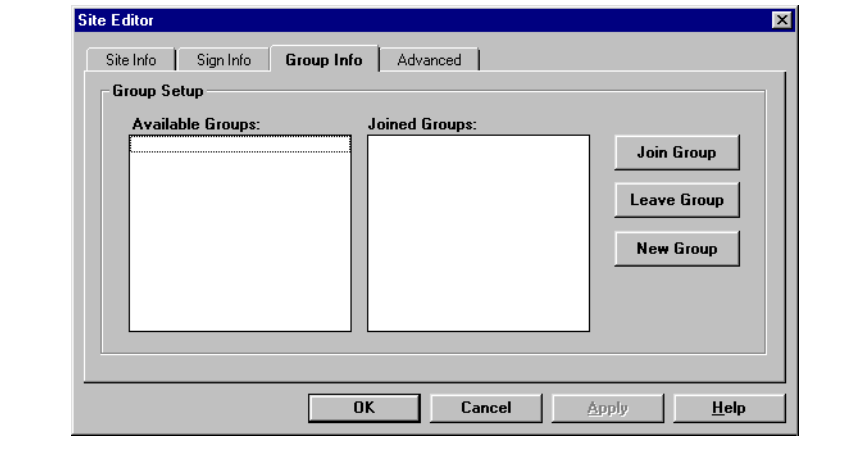
If more than one sign will be connected to a wireless device (or a modem or local connection), then give each sign a unique address, like *01*, *02*, *03*, etc.

Otherwise, sending a message to the sign with address *00* will also send the message to *all* the other connected signs.

To change a sign's address, see "Changing a sign's address" on page 11.

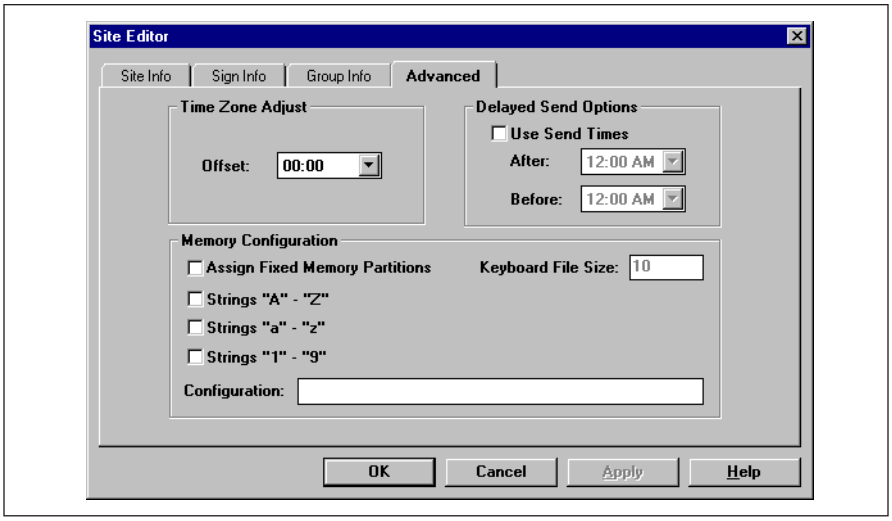
25. In this example nothing needs to be entered or changed in **Group Info**:

Table 21: Shipping setup (3 of 4): Site Editor (Group Info) window



26. Also, nothing is changed in **Advanced**:

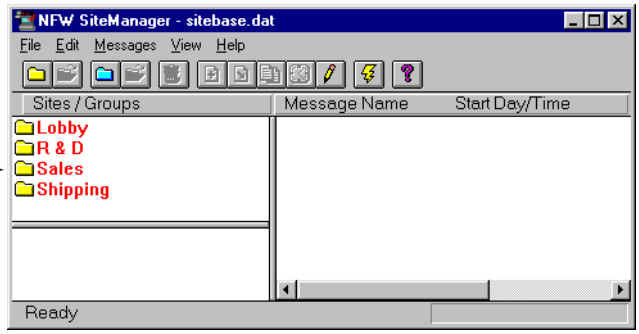
Table 22: Shipping setup (4 of 4): Site Editor (Advanced) window



27. Select **OK** and the following will appear:

The new Sales site will appear in this part of the window.

When a site appears in red, this means that it has not been updated.



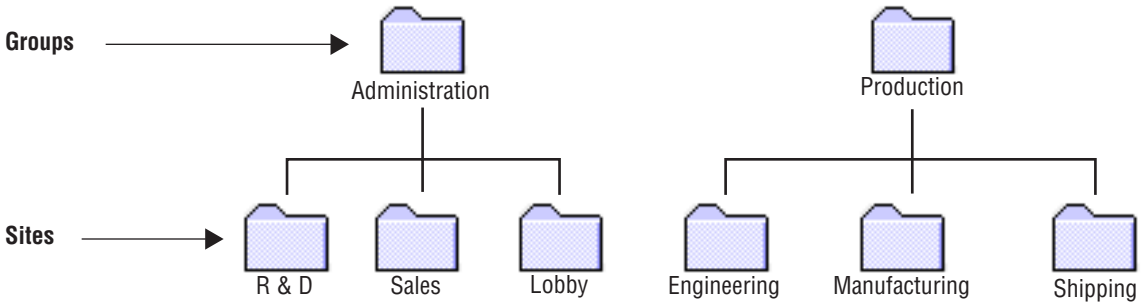
28. In the same manner as above, create both an Engineering and a Manufacturing site. For the Engineering site, use *Local Wired on COM2* and sign addresses of 03, 04, and 05. For the Manufacturing site, use *Local Wired on COM2* and sign addresses of 06 and 07.

Step 3: Creating or changing the groups

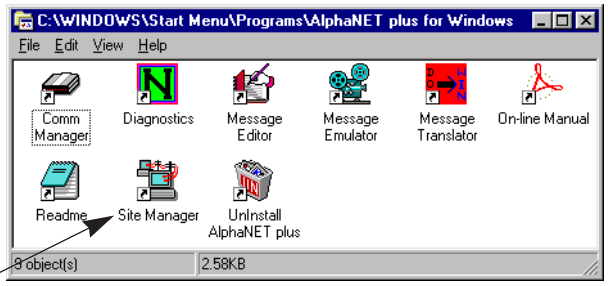
A "group" is a collection of one or more sites. In our imaginary company, there are two groups—Administration and Production.

Groups are a convenient method of organizing sites into categories so that messages may be easily send to multiple sites.

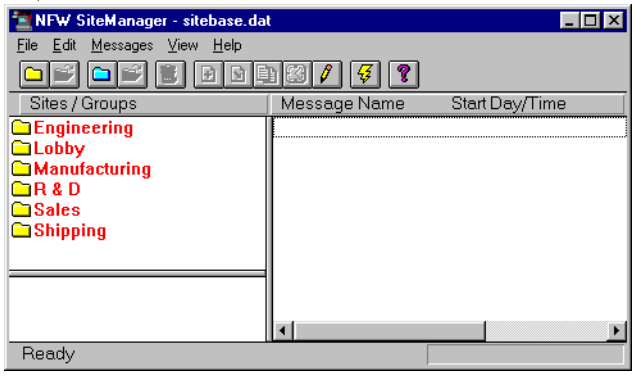
For example, in our imaginary company, we might have a message intended for just the R &D site or just the Sales and Lobby sites. However, many times we'll want a message to go to the R & D *and* the Sales *and* the Lobby sites. This is where groups come in. A group is a method of sending messages to several sites.



1. To create the Administration group, open the **Site Manager** program if it is not already opened:

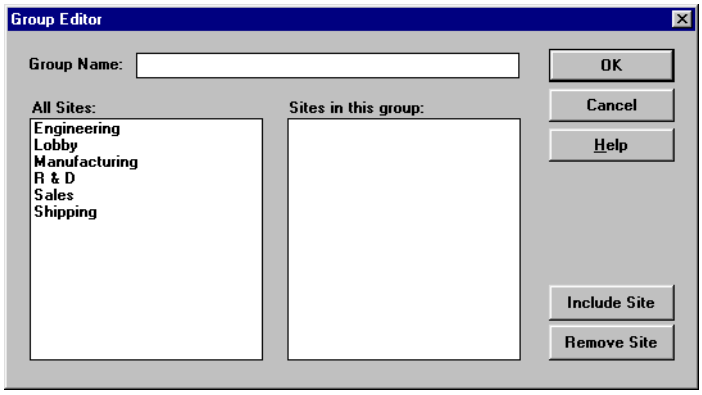


Double click on this icon to open the **Site Manager**:



These are the sites created in this tutorial.

2. Next, select **File** and then **New Group**. The following will appear:



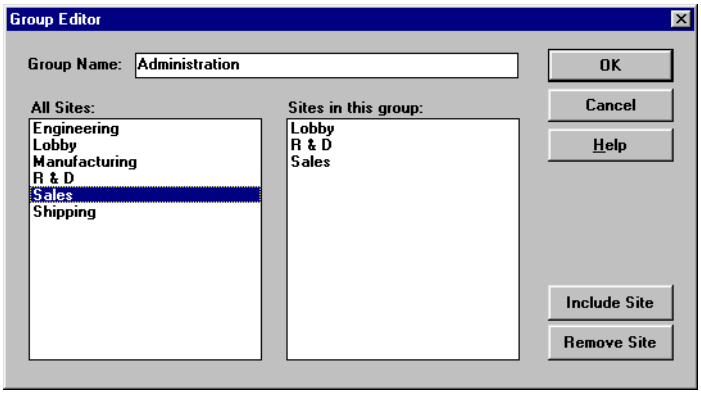
3. For **Group Name**, type *Administration*. Next, click on **R & D** and then **Include Site** to add the R & D site to the Administration group. (You can also double-click on the sites to be included.) Add the Sales and Lobby sites to the Administration group in the same way:

HINT

Use the **Control** key to select multiple sites.

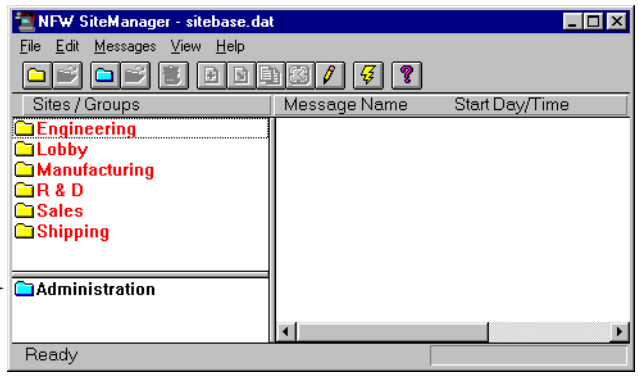
NOTE

You can double-click on a site to be included. However, to exclude a site, you must select it in the right column and then click on **Remove Site**.



4. When you're done adding the Sales and Lobby sites, select **OK** and the following should appear:

Groups, like Administration, will appear in this area.

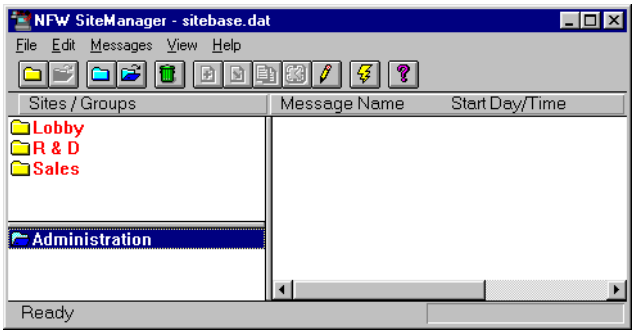


5. To see the sites that belong to a single group, just click on a group. The folder for that group will show as open and only the sites in that group will be listed:

NOTE

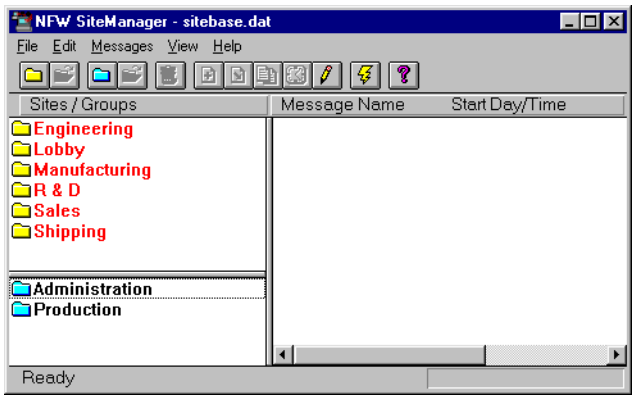
To return to seeing "all sites", hold down the **Control** key while clicking once on the name of the group you just chose in this step. The folder icon for that group will show as closed and all other sites will be listed also.

When you select a group, the sites that are in the group appear.



6. The Production group is created almost exactly like the Administration group. However, the Production group is made up of the Engineering, Manufacturing, and Shipping sites.

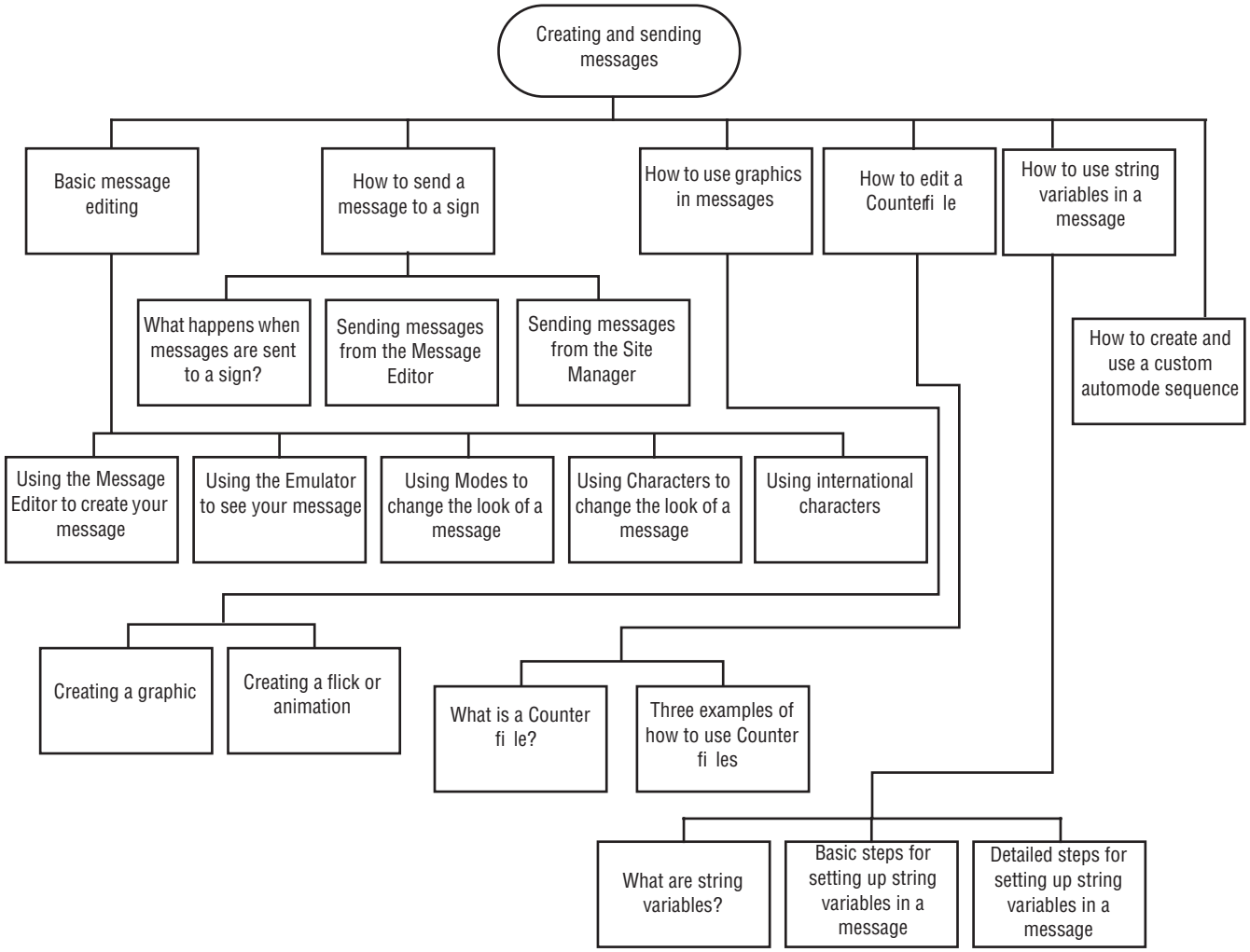
After adding the Production group, this window should appear:



Step-by-step tutorial in setting up devices, sites, and groups

3 Creating and sending messages

Chapter 3 map

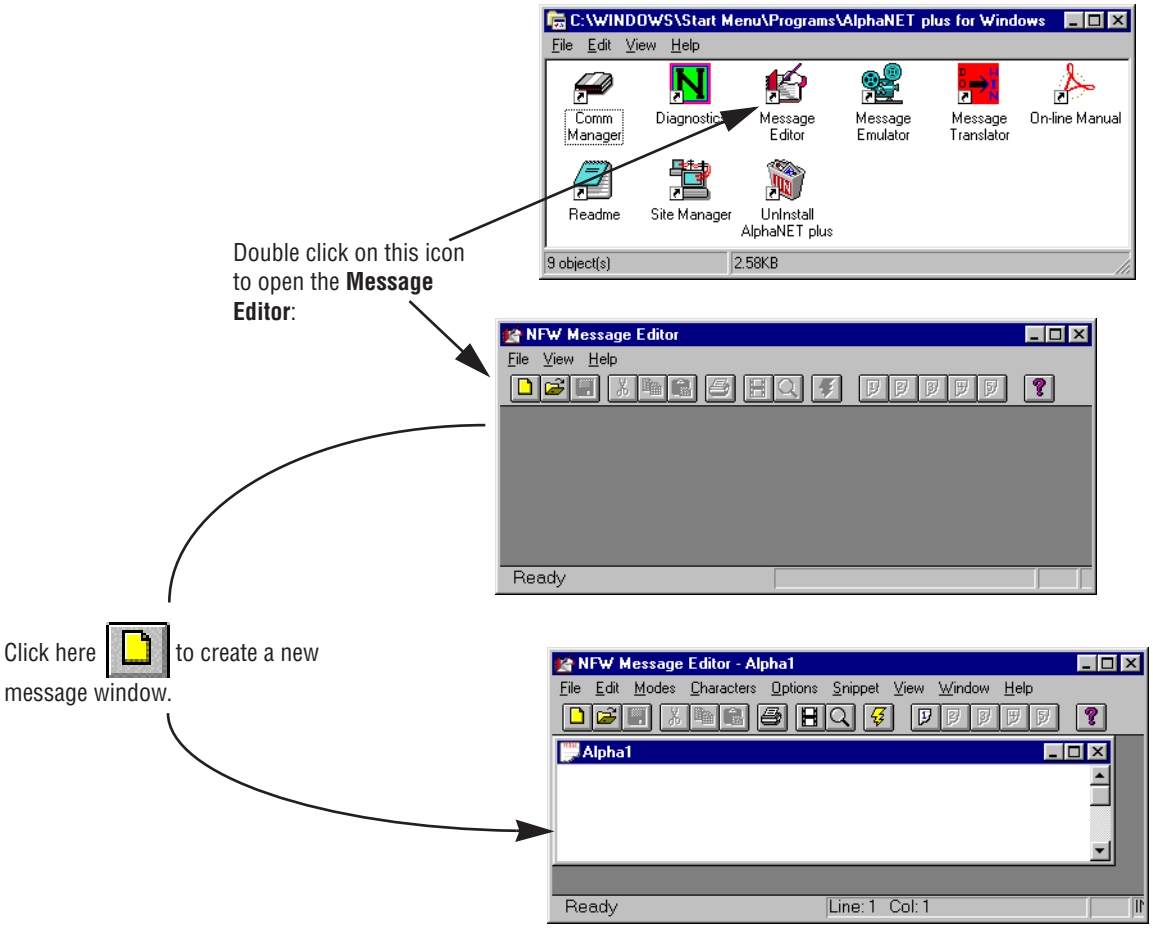


Basic message editing

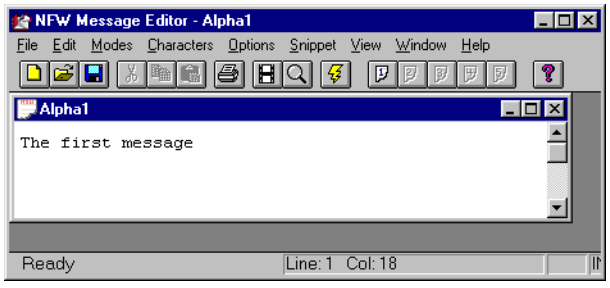
Because the **AlphaNET *plus* for Windows** software allows you an infinite number of ways to create a message for a sign, there is no way to show every possible example. However, in the following pages examples of basic and advanced message editing will be presented. First, the basics...

Using the Message Editor to create your message

1. After installing the AlphaNET *plus* software on your PC, open the **Message Editor.** Then open a window for the new message you'll create:

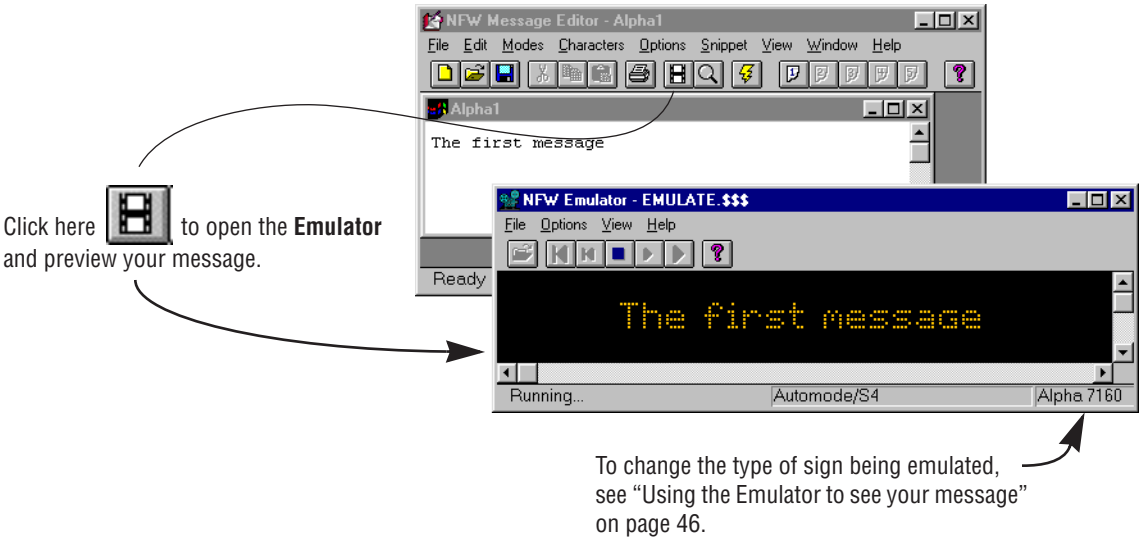


2. Type the words *The first message* in the window:

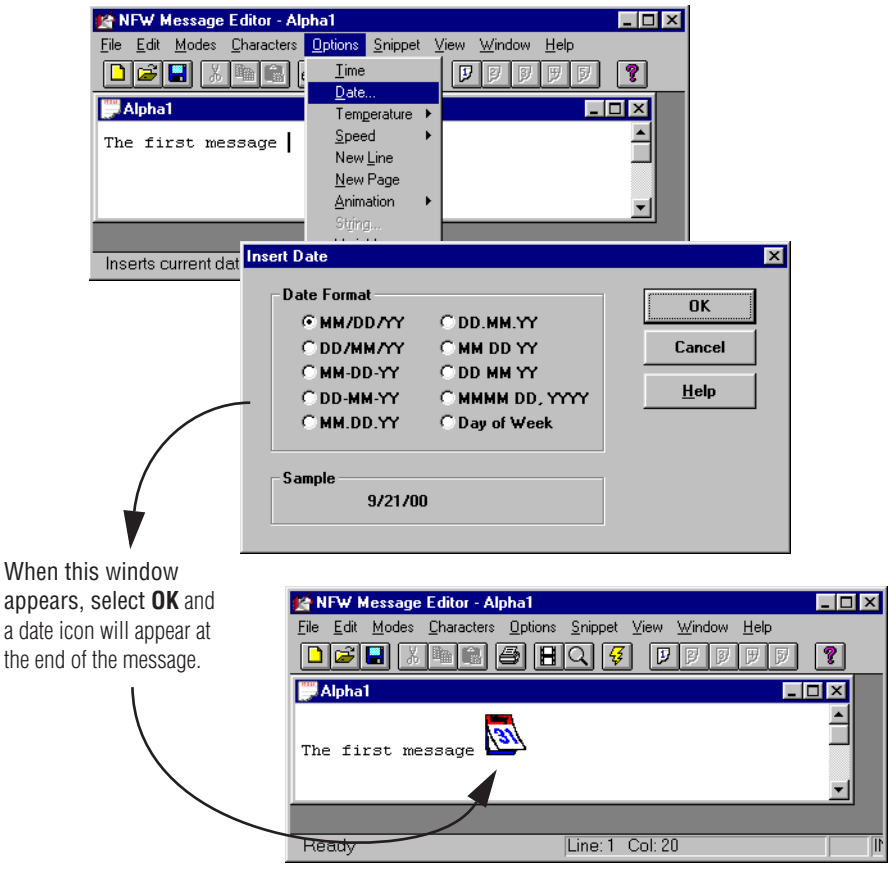


3. Then use the sign **Emulator** to preview what this message will look like on a sign:

NOTE: Because the **Emulator** can't display every mode, it is used to preview how words and phrases will appear.



4. Next, add the current date to your message. First, close the **Emulator** window. Then select **Options** and **Date**:



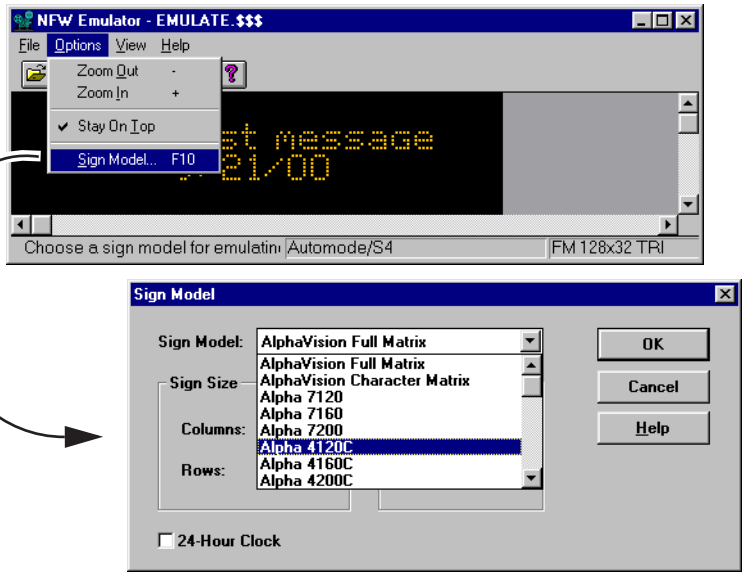
5. Then preview your message again using the **Emulator**:

Using the Emulator to see your message

6. The **Emulator** can simulate how messages will appear on a number of different signs. To select a particular sign, first stretch the lower right-hand corner of the **Emulator** screen to reveal the name of the sign being emulated:

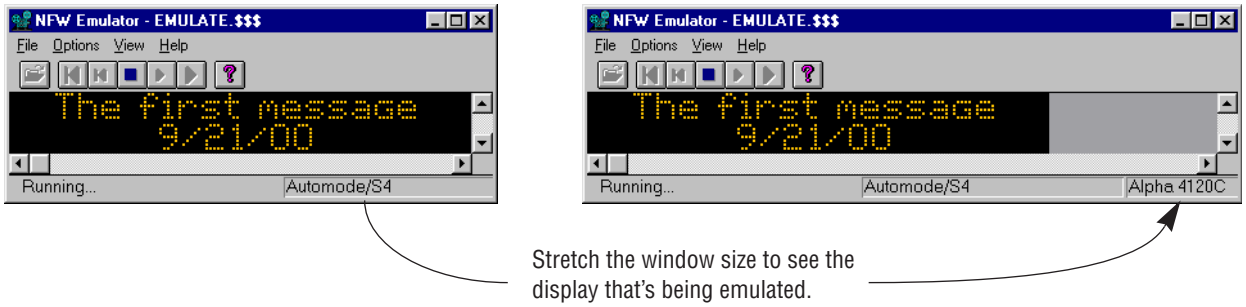
The type of sign that the **Emulator** is currently using. (**FM 128x32 TRI** = a Full Matrix, tri-color, 128 columns x 32 rows sign)

7. We'll change the sign used by the **Emulator** to an Alpha 4120C. First, stop the **Emulator** by selecting the  button. Then select **Options**, **Sign Model**, and the **Alpha 4120C** sign:

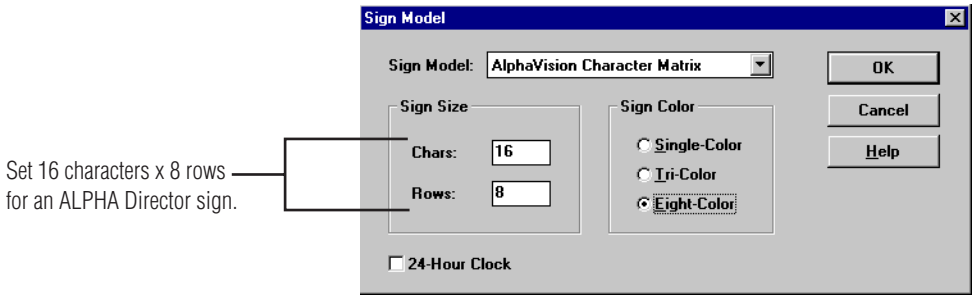


8. Then click **OK**.

9. Finally, to play your message on the new sign, select the  button on the **Emulator**:



10. To use the Emulator application with an ALPHA Director sign, select **Sign Model** and **AlphaVision Character Matrix**:



Using Modes to change the look of a message

"Modes" are special effects that change the way a message appears on a sign. For example, the **Rotate** mode moves a message from right to left across a sign. In this example, we'll create a message that displays employee birthdays.

NOTE: Some **Modes** options are *not* available on all signs. For a list of what **Modes** are available, see "Appendix B — Which Modes are available on signs" on page 140.

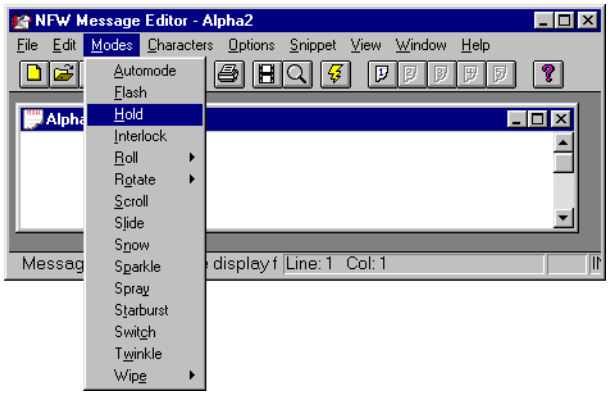
Example 1: How to display employee birthdays. (Follow the steps below.)

In this example, the **Hold** and **Rotate** modes are used to display employee birthdays. This setup can be used for a variety of uses such as announcements and anniversaries.

Using the **Hold** mode, the top line remains fixed while the names go by.

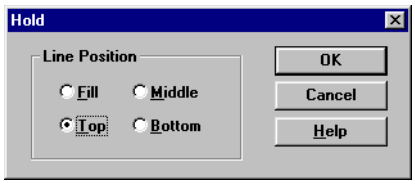
Using the **Rotate** mode, the names move from right to left on the bottom line.

11. To create Example 1, first, close the previous message—*The first message*—but don't save it. Next, open a new message. Then select **Modes** and **Hold**:



12. When the following window appears, select **Top**:

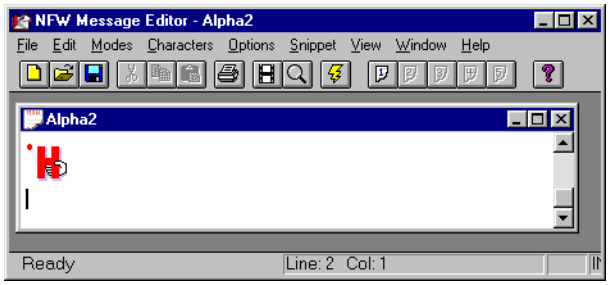
Line Position is where a message appears on a sign. See "Appendix E — Understanding message line positions (Top, Middle, Bottom, Fill)" on page 144 for more details.



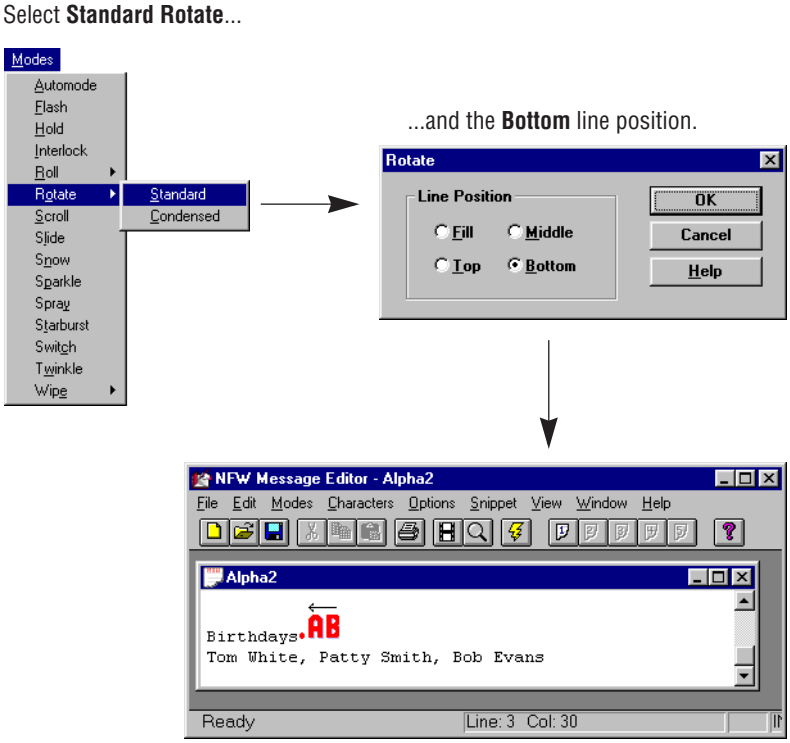
13. The icon for **Hold** will appear in the message window:

This little marker indicates that the text following this icon will appear on the top line of a display.

Hold mode icon.

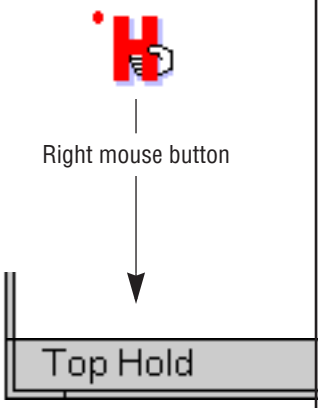


14. Type *Birthdays*. Then select **Modes** and **Rotate**. (When prompted, select **Standard Rotate** and the **Bottom** line position.) Finally, type the names *Tom White*, *Patty Smith*, and *Bob Evans*. (Follow each of the first two names with a comma and a space.)



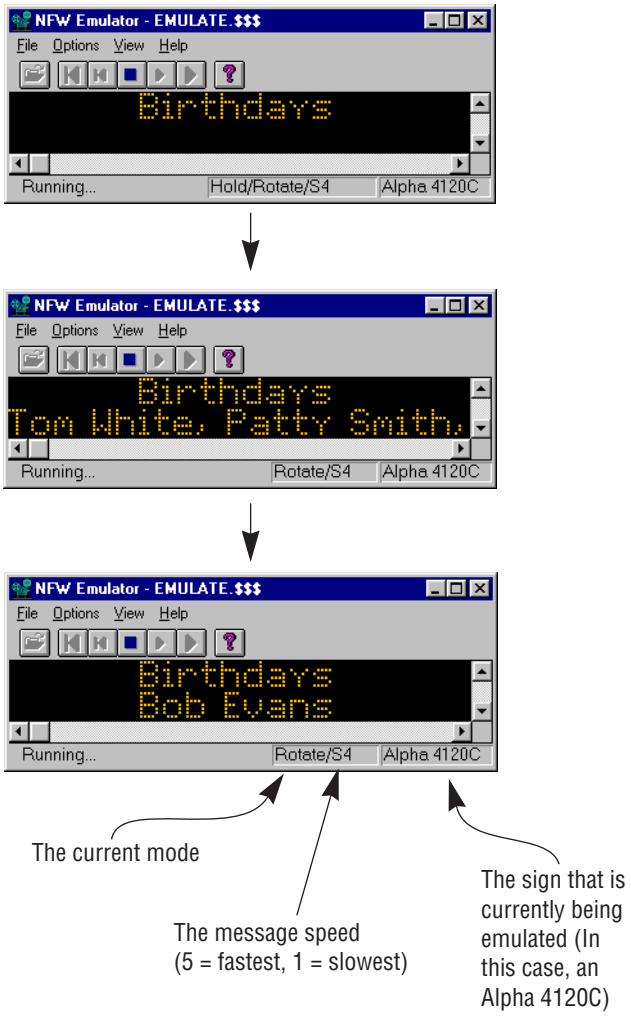
HINT

Place the cursor over an icon and press the right mouse button to see a short description of the icon at the bottom of the **Message Editor** window. For example:



You can also switch between using pictures to using text descriptions for the icons by selecting **Edit > Icon Type**.

15. Next, select  to run the **Emulator** to see how the message looks:

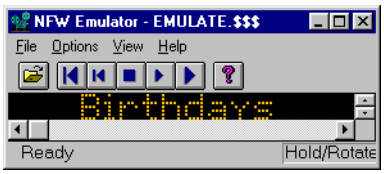


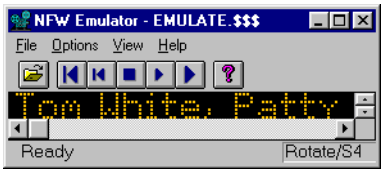
About the Emulator...

The **Emulator** software does *not* show exactly how a message will appear on a sign.

The **Emulator** should be used to check how fonts, colors and graphics will appear on a sign and also how much text will appear on a line. (If text appears in white, this means it is too long to fit on the display. If possible, break the text into smaller segments.)

For example, these pictures show how the message we just created would appear on a one-line Alpha 215C sign.





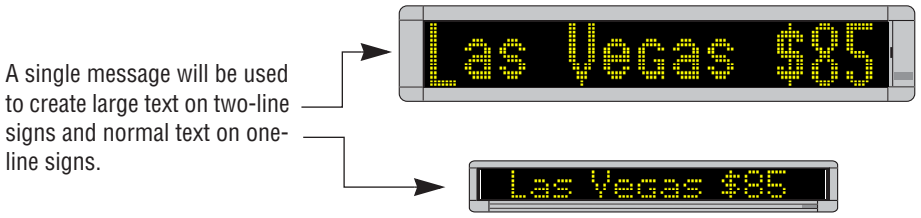
Using Characters to change the look of a message

"Characters" are options that change the appearance of text in a message. For example, normal-sized text (called **Seven Row Normal**) is seven rows of LEDs high, but some signs allow you to create text 15 or 16 rows high with the **15/16 Row Normal** option. In this example, we'll create a message that displays airline fares.

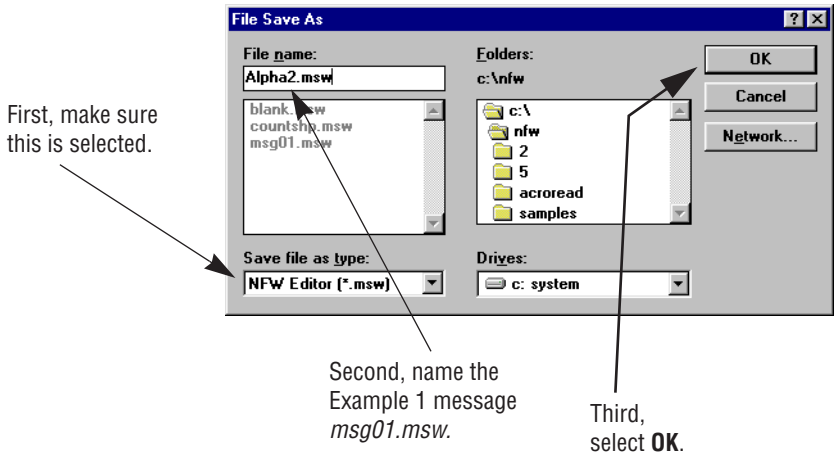
NOTE: Some **Characters** options are *not* available on all signs. For a list of what is available, see "Appendix C — Which Characters and Colors are available on signs" on page 142.

Example 2: How to display airline fares. (follow the steps below)

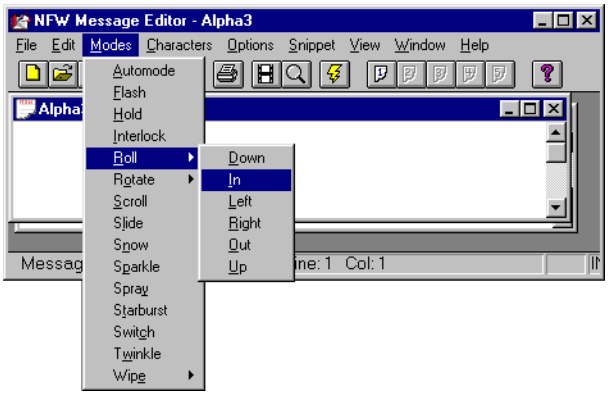
In this example, the **Roll** mode, **15/16 Row Normal** text, and the **New Line** option are used to display airline prices for several cities. Just like Example 1, this set up can be used for a variety of uses such as announcements and anniversaries.



16. To create Example 2, first, save the message you created from the previous example. To do this, select **File** and then **Save**:



17. Next, select **File** and then **New** to open a new message. Then select **Modes** and **Roll In**:

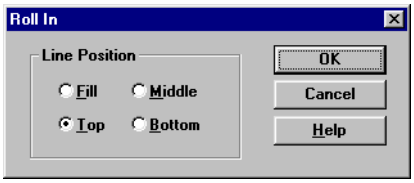


OOPS!

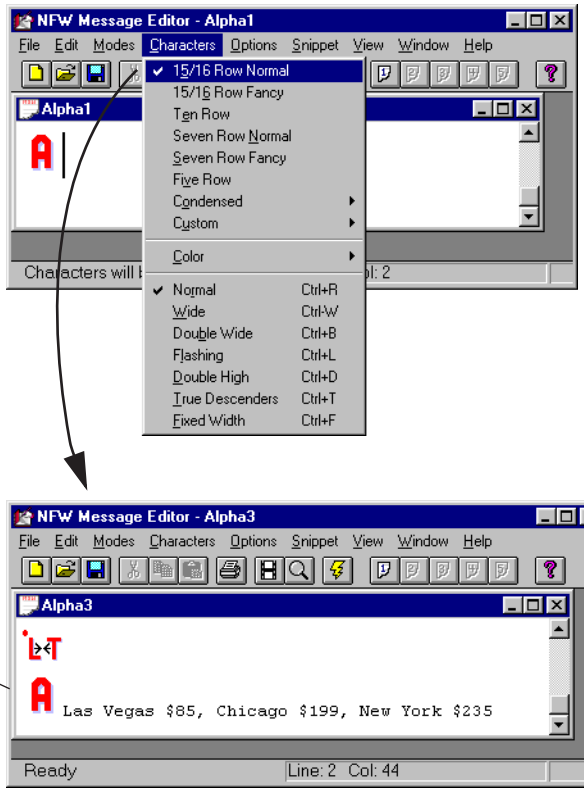
By selecting **Top**, we've made an error that will show up later.

However, we'll keep going to demonstrate a common mistake and how to correct it.

18. When the following window appears, select **Top**:



19. Because we want large text, select **Characters** and **15/16 Row Normal**. Then type *Las Vegas $85, Chicago $199, New York $235*:



15/16 Row Normal icon

20. Let's see how the message looks so far. First, let's see how it looks on a one-line sign. Run the **Emulator** and change the sign being emulated to a 215C. (If you don't remember how to change the sign, see "Using the Emulator to see your message" on page 46.) The message should look like this on a 215C sign:

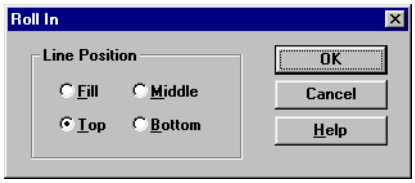
Since a one-line sign like the 215C can't display the **15/16 Row** characters, the sign displays **Seven Row Normal** instead. But this is what we wanted.

21. Stop the **Emulator** and change the sign to a 4120C, a two-line sign, and then run the **Emulator**. This is what it should show now:

Why doesn't the large text appear on the two-line 4120C sign like we wanted?

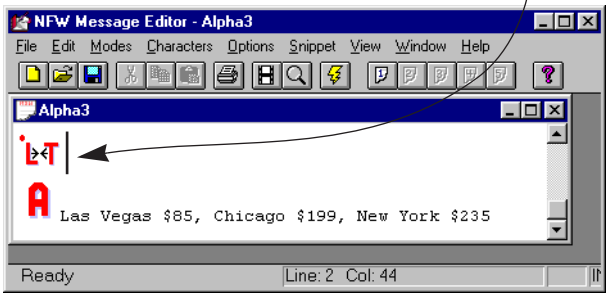
Because in a previous step we selected the **Top** instead of the **Middle** or **Fill** line position:

To make the large **15/16 Row** text appear correctly, the line position must be changed to the **Middle**.

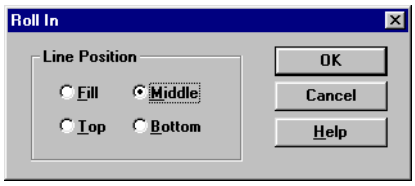


22. To make the large **15/16 Row** characters appear correctly on a two-line sign, start by deleting the **Roll In** icon from the message:

To delete the **Roll In** icon, place the cursor to the *right* of the icon and press the Backspace key on your computer keyboard.



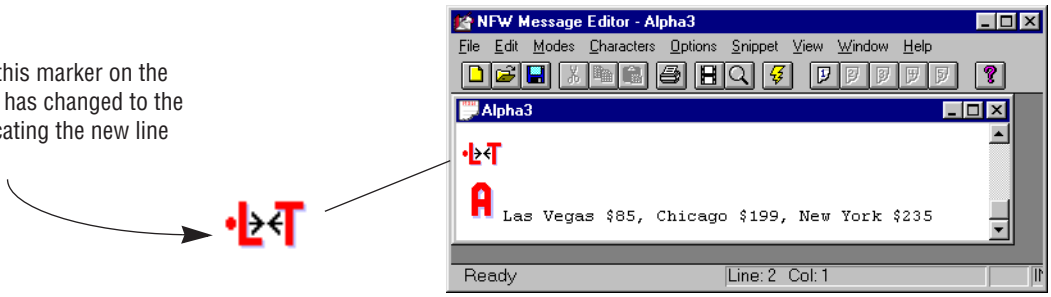
23. Next, without moving the cursor in the message, select **Modes** and **Roll In** as you did before. When the following window appears, select the **Middle** line position:



24. Now display the message in the **Emulator** using a two-line sign like the 4120C. The **15/16 Row** text should now appear correctly:

Your message text should now look like this:

Notice that this marker on the **Roll In** icon has changed to the middle indicating the new line position.



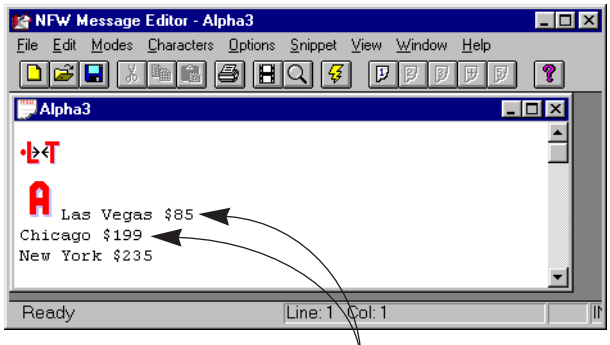
25. Save your message and name it *msg02.msw*. However, keep using this message for the following steps.

OOPS!

Using a carriage return might seem like the logical way to format lines of text in a message, but it doesn't work.

We'll correct this later with the **New Line** option.

26. We'd like to display a city name *and* dollar amount at the same time on a sign. Try deleting the comma and space between each city/amount pair. And then place a carriage return after each like this:



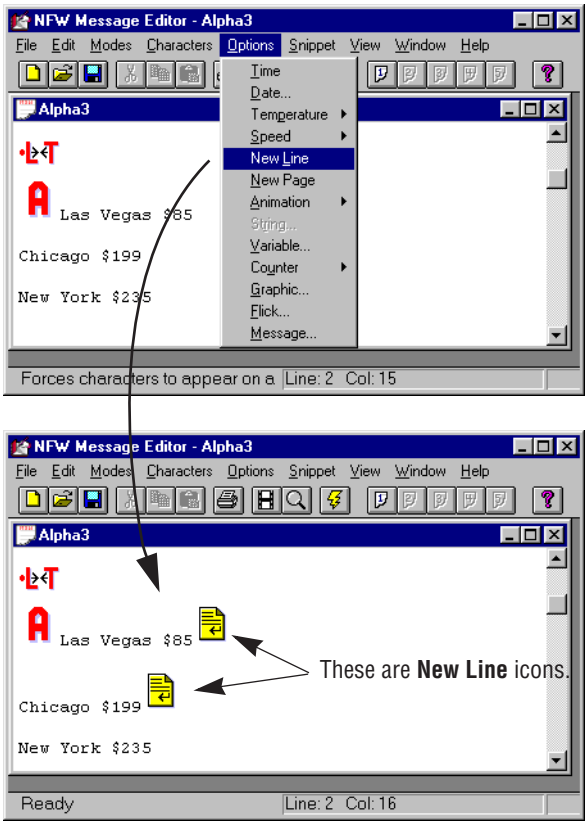
A carriage return has been placed after each line of text.

27. Next, run the **Emulator** to see what the carriage returns you added do to the message format. This is what you should see:

Carriage returns do NOT break text into separate lines.

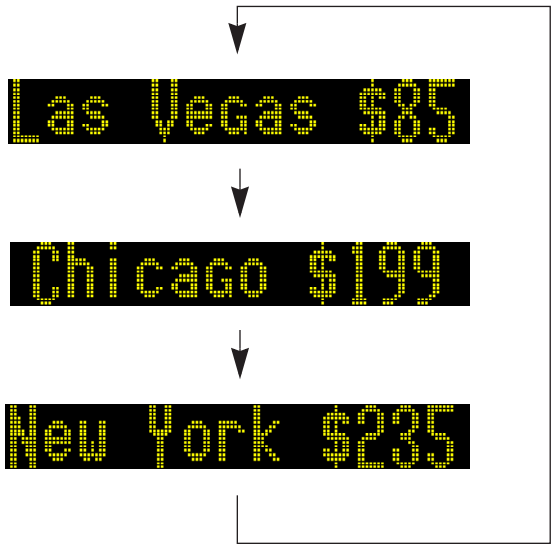
The **New Line** option must be used instead.

28. To format the text so that *Las Vegas $85* and *Chicago $199* and *New York $235* all appear on separate lines, add a **New Line** after each city/amount pair. To do this, use the **Options** menu:



29. Run the **Emulator** to see what the **New Lines** you added do to the message format. This is what you should see:

The **New Line** option formats the text correctly.

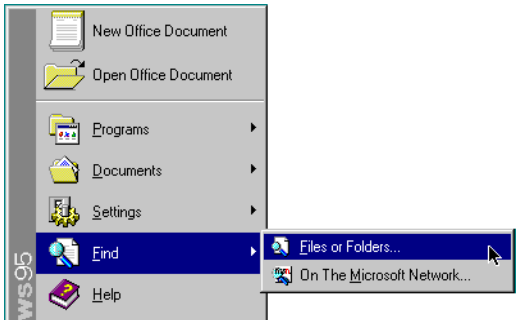
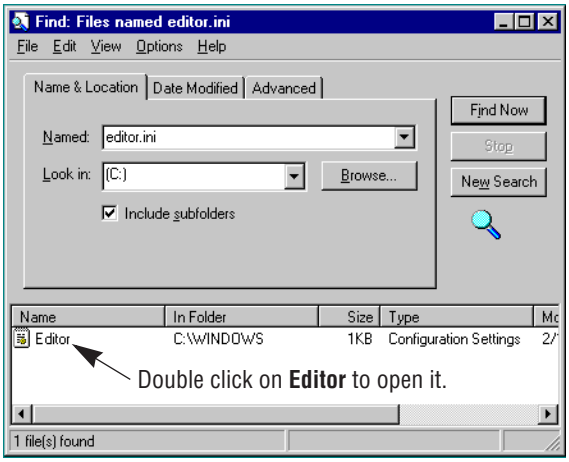


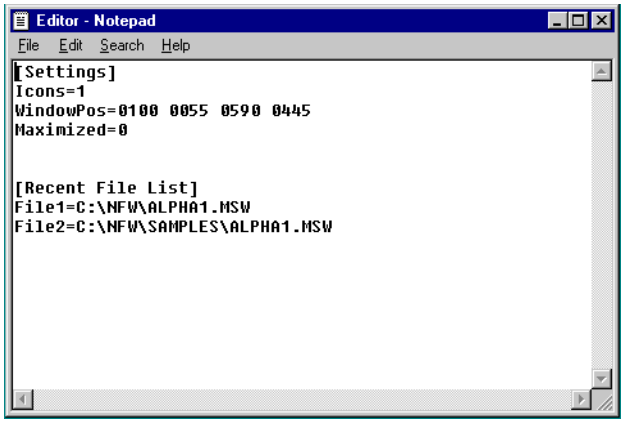
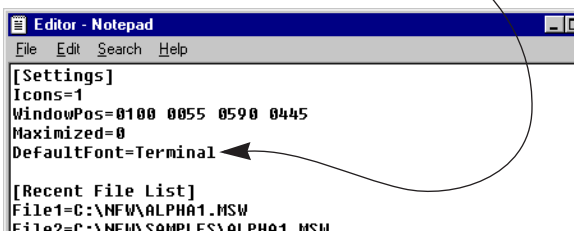
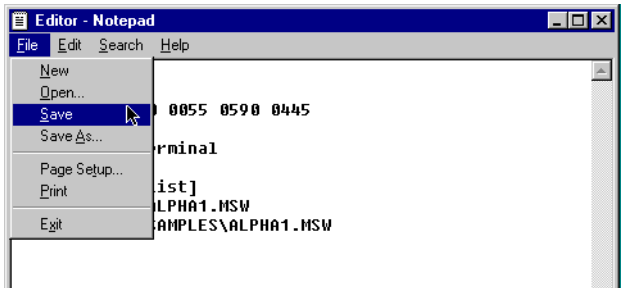
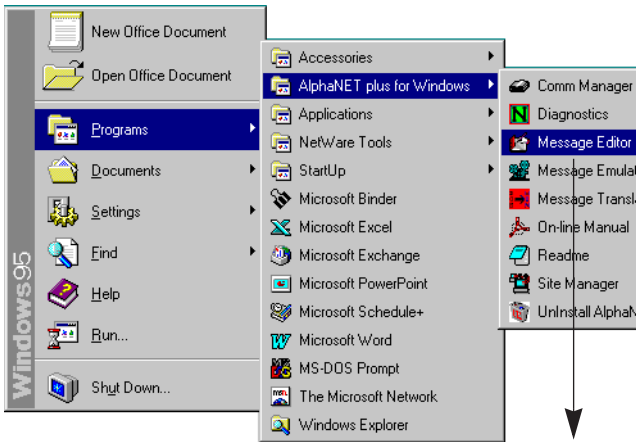
Using international characters

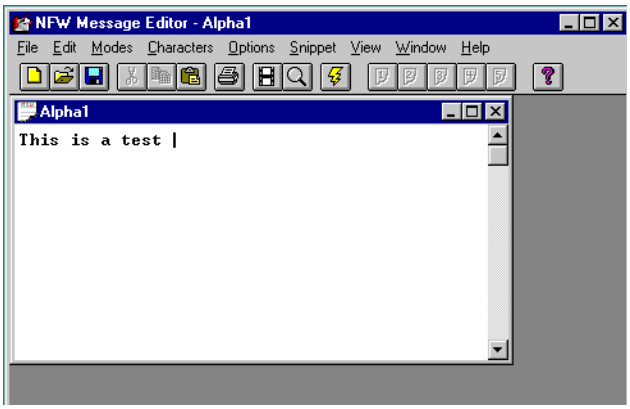
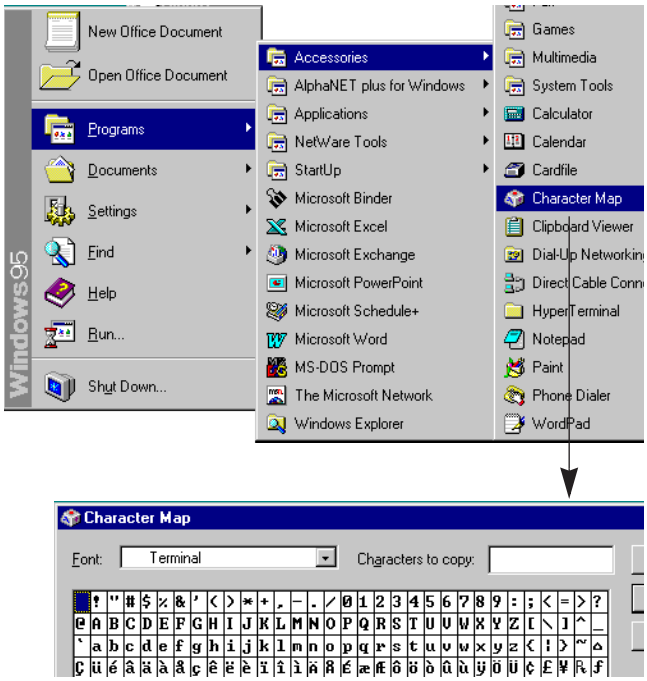
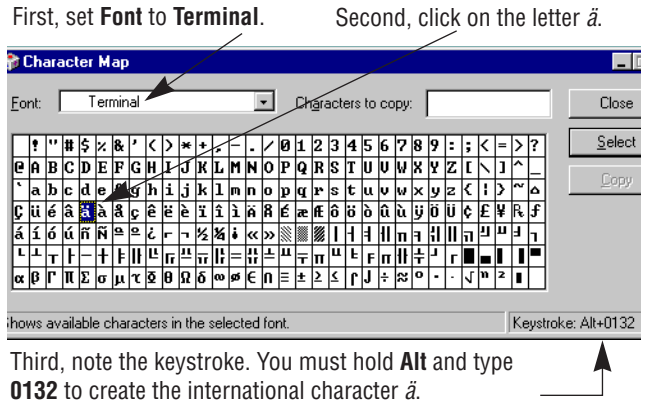
International characters—like the *é* in *résumé*—are available for the following languages: French, German, Italian, Spanish, and Croatian.

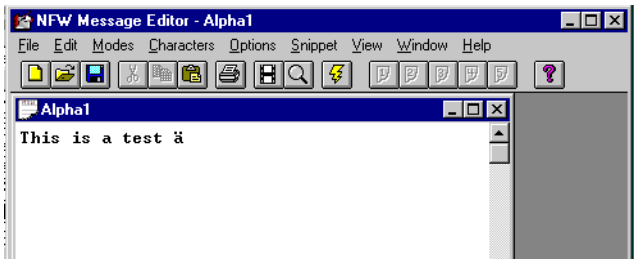
Additional characters are also available. Check the **Character Map** accessory to see if the character you want is available.

Follow this procedure to use international characters:

Step	Procedure
1	Start Windows 95: 
2	Open **Find**: 
3	Use **Find** to locate and then open the **editor.ini** file: 

Step	Procedure
4	Your **editor.ini** file will look something like this: 
5	Type the following line exactly as shown: **DefaultFont=Terminal** 
6	Then save the change: 
7	Start **AlphaNET plus for Windows** and open the **Message Editor**: 

Step	Procedure
8	In the **Message Editor**, select **File** and then **New**. Type *This is a test*. 
9	Go to **Start > Accessories** and open **Character Map**: 
10	Imagine you want to add the letter *ä* to your message: 

Step	Procedure
11	Return to the **Message Editor**. Add the *ä* character to the message by typing **0132** while holding down the **Alt** key: 
12	Finally, to make sure you've actually created the character you want, run the **Emulator** to check your message:  NOTE: You can not use characters created by holding down the **Ctrl** key and typing the combination as shown in Step 10. For example, you will not be able to use the *Ç* character because it is created by using **Ctrl** and **2**. Also, you can only use **Alt** with numbers less than **0169** to create characters. For example, you can use **Alt** and **0168** to create the letter *¿*, but **Alt** and **0169**, **Alt** and **0170**, etc. will not create the correct characters and should, therefore, not be used.

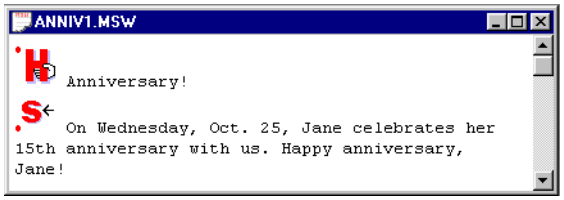
How to send a message to a sign

What happens when messages are sent to a sign?

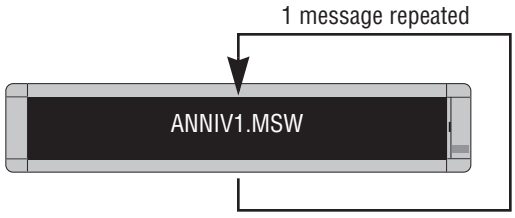
Messages are sent to signs using either the **Message Editor** or the **Site Manager** program. When messages are sent from the **Site Manager**, they erase any other messages in the sign's memory. These new messages are then displayed one after the other.

When a message is sent from the **Message Editor**, it erases *all* the other messages in the sign's memory. This *one* message then plays over and over.

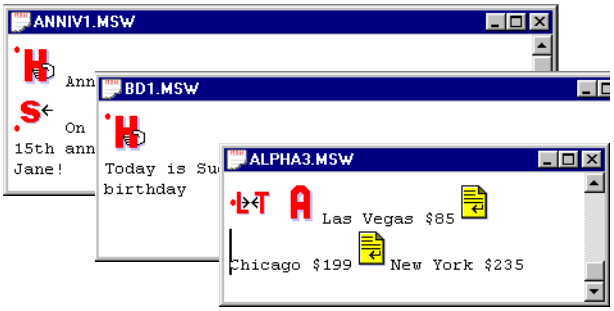
When a message is sent with the **Message Editor**:



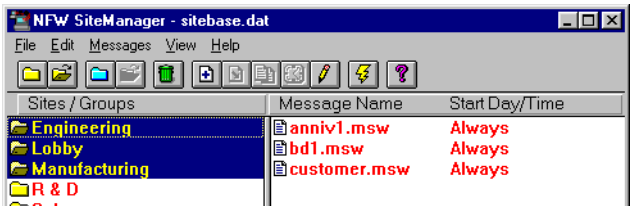
After creating a message in the **Message Editor**, select  to send the message to one or more sites.



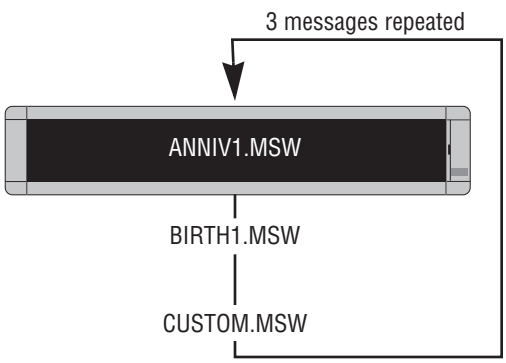
When messages are sent with the **Site Manager**:



After creating messages in the **Message Editor** *and* then saving them, open the **Site Manager**. Select  to add the messages you created to one or more sites.



Then select  to send the messages.



Sending messages from the Message Editor

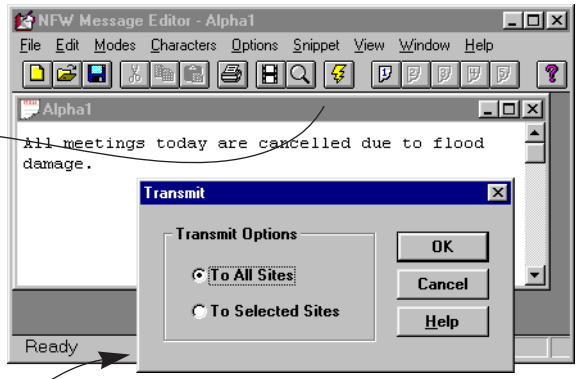
HINT

Generally, only send messages from the **Message Editor**...

- when you're testing to see how a message looks, or
- when you only have *one* sign.

1. Before sending a message, you must create *at least* one site using the **Site Manager** program. (See Step-by-step tutorial in setting up devices, sites, and groups in Chapter 2.)

2. Next, create your message in the **Message Editor** program. When you're done, send it to one or more sites:



Click here  to transmit the message to either *All Sites* (every site you've created in the Site Manager) or *Selected Sites* (only those **Site Manager** sites that have been specially selected by choosing **Use as an Editor transmit site** on the **Site Info** tab for that site.) See "R & D setup (1 of 4): Site Editor (Site Info) window" on page 26 in Chapter 2.

NOTE

If a device or site does not actually exist, as may be the case when following this tutorial, especially if error checking is turned on, you may receive errors when transmitting from the **Message Editor**.

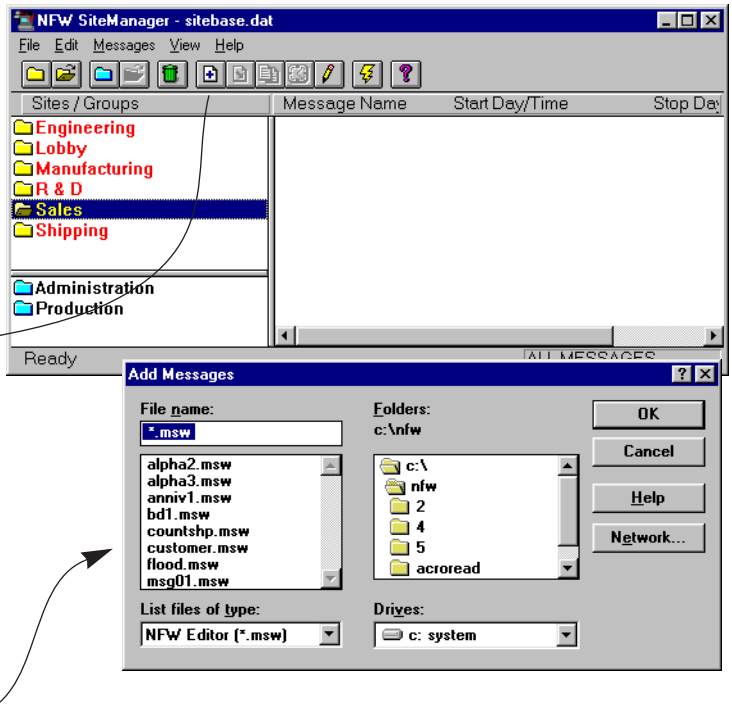
Sending messages from the Site Manager

1. Before sending a message, you must create *at least* one site using the **Site Manager** program. (See Step-by-step tutorial in setting up devices, sites, and groups in Chapter 2.)

2. If you haven't already done so, "attach" your message to the site (or sites) you want the message sent to:

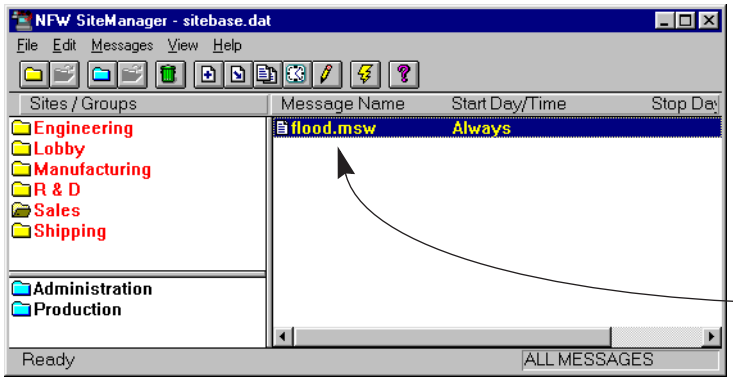
HINT

To select more than one site, first hold down the **Control** key on your keyboard, then select the sites.



Select  to attach a message to the Sales site.

3. Next, select the message. The message can be edited, scheduled by day/date and time, or transmitted immediately:



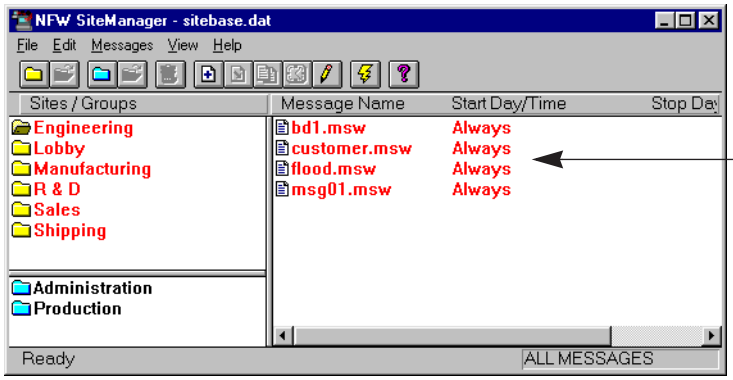
Select  to *edit* the message in the **Message Editor** before sending it, or

select  to set the day/date and time *when* the message will start and stop on the Sales signs, or

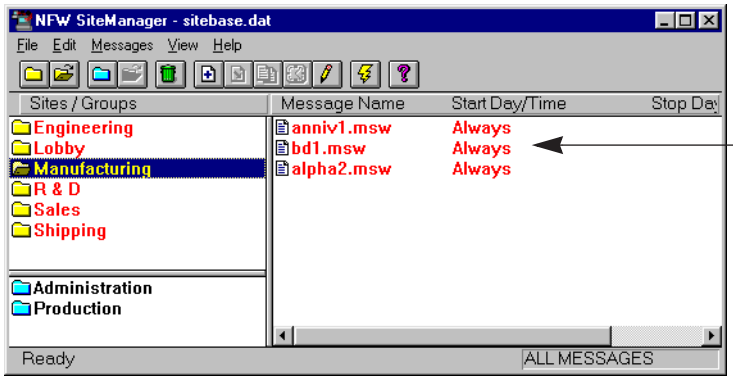
select  to *transmit* the message immediately to all the signs in the Sales site.

The difference between ALL MESSAGES and COMMON MESSAGES

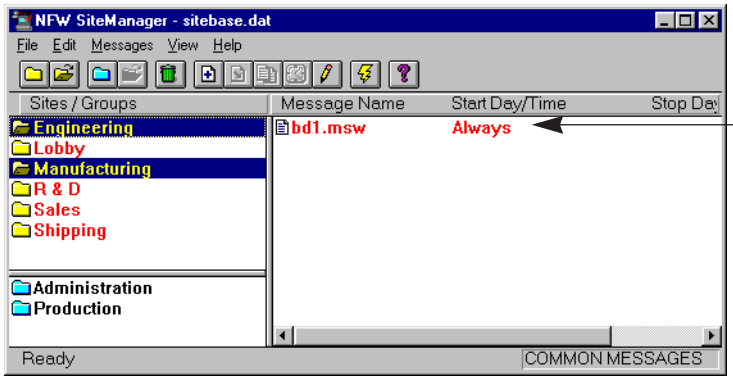
When you select a single site, all the messages attached to the site will appear on the **Site Manager** screen. However, when you select more than a single site, only the messages that are common to the selected sites will appear.



When the Engineering site is selected, *all* the messages attached to the site appear.



Also, when the Manufacturing site is selected, *all* the messages attached to the site appear.



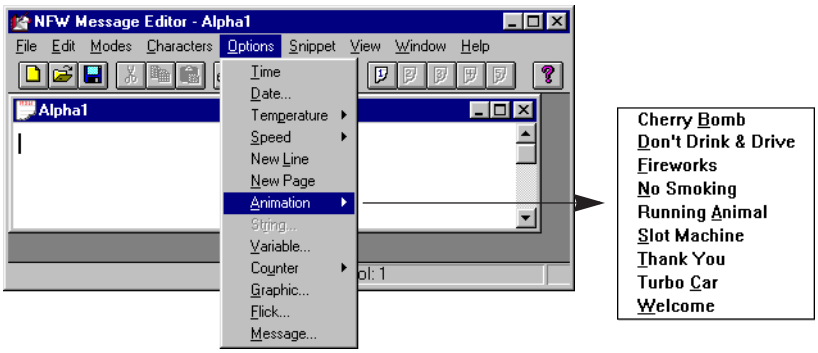
However, when *both* sites are selected, then only the messages that are *common* to both sites will appear.

How to use graphics in messages

The **Graphic**, **Flick**, and **Animation** options allow you to include small bitmapped graphics in messages. Use the **Graphic** option to display single bitmapped images and **Flick** to display multiple images—like a movie.

To use both the **Graphic** and **Flick** options, you need to use bitmapped images. There are many graphics included in the "Samples" folder of **AlphaNET *plus* for Windows**. You can also create the bitmapped images yourself. However, the **Animation** option is a series of motion images or "flicks" that have already been created for you. For example, the **Running Animal** animation shows a horse going across a sign.

Graphic, **Flick**, and **Animation** are in the **Options** menu:



Creating a graphic

Before you actually start drawing, make sure you understand how a bitmapped image is displayed on a sign. See "Graphics must be "bitmapped" to a sign's columns and rows" on page 152.

Next, because image editing software is not included with **AlphaNET *plus* for Windows**, you'll need a program to create and edit bitmapped graphics. The image editing program used in the following example is Paint Shop Pro. This manual uses version 3 of Paint Shop Pro. You may have a more recent version. (See "Paint Shop Pro — a bitmapped image editor" on page 153.)

Example 3: How to use a graphic in a message (Follow the steps below.)

In this example, left and right arrow graphics are created to demonstrate the **Graphic** option.

The two arrow graphics we'll make are 7 rows (or pixels) high. This means the arrows can be used on one-line as well as two-line signs.

HINT

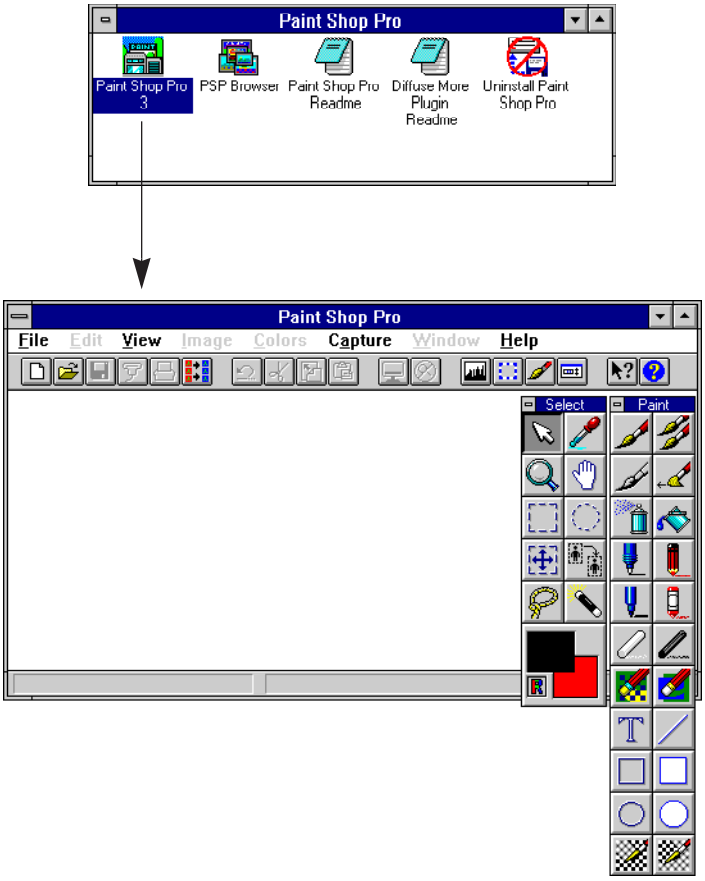
If you're not using Paint Shop Pro, don't worry.

Most graphic editing programs create images in a manner similar to Paint Shop Pro.

However, if you're not using Paint Shop Pro, consider using software that has a "zoom" feature so you can increase the size of the graphic for ease of editing.

1. To make the two graphic arrows, the program Paint Shop Pro will be used. However, any bitmapped graphics editor program can be used as long as the images can be saved in the BMP file format.

Open Paint Shop Pro:

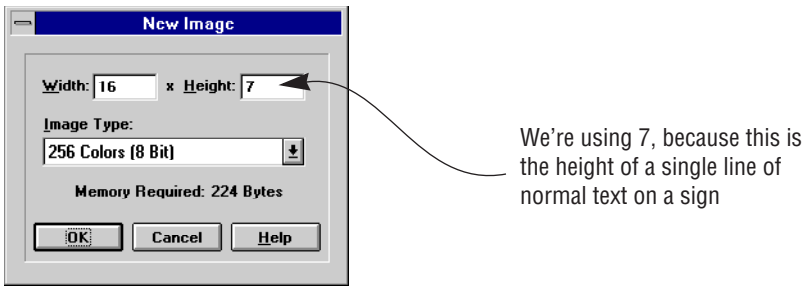


2. Next, select **File** and then **New**. When the **New Image** window appears, make the width and height of the new graphic 16 x 7:

NOTE: **Width** and **Height** define the size of the graphic in pixels—16 pixels wide x 7 pixels tall. These numbers also correspond to a sign's columns and rows—16 columns wide x 7 rows tall.

HINT

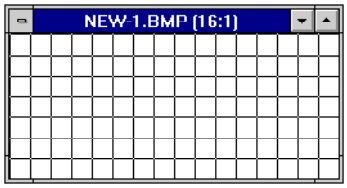
Because a maximum of 8 colors can be used on signs, if possible, you should select 16 colors instead of 256.

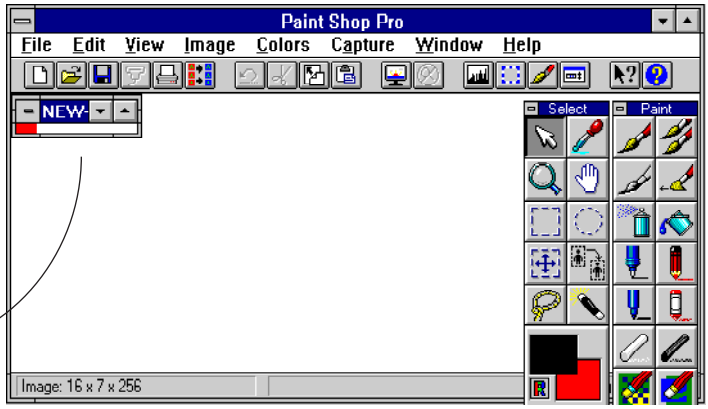


3. A *very* small window will appear. Increase the size of this window by using the editing software's zoom feature:

Use the zoom feature to increase the size of the small window until the window says 16:1.

At 16:1, each pixel is represented by a square which makes editing the graphic easier.



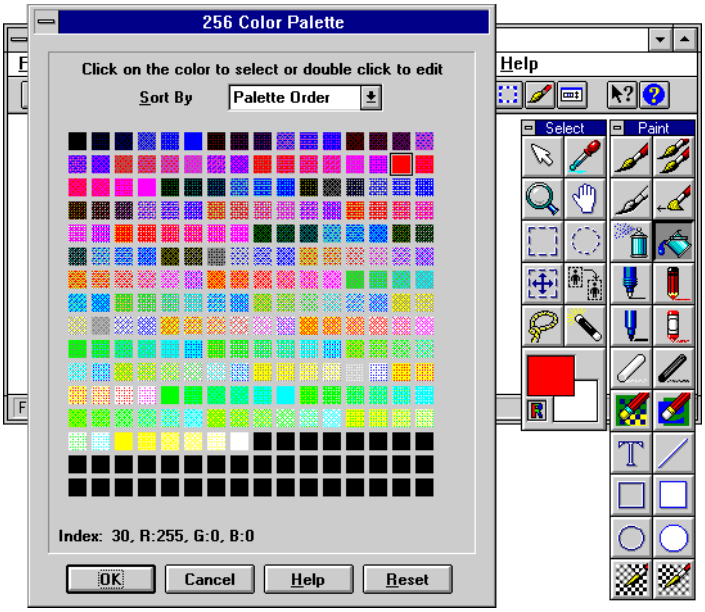


HINT

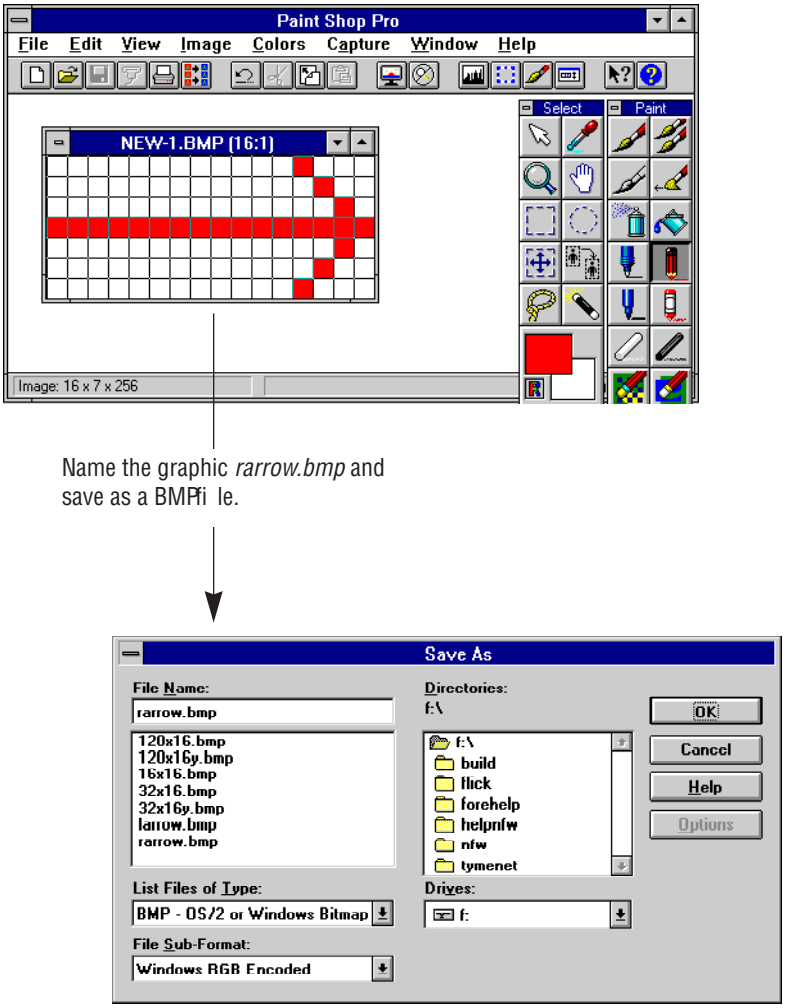
Be careful what color you use. The color red will work on all signs. Black is understood as "turn off LEDs."

For more information see "A graphic may be the wrong color for some signs" on page 152.

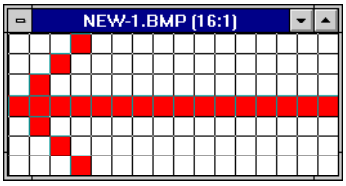
4. Select a color for your graphic.



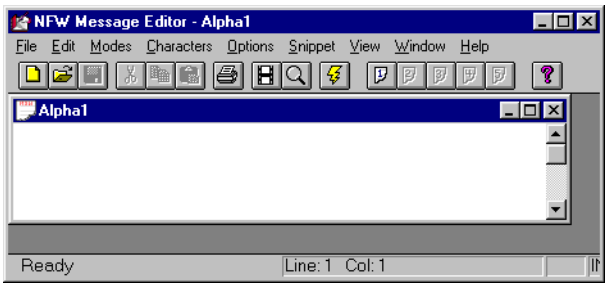
5. Then draw the right arrow and save it as a BMP graphic named *rarrow.bmp*:



6. Create the other arrow (shown below), name it *larrow.bmp* and save it:



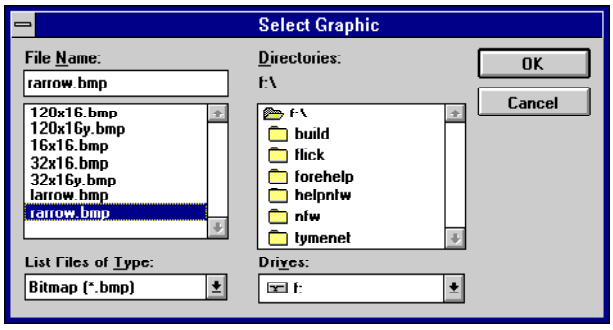
7. Next, open the **Message Editor**. Then select **File** and **New**:



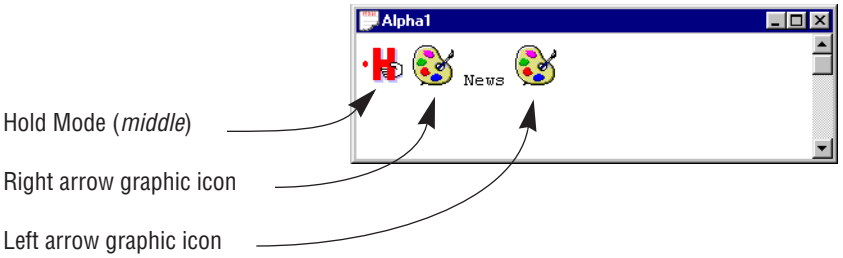
8. Select **Mode** and **Hold**, using the *middle* **Line Position**. Then select **Options** and **Graphic**. When the **Select Graphic** window appears, select the *rarrow.bmp* (right arrow) file you just created:

NOTE
For graphics, any mode can be used, but for flicks, the Hold Mode must be used.

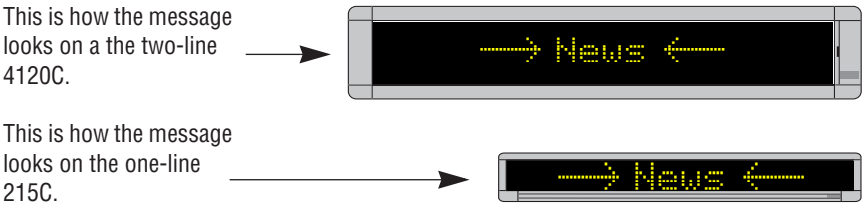
For either graphics or flicks, the mode selected must use the *middle* Line Position.



9. An icon which represents the graphic will appear. Type the word *News* after it. Put a space before and after *News*. Finally, put the left arrow graphic (*larrow.bmp*) after the word *News*. This is what you should now see:



10. Now run the **Emulator** to see what the message looks like:



NOTE: Graphics that are 24 rows high should be displayed and emulated on Series 7000 or Alphavision signs and not on one- or two-line signs (like the Series 4000 or BETA-BRITE signs). Otherwise, the graphics will appear garbled on the one- or two-line sign.

Creating a flick or animation

NOTE: The **Flick** option will only work with Alphavision and Series 7000 signs. However, see "Another way to create a flick" on page 75 if you want to create an animation on another type of sign.

A flick is a series of bitmapped graphics that are shown one after the other which gives the illusion of movement—or a movie—on a sign. The **Flick** option is used to put a movie in a message. A flick is made up of individual bitmapped graphics that you must create.

Before you create a flick, you must first understand how a bitmapped image is displayed on a sign. (See "Graphics must be "bitmapped" to a sign's columns and rows" on page 152.)

Next, because image editing software is not included with **AlphaNET *plus* for Windows**, you'll need a program to create and edit bitmapped graphics. The image editing program used in the following example is Paint Shop Pro (see "Paint Shop Pro — a bitmapped image editor" on page 153).

Example 4: How to use a flick in a message (Follow the steps below.)

In this example, we'll create a ship that sails across a 7120C sign.

A flick is made up of many graphic files that are played one after the other.

Each graphic in a flick must fill the total display area of the sign it is displayed on. This means that a flick is usually designed for one sign.

In this example, each graphic is 120 x 24 pixels because we're playing the flick on a 7120C sign whose total display area is 120 columns x 24 rows.

HINT

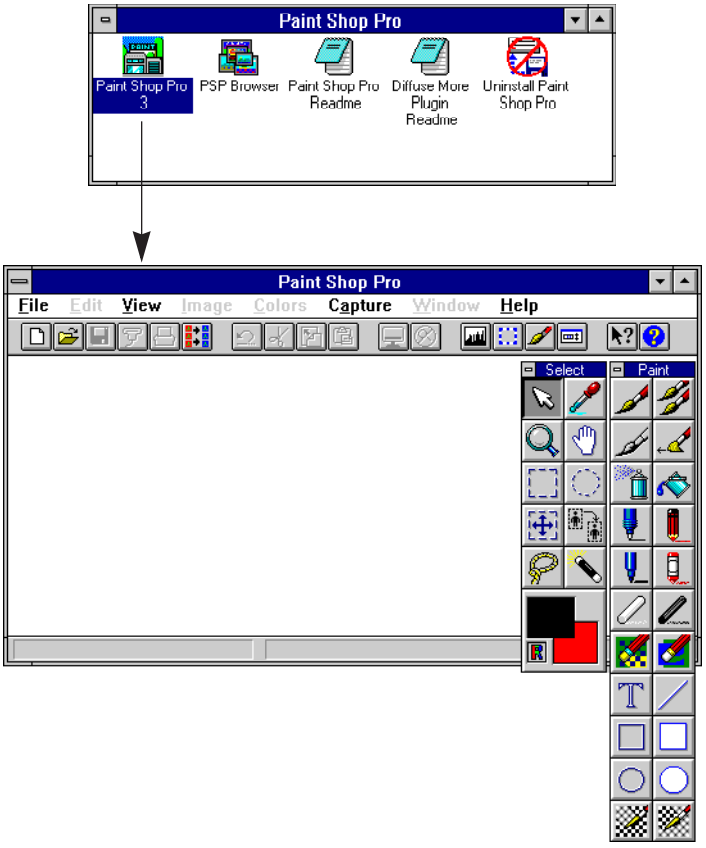
If you're not using Paint Shop Pro, don't worry.

Most graphic editing programs create images in a manner similar to Paint Shop Pro.

However, if you're not using Paint Shop Pro, make sure that your software has a "zoom" feature to increase the size of the graphic being edited.

1. To create each graphic in the flick, the program Paint Shop Pro will be used. However, any bitmapped graphics editor program can be used as long as the images can be saved in the BMP file format.

Open Paint Shop Pro:

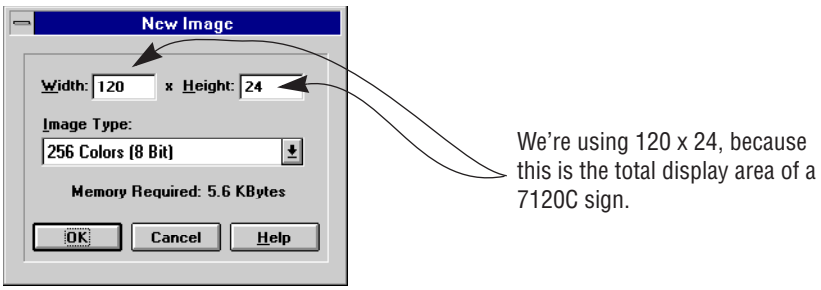


2. Next, select **File** and then **New**. When the **New Image** window appears, make the width and height of the graphic 120 x24 pixels. Each graphic in the flick for the 7120C must be this size.

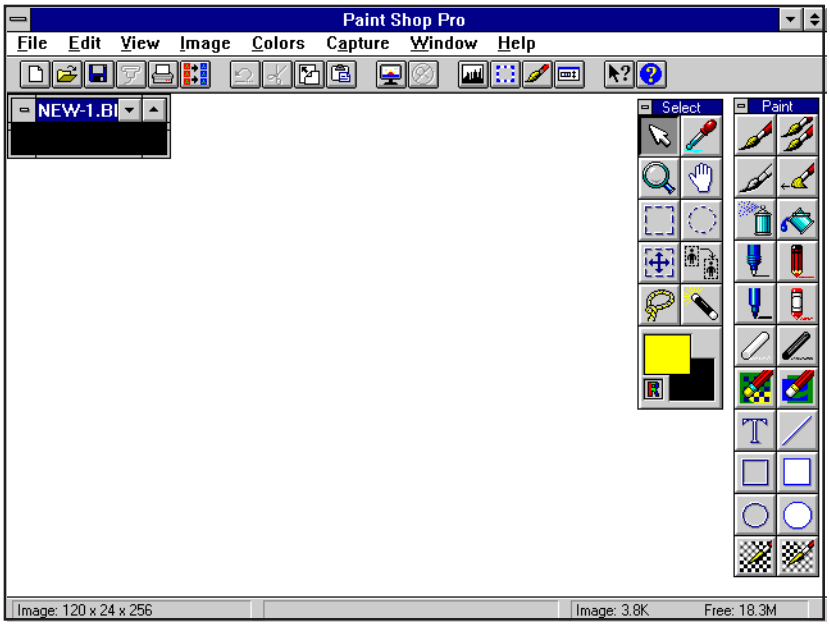
NOTE: **Width** and **Height** define the size of the graphic in pixels—120 pixels wide x 24 pixels high. These numbers correspond to the 7120C's columns and rows—120 columns wide x 24 rows tall.

HINT

Because a maximum of 8 colors can be used on signs, if possible, you should select 16 colors instead of 256.



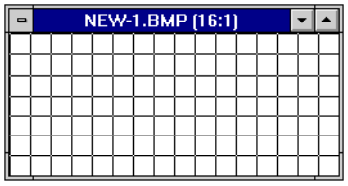
3. A window will appear. Depending on the settings for your monitor, it might be quite small. You can increase the size of this window by using the editing software's zoom feature:



Use the zoom feature to increase the size of the small window until the window says 16:1.

At 16:1, each pixel is represented by a square which makes editing the graphic easier.

(In some editors, you may need to turn on the "show grid" feature.)

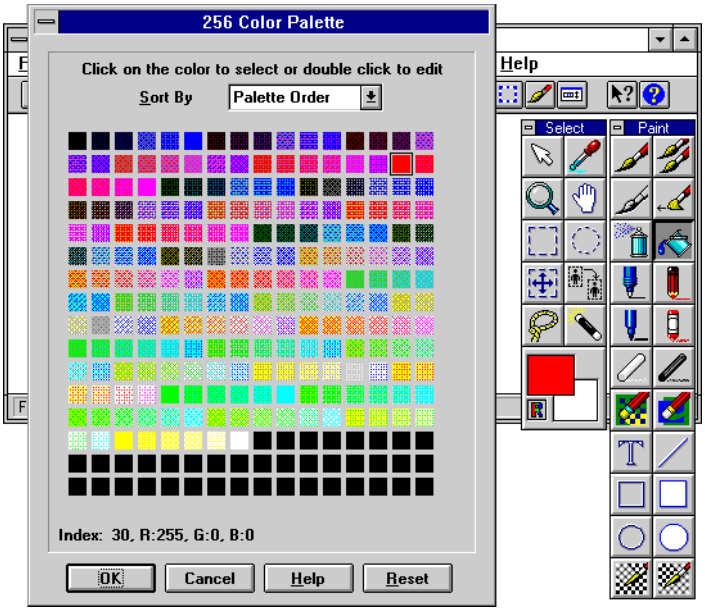


HINT

Be careful what color you use. The color red will work on all signs.

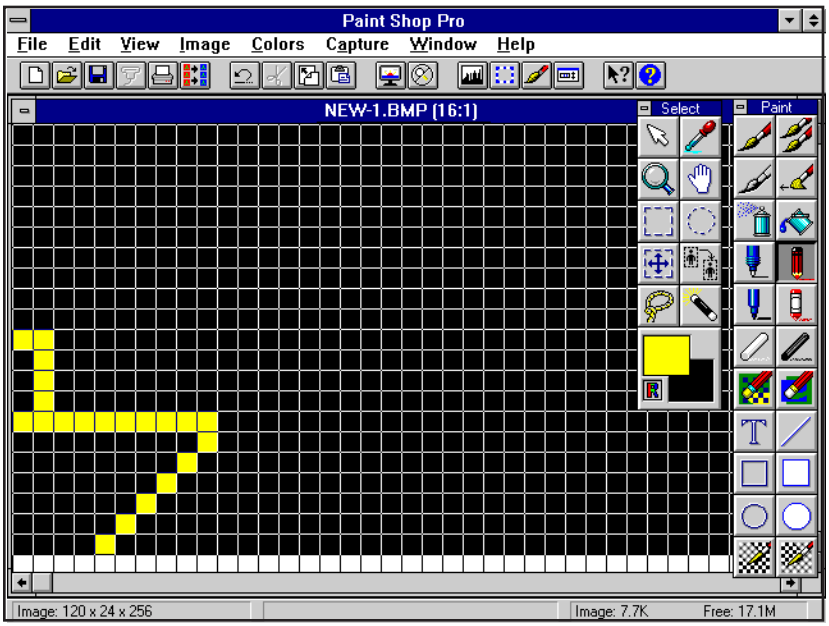
For more information see "A graphic may be the wrong color for some signs" on page 152.

4. Select a color for your flick graphic:



5. Then draw the first graphic:

The first graphic in this flick will show a ship entering from the left side of the sign.



6. After you're finished drawing the first graphic, save it—and all the other flick graphics—in a folder named *ship*. (For Windows 3.1, use the **File Manager** to create this folder) Name this first graphic *ship00.bmp* and save it as a BMP file:

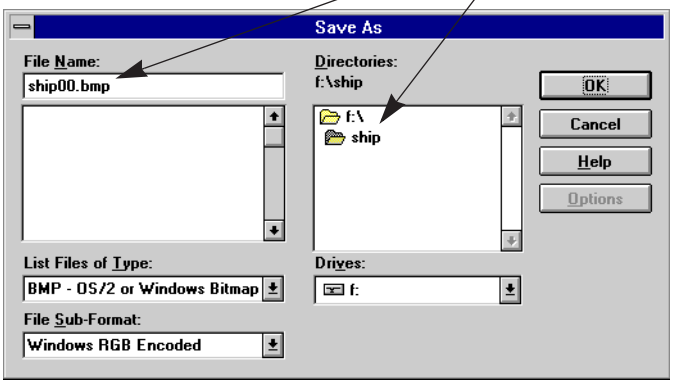
NOTE: The name of each graphic in a flick is important. The first graphic's name must end with *00*, like *ship00.bmp*. The second graphics's name must end with *01*, like *ship01.bmp*. The third graphic's name must end with *02*, like *ship02.bmp*, and so on. Up to 100 graphics can be in a flick—numbered 00 to 99, like *ship00.bmp* through *ship99.bmp*.

HINT

Even though up to 100 graphics can be in a flick, keep in mind that a sign's memory capacity is limited.

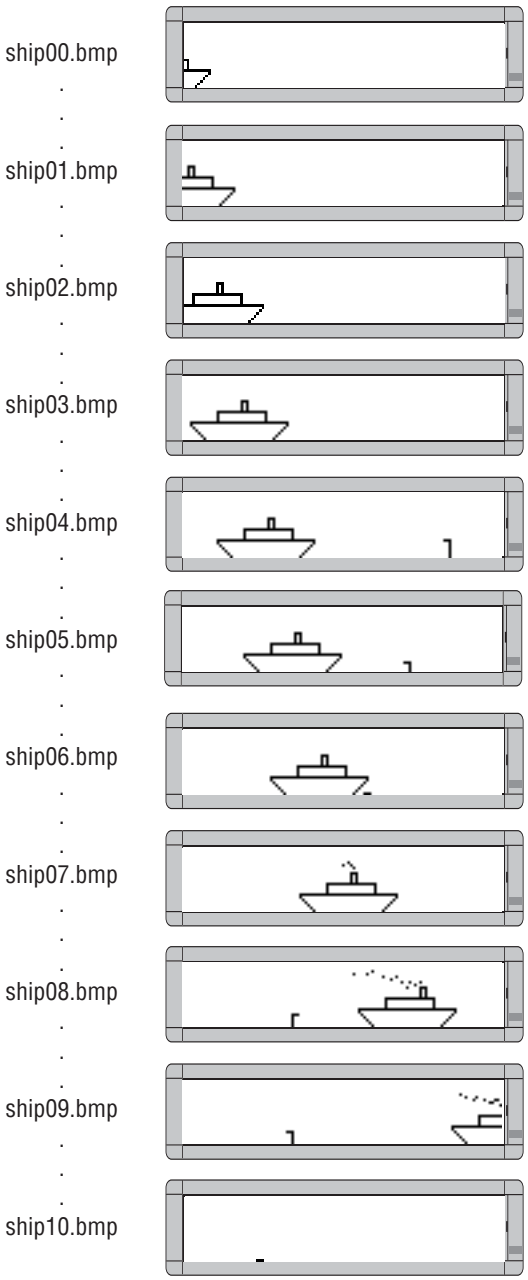
So first experiment with small flicks on a sign.

Save all the flick graphics in a special folder you create



7. The other graphics in the flick are created. Each graphic file ends with a consecutive number—00, 01, 02, etc.—and each graphic is saved as a BMP file in a special folder for the flick—*ship*, in this case.

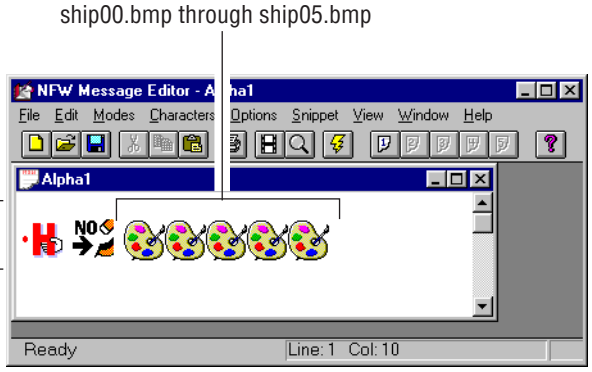
The completed flick of 11 graphics shows a ship crossing the screen. When the ship is about mid-screen, a submarine periscope appears in front of the ship. The periscope disappears as the ship passes above it but pops up again behind the ship, looks around, then goes under water.



Another way to create a flick

Though the **Flick** option will only work with Alphavision and Series 7000 signs, there is another way to create the illusion of motion on a sign.

The **Graphic** option can be used to place one graphic after another in a message:



Use the **Hold** mode (with the *middle* Line Position) and **Speed** (**No Hold**) option in front of the graphics.

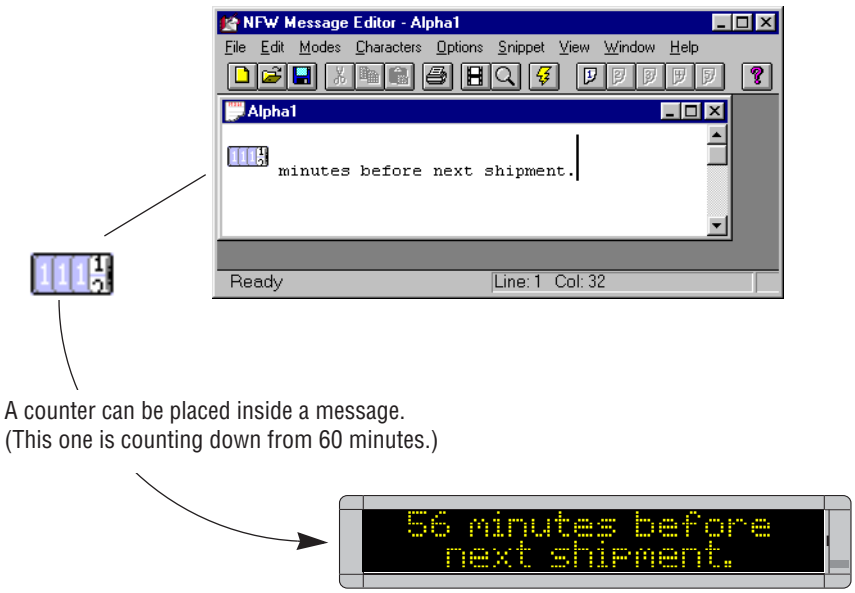
This is necessary in order to turn off the Automode feature so that the graphics will be displayed correctly.

How to edit a Counter file

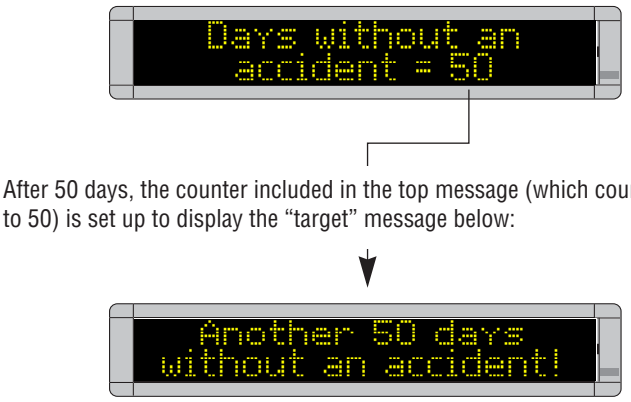
What is a Counter file?

A Counter file sets up from 1 to 5 numerical counters (called "Counter 1" through "Counter 5") which can be used for either *or* both of the following:

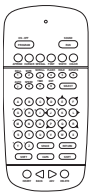
Used to display information in minutes, hours, or days on a sign. A counter icon can be included in a message to a sign:



Used to display special messages ("target files") on a sign after a set amount of time has passed.

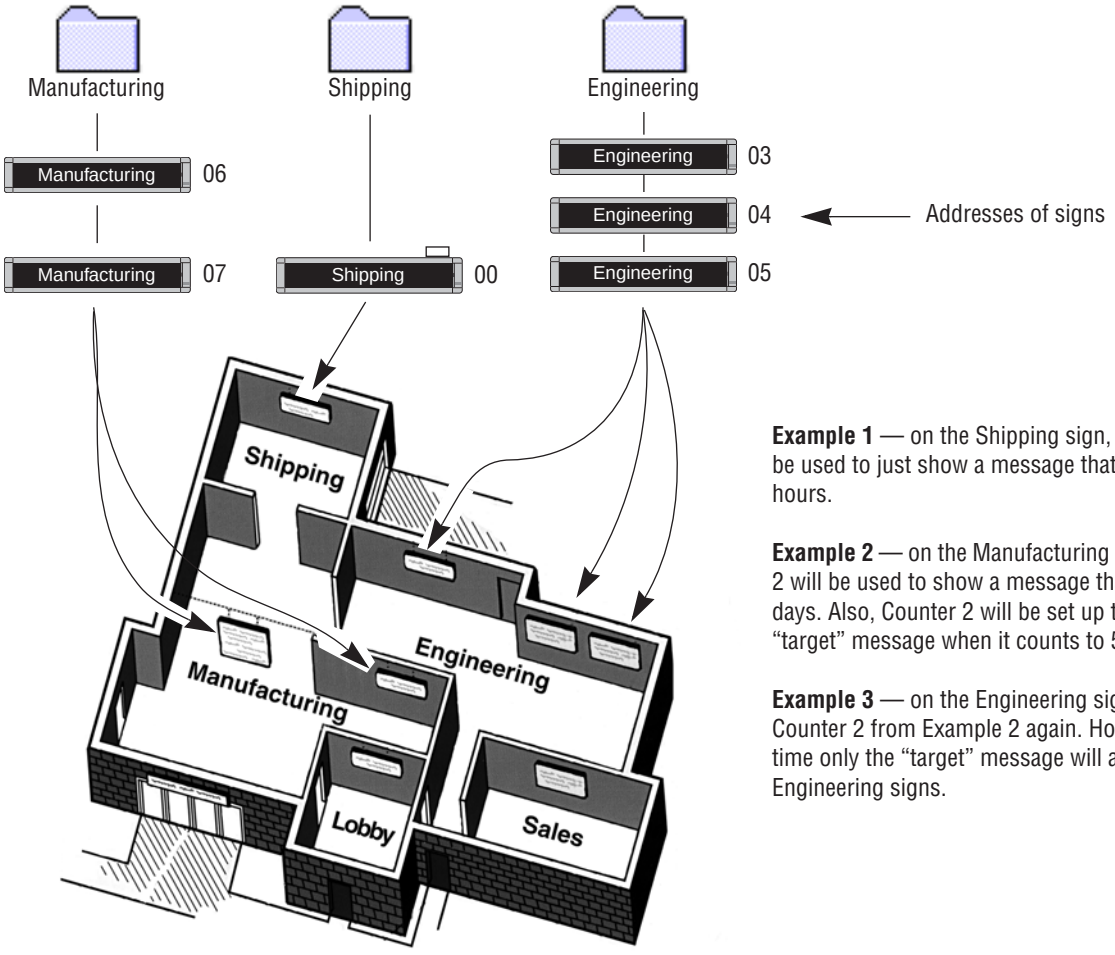


NOTE: The software necessary to use a Counter file is included in the standard Alpha firmware for signs and allows you to program a Counter file from your *computer*. However, the standard Alpha firmware does *not* allow you to program a Counter file using an infrared Remote Control (left).



Three examples of how to use Counter files

In these examples, we'll show the three basic ways of using counters on signs:



Example 1 — on the Shipping sign, Counter 1 will be used to just show a message that counts down hours.

Example 2 — on the Manufacturing signs, Counter 2 will be used to show a message that counts up days. Also, Counter 2 will be set up to display a "target" message when it counts to 50.

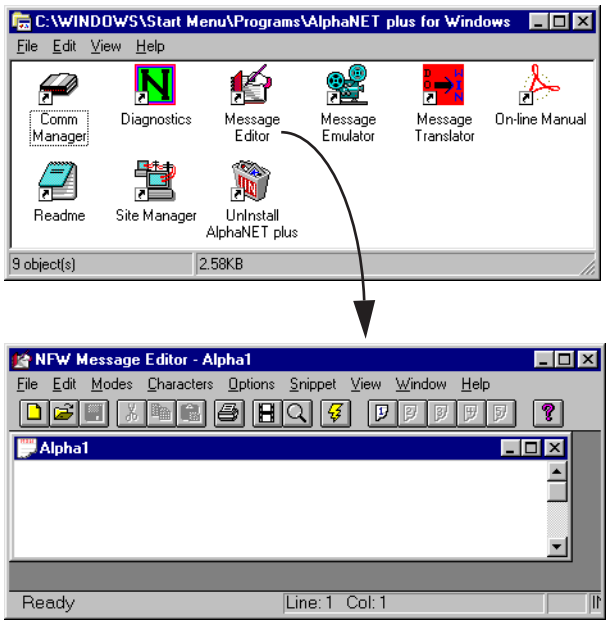
Example 3 — on the Engineering signs, we'll use Counter 2 from Example 2 again. However, this time only the "target" message will appear on the Engineering signs.

Example 1 — Using a counter in a message

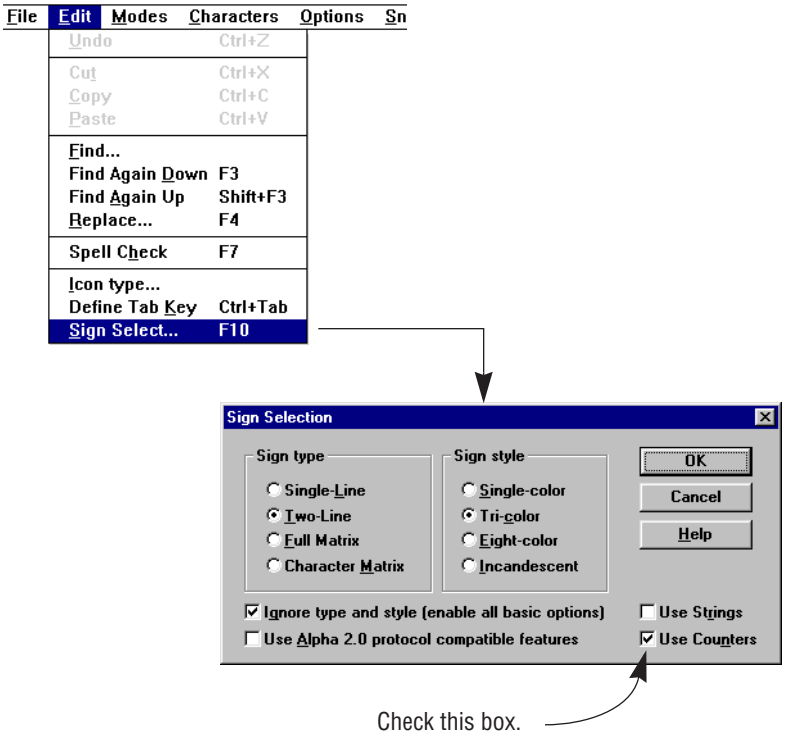
In this example, we'll end up with a message on the Shipping sign that counts down from 60 minutes over and over again:

NOTE: The Shipping sign would still be able to display other messages.

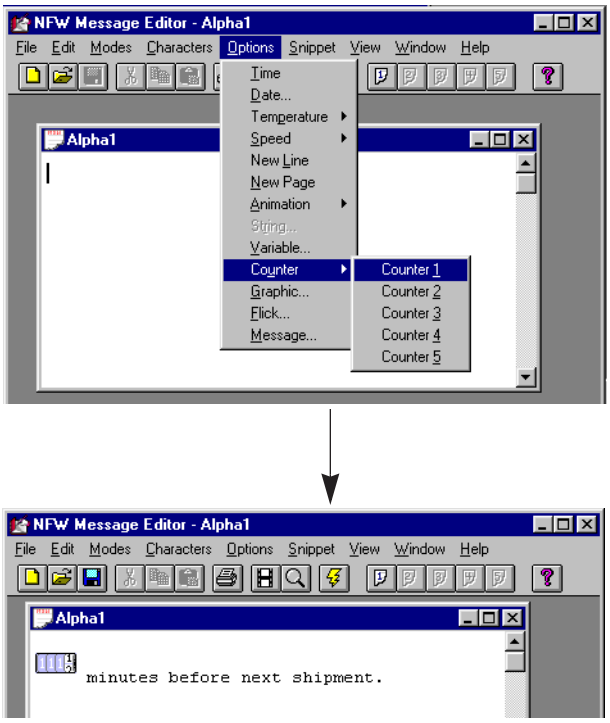
1. First, open the **Message Editor** program and create a new message:



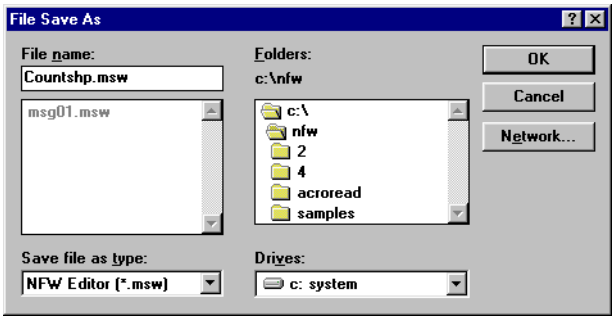
2. Next, select **Edit** and then **Sign Select**. When the following window appears, make sure that **Use Counters** is checked. Then select **OK**:



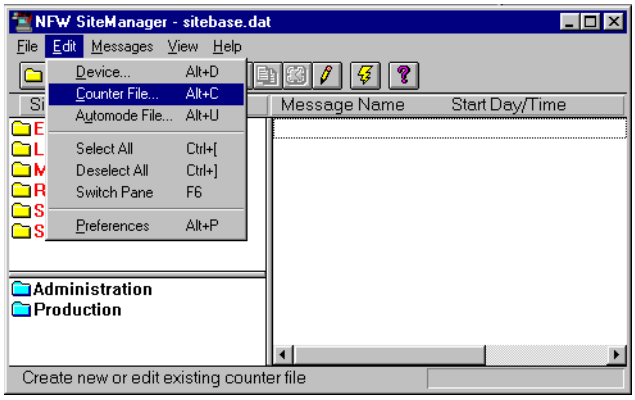
3. Add a counter to the message by selecting **Options**, **Counter**, and **Counter 1**. Then after the counter icon type a space and the words *minutes before next shipment*:



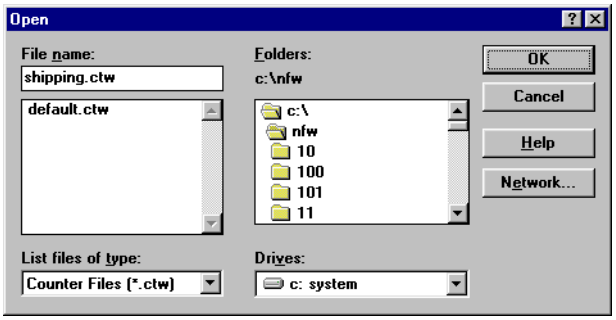
4. Save this counter message as *countshp.msw*:



5. After saving the message, close the **Message Editor**. Open the **Site Manager** program and select **Edit** and then **Counter File**:

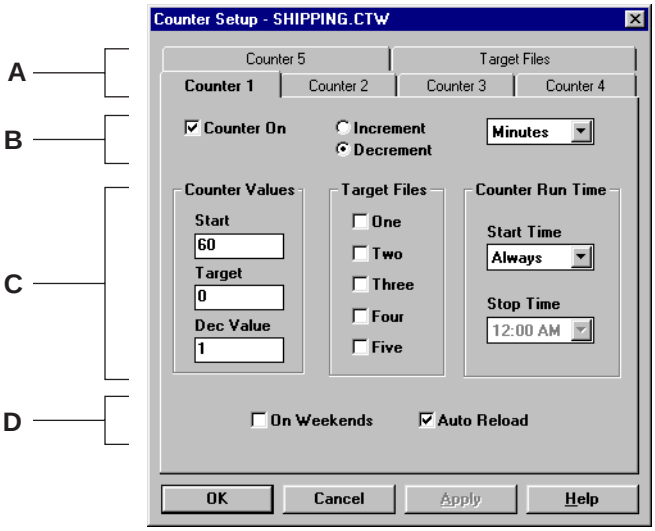


6. Next, either open an existing Counter file (like the default file shown below) or type a new file name (like *shipping.ctw*):



7. When the **Counter Setup** window appears, select **Counter 1** and enter the values as shown below:

Table 23: Counter Example 1 — Counter 1 setup

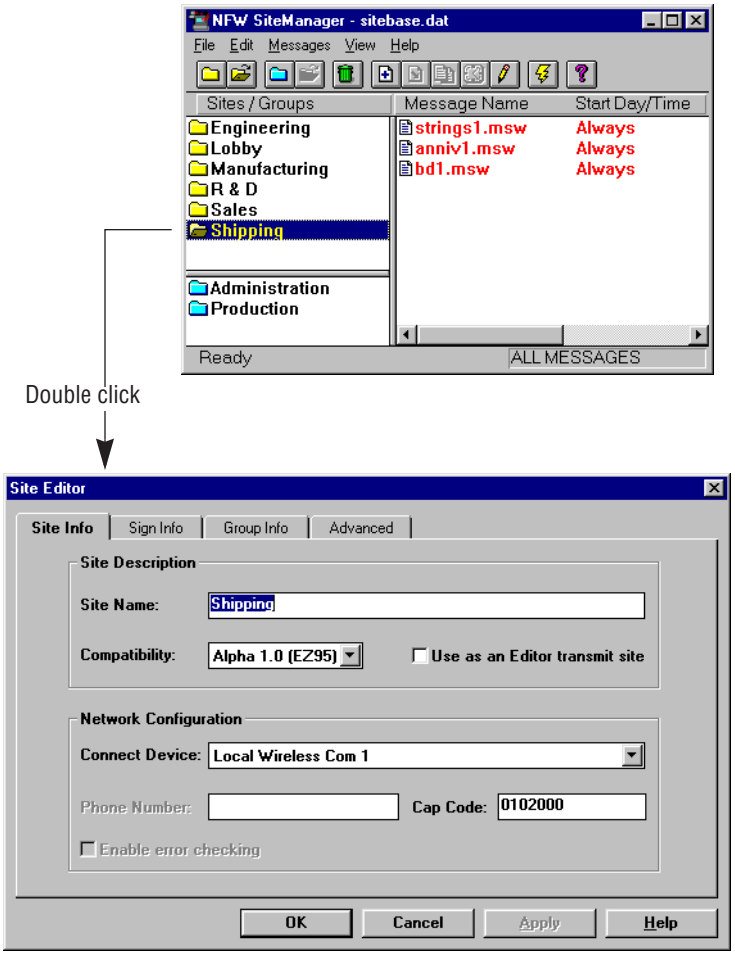


Item	Name	Directions
A	Counter 1 - 5	Select **Counter 1**.
	Target Files	This is where a message is assigned to a **Target File**. One to five messages that could be displayed on a sign when **Counter 1** reaches its **Target** value. (No **Target Files** are used in this example.)
B	Counter On	Make sure this box is checked for this example.
	Increment Decrement	In this example select **Decrement** because we want **Counter 1** to count down, not up.
	Minutes Hours Days	Select **Minutes** because we want **Counter 1** to count in units of minutes.

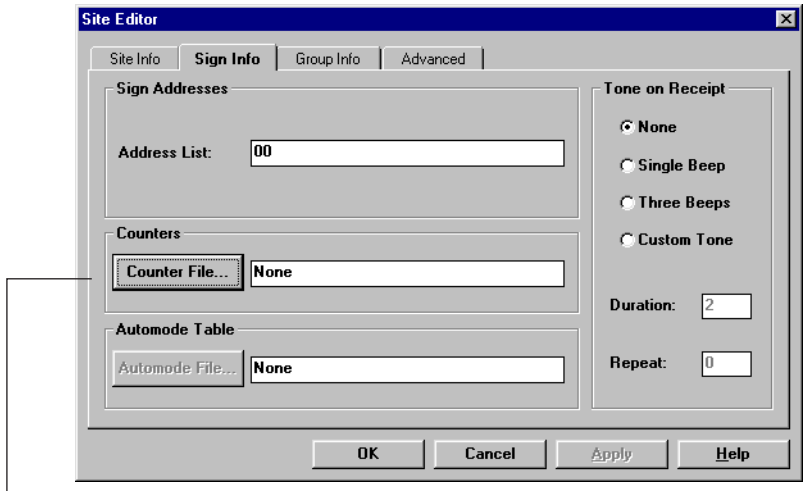
Table 23: Counter Example 1 — Counter 1 setup

C	Counter Values	Start	Enter 60 because we want **Counter 1** to start at 60 minutes and then count down to 0.
		Target	Enter 0.
		Dec	Enter 1 because we want **Counter 1** to count down 1 minute at a time—60, 59, 58, etc.
	Target Files	One - Five	This is where you would select which **Target File** messages to display when **Counter 1** reaches its **Target** value. (No **Target Files** are used in this example so none are checked)
	Counter Run Time	Start TIme Stop Time	The times when you want the counter to run. In this example, *Always* is selected because we want **Counter 1** running continuously. Since *Always* is selected, **Stop Time** is not available.
D	On Weekends		Since we don't need our counter running on weekends, leave this unchecked.
	Auto Reload		This box is checked because we want our counter to count down continuously. If this box was not checked, **Counter 1** would count down from 60 to 0 just *once*.

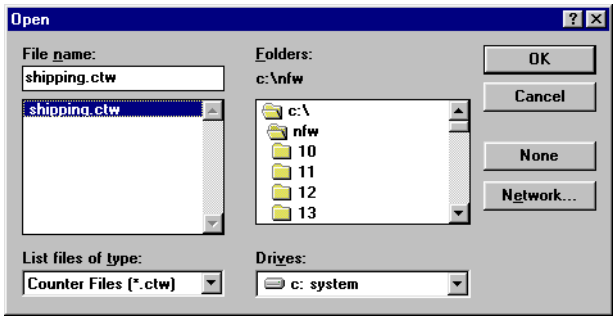
8. Select **OK** after entering the information in **Counter Setup**. When this window appears, double click on the Shipping site, and the **Site Editor** window will appear:

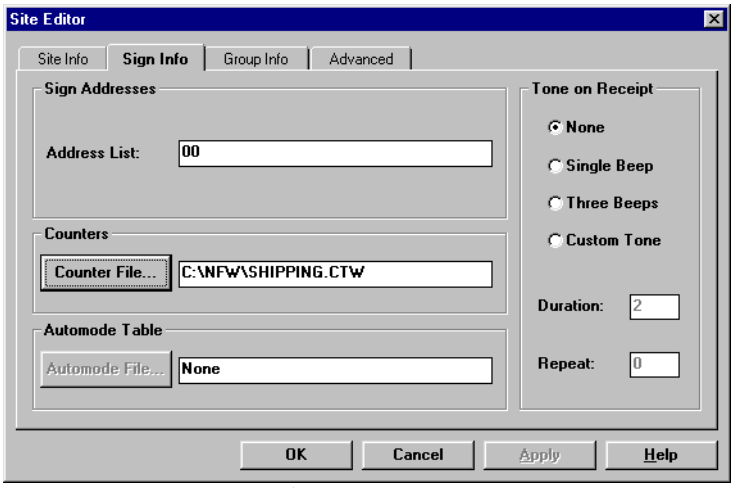


9. Next, select **Sign Info** and attach the Counter file you just created to the Shipping site:



After clicking on **Counter File**, select the counterfi le you just edited. (In this case, *shipping.ctw*.) Then select **OK**.



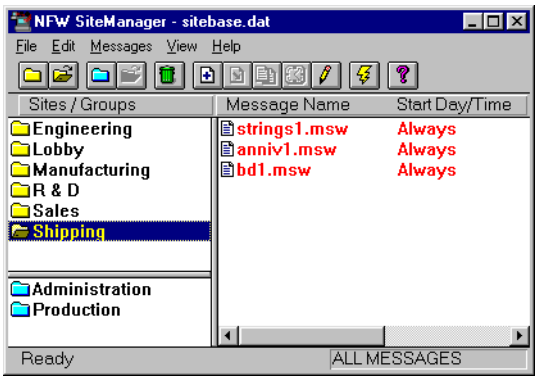


Select **OK**.

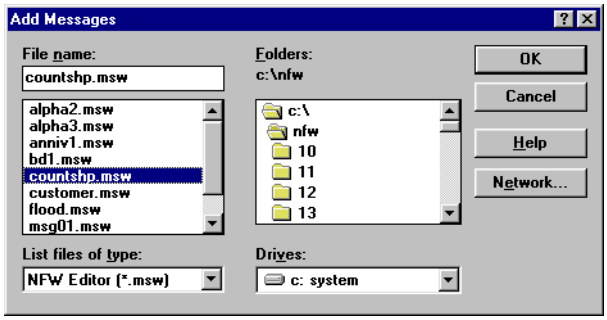
Deleting a Counter file

If you want to *delete* a Counter fi le from a sign, after clicking on **Counter File**, click on **None** and then **OK**.

10. Add the message that contains **Counter 1** to the Shipping site:

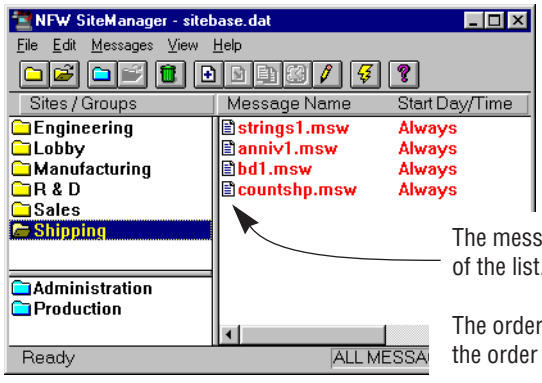


Select Shipping. Then select  :



Select the message that contains Counter 1, *countshp.msw*.

Click on **OK**.

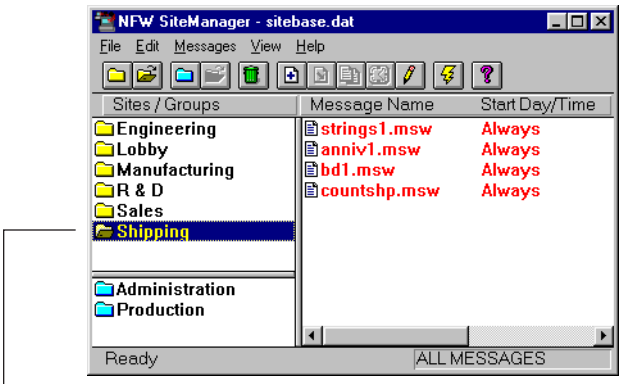


The message you added appears at the *end* of the list.

The order in which the messages appear is the order the messages are sent to a sign.

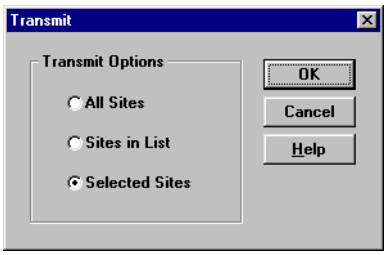
If you wanted the message at the *start* of the list, you should have selected the top message (*anniv1.msw*) and then clicked on  instead of  .

11. Finally, in order to display the message you just added to the Shipping sign, the message must be transmitted. To do this, select the Shipping site and then select the transmit icon:



Select Shipping because this is the only site we want messages sent to.

Click on the transmit icon.



Click on **Selected Sites** and then **OK.**

All the messages will be sent to the Shipping site sign.

Resetting a Counter

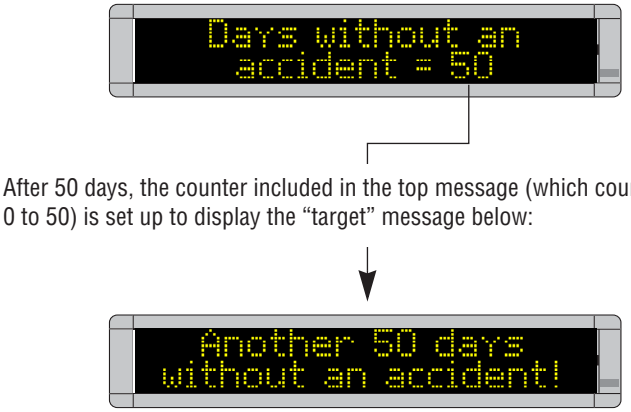
If you're prompted to reset a sign counter, select **Yes** to reset the counter to its Start value (see "Counter Example 2 — Target File setup" on page 89). Otherwise, select **No** to leave the sign's current value intact.

Example 2 — Using a counter in a message and displaying a target file message

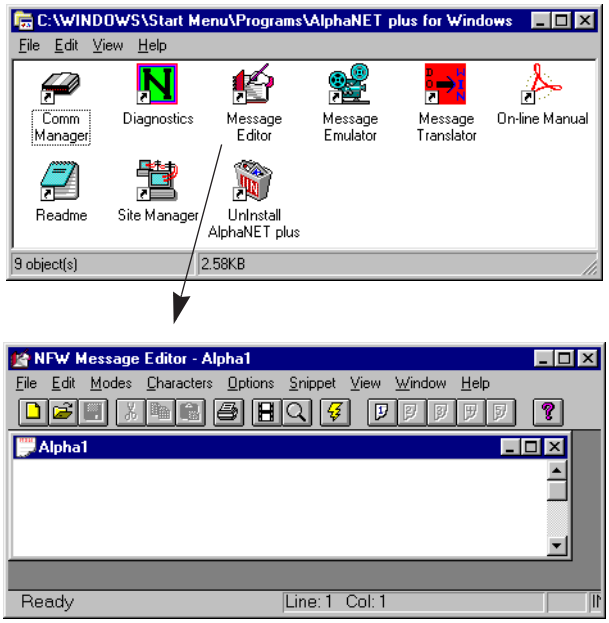
In this example, we'll end up with a message on the Manufacturing signs that keeps track of the number of days without an accident.

Also, when 50 days is reached, a message appears on the Manufacturing signs that says *Another 50 days without an accident!* (This is called a "target" message.)

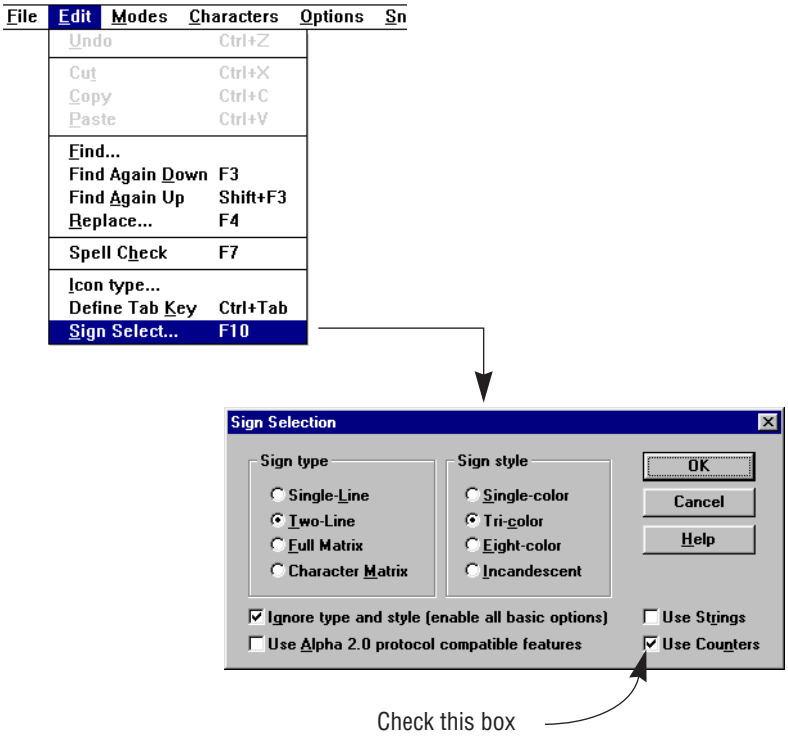
NOTE: The Manufacturing signs would still be able to display other messages.



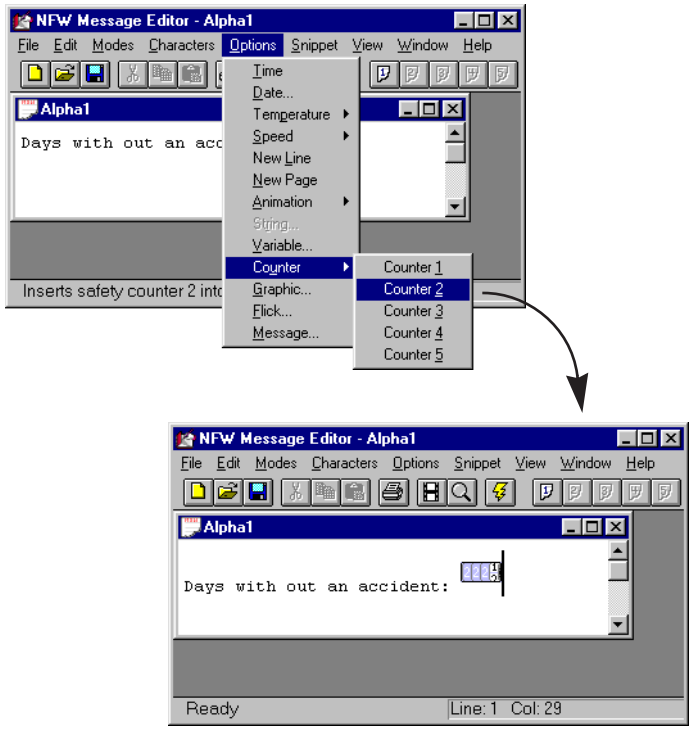
1. First, open the **Message Editor** program and create a new message:



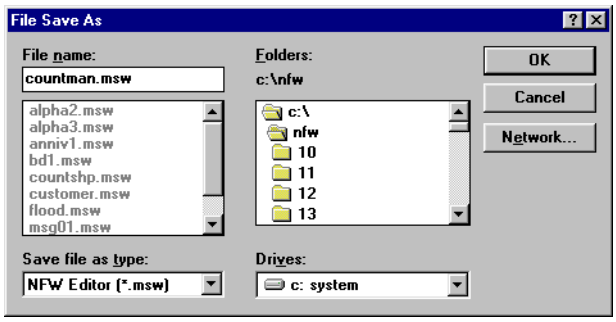
2. Next, select **Edit** and then **Sign Select**. When the following window appears, make sure that **Use Counters** is checked. Then select **OK**:



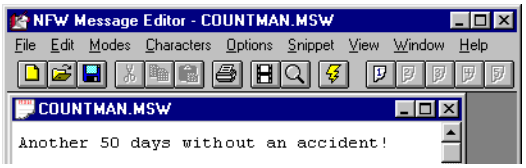
3. In the message window, type the words *Days without an accident:* and a space. Then add a counter to the message by selecting **Options**, **Counter**, and **Counter 2**:



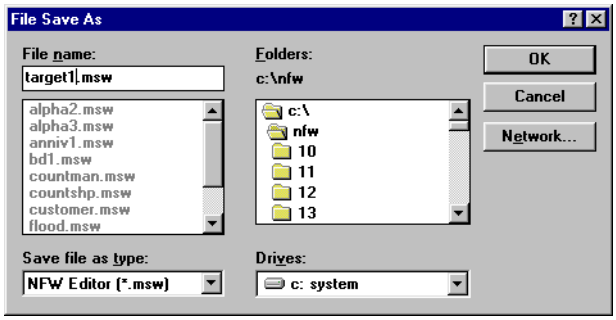
4. Save this counter message as *countman.msw*:



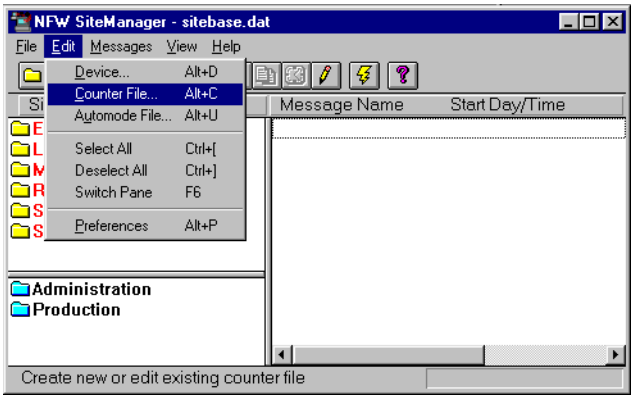
5. Next, create the "target" message — the message that will appear when Counter 2 reaches 50 days. Then save this message as *target1.msw*:



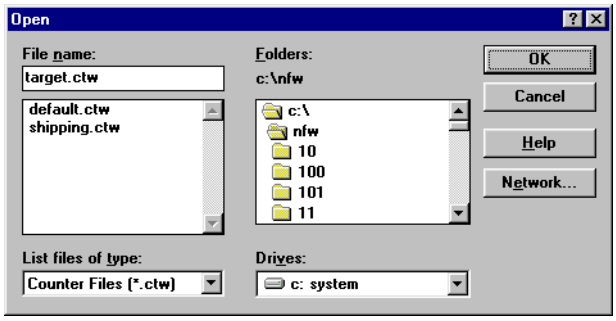
Save the target message as *target1.msw*.



6. After saving the target message, close the **Message Editor**. Open the **Site Manager** and select **Edit** and then **Counter File**:

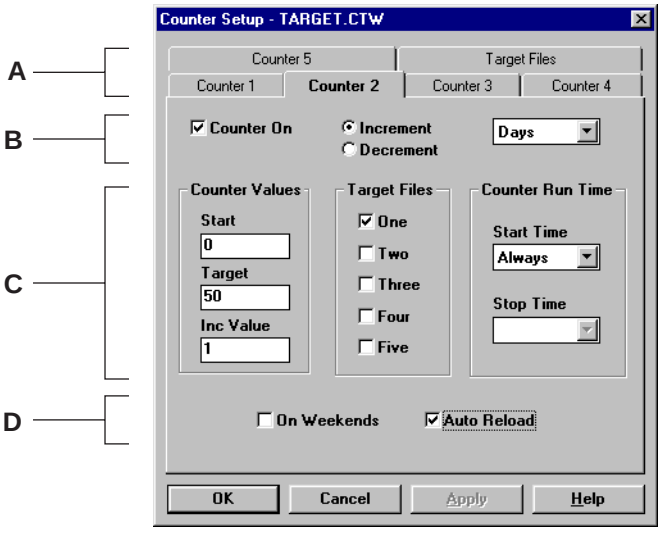


7. Next, either open an existing Counter file (like the default file shown below) or type a new file name (such as *target.ctw*):



8. When the **Counter Setup** window appears, select **Counter 2** and enter the values shown below:

Table 24: Counter Example 2 — Counter 2 setup



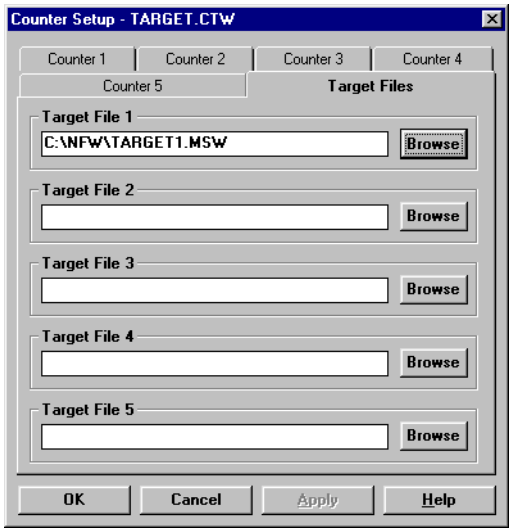
Item	Name	Directions
A	Counter 1 - 5	Select **Counter 2**.
	Target Files	This is where a message is assigned to a **Target File**. One to five messages that could be displayed on a sign when **Counter 2** reaches its **Target** value.
B	Counter On	Make sure this box is checked for this example.
	Increment Decrement	In this example select **Increment** because we want **Counter 2** to count up, not down.
	Minutes Hours Days	Select **Days** because we want **Counter 2** to count in units of days.

Table 24: Counter Example 2 — Counter 2 setup

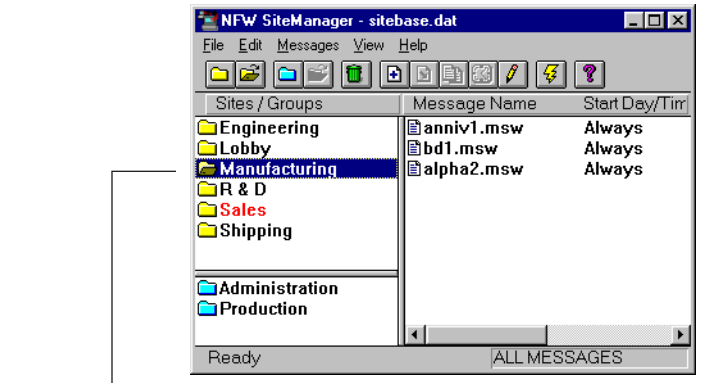
C	Counter Values	Start	Enter 0 because we want **Counter 2** to start at 0 days and then count up to 50.
		Target	Enter 50.
		Inc	Enter 1 because we want **Counter 2** to count up 1 day at a time — 1, 2, 3, etc.
	Target Files	One - Five	Check **One**. This means that one message will appear on the sign after **Counter 2** has reached its target value.
	Counter Run Time	Start TIme Stop Time	The times when you want the counter to run. In this example, *Always* is selected because we want **Counter 2** running continuously.
D	On Weekends		Since we don't need our counter running on weekends, leave this unchecked.
	Auto Reload		This box is checked because we want our counter to count continuously. If this box was not checked, **Counter 2** would count up to 50 just *once*.

9. Next, select **Target Files** and for **Target File 1**, select **Browse** and then select the file you created called *target1.msw*:

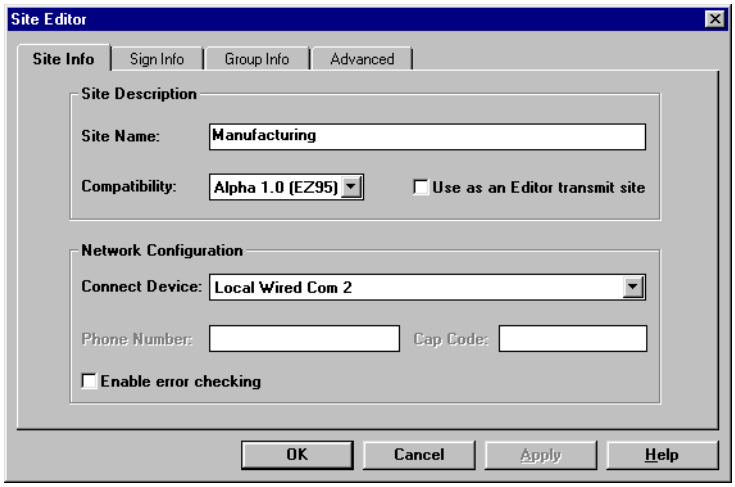
Table 25: Counter Example 2 — Target File setup



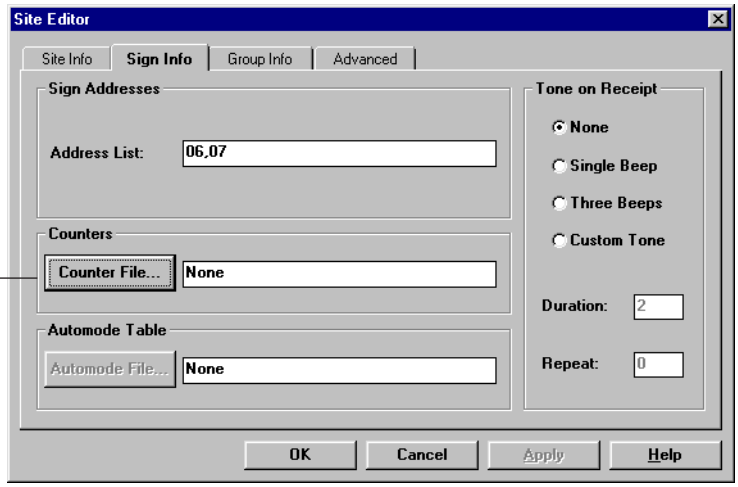
10. After selecting the target file, click on **OK**. Then double-click on the Manufacturing site, and the **Site Editor** window will appear:



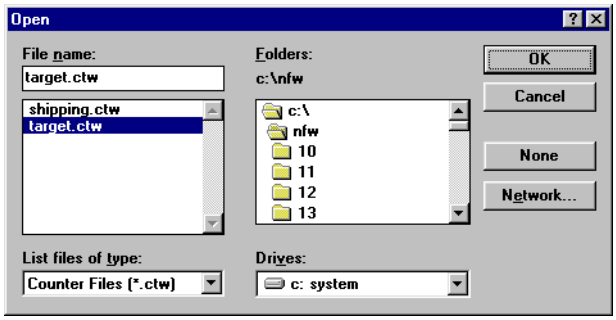
Double-click on Manufacturing.

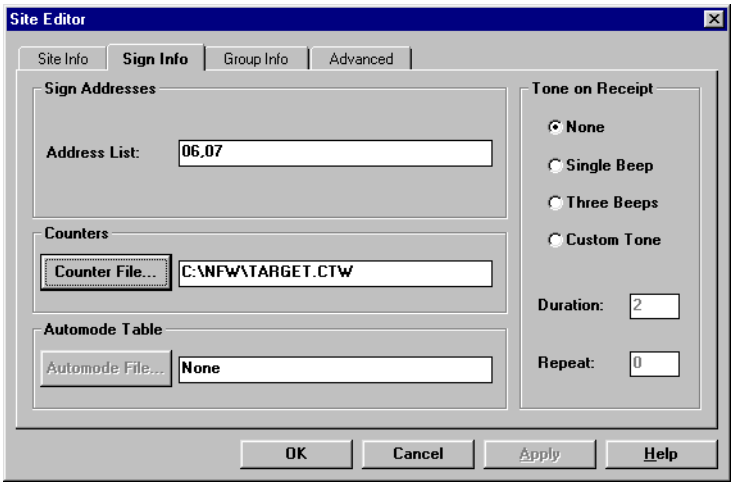


11. Next, select **Sign Info** and attach the Counter file you just created to the Manufacturing site:



After clicking on **Counter File**, select the counterfi le you just edited. (In this case, *target.ctw.*) Then select **OK**.



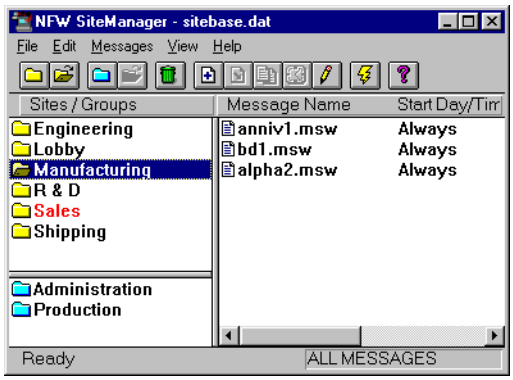


Select **OK**.

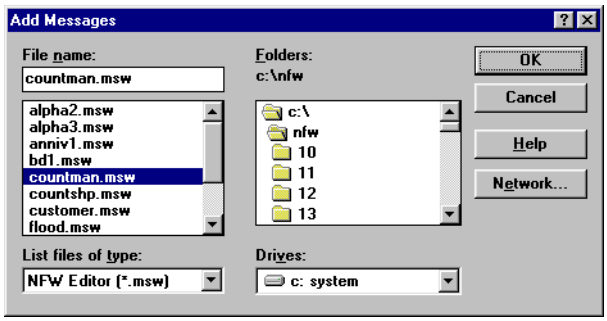
Deleting a Counter file

If you want to *delete* a Counter fi le from a sign, after clicking on **Counter File**, click on **None** and then **OK**.

12. Add the message that contains **Counter 2** to the Manufacturing site:

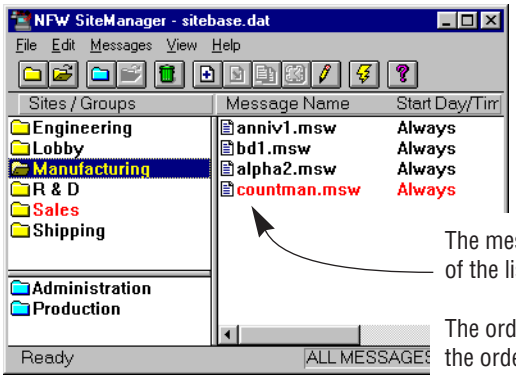


Select Manufacturing. Then select  :



Select the message that contains Counter 2, *countman.msw*.

Click on **OK**.

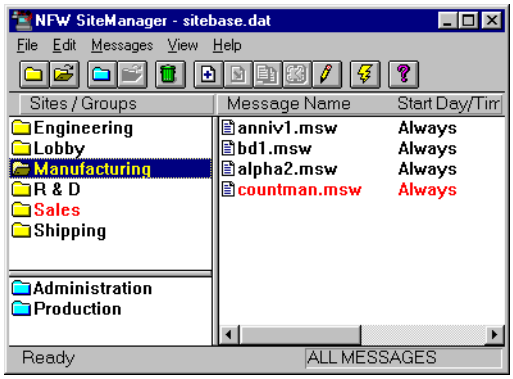


The message you added appears at the *end* of the list.

The order in which the messages appear is the order the messages are sent to a sign.

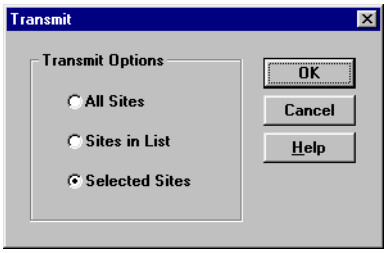
If you wanted the message at the *start* of the list, you should have selected the top message (*anniv1.msw*) and then clicked on  instead of  .

13. Finally, in order to display the message you just added, it must be transmitted to the Manufacturing signs. To do this, select the Manufacturing site and then the transmit icon:

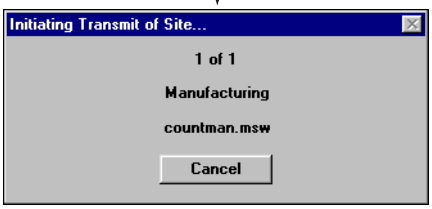


Select Manufacturing because this is the only site we want messages sent to.

Click on the transmit icon.



Click on **Selected Sites** and then **OK.**



All the messages will be sent to the Manufacturing site signs.

After 50 days, the counter included in the top message (which counts up from 0 to 50) is set up to display the "target" message below:

Resetting a Counter

If you're prompted to reset a sign counter, select **Yes** to reset the counter to its Start value (see "Counter Example 2 — Target File setup" on page 89). Otherwise, select **No** to leave the sign's current value intact.

Example 3 — Using a counter to display just a target message

HINT

This example is nearly identical to Example 2.

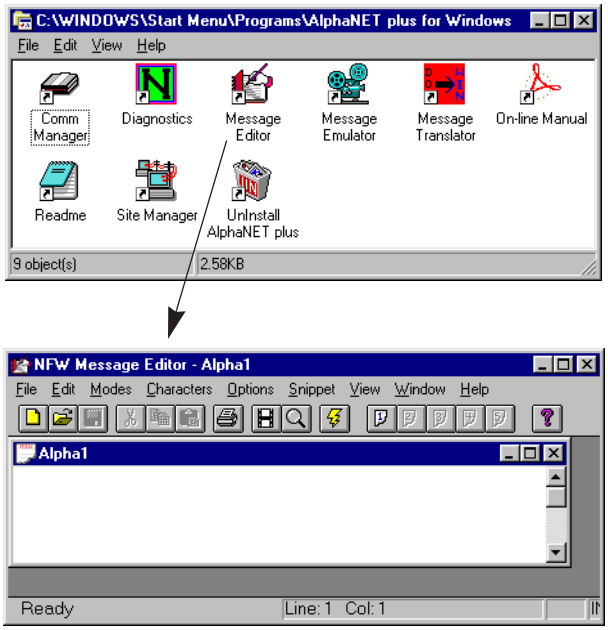
In Example 2, the counter was displayed in a message *and* a target message was also displayed.

In Example 3, only the target message will be shown. The counter will just be used to count. It will not be displayed.

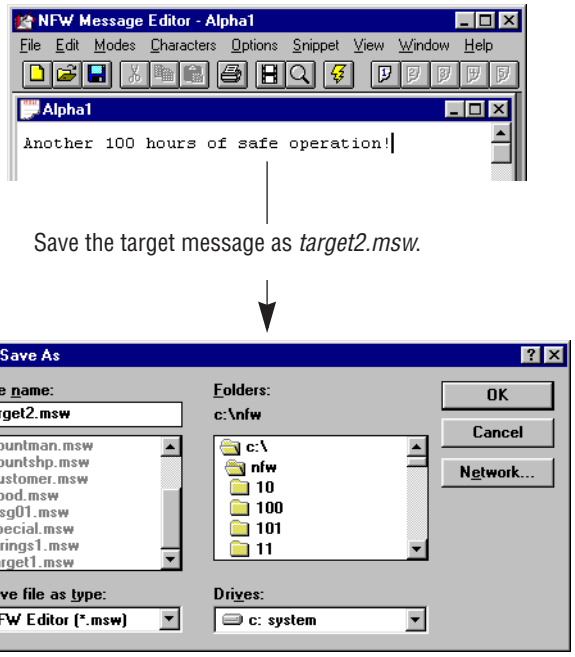
In this example, we'll use one of the five counters (in this case, Counter 3) to display the message *Another 100 hours of safe operation!* When Counter 3 reaches 100 hours, the message will appear on all the signs in the Engineering site. (This site was created in the previous section "What's new in version 1.3?" on page 9.)

NOTE: The Engineering signs would still be able to display other messages.

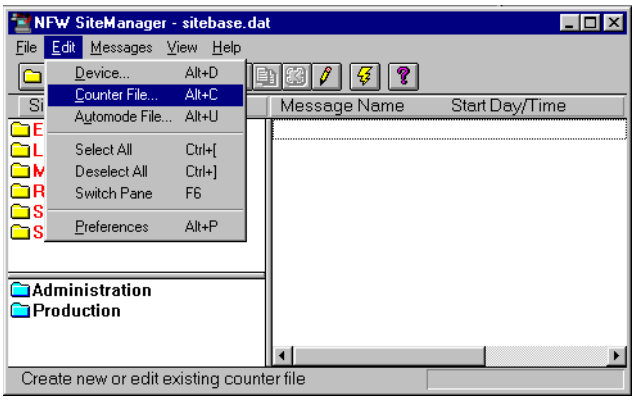
1. Open the **Message Editor** program and create a new message:



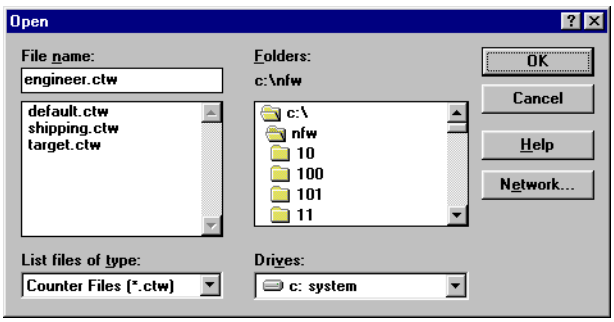
2. Next, create the "target" message — the message that will appear when Counter 3 reaches 100 hours. Then save this message as *target2.msw*:



3. After saving the target message, close the **Message Editor**. Open the **Site Manager** and select **Edit** and then **Counter File**:

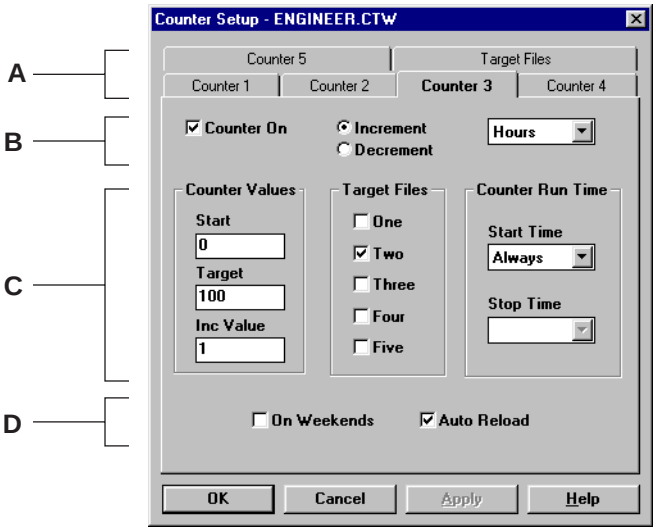


4. Next, either open an existing Counter file (like the default file shown below) or type a new file name (like *engineer.ctw*):



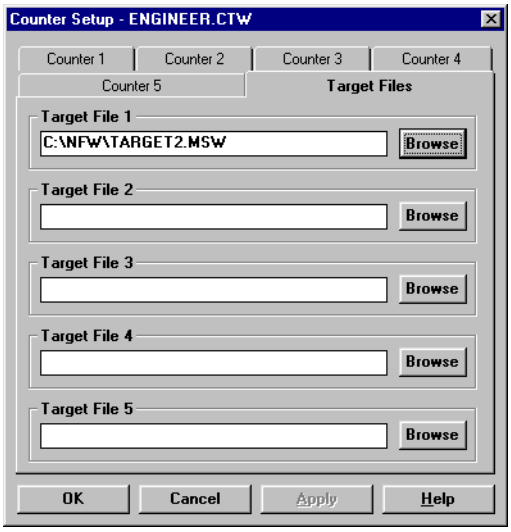
5. When the **Counter Setup** window appears, select **Counter 3** and enter the values shown below:

Table 26: Counter Example 3 — Counter 3 setup

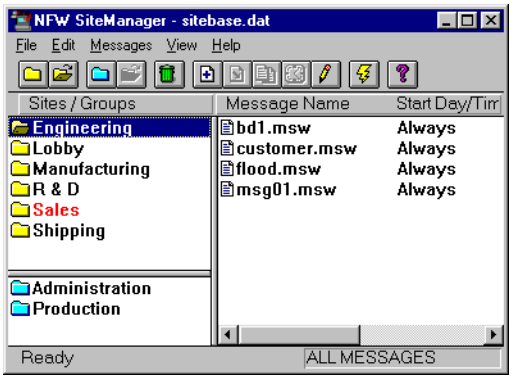


Item	Name		Directions
A	Counter 1 - 5		Select **Counter 3**.
	Target Files		This is where a message is assigned to a **Target File**. One tofi ve messages that could be displayed on a sign when **Counter 3** reaches its **Target** value.
B	Counter On		Make sure this box is checked for this example.
	Increment Decrement		In this example select **Increment** because we want **Counter 3** to count up, not down.
	Minutes Hours Days		Select **Hours** because we want **Counter 3** to count in units of hours.
C	Counter Values	Start	Enter 0 because we want **Counter 3** to start at 0 hours and then count up to 100.
		Target	Enter 100.
		Inc	Enter 1 because we want **Counter 3** to count up 1 hour at a time—1, 2, 3, etc.
	Target Files	One - Five	Check **Two**. This means that one message will appear on the sign after **Counter 3** has reached its target value.
	Counter Run Time	Start TIme Stop Time	The times when you want the counter to run. In this example, *Always* is selected because we want **Counter 3** running continuously.
D	On Weekends		Since we don't need our counter running on weekends, leave this unchecked.
	Auto Reload		This box is checked because we want our counter to count down continuously. If this box was not checked, **Counter 3** would count up to 100 just *once*.

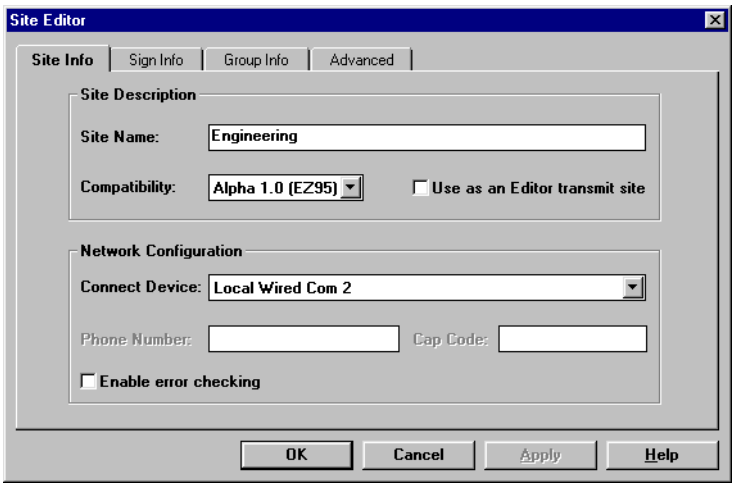
6. Next, select **Target Files**. For **Target File 1**, select **Browse** and then select the file you created called *target2.msw*:



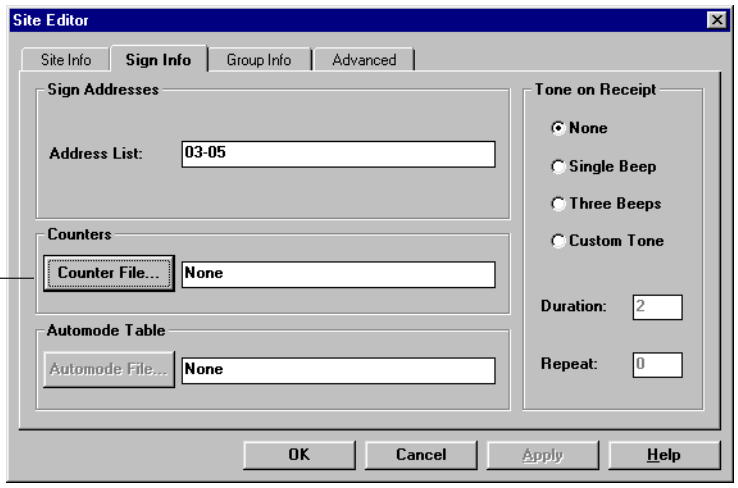
7. After selecting the target file, click on **OK**. Then double-click on the Engineering site, and the **Site Editor** window will appear:



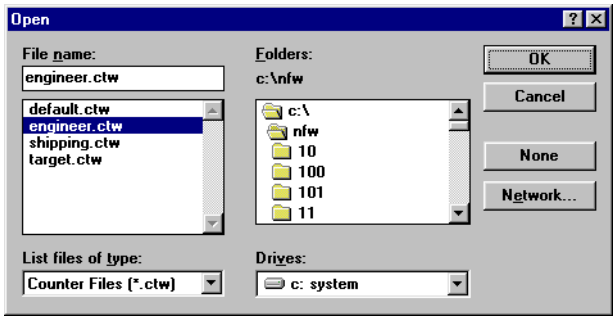
Double-click on Engineering.

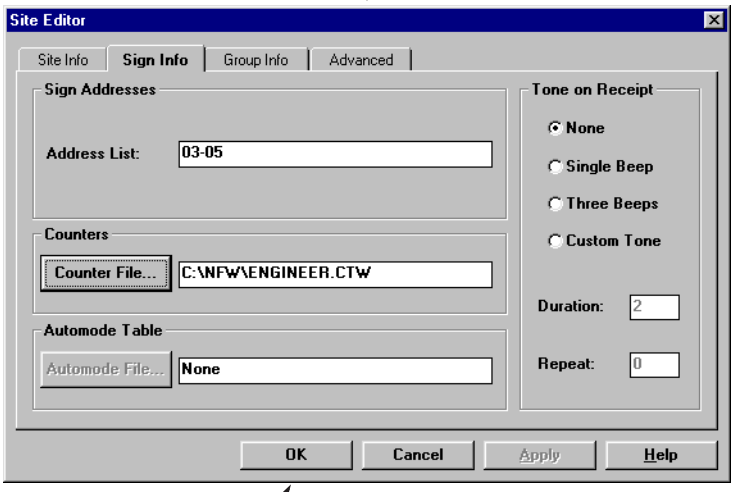


8. Next, select **Sign Info** and attach the Counter file you just created to the Engineering site, and you're done:



After clicking on *Counter File*, select the counterfi le you just edited. (In this case, *engineer.ctw*.) Then select **OK**.





Select **OK**.

Deleting a Counter file

If you want to *delete* a Counter fi le from a sign, after clicking on **Counter File**, click on **None** and then **OK**.

How to use string variables in a message

What are string variables?

A variable represents real-time data that can change (e.g., temperature or production rates, date, or time.) Since its value can change or vary, it's called a "variable". Variables can be embedded in messages. The value of the variable gets filled in wherever the variable is used in an active message, and it is refreshed whenever the value changes.

Variables can be in numeric format. They can also be in text format, even if the value is numeric. This text format is called "string" format, and variables in **AlphaNET *plus* for Windows** are considered to be in string format.

Basic steps for setting up string variables in a message

These basic steps are detailed in the next section.

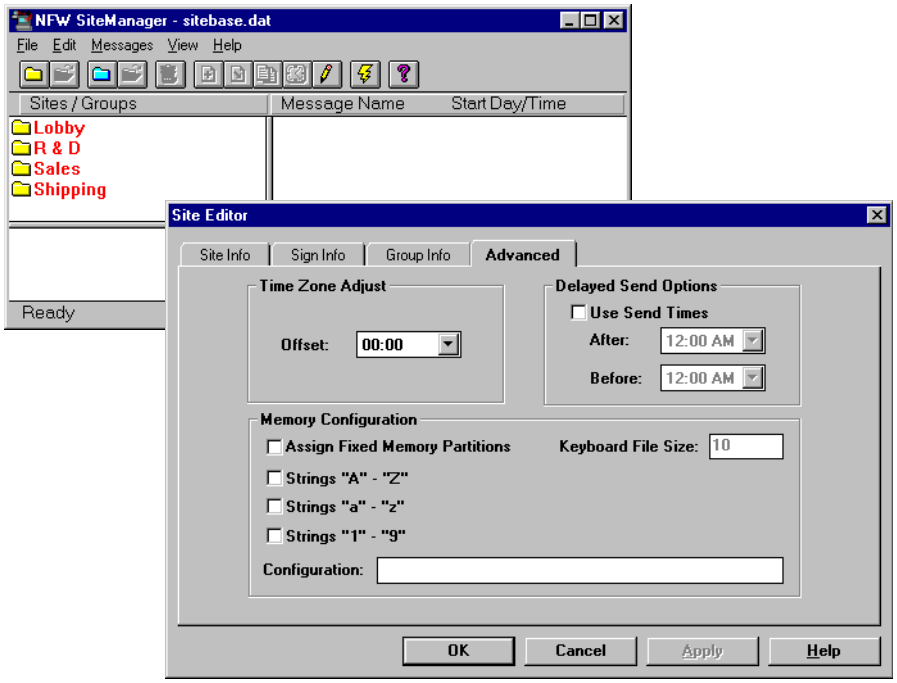
1. Assign fixed memory partitions to the memory in a sign for a site, also assigning labels to those memory partitions.
2. Select to use strings for the selected sign the **Message Editor** is using.
3. Insert markers for the string variables into the message.
4. Use an application to send the variable data to memory in the sign. Valid applications include Microsoft Excel and Visual Basic, and other ActiveX-compatible applications (ActiveX "containers".) You can also write your own application to send variable data to the sign's memory, per the **ALPHA Sign Communications Protocol** manual (p.n. 9708-8061.)
5. The message merges the variable data in the sign's memory with the text.

Detailed steps for setting up string variables in a message

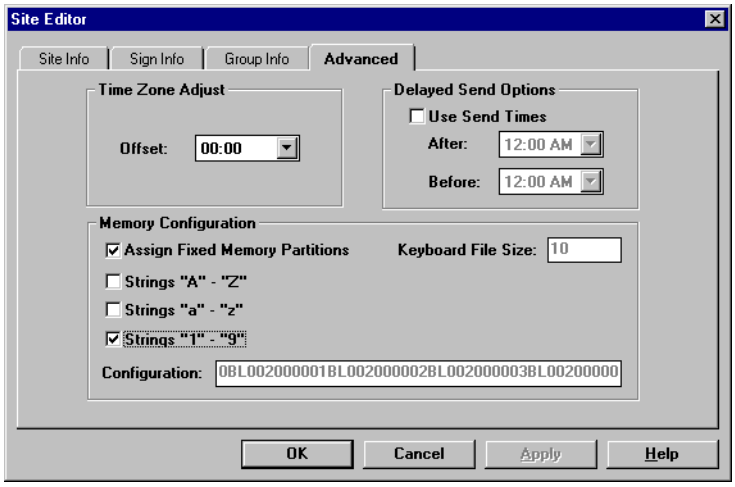
These are the detailed steps to use variables in a message.

1. Assign fixed memory partitions in the sign and labels for those partitions.

1. In the **Site Manager**, double-click on the site for the sign which is to use string variables and then click on the **Advanced** tab.



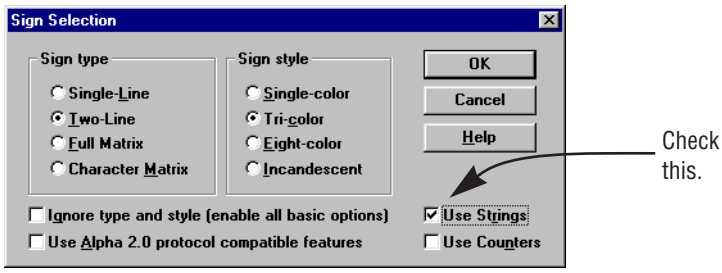
2. Check "Assign Fixed Memory Partitions" and also check one or more of the sets of memory strings in the sign to use. The box for Configuration will be filled in for you using default values. These default values assume 32-bit memory in the sign. You can change this if you wish. Refer to the **ALPHA Sign Communications Protocol** manual (p.n. 9708-8061) for detailed information.



2. Select to use strings.

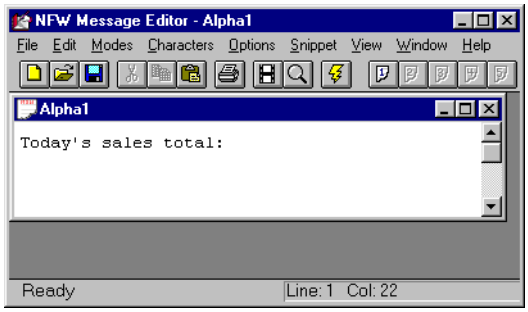
3. In the **Message Editor**, select **Edit** and then **Sign Select**:

4. Check **Use strings** and then click **OK**:

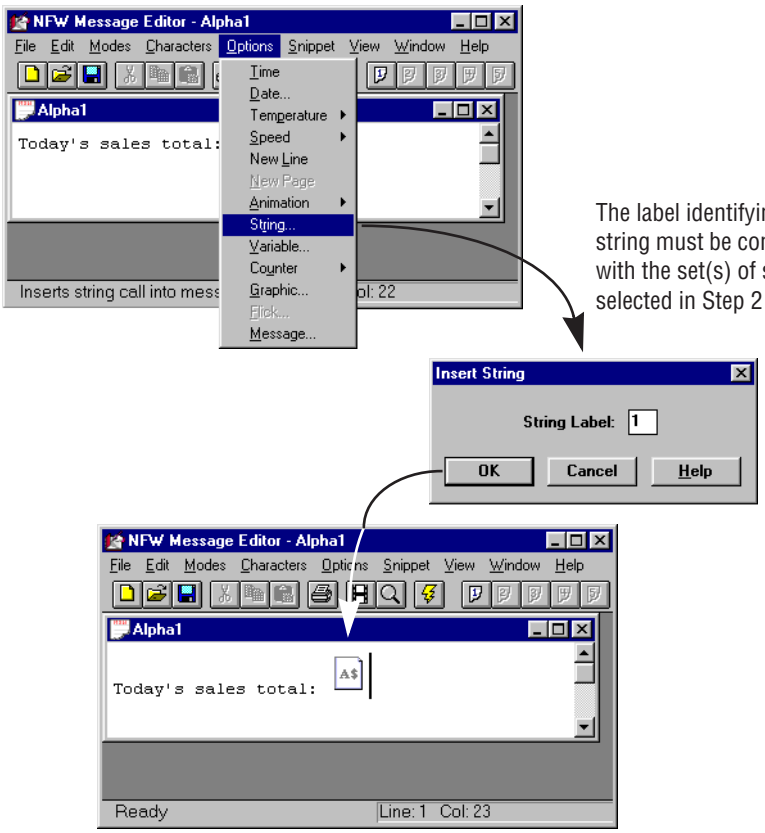


3. Insert message markers.

5. Create a message with text as needed. In this example, the text is *Today's sales total:*



6. Insert a marker for the variable into the message:



4. Send variable data from another application.

Use an application to send the values for the string data to memory in the sign.

Valid applications include Microsoft Excel and Visual Basic, and other ActiveX-compatible applications (ActiveX "containers".) An ActiveX control, installed with **AlphaNET *plus*** version 1.3, is available to be called by any ActiveX container.

You can also write your own application to send variable data to the sign's memory, per the **ALPHA Sign Communications Protocol** manual (p.n. 9708-8061.) In this case, you must write the functions to open a COM or TCP/IP port, write the string data to it, and close it.

5. The message displays the variable data.

The message is displayed on the sign with the values for the variables inserted from the sign's memory.

How to create and use a custom automode sequence

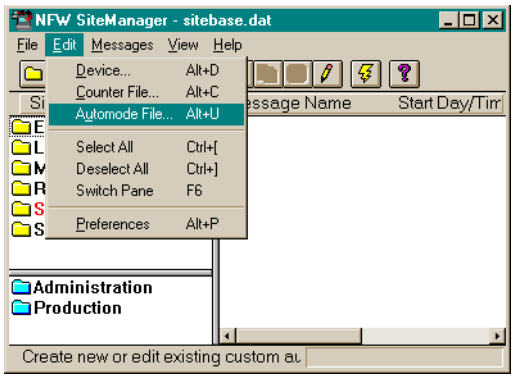
NOTE

Custom **Automode** is valid only for specific signs available first quarter of 2001.

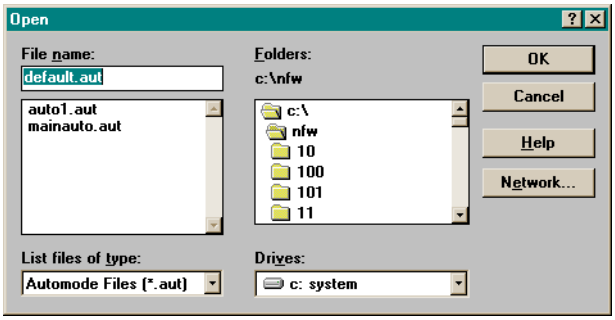
The message mode called **Automode** is the default mode used if no other mode is selected in a message. It displays the message with all the other modes provided with **AlphaNET *plus* for Windows.** (For descriptions of the modes, see "Appendix B — Which Modes are available on signs" on page 140.) You can create a customized set of modes to be used as the **Automode**, as follows.

Creating or editing an automode sequence

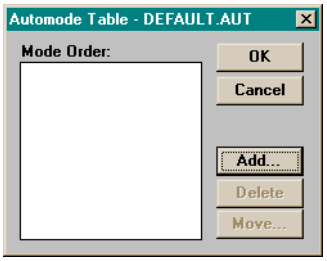
1. In the **Site Manager**, choose **Edit** and then **Automode File**.



2. Accept the name of *default.aut* for the file, choose an existing file if there is one, or type in a different name for a new file to use. Then click **OK**.

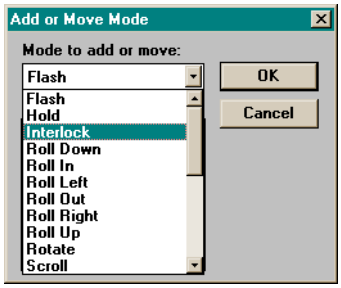


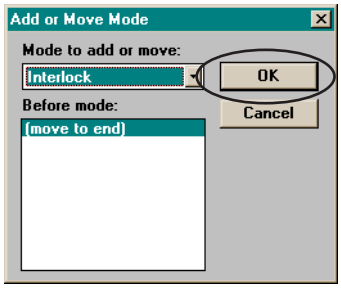
3. Click **Add**.



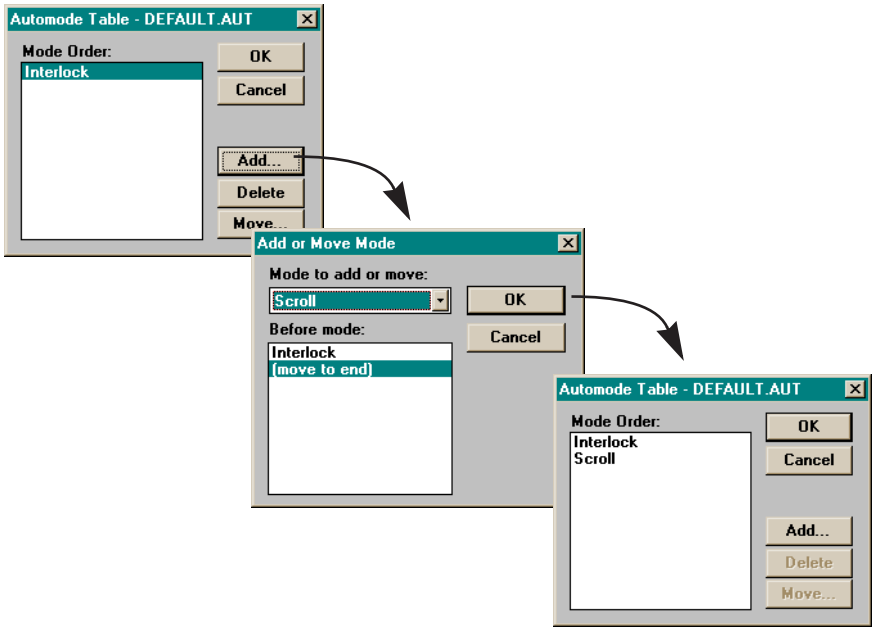
4. Click on the down arrow and, from the list, click on the first

mode to be used in the sequence. Click **OK** to accept this added mode in the sequence. The sequence of modes is shown. At this point, there is only one mode, of course.





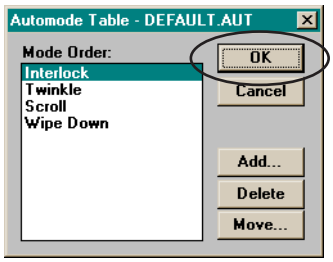
5. To add another mode to the sequence, click **Add** again, choose the mode to add, and click **OK**.



HINT

If you want to add the new mode before another mode in the sequence instead of the end of the list, click on the mode you want to add it before and then click **OK.**

6. Continue through Steps 3 and 4 until you have the list complete as desired. When you're done, click **OK**.



HINT

To delete a mode from the sequence, click on that mode once and then click **Delete**. It will be immediately deleted.

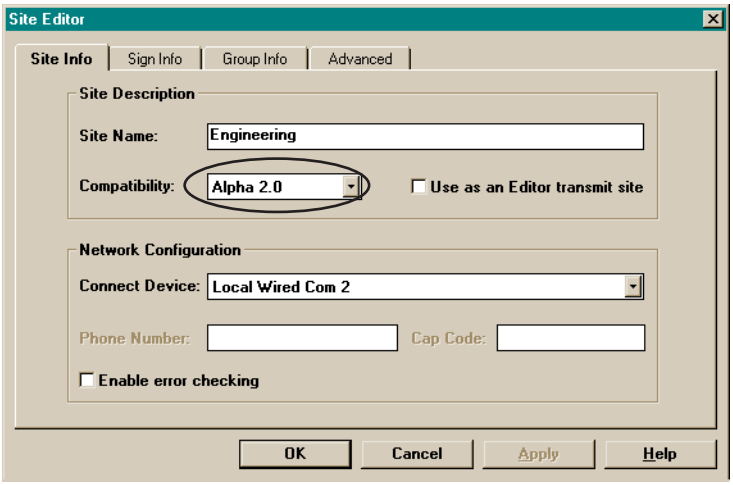
Using the automode sequence

Each site can use a custom automode sequence, if desired, and different sites can use different custom automode files.

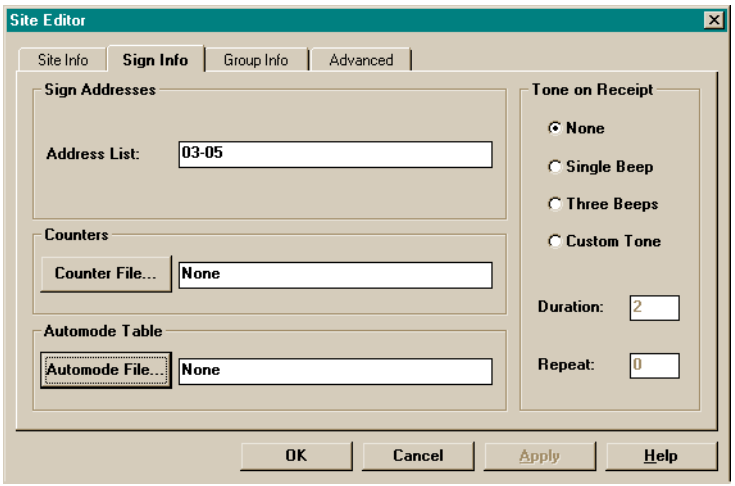
1. Open the site to use the custom automode. On the **Site Info** tab, choose *Alpha 2.0* for **Compatibility**.

NOTE

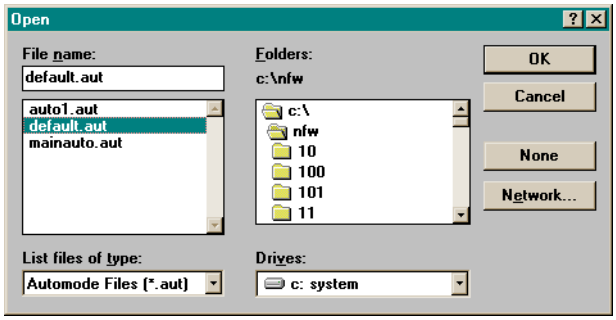
Alpha 2.0 compatibility is valid only for specific signs available first quarter of 2001.



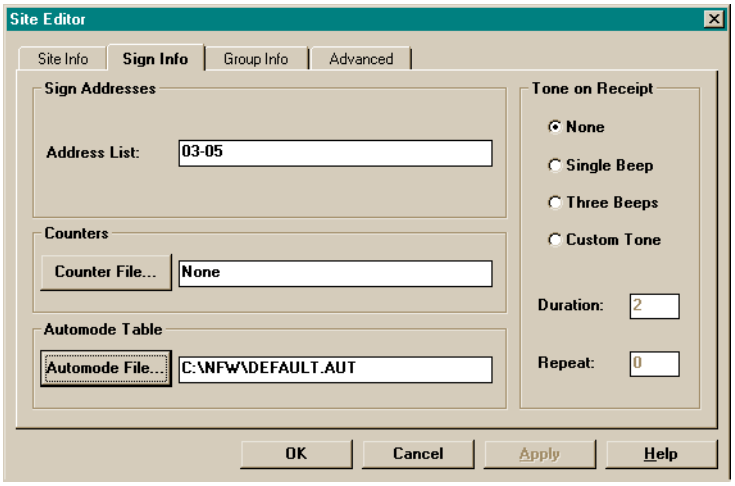
2. On the **Sign Info** tab, click on **Automode File…**



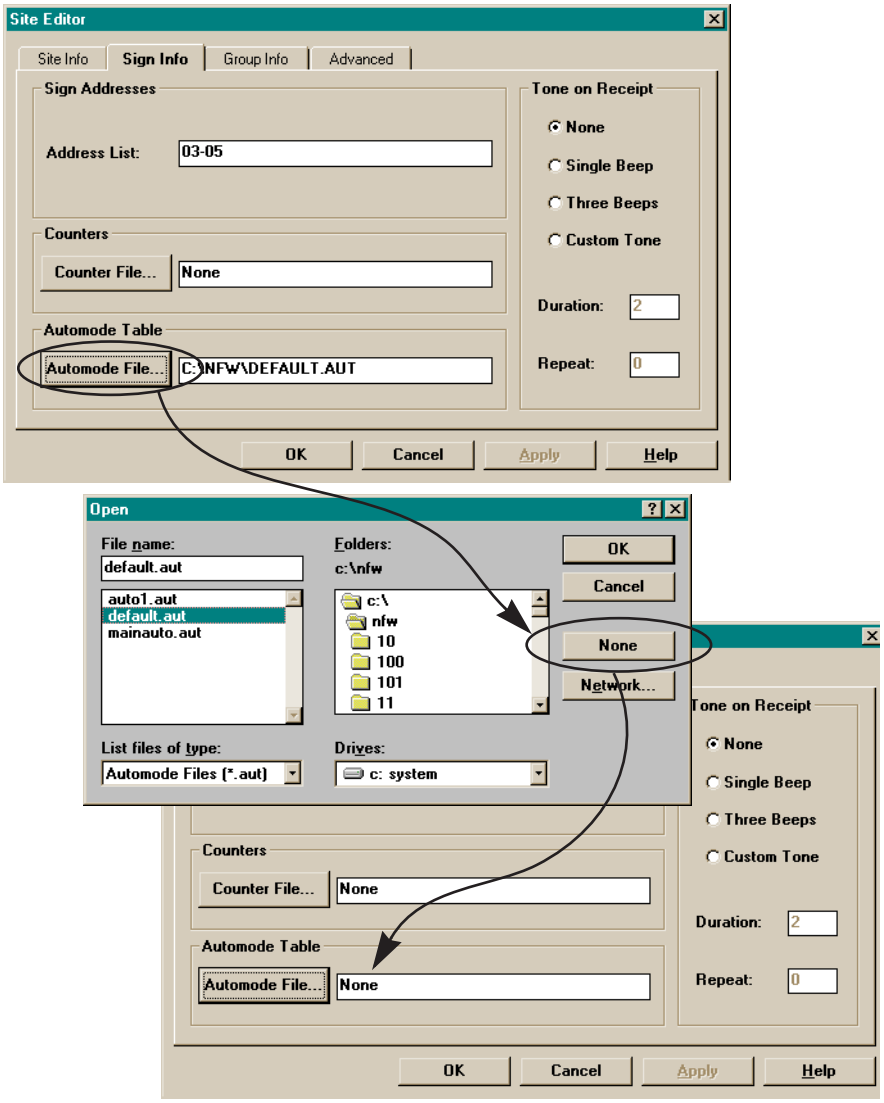
3. Choose the file to use and click **OK**.



4. This is the file that will be used for any messages sent to this site using **Automode**.

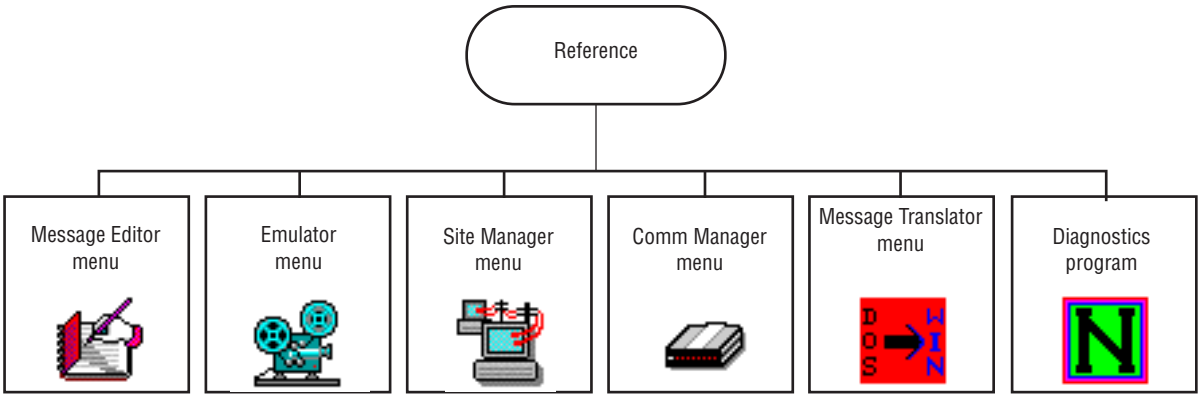


5. To revert back to the installed **Automode** which uses all other modes, click on **Automode File...** and then on **None**.



4 Reference

Chapter 4 map



Message Editor menu

The **Message Editor** is used to create messages for signs. Text, graphics, and animations (or "flicks") can be used in messages. See Chapter 3 for detailed instructions on using the **Message Editor**.

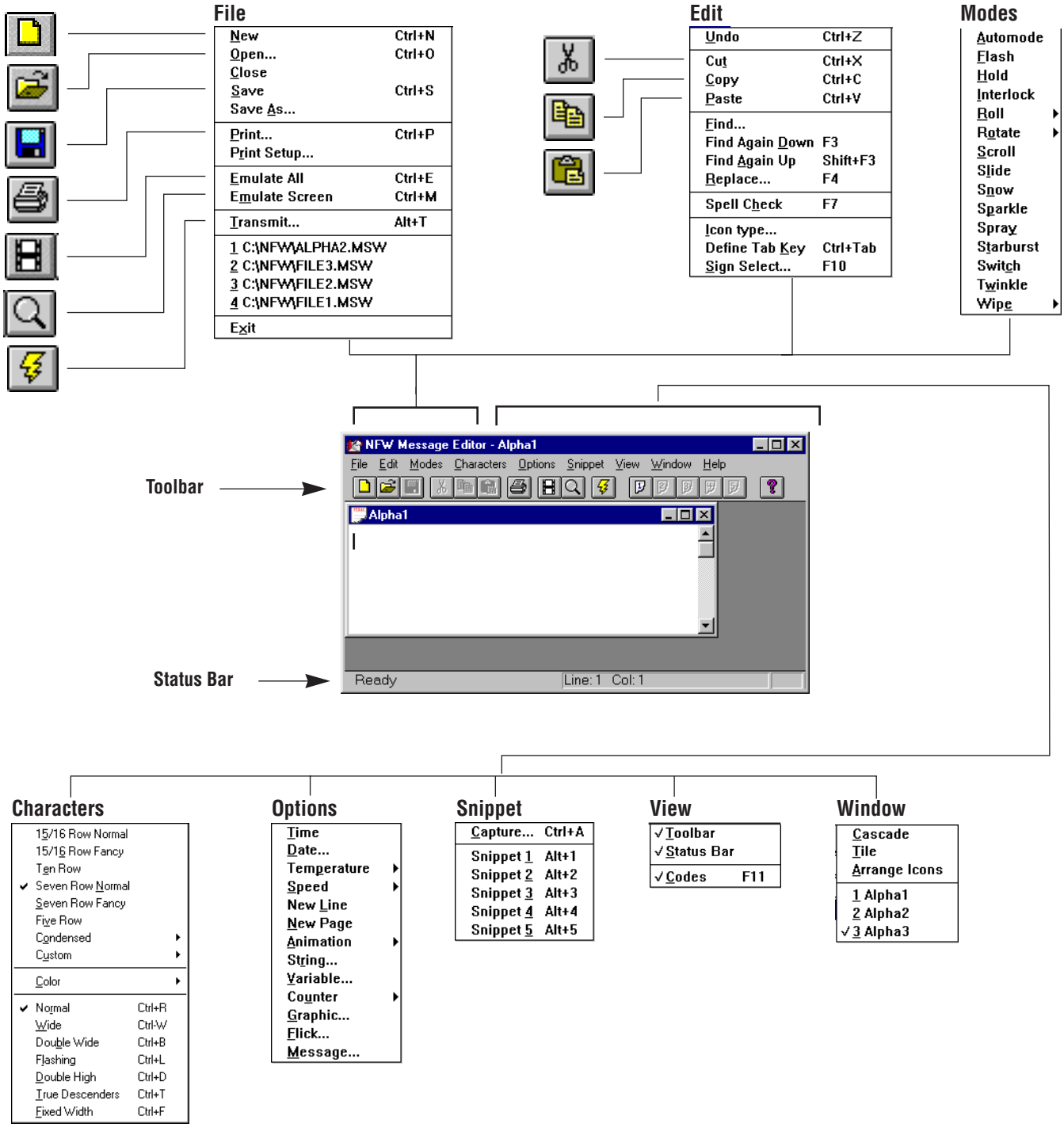


Table 27: Message Editor menu

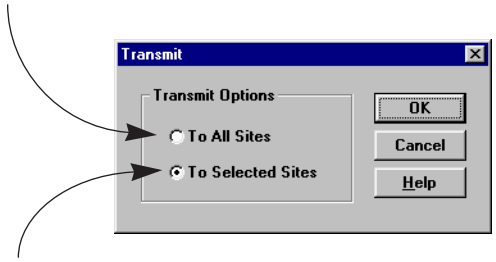
Menu item		Description
File	**New**	Opens a new message window.
	Open…	Opens an existing message file.
	Close	Closes the message window.
	Save	Saves a message.
	Save As…	Saves the current message under a different name.
	Print…	Prints a message.
	Print Setup…	Used to change printers, page size, etc.
	Emulate All	Displays an *entire* message in the **Emulator** program.
	Emulate Screen	Displays a message from the current cursor position in the **Emulator** program.
	Transmit…	Sends a message to either every site or some sites: **This sends a message to *every* site.**  **This sends a message to only those sites that have been *selected* in the Message Editor. See "R & D setup (1 of 4): Site Editor (Site Info) window" on page 26.**
	1 File name 1 **2 File name 2** **3 File name 3** **.** **.** **.**	A list of recent message file names which can be selected and opened.
	Exit	Quits the **Message Editor**.

Table 27: Message Editor menu

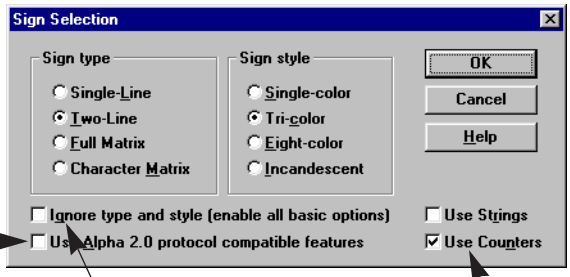
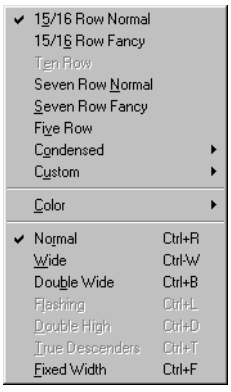
Menu item		Description
Edit	**Undo**	If highlighted, “undoes” the last operation.
	Cut	Deletes *selected* text or graphics from a message and places it into the Clipboard.
	Copy	Copies *selected* text or graphics from a message and places it into the Clipboard.
	Paste	Places text or graphics in the Clipboard at the current cursor position in a message.
	Find…	Locates a word or phrase in a message.
	Find Again Down…	
	Find Again Up…	
	Replace…	Replaces text in a message with text of your choice.
	Spell Check	Use to see if the text in a message is spelled correctly.
	Icon type…	Sets whether text or pictures will be displayed in a message for **Modes**, **Characters**, and **Options**. Picture   Text **Middle Roll In** **15/16 Row**
	Define Tab Key	Sets the number of spaces that are advanced when the Tab key is pressed.
	Sign Select…	Displays the **Modes**, **Characters**, and **Options** available for the **Sign type** and **Sign style** selected below:  **Checking this displays all the Modes, Characters, and Options regardless of whether they’re available on a sign or not. For example, if you did not check this box for the Two-Line Tri-color sign above, several Characters would not be available (dimmed) in messages:** **Check these to use the String and Counters options in messages.**  **Check this to use options in the Message Editor such as condensed characters, or custom automode files, characters and speeds. These options are available for new ALPHA 4000, 7000, and outdoor signs available in the first quarter of 2001.**

Table 27: Message Editor menu

Menu item		Description
Modes (For more information, see "Using Modes to change the look of a message" on page 47.) NOTE: Some **Modes** may not be available on a sign. See "Appendix B — Which Modes are available on signs" on page 140.	**Automode**	The default mode. If no other mode is selected, a message will appear in **Automode**. **Automode** cycles through a list of all other modes. The list of modes and their sequence in the **Automode** cycle can be customized as needed.
	Flash	Flashes message.
	Hold	Holds message for several seconds.
	Interlock	Alternating rows of dots enter from each end of a sign and interlock a message into the center of the sign.
	Roll	Rolls the previous message off the sign while rolling the new message on.
	Rotate	Rotates a message from the right to the left horizontally across a sign.
	Scroll	Moves a message up one line at a time. The previous message is pushed up.
	Slide	A message moves onto the sign from right to left, one character at a time.
	Snow	The new message "snows" over and erases the current message.
	Sparkle	The new message sparkles onto the sign over the current message.
	Spray	A message sprays onto and across the sign from right to left, one character at a time.
	Starburst	Random starbursts explode a message onto a sign.
	Switch	Alternating characters of a message slide off a sign in different directions (first character slides up, the next down, etc.) New characters appear in the same manner.
	Twinkle	A message appears with a twinkling effect.
	Wipe	The new message is wiped over the current message.

Table 27: Message Editor menu

Menu item		Description
Characters (For more information, see "Using Characters to change the look of a message" on page 51.) NOTE: Some **Characters** may not be available on a sign. See "Appendix C — Which Characters and Colors are available on signs" on page 142.	**15/16 Row Normal**	This is the height of text in rows. For example, **Seven Row Normal** (or **Fancy**) text is 7 rows tall on a sign. See "Text comes in four basic sizes" on page 151.
	15/16 Row Fancy	
	Ten Row	
	Seven Row Normal	
	Seven Row Fancy	
	Five Row	
	Condensed	Allows selection of **15/16 Row**, **Ten Row**, **Seven Row**, or **Five Row**, in condensed format.
	Custom	Allows selection of **15/16 Row**, **Ten Row**, **Seven Row**, or **Five Row**, in customized format. Custom fonts must be installed in the sign's memory outside of AlphaNET *plus*.
	Color	Allows selection of multiple colors if you have a multicolor sign. If no color is selected, then **Autocolor** is set. In this case, the available colors are randomly displayed.
	Normal	The default setting for characters.
	Wide	Text is displayed in bold characters.
	Double Wide	Text is displayed in very bold characters.
	Flashing	Allows individual or many characters to flash on and off.
	Double High	Doubles the selected character height
	True Descenders	When checked, the lower (or descender) part of letters such as j, g, and q are displayed on a sign.
	Fixed Width	When checked, each character takes up a fixed width like typewriter text. Otherwise text is displayed proportionally with varying widths.

Table 27: Message Editor menu

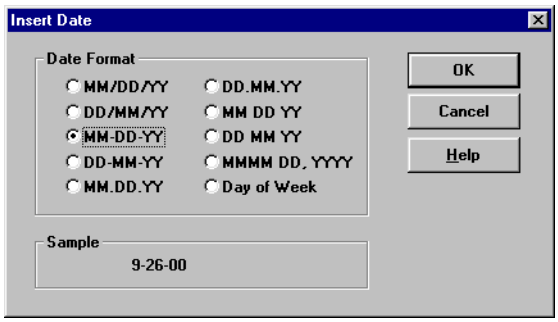
Menu item		Description
Options NOTE: Some **Options** may not be available on a sign. See "Appendix D — Which display Options are available on signs" on page 143.	**Time**	Inserts the time into a message. NOTE: The time is based on the time stored in your computer. If your computer's clock is not correct, then the time displayed on a sign will also be incorrect.
	Date…	Inserts the date into a message. A number of formats are available: 
	Temperature	Inserts the current temperature in either Fahrenheit or Celsius into a message. NOTE: This option is only available on the 790i sign.
	Speed	The **Speed** menu displays 5 speeds and a **No Hold** option. Each speed determines how fast messages are displayed and then replaced by the next message on a sign. **Speed 1** is the slowest and **Speed 5** is the fastest speed. Use No Hold if you want your messages displayed as quickly as possible.
	New Line	Forces a line break. Use **New Line** and *not* a carriage return if you want text to appear on a new line.
	New Page	Acts as a page break. The sign will create a page break immediately after **New Page**.
	Animation	Preset animations that can be displayed on most signs. For example, selecting **Cherry Bomb** displays a firecracker with a burning fuse on a sign. When the fuse burns down, the bomb explodes.
	String…	Inserts a text string in a message. See "How to use string variables in a message" on page 99.

Table 27: Message Editor menu

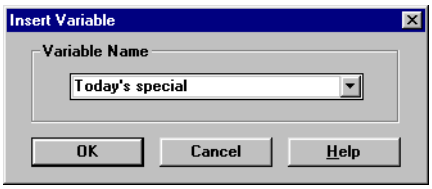
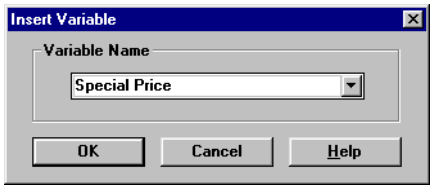
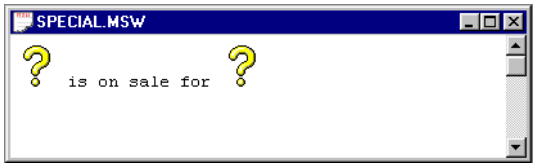
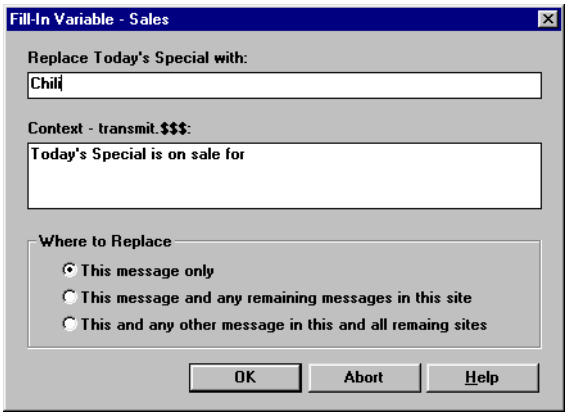
Menu item		Description
Options NOTE: Some **Options** may not be available on a sign. See "Appendix D — Which display Options are available on signs" on page 143.	**Variable…**	**A Variable is a marker that doesn't stand for any thing specific until you transmit the message.** **For example, if you run a food shop which features a daily special, then a Variable is an easy way to change your special.** **First, a Variable called "Today's special" is placed at the start of a message:**  **Next, a second Variable called "Special price" is placed at the end of the message:**  **The message looks like this:**  **Finally, *each* time the message is transmitted, you will be prompted to enter text for both variables:** 
	Counter	Inserts a minute, hour, or day counter in a message. For more information, see "How to edit a Counterfi le" on page 76.
	Graphic…	Inserts bitmapped (BMP format) graphics into a message. For more information, see "Creating a graphic" on page 65.
	Flick…	Displays a number of bitmapped imagefi les on a sign which can give the illusion of movement. For more information, see "Creating a flick or animation" on page 70.
	Message…	Inserts an *entire* message into the current message you're editing.

Table 27: Message Editor menu

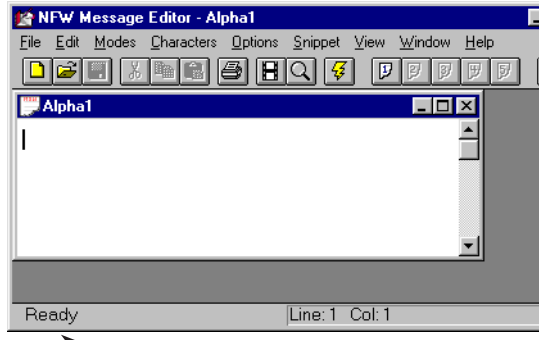
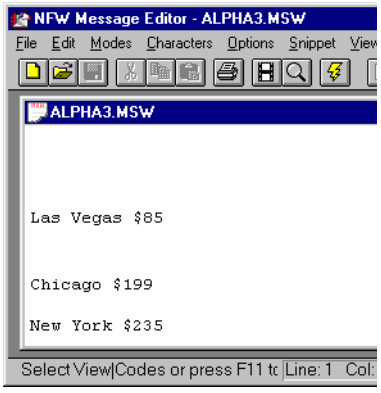
Menu item		Description
Snippet	**Capture…**	After highlighting some text in a message, select **Capture** to "store" the text in one of the 5 snippets. This is a handy way to avoid re-typing commonly-used text. When you need to use that text, simply put the cursor in the message where you need the text and then click on the Snippet that holds that text. It will be pasted where you need.
	Snippet 1	
	Snippet 2	
	Snippet 3	
	Snippet 4	
	Snippet 5	
View	**Toolbar** **Status Bar**	**Checking Toolbar displays these icons**  **Checking Status Bar displays informative text on this line.**
	Codes	**When Codes is checked, the Modes, Characters, and Options icons will appear in a message.**  **When Codes is *not* checked, only text will appear in a message.**  **Here is a reminder for how to show the codes again.**

Table 27: Message Editor menu

Menu item		Description
Window	**Cascade**	These are standard Windows methods of arranging windows and icons on the screen.
	Tile	
	Arrange Icons	
	1 Alpha 1 **2 Alpha 2** **3 Alpha 3** **.** **.** **.**	These are the names of the message windows you have opened. Select a window to make it the current window.

Emulator menu

The **Emulator** is used to preview messages that you create. Note that because the **Emulator** does not simulate **Modes**, it should only be used to see how text appears on lines.

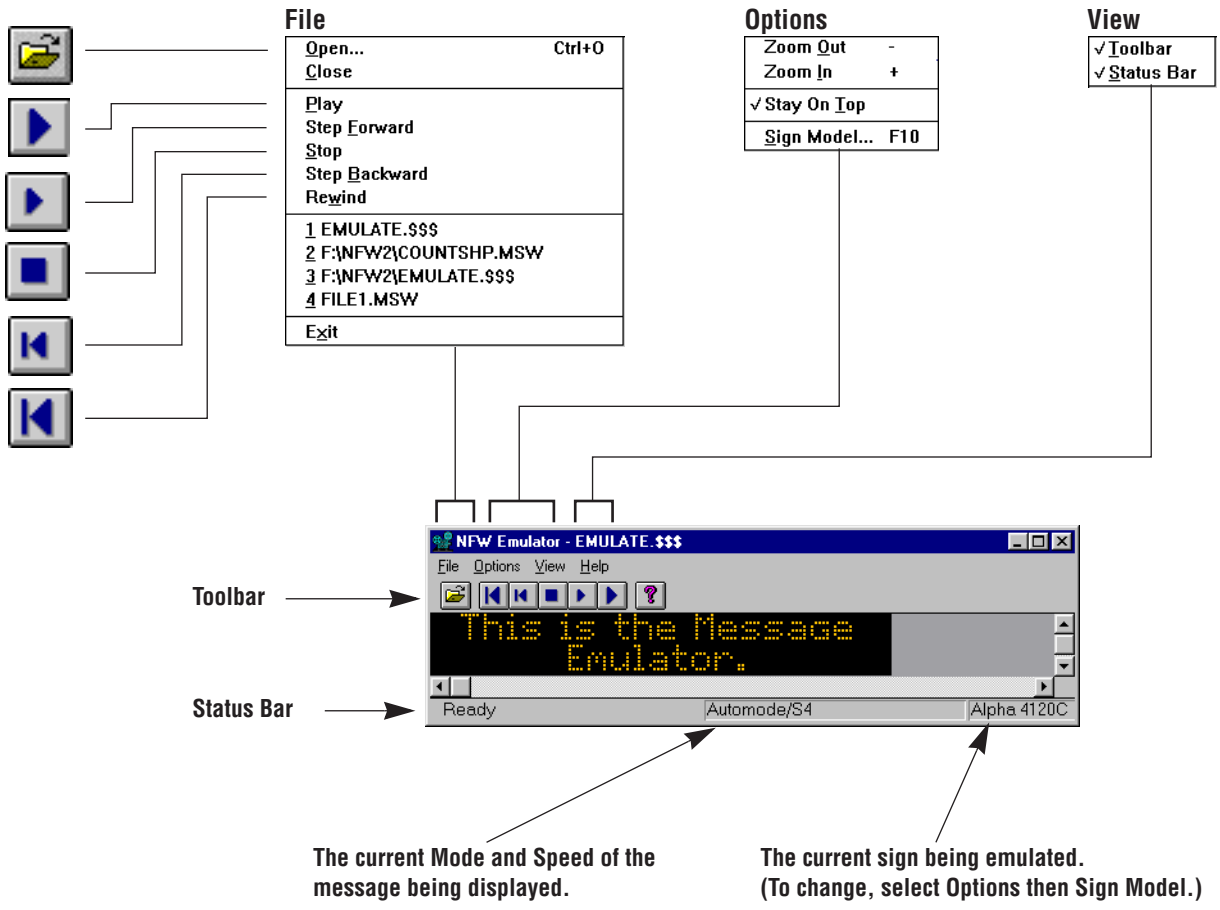


Table 28: Emulator menu

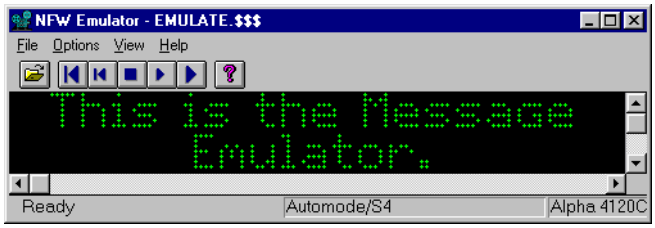
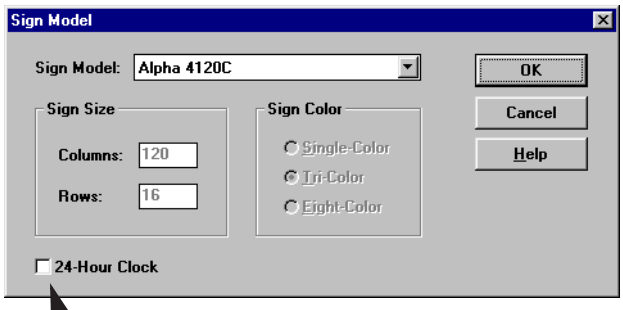
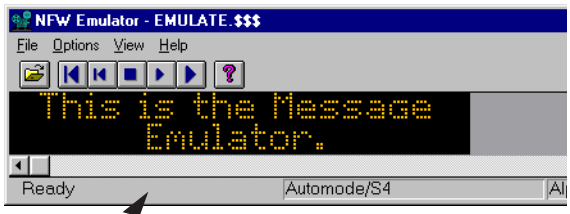
Menu item		Description
File	**Open...**	Opens an existing message file.
	Close	Closes the current message.
	Play	Displays the current message.
	Step Forward	Displays the next *screen* of the current message.
	Stop	Stops playing the current message.
	Step Backward	Displays the previous *screen* of the current message.
	Rewind	Goes to the start of the current message.
	1 File name 1 **2 File name 2** **3 File name 3** **.** **.** **.**	A list of recent message file names which can be selected and opened in the **Emulator**.
	Exit	Quits the **Emulator**.
Options NOTE: In order to select **Zoom Out**, **Zoom In**, or **Sign Model**, you must stop the current message from playing in the Emulator.	**Zoom Out**	Reduces the size of the **Emulator** window: 
	Zoom In	Expands the size of the **Emulator** window: 
	Stay On Top	When checked, this makes the **Emulator** window the frontmost window on your screen.
	Sign Model	Use this to change the sign that is being emulated:  **Check to have the Emulator display time in 24-hour format. (For example, in 24-hour format, 3:12 pm = 15:12.)**

Table 28: Emulator menu

Menu item		Description
View	**Toolbar** **Status Bar**	**Checking Toolbar displays these icons**  **Checking Status Bar displays informative text on this line.**

Site Manager menu

The **Site Manager** is used to set up “devices”, “sites”, and “groups”. Devices are methods of communicating with signs. For example, a modem is a device because it is one method of sending messages to signs.

Groups and sites are terms used to describe how messages are sent to signs. You create groups and sites to make sending messages to multiple signs flexible and easy.

For more information, see “Step-by-step tutorial in setting up devices, sites, and groups” on page 12.

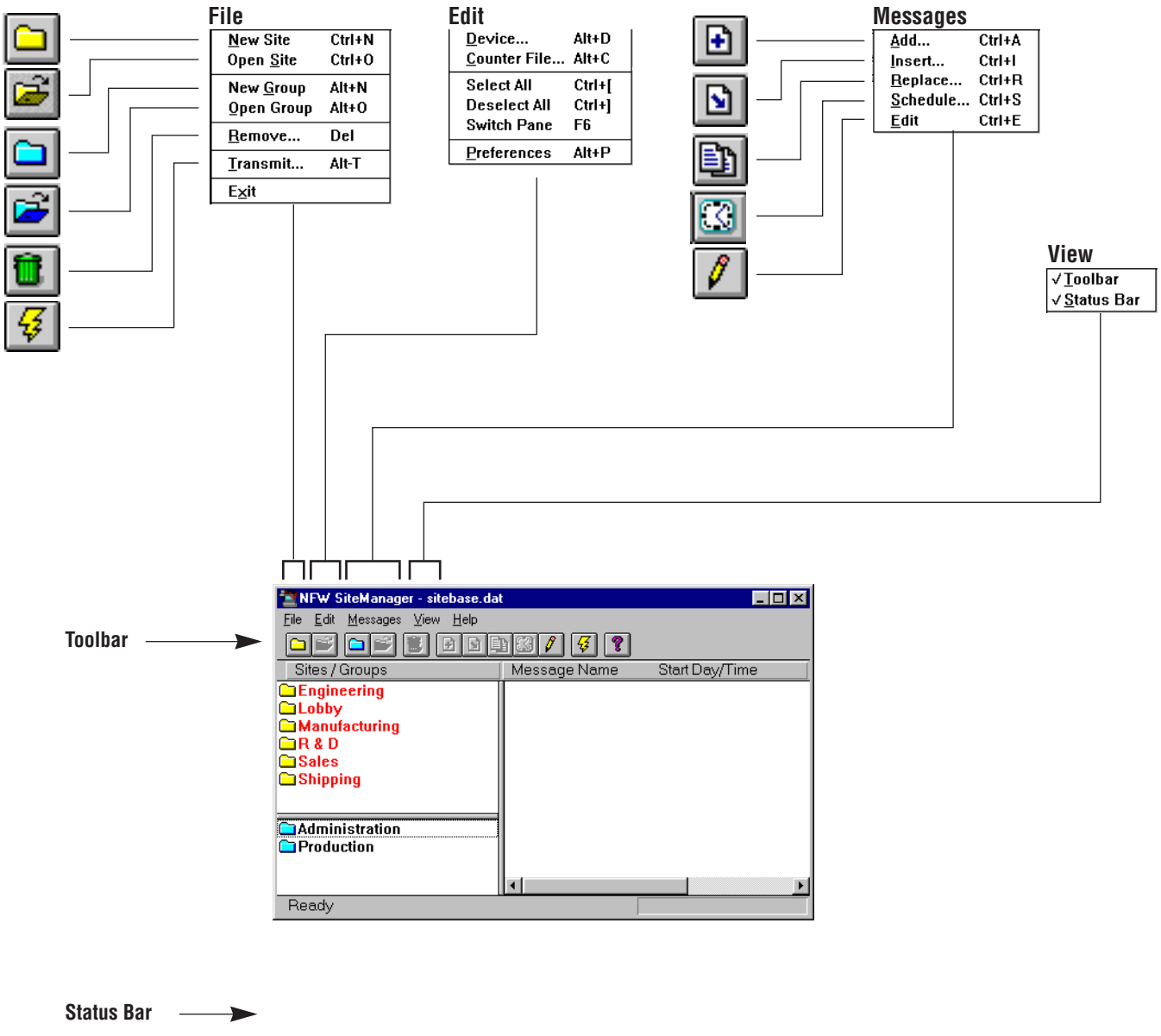


Table 29: Site Manager menu

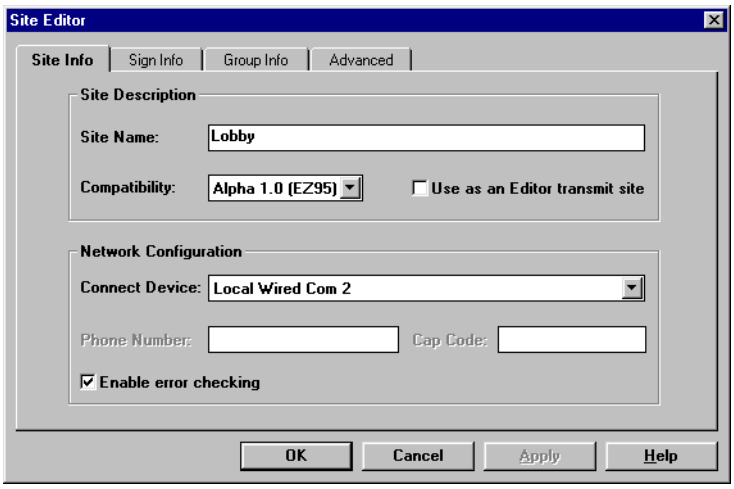
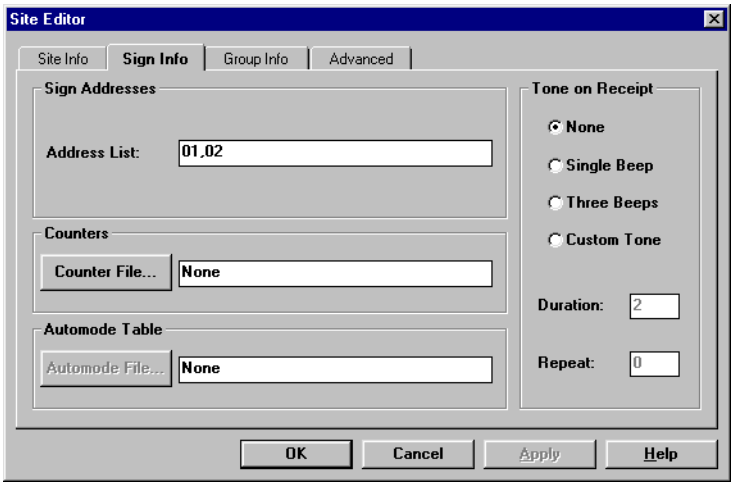
Menu item		Description
File	**New Site**	**Creates a new site using the Site Editor:** • Site Info • Sign Info • Group Info • Advanced  **For detailed information on Site Info and Sign Info, see "Step 2: Creating or changing the sites" on page 25.** 

Table 29: Site Manager menu

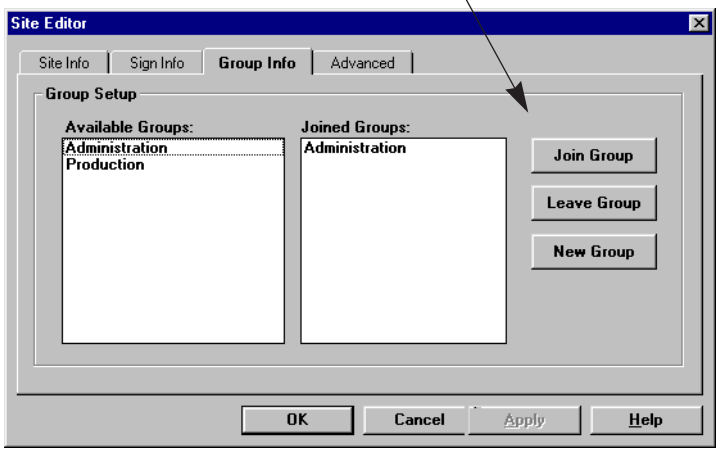
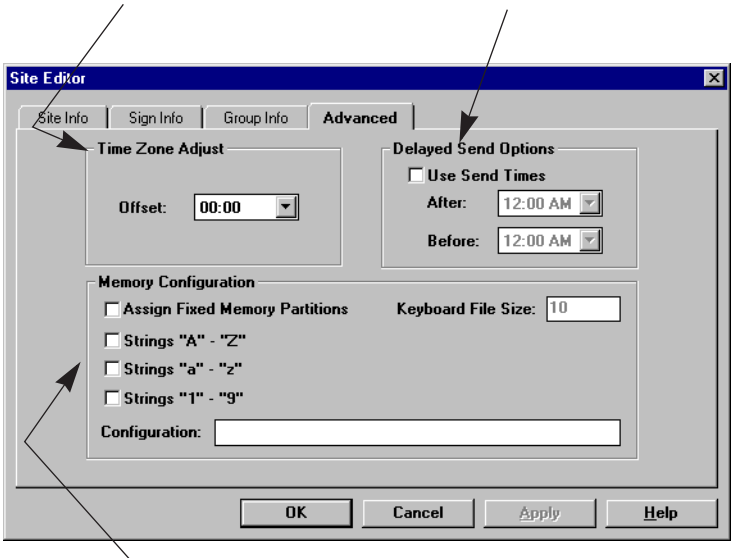
Menu item		Description
File	**New Site** (continued)	**Group Info** shows you what groups are available and what groups the current site belongs to. Use **Join Group**, **Leave Group**, and **New Group** to add the current site to a group, remove it from a group, or to create a new group.  **Advanced has the following options:** **Time Zone Adjust allows you to correct for time zone differences. For example, if you're sending messages from the Central Standard Time zone to a sign located in the Eastern Time zone (which is 1 hour ahead), you would enter an Offset of +01:00.** **Delayed Send Options allows you to delay transmitting messages to a sign. This is useful if you're using a modem to send messages because you could transmit late at night to take advantage of lower phone rates.**  **Memory Configuration is not covered in this manual. Contact your ALPHA dealer for details.**

Table 29: Site Manager menu

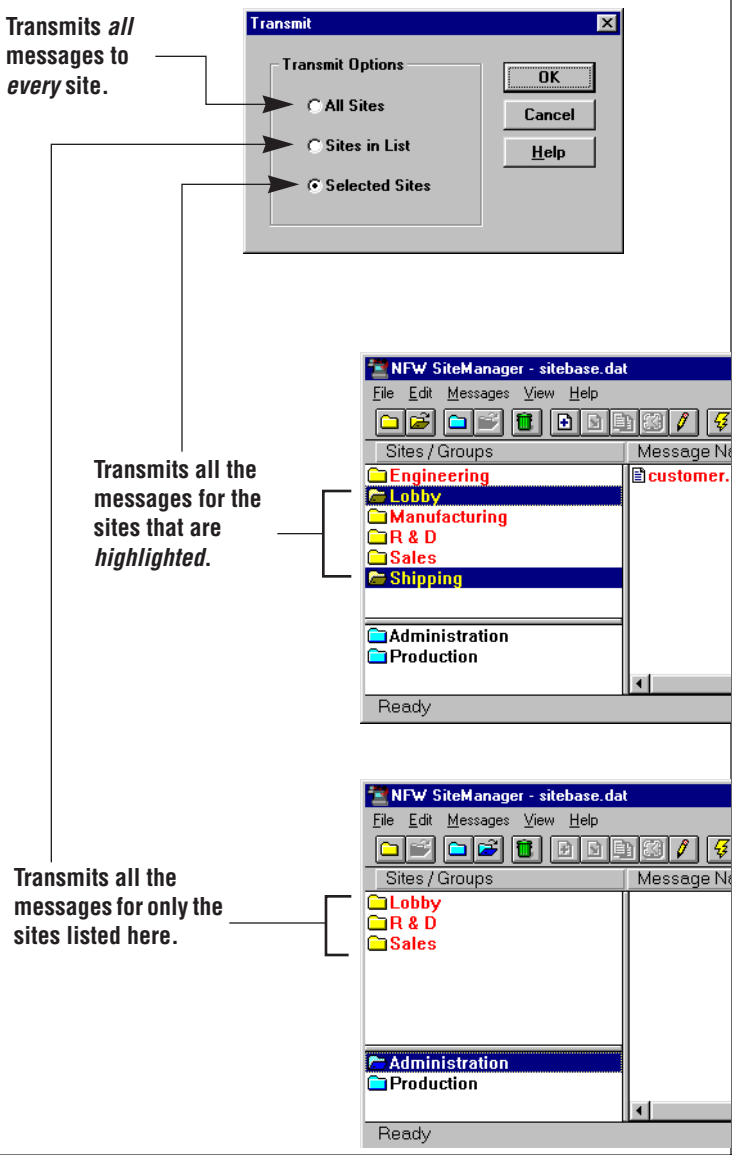
Menu item		Description
File	**Open Site**	Opens an existing site.
	New Group	Creates a new group. For more information, see “Step 3: Creating or changing the groups” on page 39.
	Open Group	Opens an existing group.
	Remove...	Deletes site(s), group(s), or message(s) you have selected.
	Transmit...	Allows you to send messages to all or just some sites: 
	Exit	Quits the **Site Manager**.

Table 29: Site Manager menu

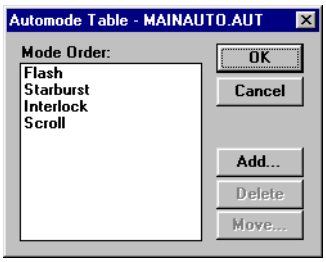
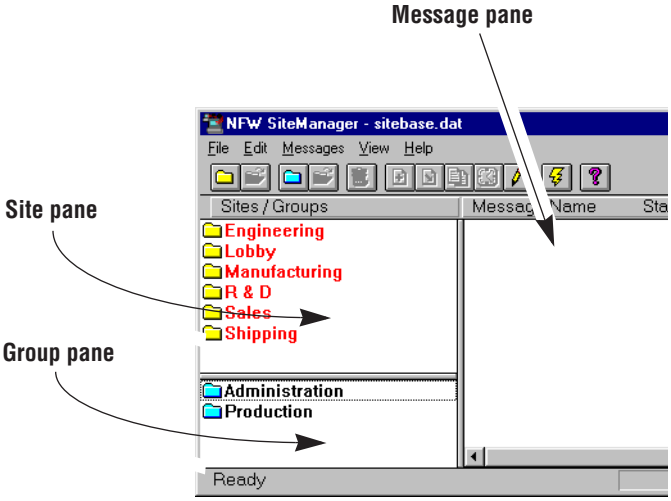
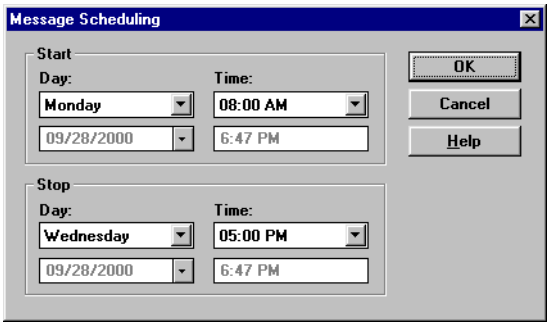
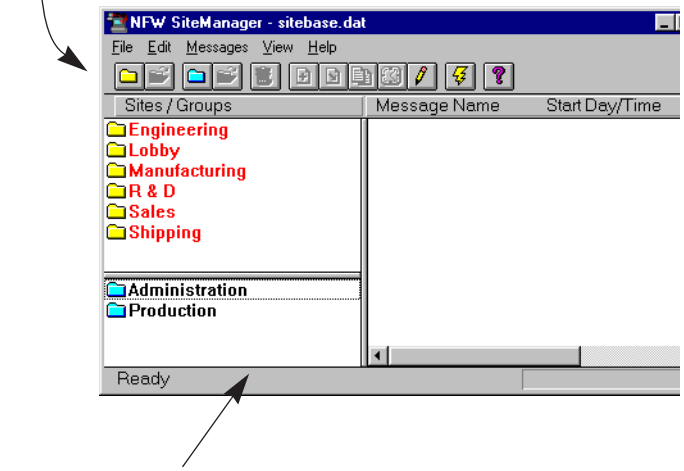
Menu item		Description
Edit	**Device...**	Devices are ways to connect a sign to a PC that is running AlphaNET *plus* for Windows software. There are four types of connection devices: direct cable (or "local"), modem (or "remote"), wireless, and Local Area Network (LAN). For more information, see "Step 1: Creating or changing the devices" on page 14.
	Counter File...	A Counterfile can set up from 1 to 5 numerical counters which can be used in messages or to trigger the display of other messages.  **The counter in this message counts up to 50 days then restarts from 0.** For more information, see "How to edit a Counterfile" on page 76.
	Automode File...	One or morefiles can be established so that a message can cycle through a customized list of selected modes. 
	Select All	If you have a message selected from the message list, then all messages in the list are selected. The same applies to sites and groups.
	Deselect All	The opposite of **Select All**.
	Switch Pane	There are three "panes" in the **Site Manager** window (see below). Selecting **Switch Pane** moves from the current pane to another pane. 
	Preferences	Use this to set the color of site and message names that have and have not been updated (i.e., sent).

Table 29: Site Manager menu

Menu item		Description
Messages	**Add…**	Adds a message to the *end* of the current message list.
	Insert…	Inserts a message *above* the message that is currently selected.
	Replace…	Replaces the currently selected message with another message of your choice.
	Schedule…	Use to set the times when a message appears on a sign. In the example below, the message will recur every Monday, Tuesday, and Wednesday from 8:00 a.m. to 5:00 p.m.:  You can choose weekdays, weekends, every day, immediate, specific days or dates. All of these options allow a start and/or stop day/date/time as appropriate. You can also choose always, which runs continuously.
	Edit	Selecting this opens the selected message in the **Message Editor** program.

View	**Toolbar** **Status Bar**	**Checking Toolbar displays these icons**  **Checking Status Bar displays informative text on this line.**

Comm Manager menu

The **Comm Manager** keeps track of messages you send to signs and reports on transmission errors. When a message is transmitted, it goes through the **Comm Manager** *before* going to a sign.

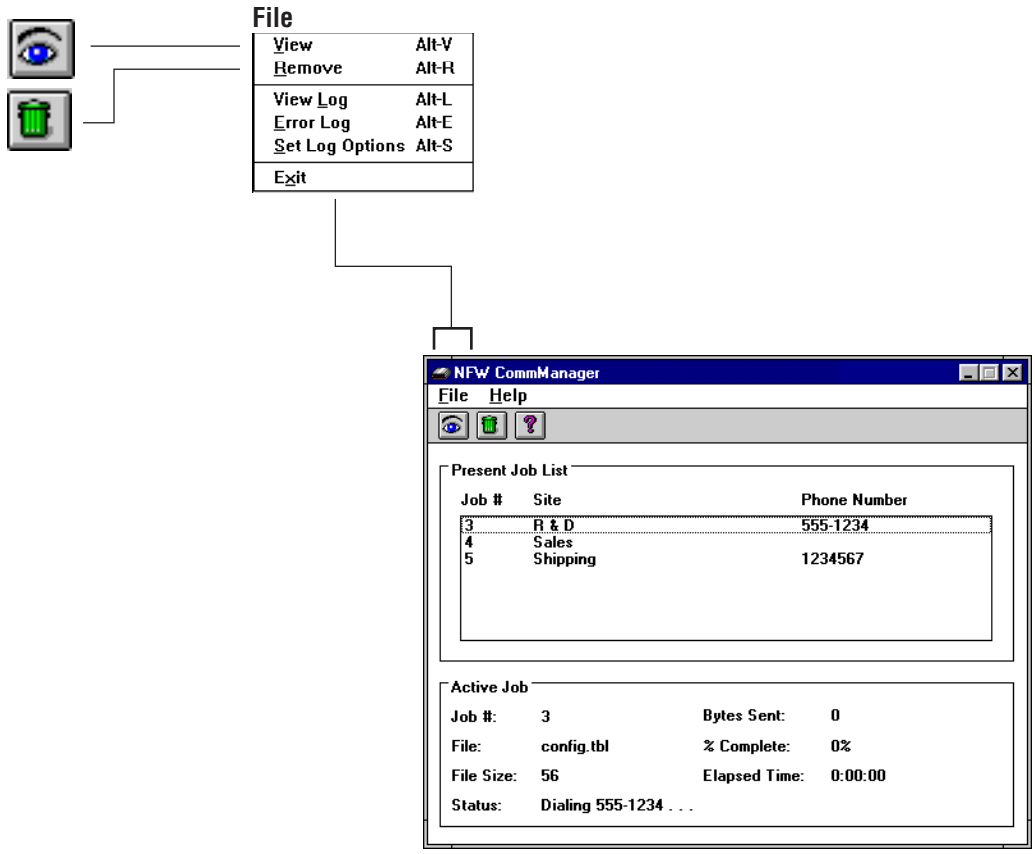
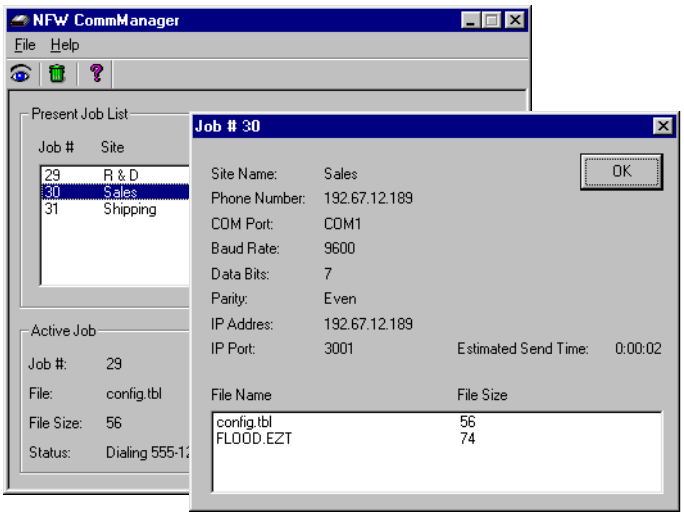
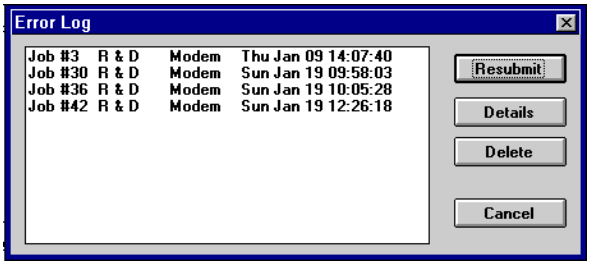
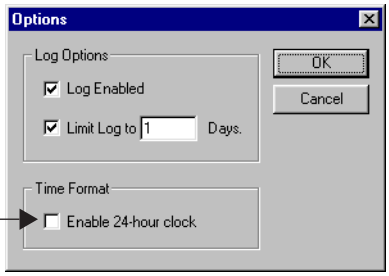


Table 30: Comm Manager menu.

File	**View**	Lets you see the status of messages being transmitted to a site: 
	Remove	Removes the selected message(s) from the job list. When this is done, the removed messages will *not* be displayed.
	View Log	Shows all items sent each day and creates a logfi le for each day's items. Allows you to view what was sent each day.
	Error Log	Shows the message error log (below) which is a list of failed message transmissions. Use **Resubmit** to resend a failed transmission, **Details** to see the particulars of a particular transmission, and **Delete** to remove a job. 
	Set Log Options	Use to enable/disable saving the logfi le. You can also set how many days of log fi les will be saved. This is useful is you have limited disk space. Also, a 24-hour time format (00:00 to 23:59 instead of using AM or PM) can be set for all signs. **When this is checked, all signs will display the time in 24-hour format (e.g., *13:00* instead of *1:00 PM*).** 
	Exit	Quits the **Comm Manager**.

Message Translator menu

Use the **Message Translator** to "translate" the messages created on older DOS AlphaNET software so that the messages can be used with the newer AlphaNET *plus* for Windows software.

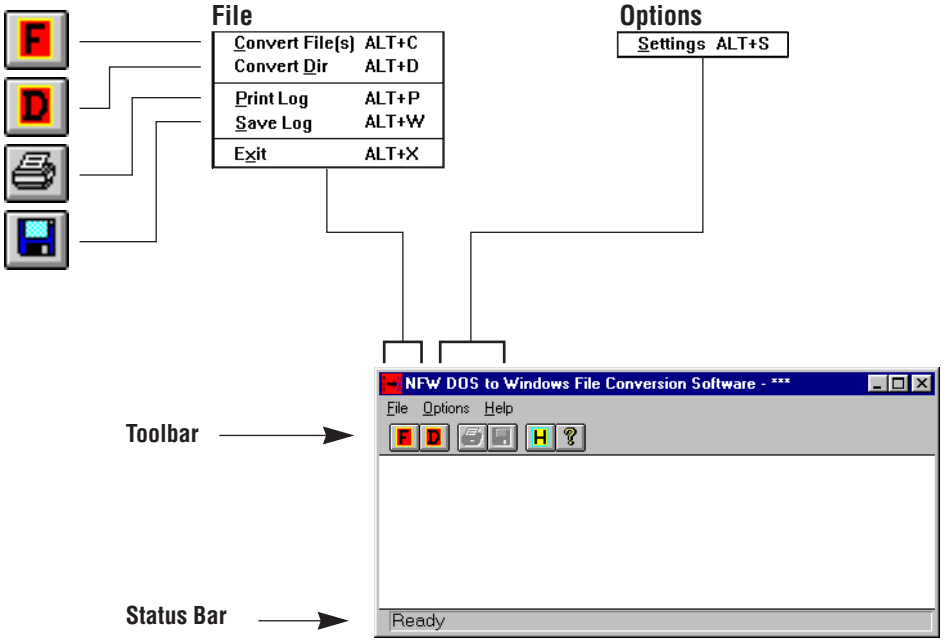
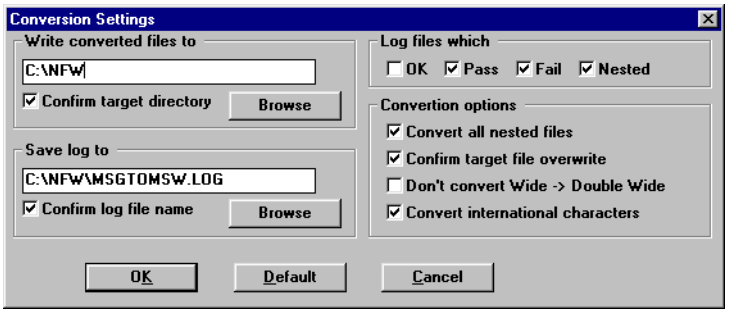


Table 31: Message Translator menu

File	**Convert File(s)**	Select one or more files to convert.
	Convert Dir	Select a directory of files to convert.
	Print Log	Prints the message conversion log. The log tells you which if any messages failed to convert.
	Save Log	Saves the message conversion log.
	Exit	Quits the **Message Translator**.
Options	**Settings**	Used to change the following parameters: 

Diagnostics program

Diagnostics is an application that allows you to test the functions of a single ALPHA sign or a network of ALPHA signs. **Diagnostics** can:

- transmit test messages (or beeps) to one or more ALPHA signs
- receive information (e.g., serial address, firmware version, etc.) from one or more ALPHA signs.

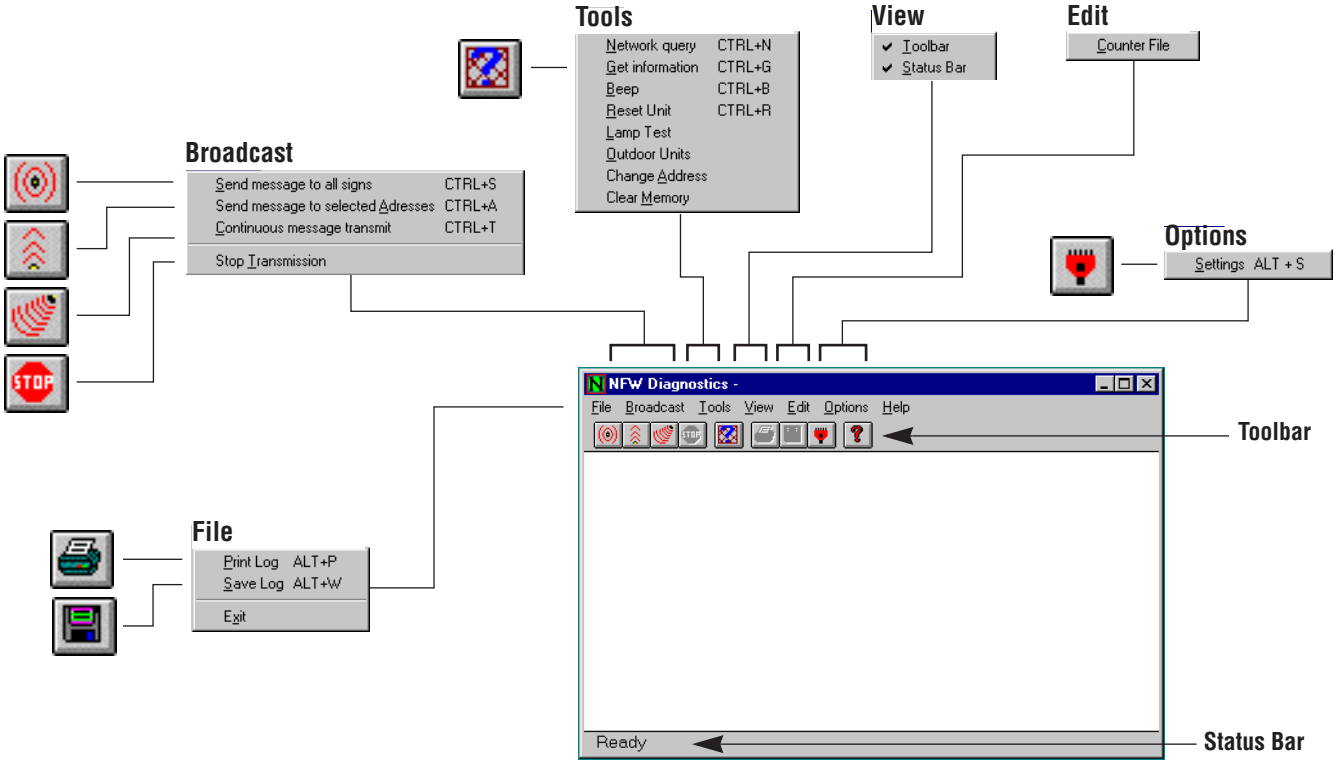


Table 32: Diagnostics program

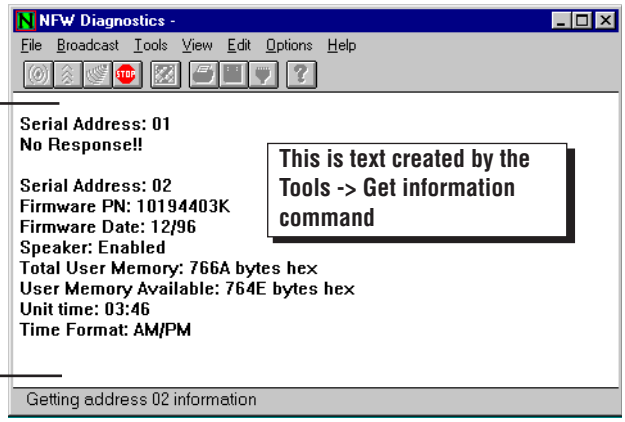
File	**Print Log**	The "log" is the text that appears on the screen of the **Diagnostics** program: 
	Save Log	Saves the log textfi le to disk.
	Exit	Quits the **Diagnostics** program.

Table 32: Diagnostics program

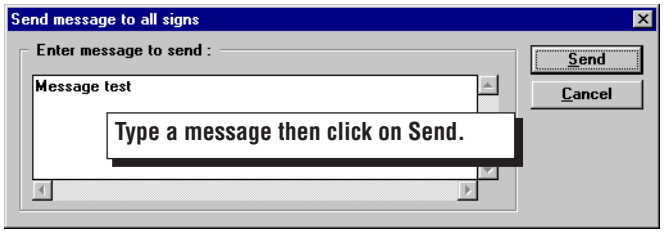
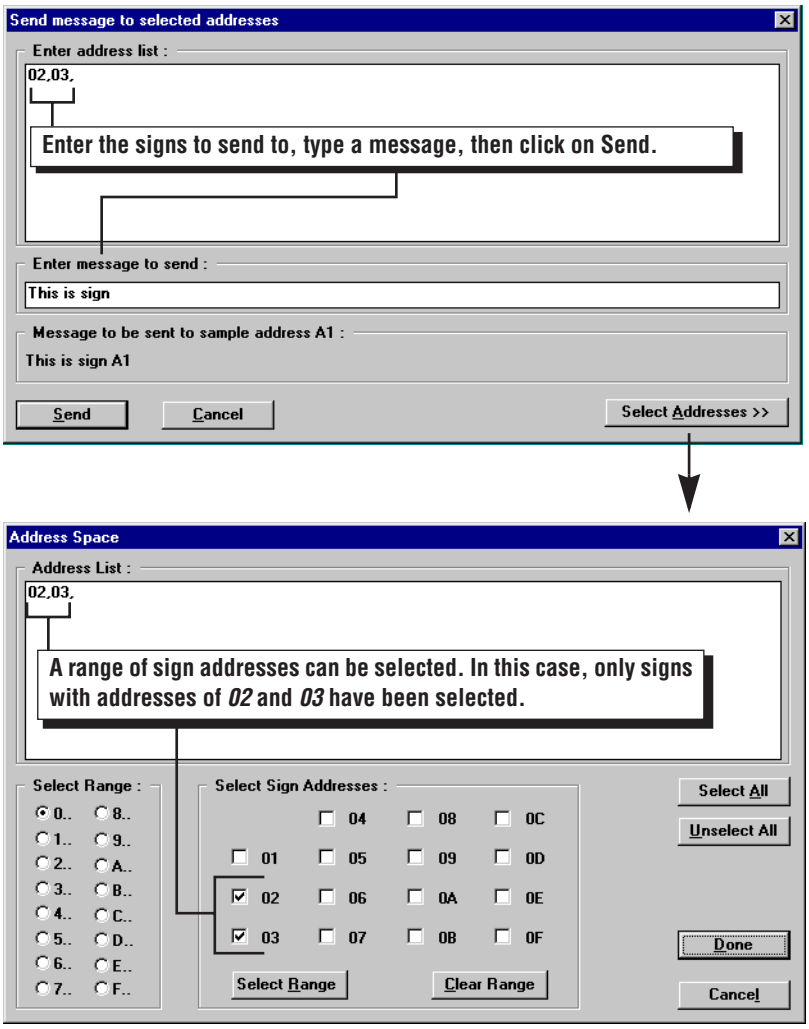
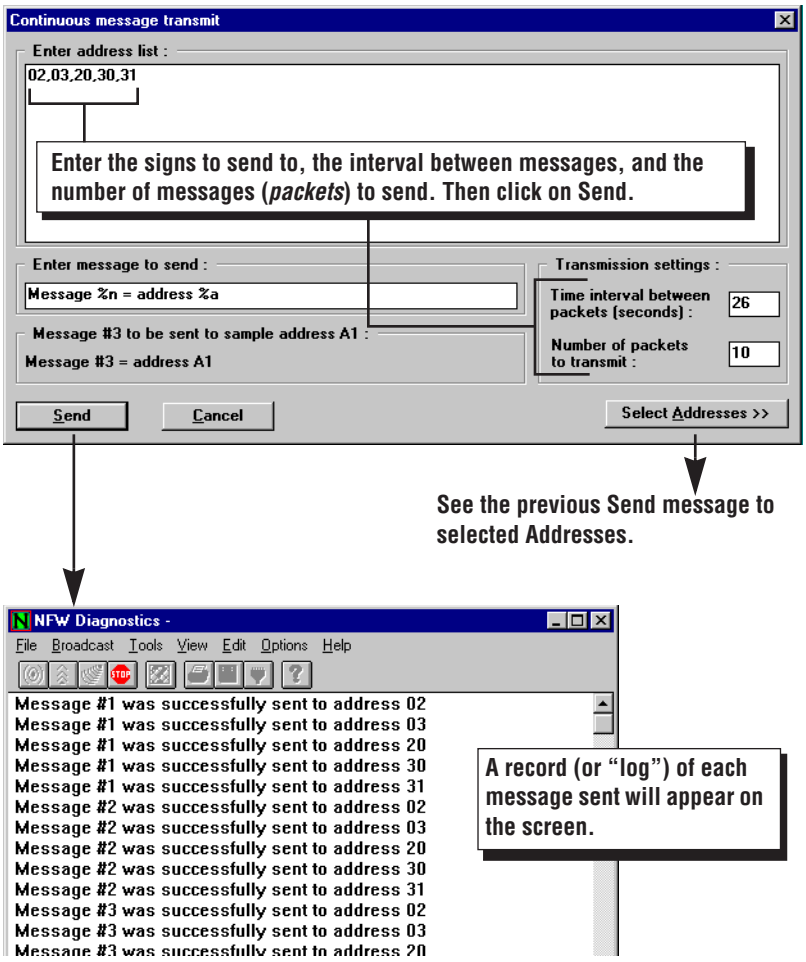
Broadcast	**Send message to all signs**	Allows you to send a message to all the signs networked to your PC: 
	Send message to selected Addresses	Allows you to send a message to specific signs networked to your PC: 

Table 32: Diagnostics program

Broadcast	**Continuous message transmit**	This option sends a continuous series of messages to specific signs networked to your PC. This is a handy method of checking the serial address of each sign: 
	Stop Transmission	Stops messages from being sent to signs.

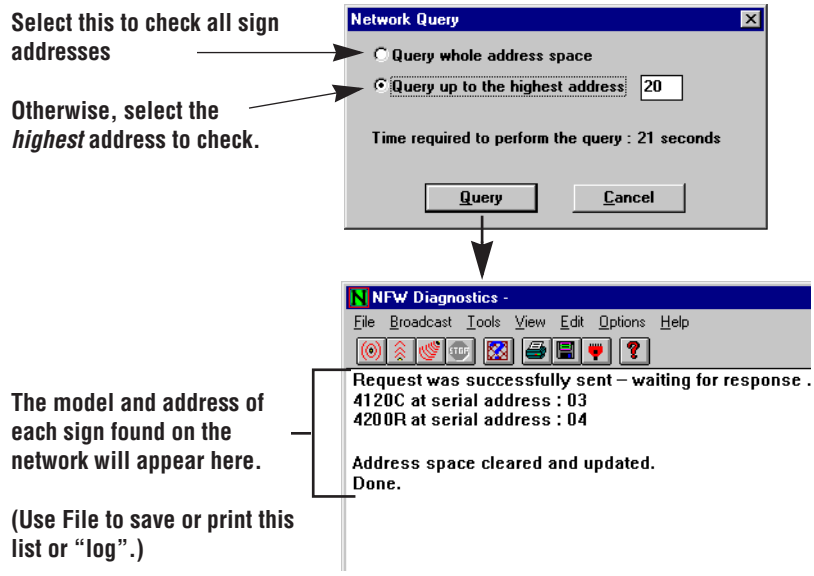
Tools	**Network query**	Used to identify each sign on a network: 

Table 32: Diagnostics program

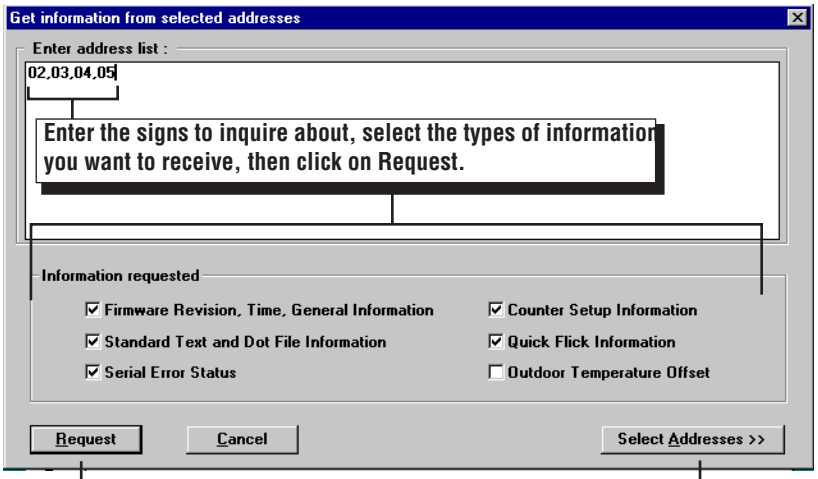
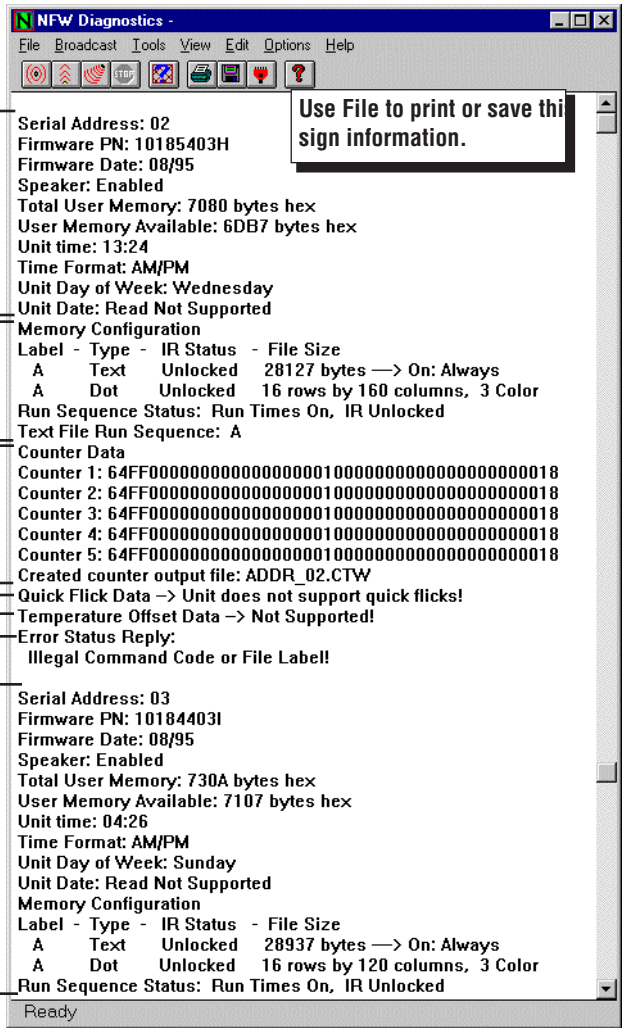
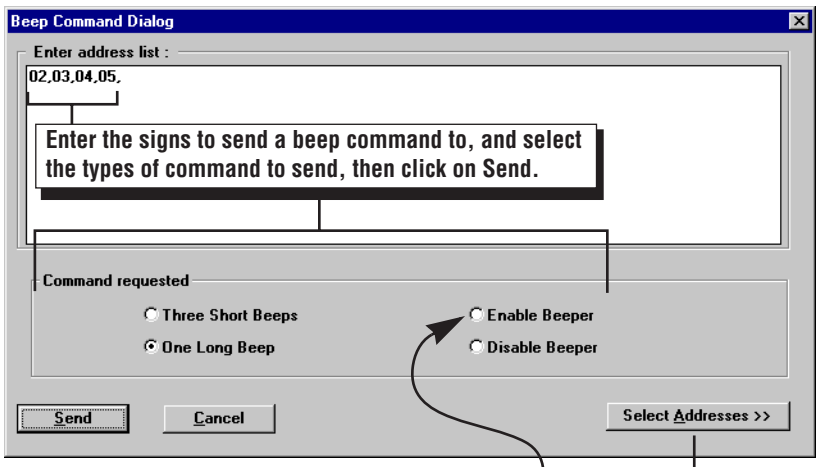
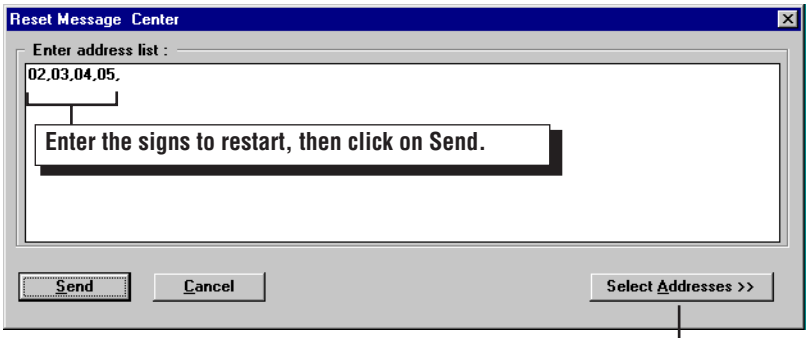
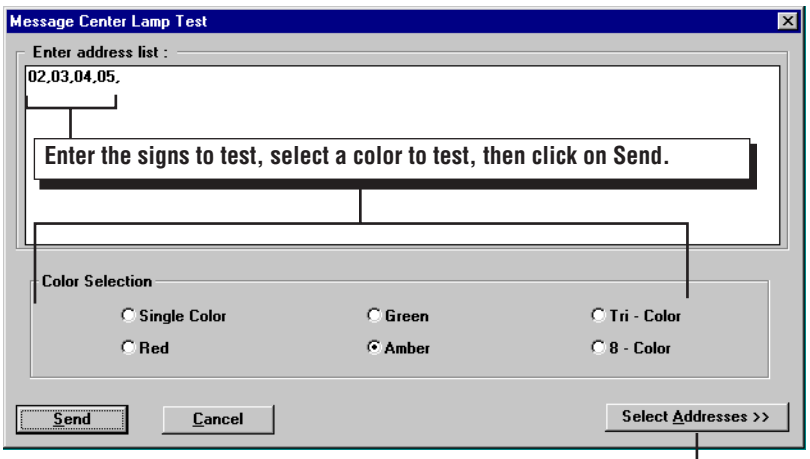
Tools	**Get information**	Used to provide a comprehensive list of parameters from each sign on the network:  NOTE: Some of the above information is not available on every sign. A message such as "Not Supported" will appear if the information you selected is not available for a sign. **See the previous Send message to selected Addresses.** **Firmware revision, time, general information** **Standard text and DOT file information** **Counter information** **Quick Flick information** **Outdoor temperature offset** **Serial error status** **Information for the next sign** 

Table 32: Diagnostics program

<table>
<tr>
<td rowspan="3">Tools</td>
<td>Beep</td>
<td>Used to make a sign “beep” or to turn on or off a sign’s speaker:
 

NOTE: To make sure that a sign’s speaker is on, send the Enable Beeper command to all sign addresses before sending beeps.
See the previous Send message to selected Addresses.</td>
</tr>
<tr>
<td>Reset Unit</td>
<td>Used to restart one or more signs:
 

See the previous Send message to selected Addresses.</td>
</tr>
<tr>
<td>Lamp Test</td>
<td>Used to see if any LEDs or incandescent lights have burned out on a sign:
 

See the previous Send message to selected Addresses.</td>
</tr>
</table>

Table 32: Diagnostics program

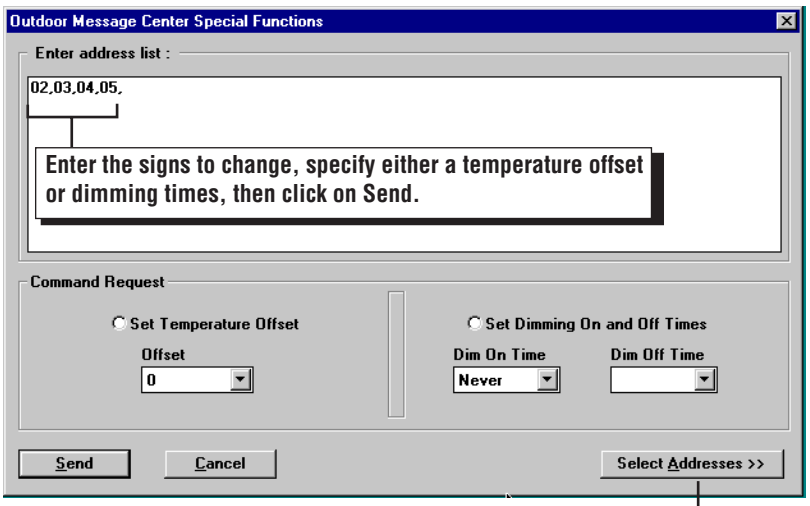
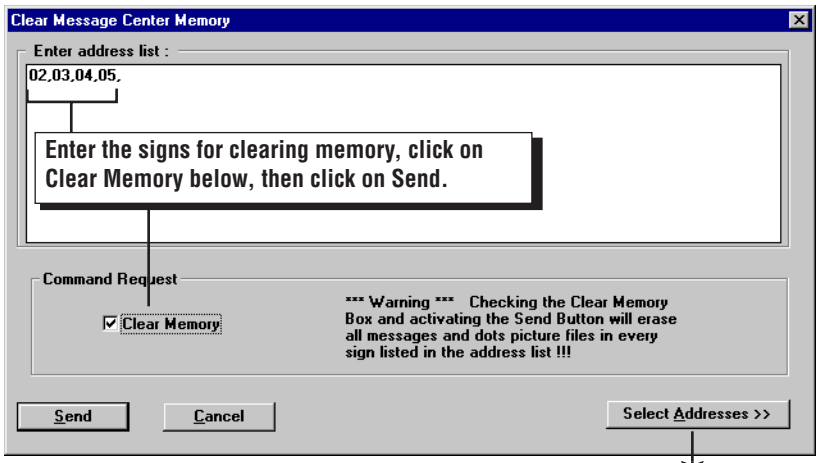
Tools	**Outdoor Units**	Used to set a temperature offset or the dimming level on outdoor signs:  NOTE: **Temperature Offset** corrects a sign's temperature reading. For example, if a sign displays a temperature that is usually 3 degrees warmer than the actual temperature, set the offset to -3. **Dim On Time** sets when the lights on a sign will be dimmed. **Dim Off Time** sets when the light on a sign will *not* be dimmed. **See the previous Send message to selected Addresses.**
	Change Address	Used to change a sign's serial address: NOTE: Signs leave the factory with a serial address of *00*. **Change Address** can *not* be used to change a sign with address *00*. Instead, a hand-held Remote Control must be used. 
	Clear Memory	Deletes all text and DOTSfi les and sets the serial addresses to *00* for all the signs listed in the address list.  **See the previous Send message to selected Addresses.**

Table 32: Diagnostics program

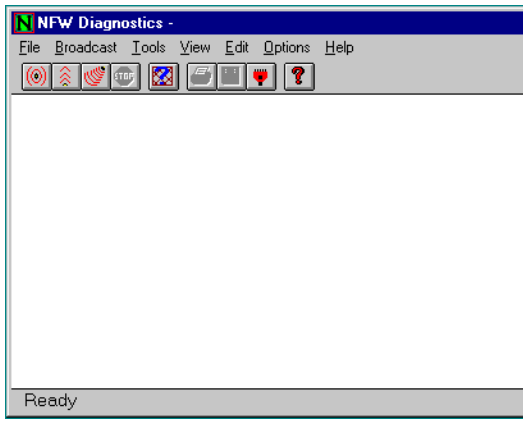
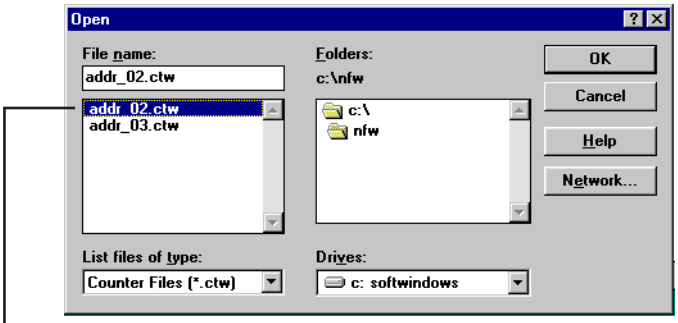
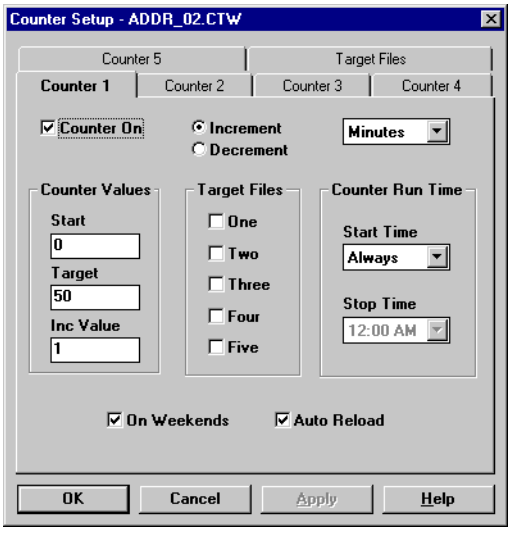
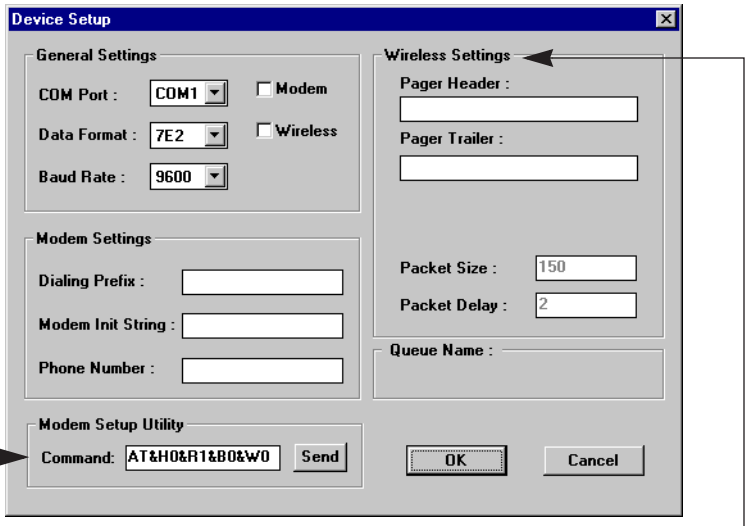
View	**Toolbar** **Status Bar**	**Checking Toolbar displays these icons.** **Checking Status Bar displays informative text on this line.** 
Edit	**Counter File**	Allows you to select and edit a Counterfi le:   **After selecting a Counter file, the parameters for the five individual counters can be changed.** **For more information, see “How to edit a Counter file” on page 76.**

Table 32: Diagnostics program

Options	**Settings**	Used to set COM port, modem, and pager settings. (See "Step 1: Creating or changing the devices" on page 14 for more information.)  This command allows you to program a Hayes-compatible, high-speed modem (> 9600 baud) so that it be used to receive messages from AlphaNET *plus* software. NOTE: The modem also has to be set to auto-answer phone calls. This can usually be done by using software commands (like above) or by setting DIP switches on the modem. See your modem manual. To set up a wireless device, make sure the **Wireless** box is checked, then enter the following setting: **Pager Header:** \001A20102000\002 **Pager Trailer:** \003\004

5 Appendices

Appendix A — Macintosh PowerPC setup

The following instructions describe how to use a Macintosh PowerPC computer running either SoftWindows 98[1] or Virtual PC[2] with **AlphaNET *plus* for Windows**.

Required software and hardware

Table 33: Required software

Qty	Part #	Description
1	—	Power Macintosh computer with at least 16 MB RAM (more RAM is recommended)
1	—	SoftWindows 98[1] for PowerPC (This emulates Windows 98.)
		Virtual PC[2] for PowerPC (This emulates Windows 98.)

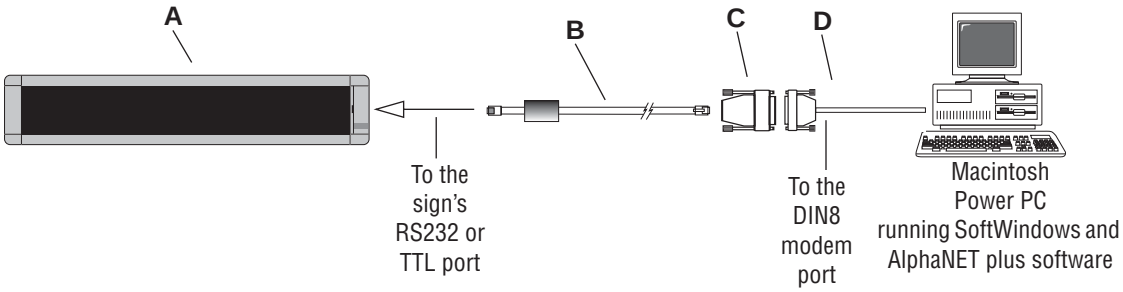
[1] Available from MacWarehouse (800-255-6227) for about $150.
[2] Available from MacWarehouse for about $175.

The required hardware that will be needed depends on how many signs are connected to the Macintosh PowerPC.

Typical sign configurations are shown in the following tables:

Single sign connection

Table 34: Single sign connection



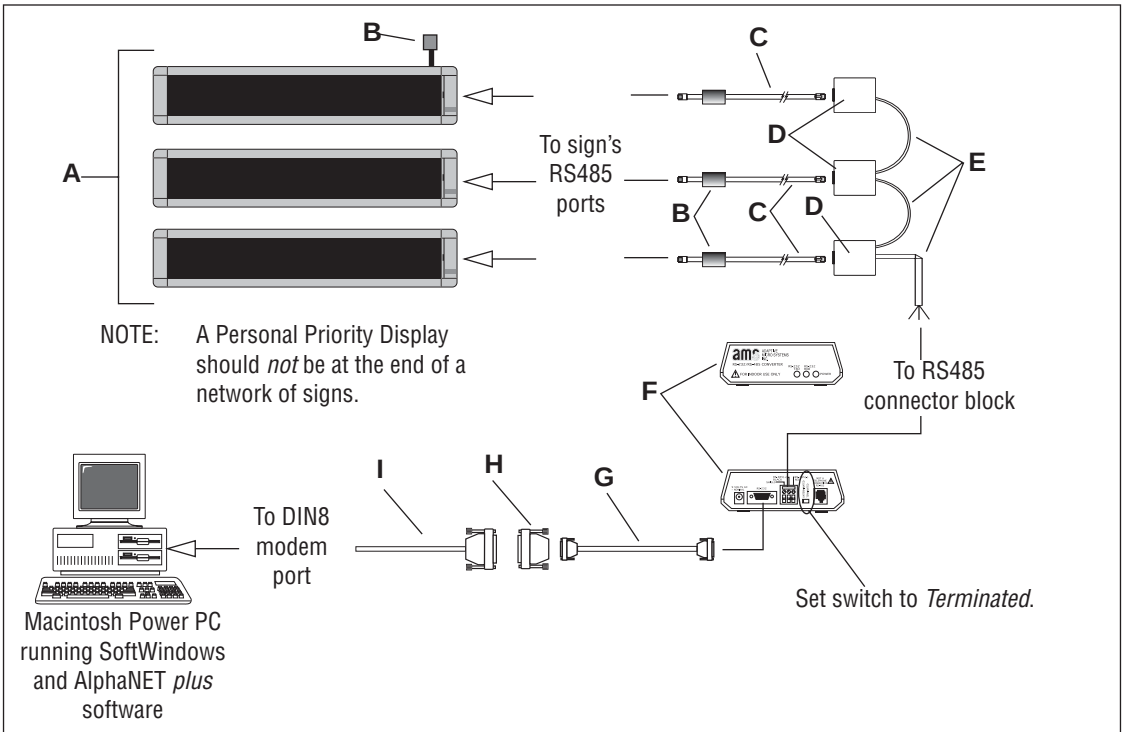
Item	Part #	Description
A	—	This sign can be either an: ALPHA 200, 300, 4000, or 7000 series, ALPHAVISION, BIG DOT, BETA BRITE, Director, Solar, or Personal Priority Display.
B	1088-8625	25-foot 6-conductor RS232 data cable
	1088-8627	50-foot 6-conductor RS232 data cable
C	4370-0001C	25 pin sub-D/to 6 pos. RJ11 adapter
D	—	DB25-to-DIN8 hardware handshake modem cable (Supra Corporation, 800-727-8772, part # 33-2025-PL)

NOTE: The 4000, 7000, and Director signs must have an internal jumper set to RS232.

Multiple sign connection

Since there are a number of ways to network signs, a typical connection is shown below. For more networking information, see the **Network Configurations** (pn 9708-8046) manual.

Table 35: Multiple sign connection



Item	Part #	Description
A	—	This sign can be either an: ALPHA 200, 300, 4000, or 7000 series, ALPHAVISION, BIG DOT, Director, Solar, or Personal Priority Display.
B	1088-9107	End-of-line (EOL) terminator (An EOL must be plugged into the *RS232* or *TTL* plug on the *last* sign.)
C	1088-8624	8 foot, 4-conductor RS485 cable
	1088-8636	1 foot, 4-conductor RS485 cable
D	1088-9103	Modular network adapter
E	1088-8000	RS485 cable
F	1088-1111	Converter Box III
G	1088-8634	10 foot, 9 pin-to-9 pin, type "A9" RS232 cable
H	—	serial port DB25-to-DB9 RS232 adapter (Available through Radio Shack)
I	—	DB25-to-DIN8 hardware handshake modem cable (Supra Corporation, 800-727-8772, part # 33-2025-PL)

NOTE: The 4000, 7000, and Director signs must have an internal jumper set to RS485.

Appendix B — Which Modes are available on signs

Modes are special effects used to change the way a message appears on a sign and are used in the **Message Editor**:

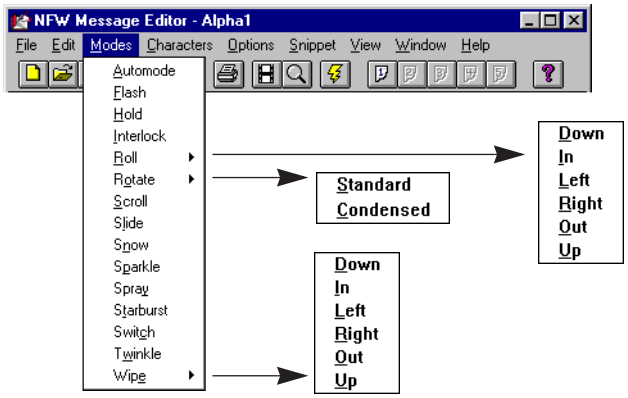


Table 36: Modes available on signs

Sign	Modes																						
					Roll			Rotate			Slide				Spray			Switch			Wipe		
	Automode	Flash	Hold	Interlock	Up/Down/Left/Right	In/Out (horizontal)	In/Out (vertical)	Standard	Condensed	Scroll	Slide	Slide -> Cycle Color	Snow	Sparkle	Spray	Spray -> Cycle Color	Starburst	Switch	Switch half the display	Twinkle	Up/Down/Left/Right	In /Out (horizontal)	In/Out (vertical)
200 Series	●	●	●	●	●	●		●	●	●	●		●	●	●		●	●		●	●	●	
220C	●	●	●	●	●		●	●	●	●	1	1	●	●	●		●		●	●	●		●
300 Series	●	●	●	●	●	●		●	●	●	●		●	●	●		●	●		●	●	●	
420C	●	●	●	●	●		●	●	●	●	1	1	●	●	1	1	●		●	●	●		●
4000 Series	●	●	●	●	●	●		●		●	●		●	●	●		●	●		●	●	●	
7000 Series	●	●	●	●	●	●		●		●	●		●	●	●		●	●		●	●	●	
Big Dot	●	●	●	●	●	●		●	●	●	●		●	●	●		●	●		●	●	●	
AlphaVision (Full Matrix)	●	●	●	●	●	●		●		●			●	●						●	●	●	
AlphaVision (Char. Matrix)	●	●	●			●															●	●	
790i, 430i, 440i, 460i	●	●	●	●	●	●		●		●	●		●	●	●		●	●		●	●	●	
Solar series	●	●	●	●	●	●		●		●	●		●	●	●		●	●		●	●	●	
BetaBrite	●	●	●	●	●		●	●	●	●		●	●	●	●		●		●	●	●		●
Director	●	●	●																		●	●	
PPD	●	●	●	●	●	●		●		●	●		●	●	●		●	●		●	●	●	

1. The “Slide” mode is not available for either the 220C or 420C sign, however it is an option in the AlphaNET *plus* software. If “Slide” or “Spray” mode is selected for these signs, “Cycle Color” will be used. The same applies to the “Spray” mode for the 420C sign only.

Table 37: How modes function

Mode	Function
Automode	This is the default mode, which actually consists of using all other modes available to each sign. If no other mode is selected, the message will appear in Automode.
Flash	All characters flash off and on from the point of flash mode until the point where another mode is selected, if any.
Hold	Holds the message or specified text in a fixed place for several seconds.
Interlock	Alternating rows of dots enter from each direction of a sign and interlock to form the message in the center of the sign.
Roll	Rolls the characters in the message in their entirety onto the sign in the desired direction. You can choose to roll up, down, left, right, in, or out.
Rotate	Rotates a message from right to left across the sign without stopping. For certain signs, text can be condensed or standard.
Scroll	Moves the message one line at a time from bottom to top of the sign. The previous line is pushed off the sign.
Slide	The message moves onto the sign from one direction to the other, one character at a time.
Snow	The dots of each character in the message fall randomly onto the sign as if it's snowing.
Sparkle	The message sparkles onto the sign by randomly filling the letters of the message (at the start of the message display only.)
Spray	The message is sprayed onto and across the sign, left to right, column-by-column and character-by-character.
Starburst	Random starbursts explode over and around letters of the message on the sign.
Switch	Alternating characters of the message slide onto the sign from different directions, that is, the first character slides up, the next down, etc. For some signs, instead of alternating characters switching, one half of the message on the sign slides up while the other half of the message slides down.
Twinkle	The message appears in its entirety in a twinkling effect with lights flickering off and on for the duration of the message display.
Wipe	The message is wiped onto the sign in the direction specified, filling in each of the characters row-by-row or column-by-column. It looks as if it's washing over the old message. You can choose to roll up, down, left, right, in, or out.

Appendix C — Which Characters and Colors are available on signs

AlphaNet *plus* for Windows software allows you to change the character shapes and colors of characters that are used in sign messages. The **Characters** option and colors are used in the **Message Editor**:

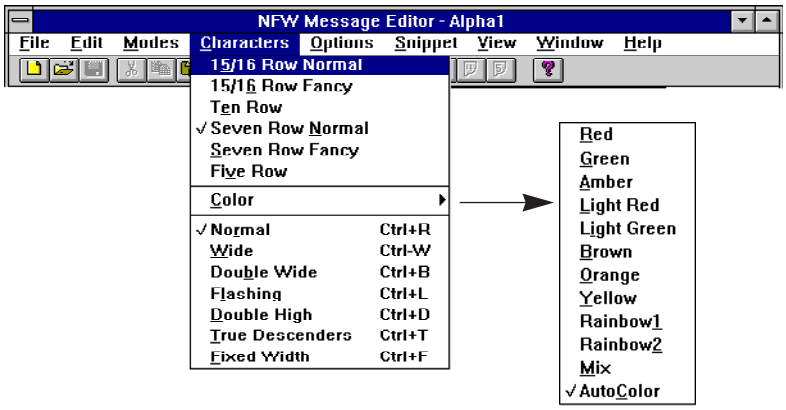


Table 38: Characters available on signs

Sign	Characters													
	15/16 Row Normal	15/16 Row Fancy	Ten Row	Seven Row Normal	Seven Row Fancy	Five Row	Color (see NOTE)	Normal	Wide	Double Wide	Flashing	Double Height	True Descenders	Fixed Width
200 Series				●	●	●	●	●	●	●				●
220C				●	●	●	●	●	●	●	●			●
300 Series				●	●	●	●	●	●	●	●			●
420C				●	●	●	●	●	●	●	●			●
4000 Series	●	●		●	●	●	●	●	●	●	●			●
7000 Series	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Big Dot				●	●	●	●	●	●	●	●			●
AlphaVision (FM)	●	●	●	●	●	●	●	●	●	●	●	●	●	●
AlphaVision (CM)				●		●	●	●			●			
790i, 430i, 440i, 460i				●		●		●	●	●				●
Solar	●	●		●	●	●	●	●	●	●	●			●
BetaBrite				●	●	●	●	●	●	●	●			●
Director				●		●	●	●			●			
PPD				●	●	●		●	●	●	●			●

NOTE: Sign names ending in “C”, such as 4120C, have color capabilities. Sign names ending in “R”, such as 4120R, can display in red only.

Appendix D — Which display Options are available on signs

Options is a **Message Editor** command composed of special features, like animation, and is used by the **AlphaNet *plus* for Windows** software to enhance the way a message appears on a sign:

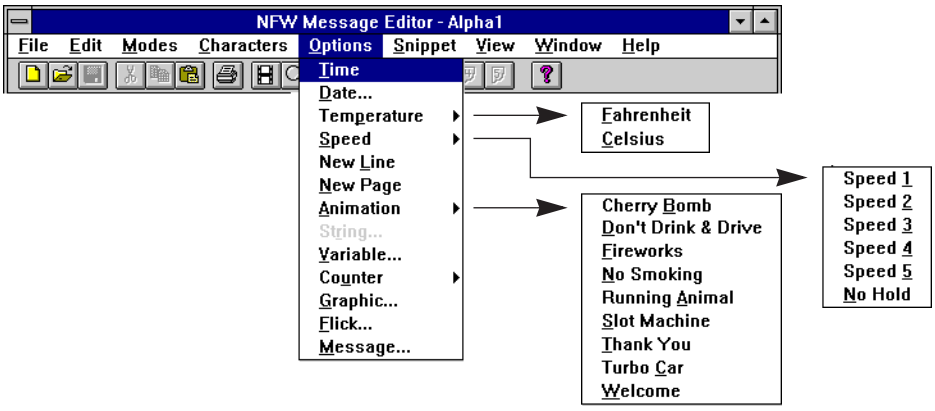


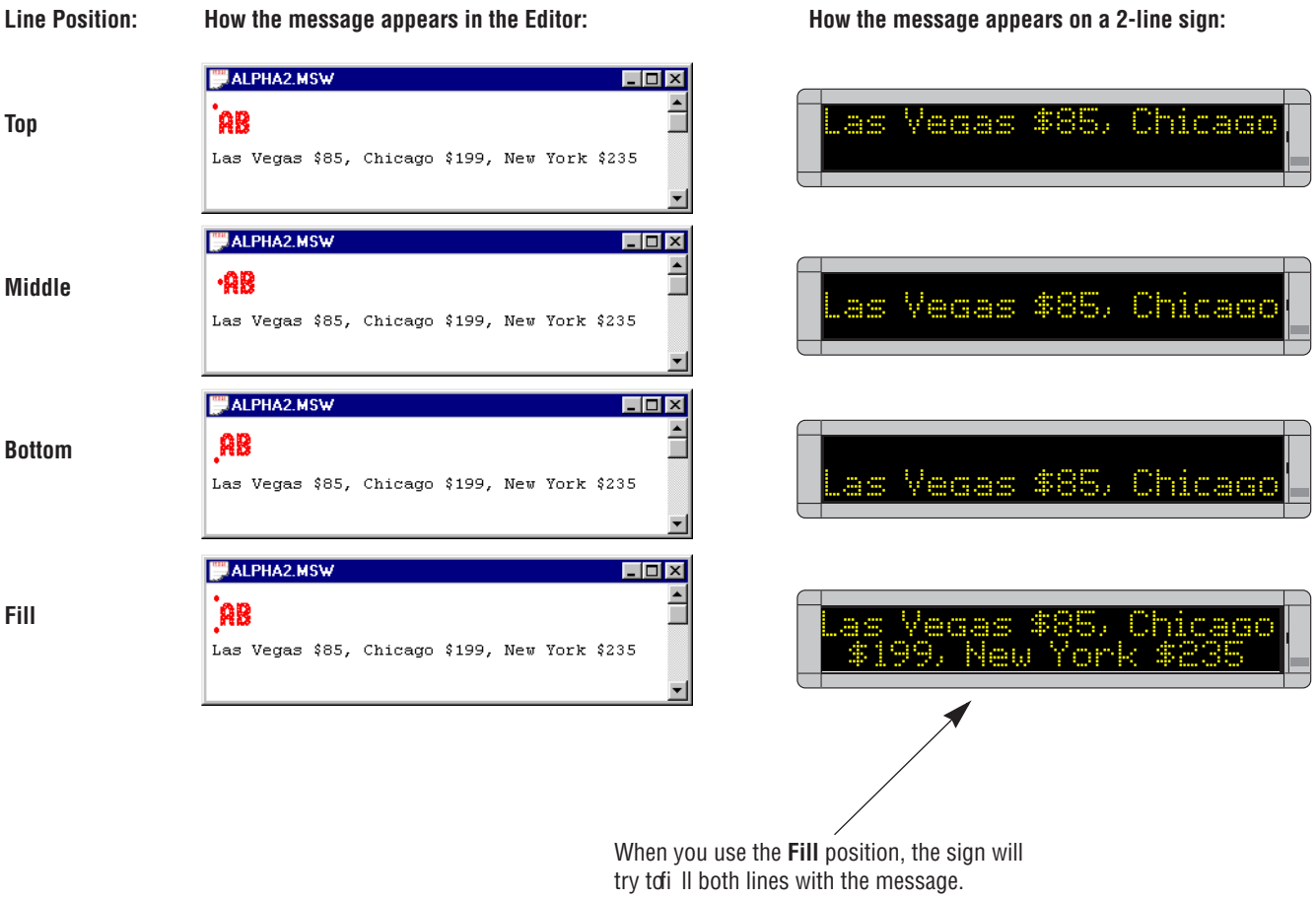
Table 39: Display options available on signs

Sign	Options													
	Time	Date	Temperature		Speed	New Line	New Page	Animation	String	Variable	Counter	Graphic (see NOTE)	Flick (see NOTE)	Message
			Fahrenheit	Celsius										
200 Series	●	●			●	●		●	●	●	●	●		●
220C	●	●			●	●		●	●	●	●	●		●
300 Series	●	●			●	●		●	●	●	●	●		●
420C	●	●			●	●		●	●	●	●	●		●
4000 Series	●	●			●	●		●	●	●	●	●		●
7000 Series	●	●			●	●	●		●	●	●	●	●	●
Big Dot	●	●			●	●		●	●	●	●	●		●
AlphaVision (FM)	●	●			●	●	●		●	●	●	●	●	●
AlphaVision (CM)	●	●			●	●	●		●	●	●			●
790i, 430i, 440i, 460i	●		●	●	●	●		●	●	●	●	●		●
Solar	●	●	●	●	●	●		●	●	●	●	●		●
BetaBrite	●	●			●	●		●	●	●		●		●
Director	●	●			●	●			●	●	●			●
PPD	●	●			●	●		●	●	●		●		●

NOTE: A graphic (which is a bitmapped image) or flick (which is a series of graphics) must be designed for the resolution of the sign. For example, a 4120C sign has a resolution of 120 columns by 16 rows. Therefore, in order to fit on a 4120C, a graphic be no greater than 120 x 16 *pixels* in size.

Appendix E — Understanding message line positions (Top, Middle, Bottom, Fill)

The **Line Position** option refers to where a message can be displayed on a sign — the top, middle, bottom, or fill positions. Line position are available with most modes, e.g., Hold, Snow, Sparkle, etc. While the way these work varies slightly on different types of signs, the basic concept is shown on an Alpha two-line sign in the pictures here.



If you do not select one of these four positions, an Alpha sign will automatically display your message using the **Automode** mode and the **Fill** line position.

Types of signs

Signs are categorized by number of lines of text.

1. Single-line (BETAbrite 215R & 215C, 220, 300 series, 400 series, Big Dot)
   These signs are of varying lengths but are always 7 dots high.

2. Double-line (4000 series)
   These signs are of varying lengths but are always 16 dots high.
3. Triple-line (7000 series) and Multiple-line full matrix (Alphavision)
   These signs are of varying heights and widths.
4. Multiple-line character matrix (AlphaVision, Director)
   These signs are of varying heights and widths, but have character blocks with spaces between.

Single-line (BETAbrite 215R & 215C, 220, 300 series, 400 series, Big Dot)

On a single-line sign, all characters line up at the bottom of the sign and work their way up for as many dots as the font supports.

Example:

Exception conditions:

- If the sign receives a font that is larger than the sign can display, it will "size it down".
  - 7-high normal characters are substituted for any 15-high normal characters.
  - 7-high fancy characters are substituted for any 15-high fancy characters received, etc.
- If a graphic (picture) is received that is taller than the display can show, the top seven rows are displayed.
- If a graphic is received that is wider than the display can show, it will show the left-most columns of the picture.
- If a graphic is received that is smaller than seven dots tall, it will be displayed from the bottom of the sign working up, similar to the 5-dot character set shown above.
- If a character set is not established in the message, 7-high normal characters are used.
- If top, bottom, or fill positions are received, middle is used.

Double-line (4000 series)

Top position

On a double-line sign, the top position is defined as the top 7 dots of the sign, and operates in the same manner as a one-line sign. See exception conditions for a single-line 7-row sign.

Bottom position

The bottom position is defined as the bottom 7 dots of the sign, and it also is treated as a one-line sign. See exception conditions for a for a single-line 7-row sign.

Middle position

The middle position is treated as though it was one line of 16 dots. Each line of text presented on that line is prescanned to determine the largest piece of text (or graphic object) to be displayed. The line of text is then vertically centered based on that largest object. For example, if you have a line of text which has mostly 5-high characters, but has one 10-high character, the line is viewed as a 10-row high line, and since this is a 16-row sign, that leaves 6 extra rows… 3 blank rows on the top and 3 blank rows on the bottom. All text and objects are then lined up to this new virtual bottom (the 13th line) and treated the same as in a single-line sign.

Exception conditions:

- If the sign receives a font that is larger than the sign can display, it will "size it down".

  On this sign, in the middle position, the only characters that are too large would be characters using the "double-high" control code. This control code is ignored.
- If a graphic is received that is taller than the display can show, the top sixteen rows are displayed.
- If a graphic is received that is wider than the display can show, it will show the left-most columns of the picture.
- If a character set is not established in the message, 16-high normal characters are used.

Fill position

On a 4000 series sign, the fill position indicates that you wish to use no more than 7-high characters, and that you want to fit as much text on the screen as you can. When in this mode, the sign views itself as having two lines of 7-high characters, and no means of doing a character set larger than 7-high. If a graphic is selected, at most seven rows of that graphic will be displayed. If the last piece of text to be displayed (towards the end of the message) is only one line worth of text, the sign will place 4 blank rows of dots at the top and the bottom of the text in order to center the last line of text vertically.

If the sign is operating on the top row, the bottom of that row is assumed to be the 7th row of dots. All text is started from there and worked up. (5-row characters will use rows 3 – 7, while 7-row characters will use rows 1 – 7.)

If the sign is operating on the bottom row, it works its way up from row 16. (5-row characters will use rows 12 – 16, while 7-row characters will use rows 10 – 16.)

Exception conditions:

- If the sign receives top, bottom, or fill modes and also a font that is larger than 7-high, it will "size it down":
  - 7-high normal characters are substituted for any 15-high normal characters.

- 7-high fancy characters are substituted for any 15-high fancy characters received, etc.

- If a graphic is received that is larger taller than 7 rows high (15-high for middle mode), the top 7 rows (top 15 for middle mode) are displayed.
- If a graphic is received that is longer than the display can show, it will show the left-most columns of the picture.
- If a character set is not established in the message, 7-high normal characters are used.

Triple-line (7000 series) and Alphavision Full Matrix

Top/Bottom

These two positions work in tandem with each other. There is an imaginary line between the top half and the bottom half to the display. We will call this line the centerline. In the example below, the "Centerline" is between the "HELLO", and the "lots of text about basically". The centerline divides what is used on the sign for top position commands from what is used for bottom.

Establishing the position of the centerline

The centerline position is typically established by the first top command received, and the rest of the space is used for the bottom. If the bottom command comes first, the centerline is placed at its highest possible position, row 8, allowing for one line of 7-dot characters on the top. If the top command comes first, and not a bottom, the centerline's position is determined by the amount of text following the position command.

Examples:

- If one 7-dot high line of text is received (following a top command), the centerline will be fixed at row 8.
- If one line of 10-dot characters is received (following a top command), the centerline will be placed at position 11.
- If two lines of 5-dot high characters are received (following a top command), the centerline is placed at row 12 (5 for each line of text, plus the 2 blank rows between the lines.)

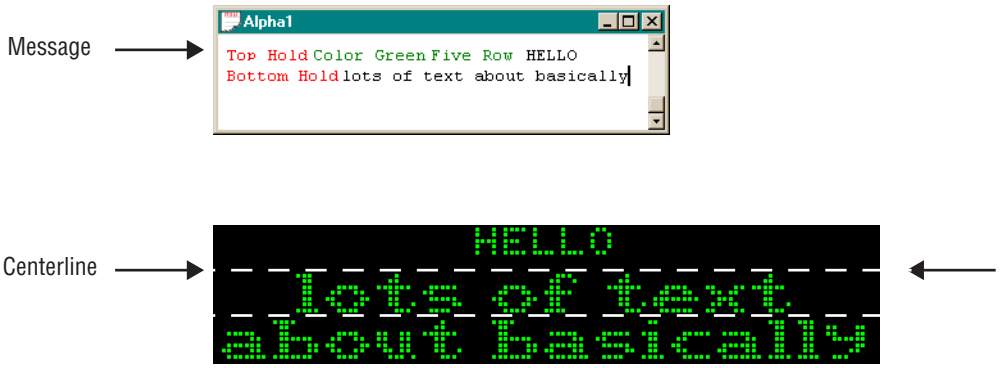
Two exceptions to the above rules are as follows:

1. The centerline is never placed higher than 8 rows from the top of the sign.
2. The centerline is never placed lower than 8 rows from the bottom of the sign.

Note: This ensures that there is always room for one line of 7-dot high characters on the top or bottom (including one blank row.)

Once its position is established, the centerline remains fixed at that position until a fill or middle position command is received. All subsequent top or bottom position commands use the amount of space set by the position of the centerline. You cannot change the position of the centerline with a second top/bottom command.

Example:



Middle position

The middle position is treated as though it were one line as many dots high as the sign is tall. Each line of text presented on that line is prescanned to determine the largest piece of text (or graphic object) to be displayed. The line of text is then vertically centered based on that largest object. For example, if you have a line of text which has mostly 5-high characters, but has one 10-high character, the line is viewed as a 10-row high line. Assuming this is a 24-row sign, that would leave 14 extra rows…7 blanks on the top and 7 blank rows on the bottom. All text and objects are then lined up to this new virtual bottom (the 21st line) and treated the same as in a single line sign.

Exception conditions:

- If a graphic (picture) is received that is larger than what the display can show, the top-most rows are displayed.
- If a graphic (picture) is received that is longer than the display can show, it will show the left most columns of the picture.
- If a character set is not established in the message, 7-high normal characters are used.

Fill position

On a 7000 series or Alphavision sign, the fill position indicates that you wish to fit as much text on the screen as you can. On these signs as opposed to the 4000 series, you can select character sets larger than 7-high in the fill mode. The sign will start from the top of the screen working down. If you select a 15-row character set, the sign will fit as many 15-row lines of text on the screen as possible.

As soon as the sign detects that the next line will not fit, it will stop creating the current page and display it. The next page will begin with the line that would not have fit. If the text does not use up the entire display, the sign will center the text vertically, splitting the blank space between the top and the bottom.

Exception conditions:

- If a graphic is received that is taller than seven rows high, the top seven rows are displayed.
- If a graphic is received that is wider than the display can show, it will show the left-most columns of the picture.
- If a graphic is received that is smaller than seven dots tall, it will be displayed from the bottom of the sign working up…similar to the 5 dot character set explained above.
- If a character set is not established in the message, 7-high normal characters are used.

Alphavision Character Matrix

This sign works exactly like the Triple-line (7000 series) and Alphavision Full Matrix signs, with the following exceptions.

Exception conditions:

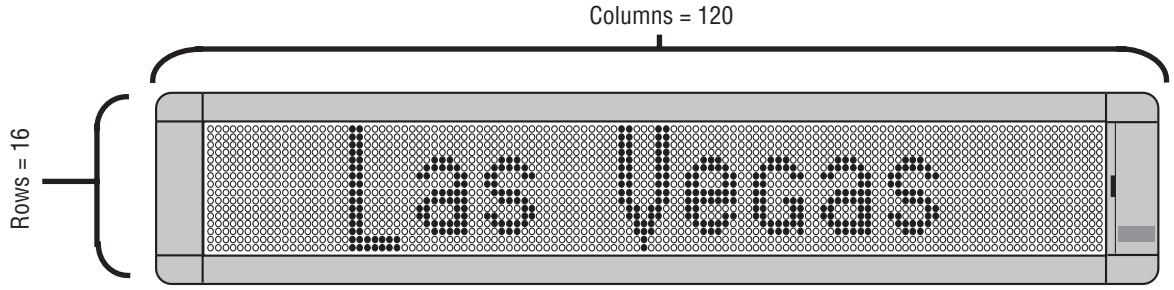
- If a mode other than a "Wipe" mode is received, it is replaced with "Hold".
- An Alphavision sign ignores any of the following:
  - graphics
  - any character set command except 5- and 7-high normal
  - wide
  - double-wide
  - double-high
  - true descenders
  - proportional spacing
  - animations
- If a character set is not established in the message, 7-high normal characters are used.

Appendix F — How text and graphics are displayed on signs

Each sign is made up of a display area of columns and rows of LED "pixels" that can be turned on and off and that can display different colors (for color signs).

Columns and rows make up a sign

For example, a 4120C (or 4120R) sign has a total display area of 120 x 16:



The total display areas for other signS follows:

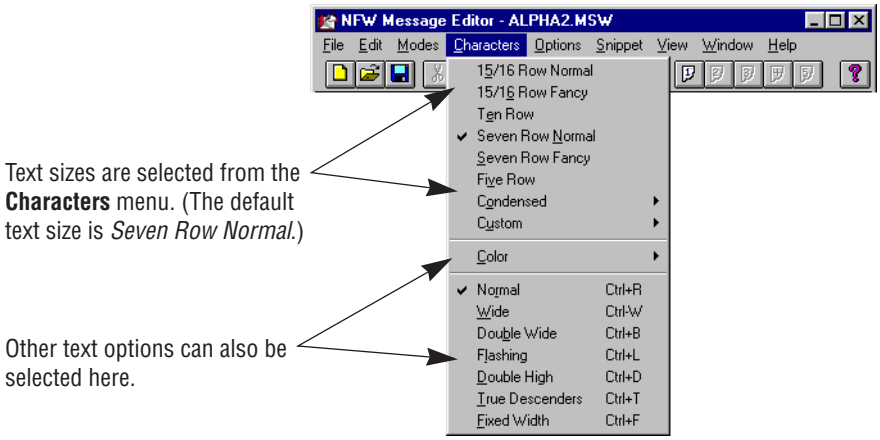
Table 40: The number of columns and rows in signs

Sign		Display area (col x rows)	Colors
BETA-BRITE Series	BETA-BRITE	80 x 7	8
	BETA-BRITE BIG DOT	80 x 7	
	ALPHA Big Dot	80 x 7	
215 Series	215	90 x 7	
	215C	90 x 7	
	220C	2 lines of 120 x 7	1
300 Series	320C	120 x 7	8
	330C	180 x 7	
4000 Series	4120R	120 x 16	3
	4120C	120 x 16	
	4160R	160 x 16	
	4160C	160 x 16	
	4200R	200 x 16	
	4200C	200 x 16	
	4240R	240 x 16	
	4240C	240 x 16	
7000 Series	7120C	120 x 24	
	7160C	160 x 24	
	7200C	200 x 24	
Outdoor displays	790i	90 x 7	1
	Solar series	96 x 16 to 192 x 16	1
ALPHAVISION	Display areas from 128 x 32 to 256 x 128.		3
Director	8 lines of 16 characters		8
PPD	2 lines of 120 x 7		1

NOTE: Sign names ending in "C", such as 4120C, have color capabilities. Sign names ending in "R", such as 4120R, can display in red only.

Text comes in four basic sizes

The **Characters** menu displays a list of available text sizes, such as *15/16 Row Normal* and *Ten Row*, and options, such as *Wide* and *Flashing*:

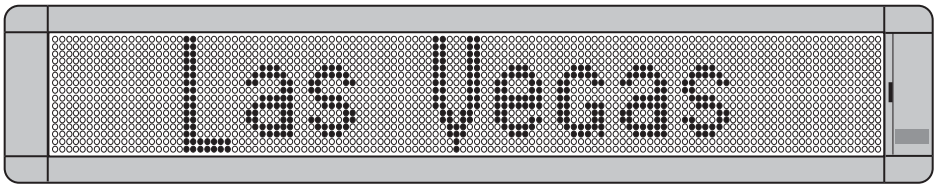


The four basic text sizes are **15/16 Row** (**Normal** and **Fancy**), **Ten Row**, **Seven Row** (**Normal** and **Fancy**), and **Five Row**. These are also available as compressed. Customized variations can be installed into the sign's firmware and accessed in the software.

Below are examples of how the message *Las Vegas $85, Chicago $199* would appear on a two-line 4120C or 4120R sign in all four basic text sizes (except **Ten Row**):

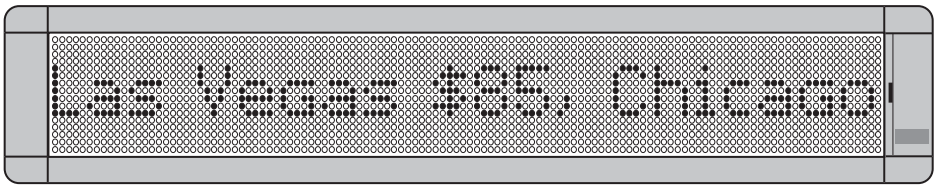
15/16 Row Normal

Characters are 15 or 16 rows high and about 9 columns wide:



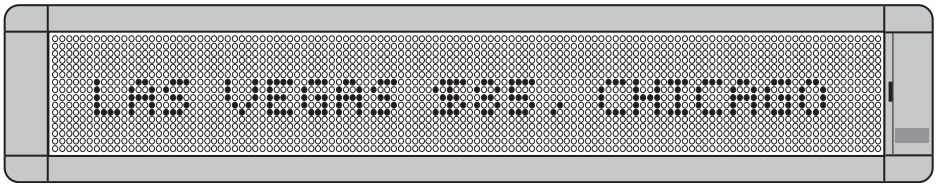
Seven Row Normal

Characters are 7 rows high and about 6 columns wide:



Five Row

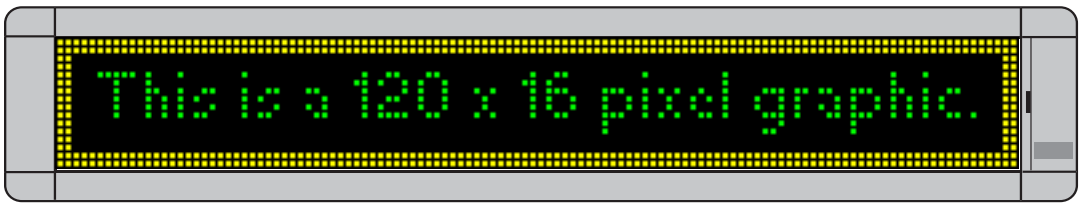
Characters are 5 rows high and about 5 columns wide:



Graphics must be "bitmapped" to a sign's columns and rows

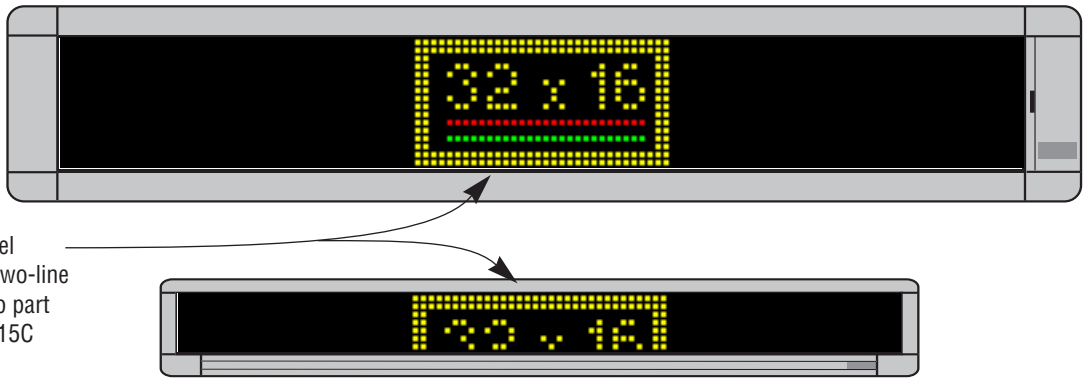
Before you create a graphic for a sign, you must first know the display area of that sign. (See "Columns and rows make up a sign" on page 150.)

The columns and rows that make up a sign's display area also represent the maximum pixel size of a graphic that can be put on the sign. For example, a 4120C (or 4130R) sign has a total display area of 120 columns x 16 rows. This means that the largest graphic a 4120C could display would be 120 pixels long x 16 pixels high:



A graphic may be *too big* for some signs

Because signs vary in size, make sure graphics you create can fit on all your signs:

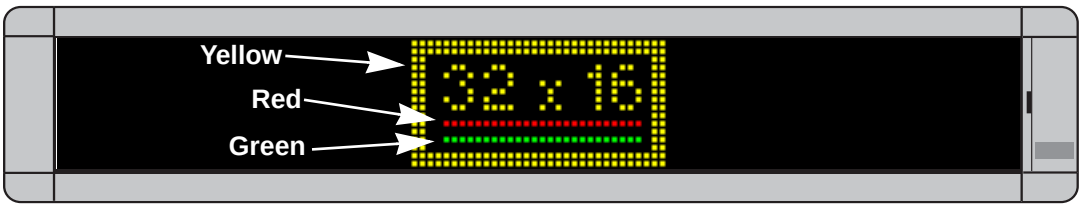


Though this 32 x 16 pixel graphic fits easily on a two-line 4120C sign, only the top part appears on a one-line 215C sign.

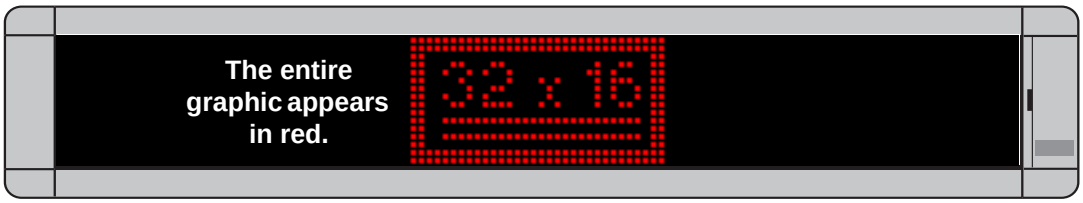
A graphic may be the *wrong color* for some signs

Only sign names ending in "C" have color capabilities such as the 4120C. Sign names ending in "R", like the 4120R, can only display red:

4120C
(a multi-color sign)



4120R
(a red-only sign)



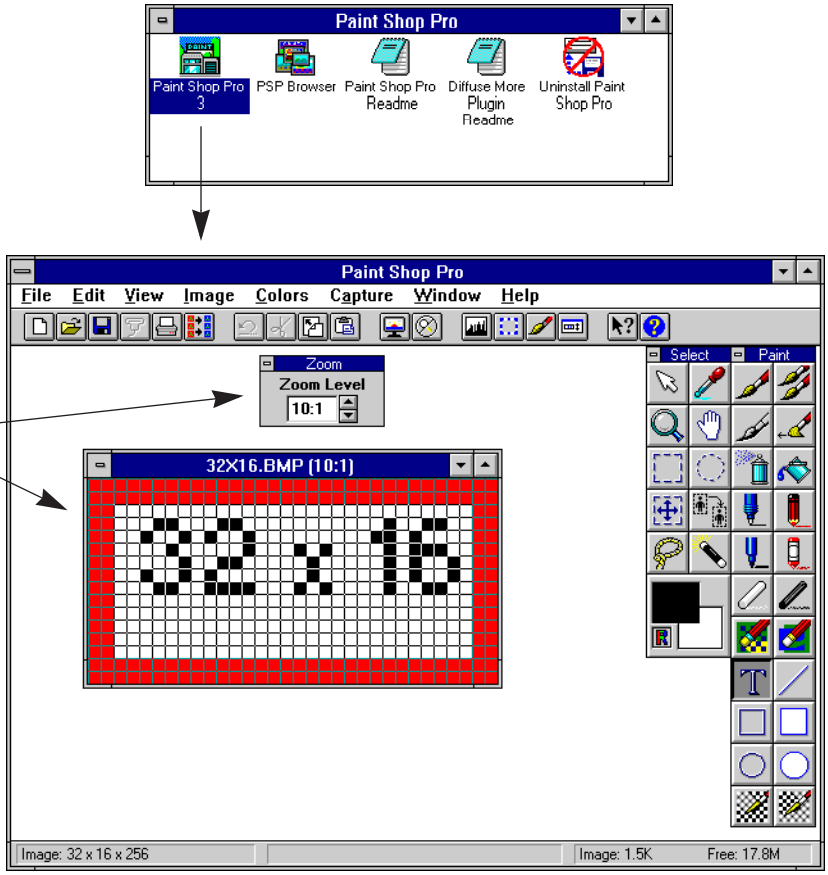
Paint Shop Pro — a bitmapped image editor

Because a bitmapped image editor is not included with the **AlphaNET *plus* for Windows** software, you'll need a program to create and edit graphics. At a minimum, the program you use should have a "zoom" feature which allows you to magnify the image you're editing because graphics used on signs are typically 32 x 32 pixels or less in size. (That's very small!)

While there are many great commercial programs available, you may not need all their features—or want to pay the price for them.

Paint Shop Pro is a shareware graphics utility. JASC, the makers of Paint Shop Pro, allow you to use it free for 30 days. After that, you'll have to purchase it for about $70. This manual uses version 3 of Paint Shop Pro. You may have a more recent version.

Paint Shop Pro has many features including a zoom.



Paint Shop Pro has many functions including a **Zoom** feature which can magnify small images.

Where can you get a copy of Paint Shop Pro?

- JASC, Inc.
  P. O. Box 44997
  Eden Prairie, MN 55344
  612-930-9171 (9 am to 5 pm USA Central Time)
- Electronic Bulletin Board
  612-930-3516
- CompuServe
  GO JASC
- World Wide Web
  http://www.jasc.com/