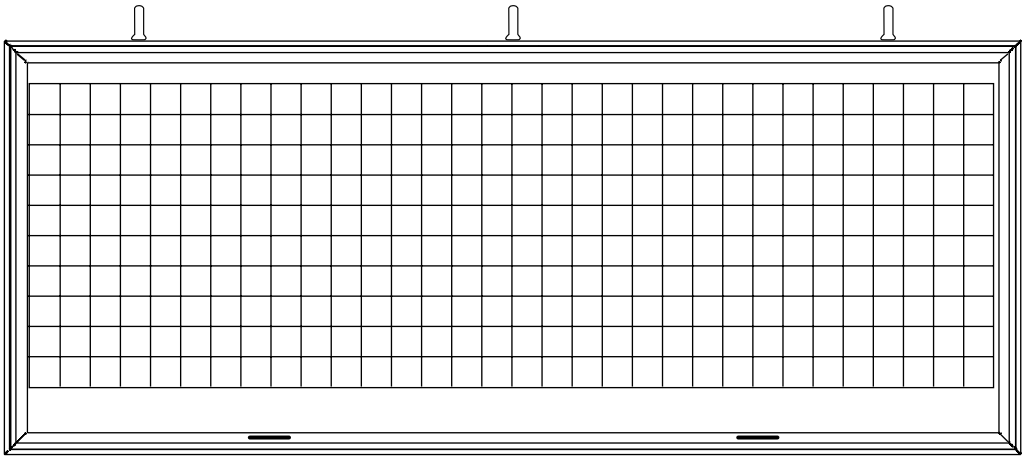
Ford AVPC™ Sign
User Manual



Manual part number: 9713-4011A

Revision date: 2/17/2006

For the most recent update, go to http://www.adaptivedisplays.com/ford/support

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Adaptive Micro Systems LLC

NOTE: Due to continuing product innovation, specifications in this manual are subject to change without notice.

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Contents

Overview

These instructions explain how to use the SCC configuration software to set up an AVPC sign.

Revision History

Revision	Date	Notes
9713-4011	January 24. 2005	First release
9713-4011A	March 25, 2005	
9713-4011A	February 13, 2006	Information added regarding 801 SCC objects to Software description

Related documentation

Part number	Title
9713-4012	AVPC ANDON Sign Installation Manual

SCC configuration software

- 

avpccfg.exe — the main program used to set up an AVPC sign.

- 

SCC Emulator.exe — used to display templates on a sign.

Main sign setup tasks

Using the SCC configuration software, do the following for *each* AVPC sign:

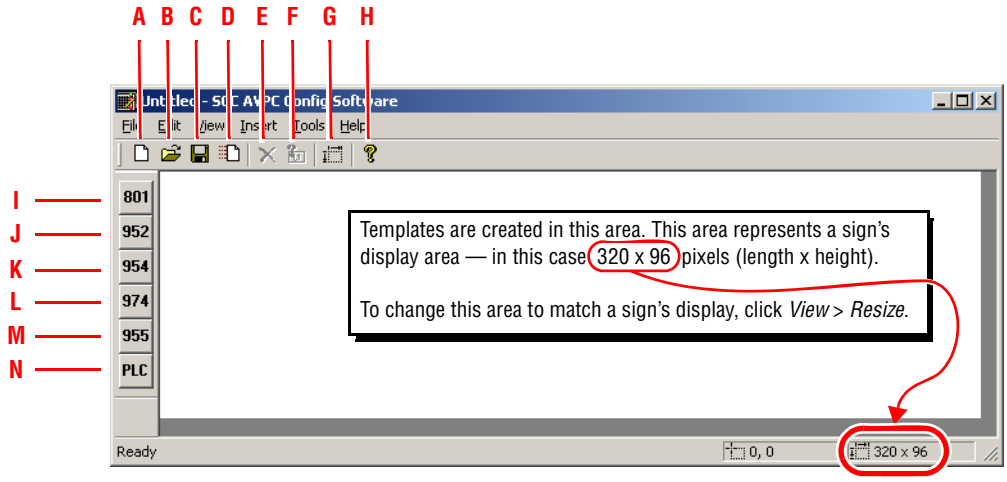
NOTE: Access the SCC configuration software stored on a sign's hard disk by either:
(1) attaching a keyboard and monitor directly to the sign's embedded PC or
(2) connecting the sign to a TCP/IP network and using software like RealVNC (http://www.realvnc.com) or Windows NetMeeting (http://www.microsoft.com/windows/netmeeting) to remotely access a sign's embedded PC.

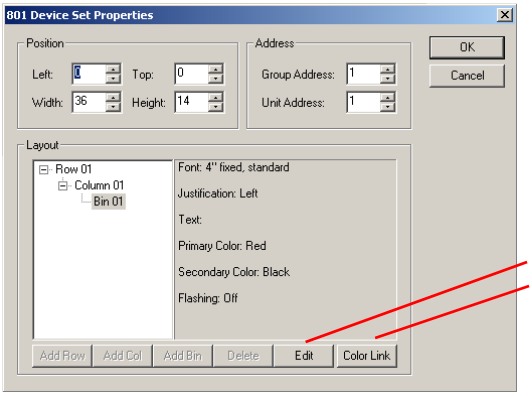
- Set the software to match the size of your AVPC sign.
- Set the clock format for the SCC emulator software (12 or 24 hour).
- Set the TCP/IP Port number for the SCC emulator software (default = 3001).
- Create a main template (default = 00) and an optional Failover template to control what is displayed on the sign.
- Set up the sign's TuneBlaster sound card.

Software description

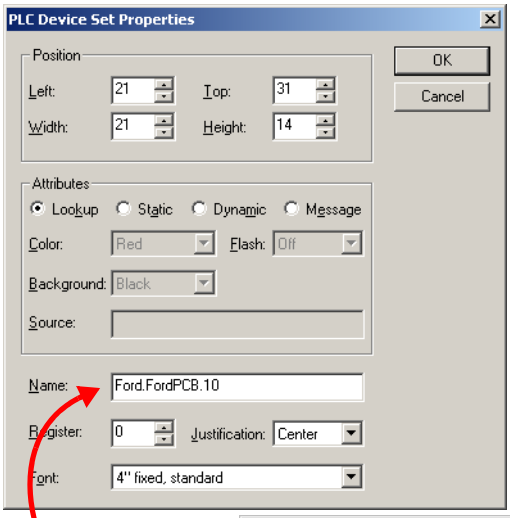
When the SCC AVPC Config Software (avpccfg.exe) is started, the following screen appears:

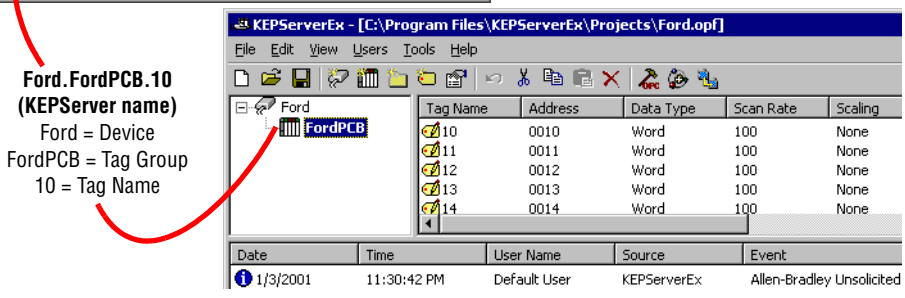
Startup screen for avpccfg.exe software



Item	Name	Description
A	New	Creates a new template.
B	Open	Opens an existing template.
C	Save	Saves the current template.
D	Transfer	Not used.
E	Delete	Deletes the selected protocol section of the current template.
F	Properties	Allows editing of the properties for the selected protocol section.
G	Resize	Determines the length (columns) and height (rows) of the entire sign and also lets you choose a zoom factor for displaying the sign and its objects during configuration.
H	About	Displays program information, version number, and copyright.
I	801* SCC object	Creates an 801 object on the current template for an SCC counter object (1 line):  **801 Device Set Properties:** • Position — selectable Left, Top, Width and Height. • Address — selectable Group Address and Unit Address. • Layout — default template information will be shown in gray area. **Edit Button** — allows user to edit template. **Color Link Button** — allows user to define the color of the object based on: • a PLC Tag value • the value of another 801 object

Startup screen for avpccfg.exe software

<table>
<tr><td>J</td><td>952* SCC object</td><td rowspan="2">Creates a 952 (or 954) object on the current template for an SCC alphanumeric text display without bin support.
• 1 line supported for this model type
• Default height: 4"
• Default width: 20 characters
• Default color: Red
• Default text: none
• Options: Flashing (default = off), 2 speeds</td></tr>
<tr><td>K</td><td>954* SCC object</td></tr>
<tr><td>L</td><td>974* SCC object</td><td>Creates a 974 object on the current template for an SCC alphanumeric text display with bin selection option:
• Number of lines based on the height of the display and the height of each row.
• Default height: 4"
• Default width: 20 characters
• Default color: Red
• Default text: none
• Options: Flashing (default = off), 2 speeds
• Justification: Left, Center
• Block option: Allows a cell to change colors (blank box)</td></tr>
<tr><td>M</td><td>955* SCC object</td><td>Creates a 955 object on the current template.</td></tr>
<tr><td>N</td><td>PLC object</td><td>Creates a PLC object:
 

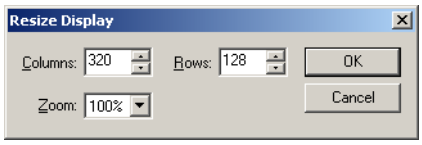
Possible PLC object *Attributes*:
• *Lookup* — uses the “Name” Tag Name value to display the text from the Lookup table. Go to *Tools* > *PLC Lookup Editor* for a list of possible values.
• *Static* — displays the actual value in the “Name” Tag Name. Set the Color, Flash, and Background here.
• *Dynamic* — displays the actual value in the “Name” Tag Name. Uses the “Source” Tag Name value to get the Color and Flash from the Attribute table. Go to *Tools* > *PLC Attribute Editor*.
• *Message* — uses the “Name” Tag Name value to display the text from the Message table. Go to *Tools* > *PLC Message Editor* for a list of possible messages.
 
</td></tr>
</table>

* SCC objects can have a maximum of 99 object types on one display. Objects such as 952 and 974 will count the complete object as a whole regardless of the number of lines selected. For example, a 952 with 1 line counts as one object and a 974 with 6 lines also counts as one object.

Basic software setup

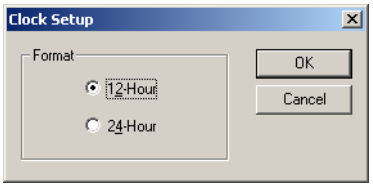
Set display size

1. Click *View* > *Resize*. Make sure that the columns and rows in this window are the same as your sign. Then click *OK*:



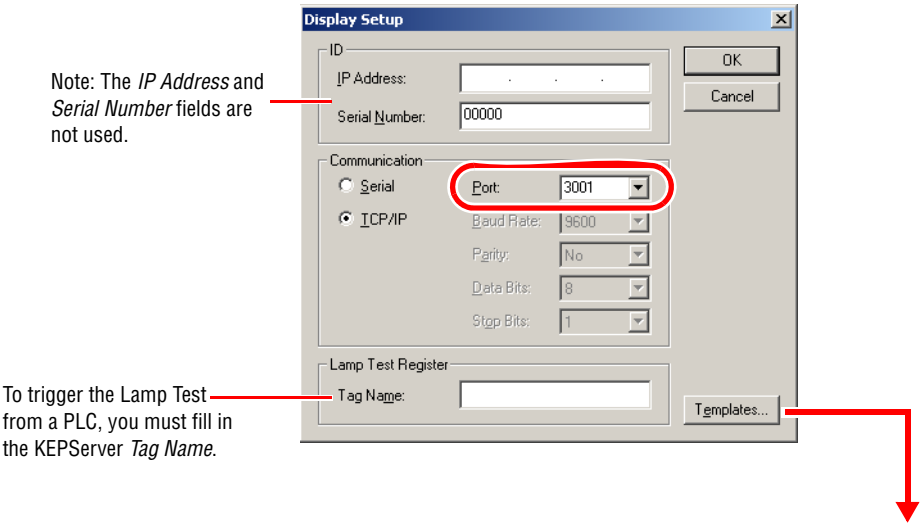
Set clock format

2. Click *Tools* > *Clock Setup*. Select how time will appear on the sign. Then click *OK*:



Set TCP/IP Port number

3. Click *Tools* > *Display Setup*. Set the TCP/IP Port number (default = 3001):



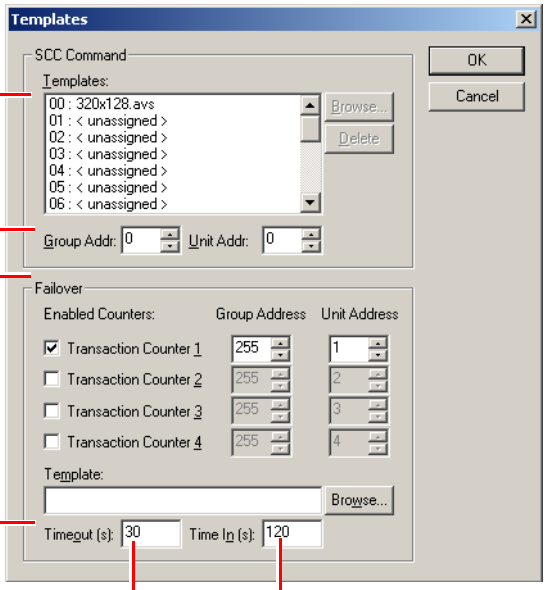
Select main templates and a Failover (optional) template

4. Click *Display Setup* > *Templates*. Assign template files to a slot by selecting the slot and clicking *Browse*. (The template in Slot 00 is the template that will load at startup.) Also, select an optional Failover template. Then click *OK*:

To create a template, see "Creating a template" on page 12.

Main templates — used to control what information appears on a sign. "Unassigned" after a number means that no template has been assigned to this slot.

Failover template (optional) — a template used to display information when a sign has a communication failure.
To enable the Failover template, check one or more *Transaction Counter*.
A communication failure occurs when one or more of the selected counters receives no data for the amount of time specified in *Timeouts(s)*.



When any one of the above selected counters stops receiving data for the time specified, then a communication failure has occurred.

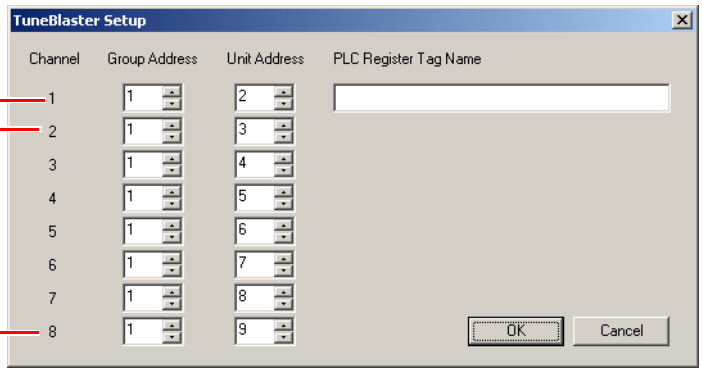
After a *Transaction Counter* has timed out, a communication failure occurs. In order for the communication failure to end, the counter must successfully receive data for the time specified here.

Set up the sign's TuneBlaster sound card

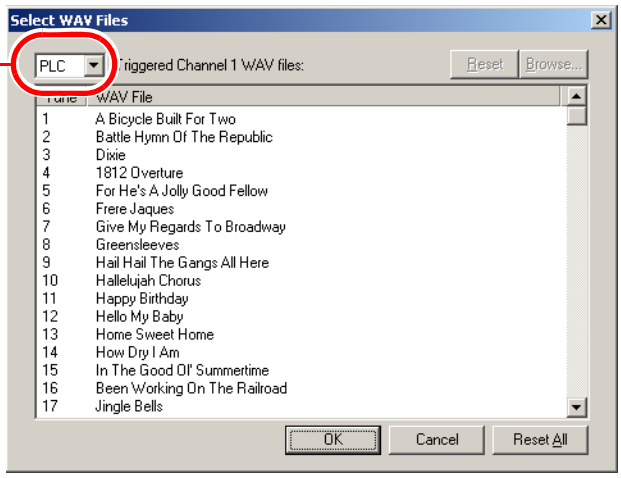
5. Click *Tools* > *TuneBlaster Setup*. Set up the TuneBlaster. Then click *OK*:

Channel 1 can be controlled by a KEPServer Tag or an SCC command. The Tag value determines which WAV file to play.

Channel 2 through 8 are controlled by SCC TU1 and TU2 commands.



6. To set how Channel 1 is controlled, click *Tools* > *Select WAV Files*:



To change a WAV file, select a *Tune* number and click *Browse*.

Basic KepServerEx setup

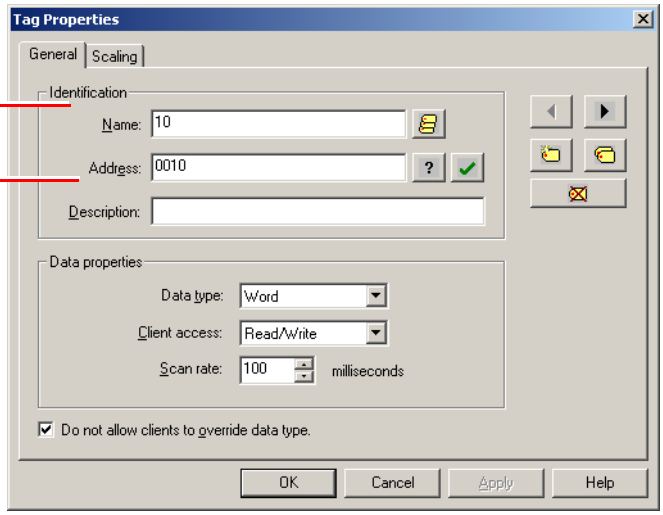
NOTE: Click the *Help* drop-down menu or click any *Help* button located in the software for additional information.

Add a new tag

1. Click *Edit* > *New Tag*. Enter a Name and Address for the Tag. Then click *OK*.

Tag Name — used when configuring the PLC object in the template.

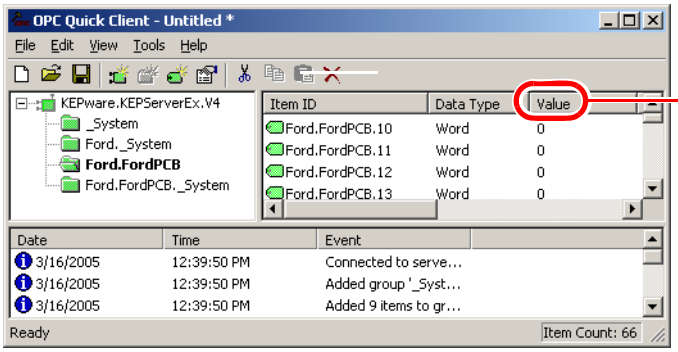
Tag Address — address (in the PLC) of the data.



50 Tags are already configured for you (10-17, 20-27, 30-37, 40-47, 50-57, 60-67, 70-71). PLC addresses are octal, so the numbers 8 and 9 do not exist.

Test the PLC connection

2. Click *Tools* > *Launch OPC Quick Client*. If there is a valid connection to the PLC, the data in the *Value* field will be changing

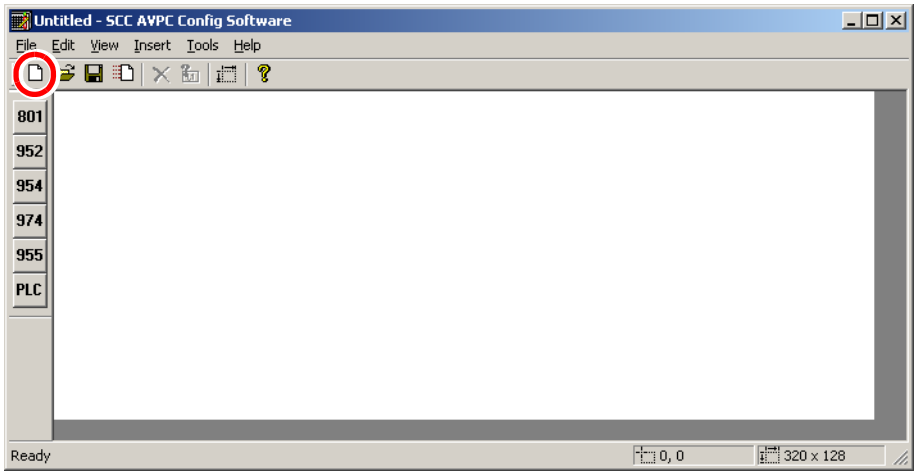


You will be able to see this data changing if there is a valid connection to the PLC.

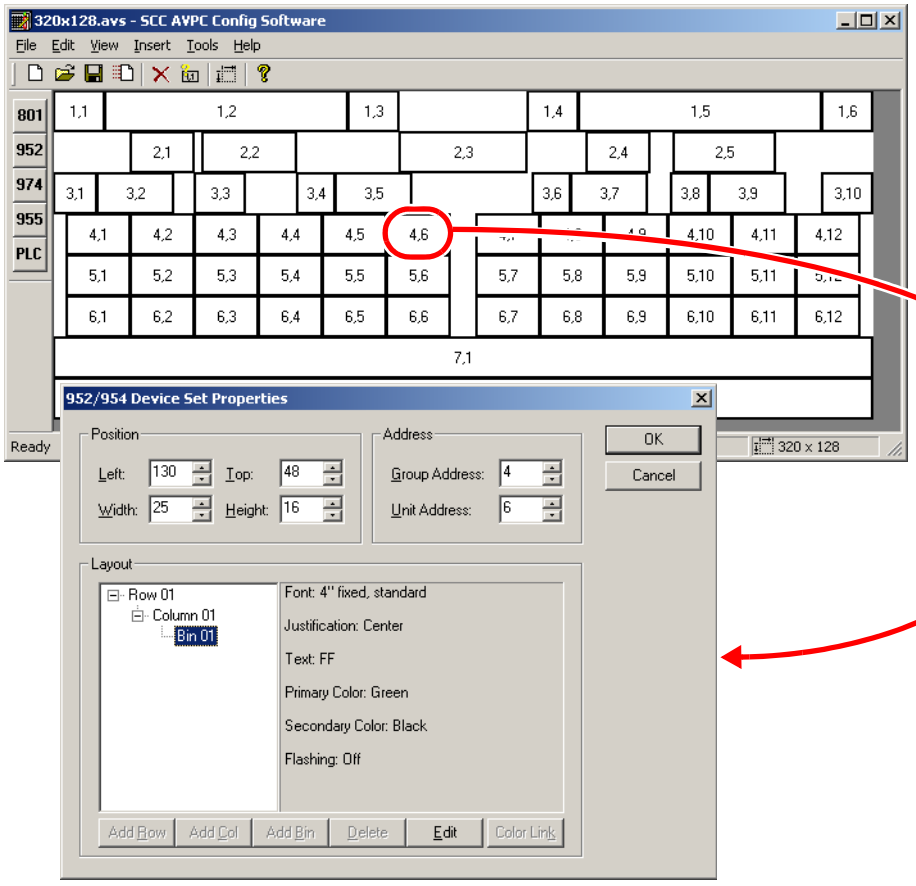
Creating a template

A template is used to set *what* information will appear on a sign and *where* it will appear. To create a new template, follow these steps:

1. Click the new icon from the SCC AVPC Config Software startup screen. See “Startup screen for avpccfg.exe software” on page 6.



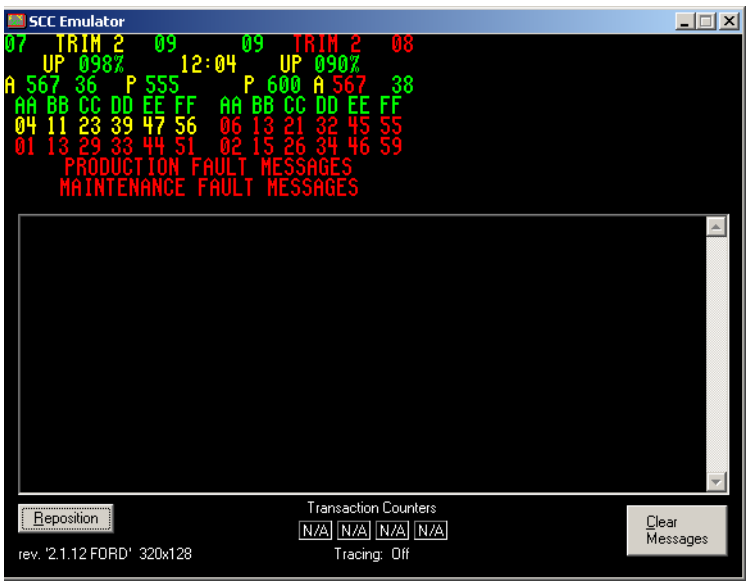
2. Use the SCC objects (801, 952, and so on) to create displays areas:



Each SCC object has its own unique Group and Unit address (1,1 and 1,2 and so on).

Double-click an object to view its properties.

3. Use the SCC Emulator.exe program to preview how a template will look on a sign:



Appendix

Connecting to a sign remotely

To connect to a sign remotely, either VNC Viewer or Windows NetMeeting software must be installed on your computer.

- VNC Viewer is a software application that allows you to see and control the desktop of another computer that is running VNC Server software. To obtain this software, go to http://www.realvnc.com. (Windows 2000 AVPC signs are shipped with VNC Server installed.) In order to use the VNC Viewer to control a sign, the sign must have an IP address — *and you must know what it is.*
- Windows NetMeeting is a software application that allows you to see and control the desktop of another computer that has NetMeeting Remote Desktop Sharing active. To obtain this software, go to http://www.microsoft.com/windows/netmeeting. (Windows 2000 AVPC signs are shipped with NetMeeting Remote Desktop Sharing installed.) In order to use Windows NetMeeting to control a sign, the sign must have an IP address — *and you must know what it is.*

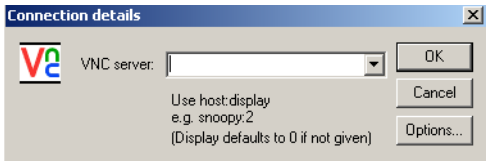
Using VNC Viewer

1. Turn off the sign.
2. Attach the sign to a TCP/IP network by connecting to either the
   - modular network adapter or
   - controller board Ethernet port

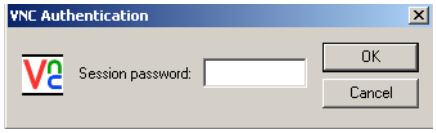
   NOTE: Your computer must be connected to this same TCP/IP network.
3. Apply power to the sign. Write down the IP address that appears on the sign. An example is shown below:

```
IP Address: 207.12.27.1
Subnet Mask: 255.255.255.0
Gateway: 0.0.0.0
MAC Address: 00-80-66-05-1e-86
```

4. Select *Start* > *Programs* > *RealVNC* > *VNC Viewer*. After *VNC Server*, type the IP address that was displayed on the sign. Then click *OK*:



5. After *Session password*, type "admin". Then click *OK*.

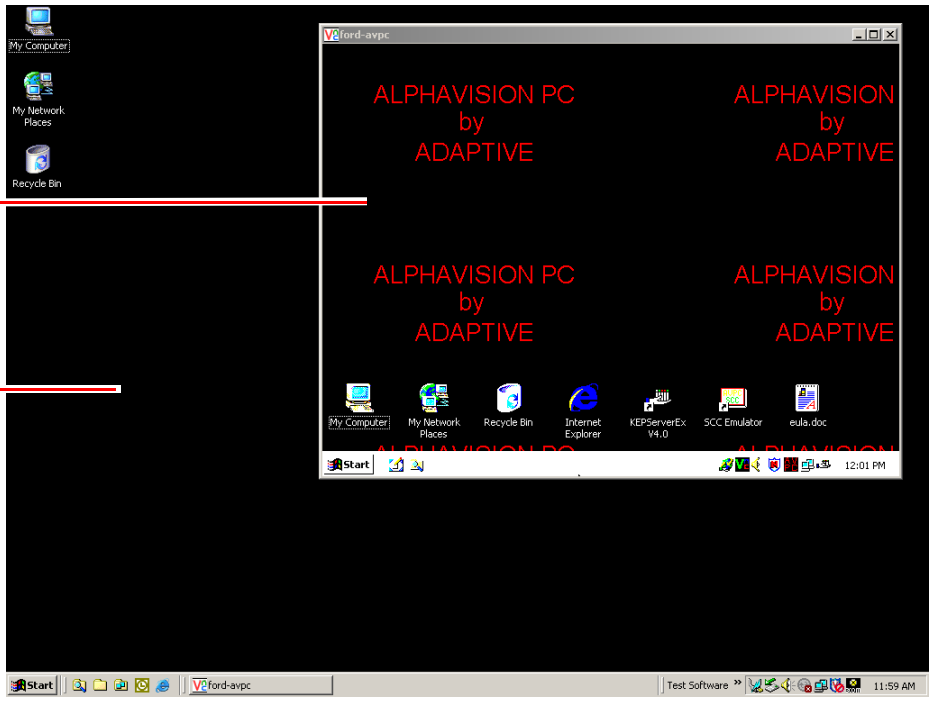


6. You are now connected to the sign's desktop. At this point, you can perform any Windows 2000 activity, such as setting the window area, changing the sign's IP address, and so on.

This is the *sign's* desktop. When you work in this window, you are working on the sign's hard drive.

This is *your* desktop. When you work in this window, you are working on your computer's hard drive.

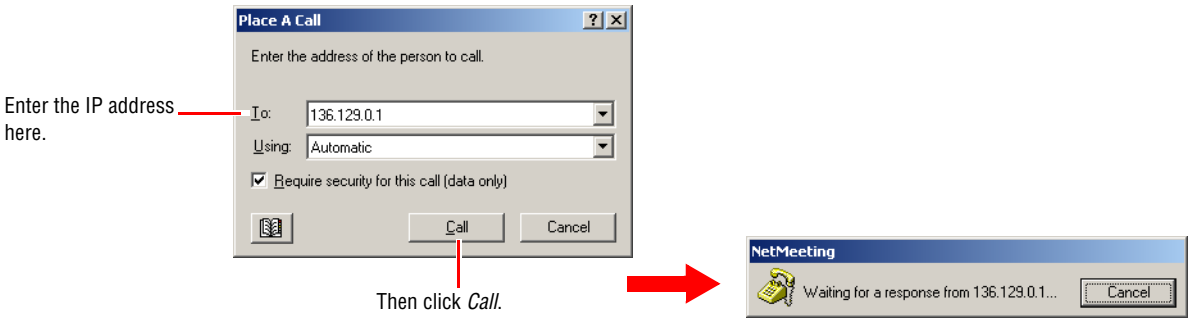
You can go back and forth between desktops — just be sure to keep track of which desktop window you are currently working.



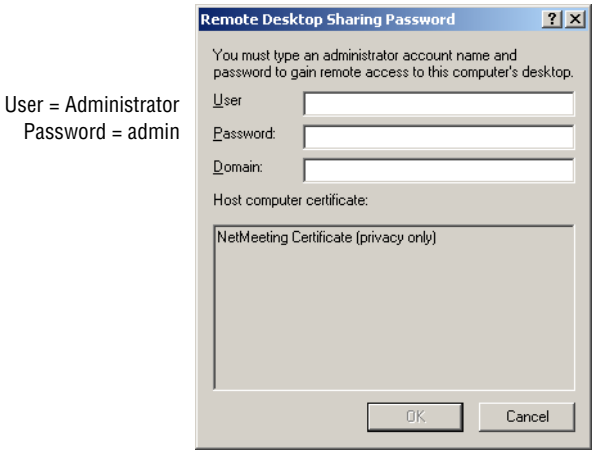
Using Windows NetMeeting

1. Select *Start* > *Programs* > *Windows NetMeeting*. Then click the button with the phone on it.

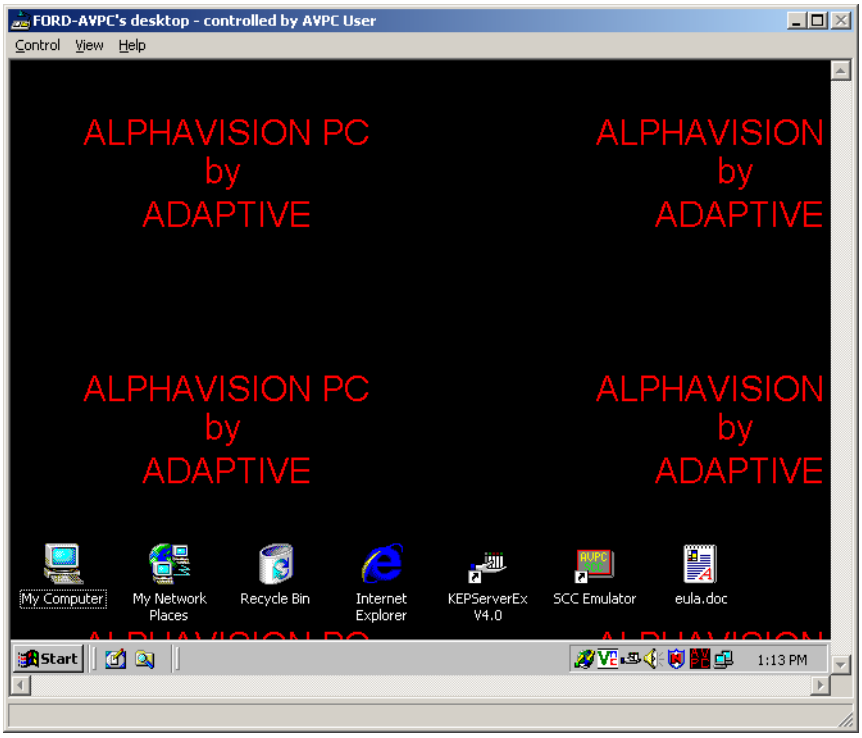
2. After *To*, type the IP Address of the sign. Then click *Call*. Your computer will wait for a response.



3. Type the User name and Password in the appropriate fields, then click *OK*.



4. You are now connected to and have control of the sign.



Installing software on a Windows 2000 sign's hard drive

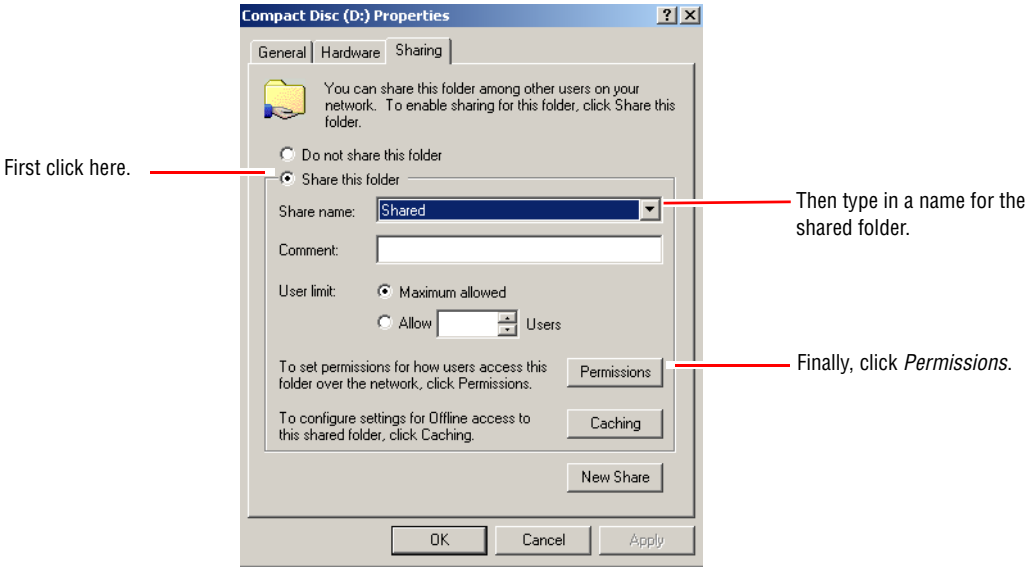
In order to install software on the sign's hard drive, you must first share your CD-ROM drive with it. (Note that there are several ways to get software installed on the sign. This is just one method.)

1. Connect to the sign using VNC Viewer or Windows NetMeeting. See "Connecting to a sign remotely" on page 14.

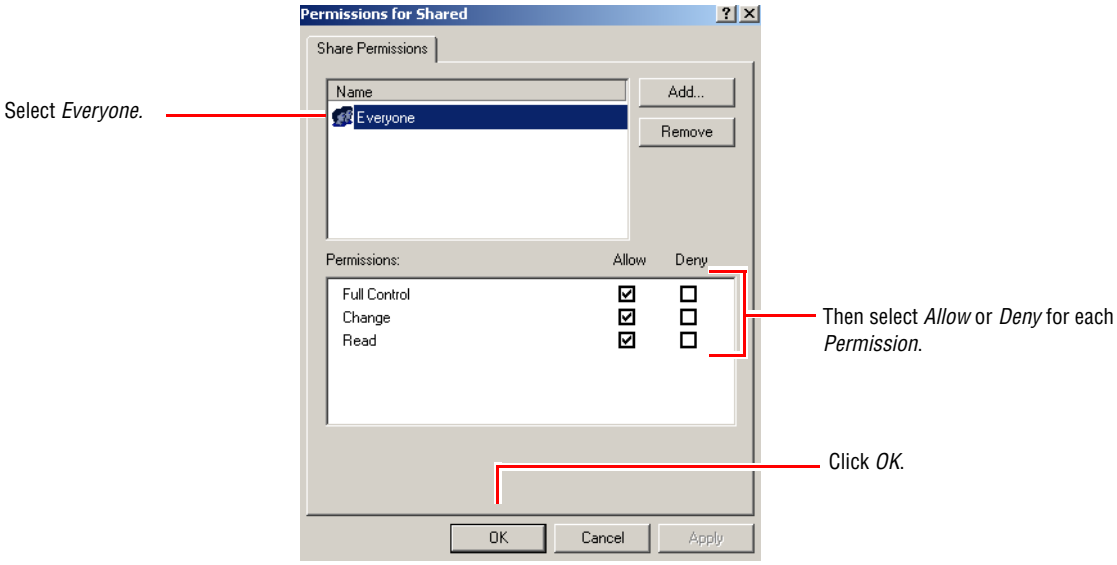
2. Open *My Computer* on your desktop.

3. Right-click the CD-ROM drive to be shared and select *Sharing...*

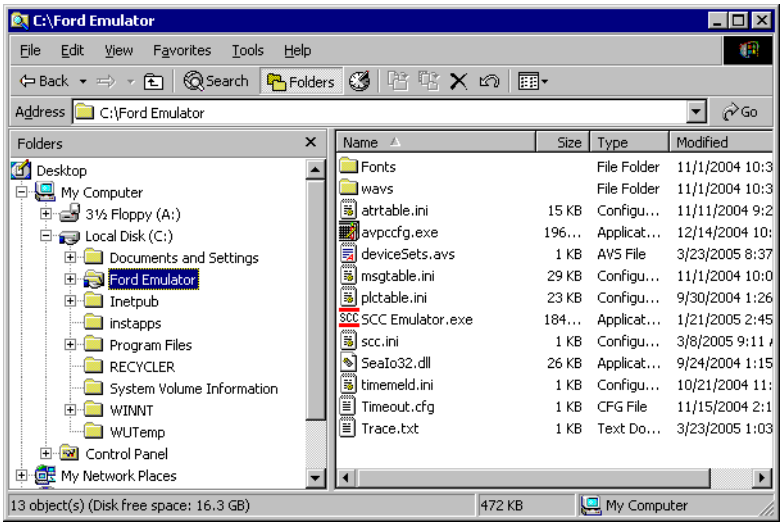
4. Click *Share this folder*. Then type a *Share name*. Click the *Permissions* button.



5. Select *Everyone*. Then complete the *Permissions* as appropriate. When finished, click *OK*.



6. On the sign's desktop, right-click the *Start* button and select *Explore*. The sign's hard drive directory appears:



7. Select *My Network Places* in the left panel and then double-click *Entire Network* in the right panel.

8. Double-click the following in the right panel, in the order given:

   - Microsoft Windows Network
   - the network on which your computer resides
   - your computer (look for your name)
   - your computer's CD-ROM drive (look for the name you gave the shared file in step 3)

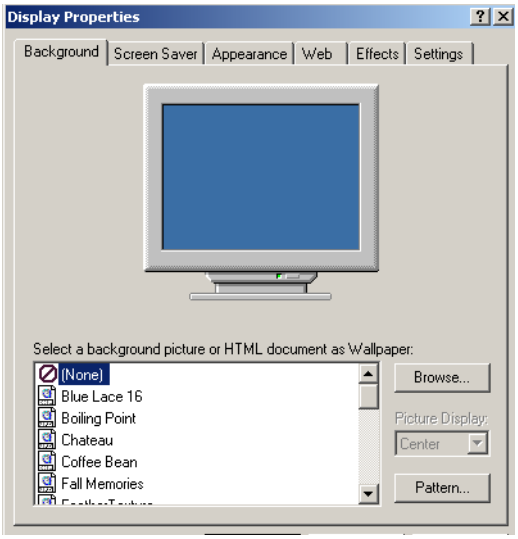
9. At this point, you can install software on the sign's hard drive through your computer's CD-ROM drive.

Configuring a Windows 2000 sign

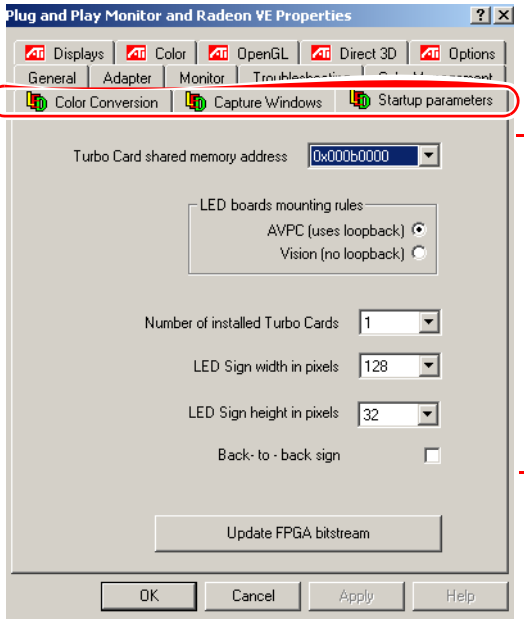
You can view and modify your sign's current settings, as well as see some of the changes before they are actually performed. Note that you will need to restart your computer after making any changes.

1. Connect to the sign using VNC Viewer or Windows NetMeeting. See "Connecting to a sign remotely" on page 14.

2. Right-click the sign's desktop and select *Properties*. The *Display Properties* window appears:



3. Click the *Settings* tab and then click the *Advanced* button. When the advanced properties window appears, click the *Startup parameters* tab and make the appropriate changes:



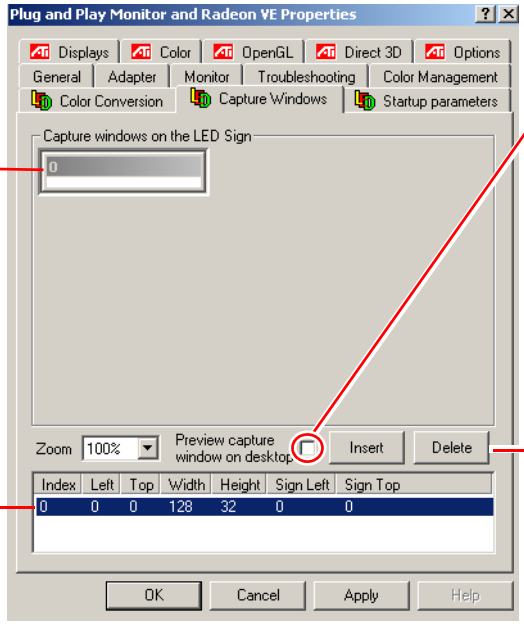
These are the properties of your sign with which you will be working.

You can specify turbo card information, set the type and size of your sign, and indicate whether back-to-back mounting is used.

NOTE: These items are factory-set and changing them may adversely affect sign operation.

4. Click the *Capture Windows* tab and make the appropriate changes:

To resize the window, position the mouse over a corner and, when it turns into a double arrow, click and drag the window inward or outward. Note that the dimension information below changes accordingly.

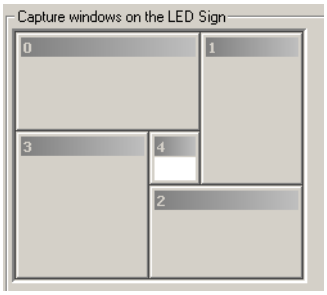


Click here to see a preview of your capture window. You can also click and drag this preview window inward and outward to change its width and height.

Capture window preview. You can click the gray tab and drag the window to a different area of your screen.

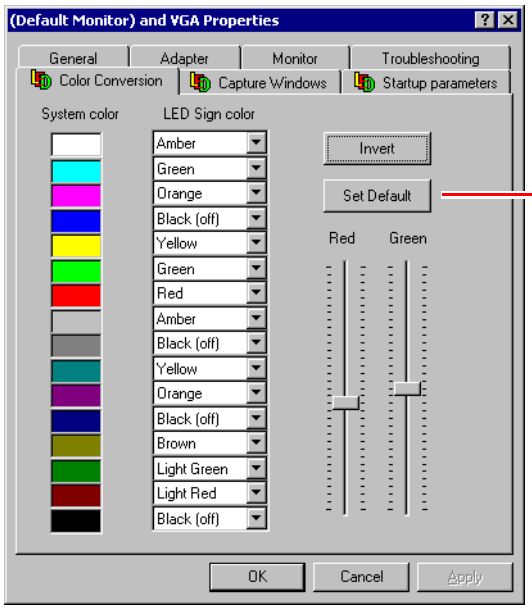
Capture window dimension information

The *Insert* and *Delete* buttons allow you to add and delete capture windows. You can have up to 99 capture windows.



5. Click the *Color Conversions* tab and make the appropriate changes:

This setting defines how the colors of the 16-color Windows standard palette (*System color*) are converted into the eight LED colors (*LED Sign color*). For each of the 16 colors, you can specify the color to appear on the sign in its place.



Returns the settings to their original values.

6. When changes are complete, click *OK*, then follow any prompts for restarting your system.

Attaching a monitor, keyboard, and mouse directly to a sign

1. Remove power from the sign.
2. Open the sign.

   NOTE: For a double-sided sign, just open the Master side.
3. Connect a VGA CRT monitor, computer keyboard and mouse to a sign's controller board.
4. Apply power to the sign.

Dimming the sign

To dim the sign by 50%, turn off the sign and attach a jumper to J8 on a sign's controller board.