



Smart Sign System Installation & Setup Instructions

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Smart Sign and Sign Control Software Installation and Setup Instructions

Table of Contents

Section 1

- System Requirements
- Site Planning Information
- Typical Network Topology

Section 2

- Sample Smart Sign Install Log
- TCL, PHX, and PHXF Smart Sign Series Installation Instructions
- VMS Rebel Smart Sign Installation Instructions

Section 3

- Software Overview
- Software Terminology and Organization
- Software Setup Instructions
- Smart Sign Software Setup Instructions
- Web Interface Setup Instructions

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Signal-Tech Smart Sign and Sign Control Software System

System Requirements

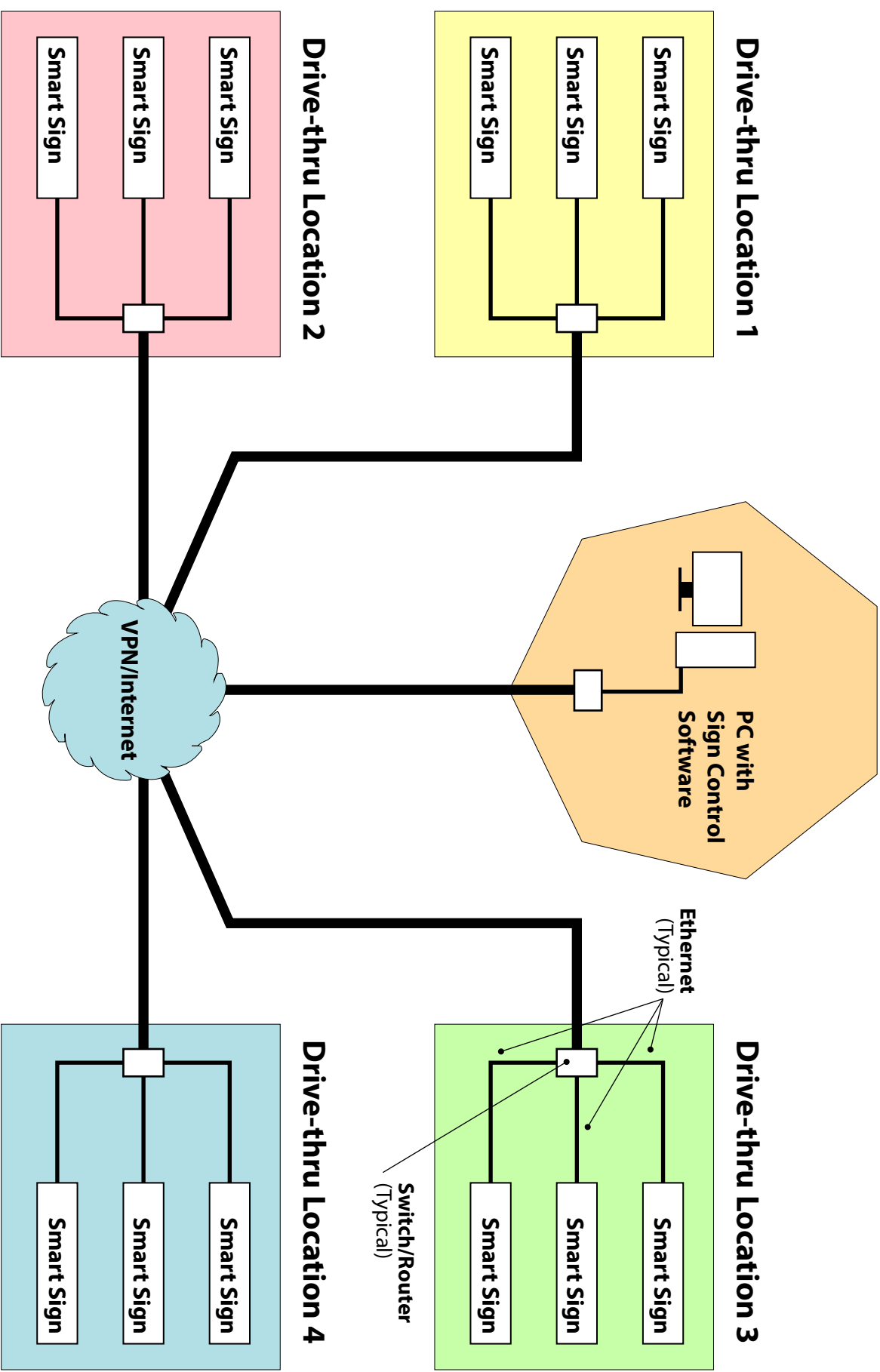
- Computer (by others)
 - Windows 7 or higher
 - Recommended: Server grade computer with backup power located in a physically secured area
- Network requirements
 - Ethernet
 - Recommended: DHCP enabled
- Each Signal-Tech Smart Sign or VMS Rebel Display requires:
 - A power connection at the sign. Either 12-24V or 120-277V based on Sign Series and input voltage
 - A physical Ethernet network connection
 - Static IP address

Site Planning Information

1. Functions of the admin software
 - a. system setup
 - b. add, edit, delete groups
 - c. add, edit, delete signs
 - d. add, edit, delete web interface users
 - e. setup, add, edit, delete and assign sign message schedule
2. Functions of the web interface
 - a. view sign status
 - b. view schedule being displayed by sign
 - c. override message schedule
 - d. return to pre-set message schedule
3. Signal-Tech Smart Signs and VMS Rebel Display Signs cannot be operated with switches and software simultaneously.

Please note, Signal-Tech is not responsible for troubleshooting network issues.

Network Topology



- Signs and software do not require internet access for operation

- 120V Power and live physical ethernet connection required for each Smart Sign

IMPORTANT: COMPLETE WHILE INSTALLING Smart Signs

Facility Location: _____

Install Date: _____ Installed By: _____

Sign Location	Product ID# & MAC Address Sticker	IP Address	IP Port

For double faced signs, the orientation of each face needs to be documented in the sign location notes. The inside of the sign will be labeled A and B.

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Static Message Smart Sign Installation Instructions TCL, PHX, and PHXF Series

IMPORTANT: Complete the Smart Sign Install Log before installing each Smart Sign.

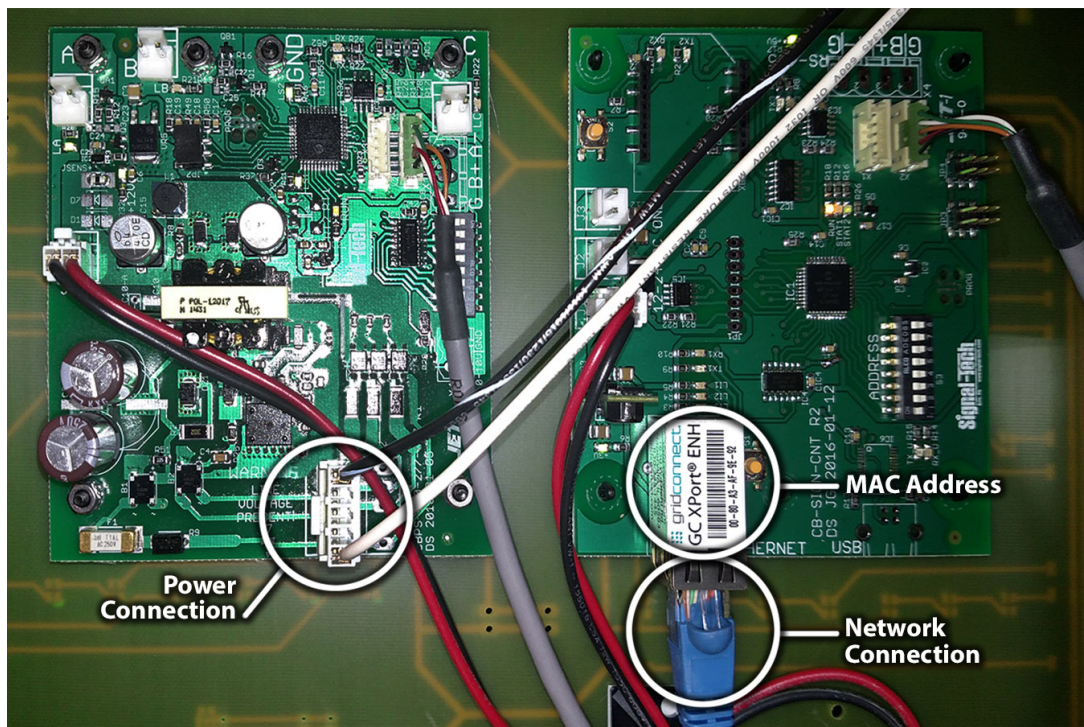
How to complete the Smart Sign Install Log:

1. Write in the Facility Location
2. Write in the specific sign location at the facility
3. Remove the Product ID# & MAC address sticker from the inside sign and place next to the sign location on the chart.
4. Repeat for each Smart Sign being installed at that facility location

Completing the Smart Sign Install Log is CRITICAL to proper Smart Sign and Sign Control Software setup and configuration.

Installation Steps:

1. Turn off the power prior to starting the installation.
2. Follow the standard wall mount instructions to attach sign to the structure (see reverse side).
3. Connect the Ethernet network connection and power connection to the sign as shown below.



4. Sign will not illuminate until schedule is set up in the software or a manual override message is sent to the sign.

Note: For messages to display on the sign, the network DHCP must be set before power is restored to the sign. If power is restored prior to this occurring, the sign power must be recycled for the network to recognize the sign.



Variable Message Smart Sign Installation Instructions

VMS Series Rebel

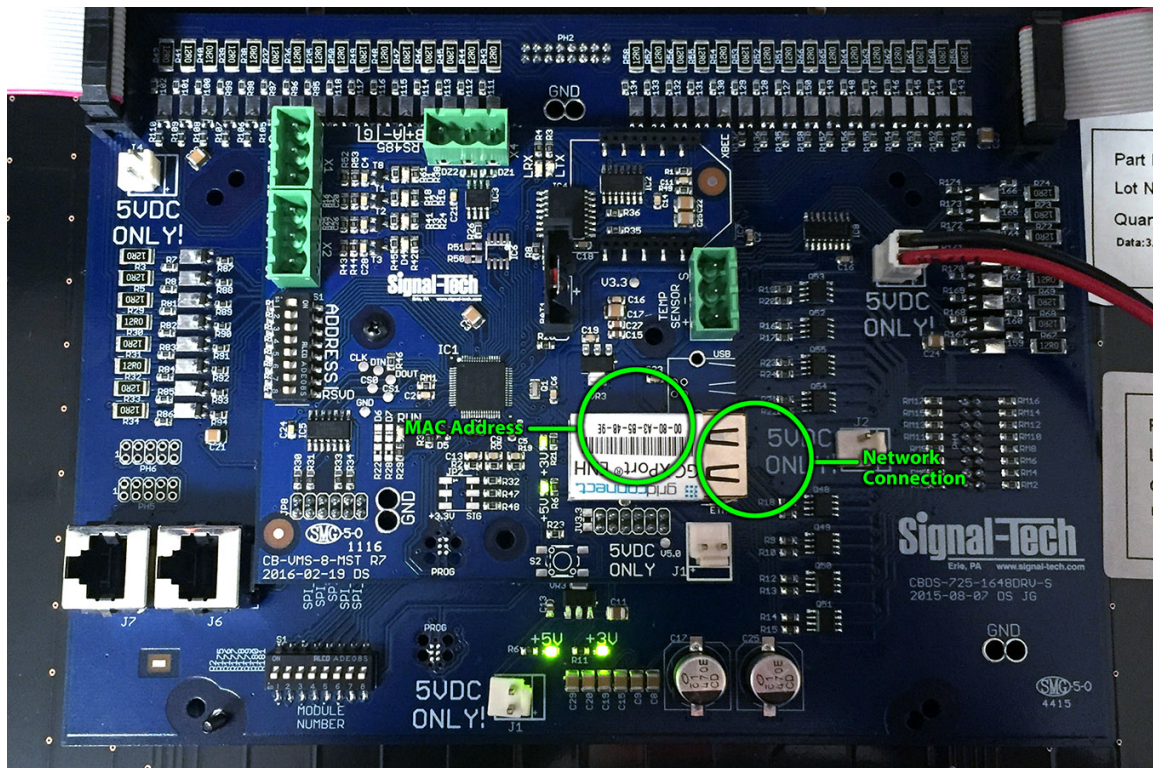
IMPORTANT: Complete the Smart Sign Install Log before installing each Smart Sign.

How to complete the Smart Sign Install Log:

1. Enter the location
2. Enter the specific sign location at the site
3. Remove the Product ID# & MAC address sticker from the inside sign and place next to the sign location on the chart.
4. Repeat for each Smart Sign being installed at that facility location

Completing the Smart Sign Install Log is **CRITICAL** to proper Smart Sign and Sign Control Software setup and configuration.

1. Turn off the power prior to starting the installation.
2. Attach the sign to the structure.
3. Connect the Ethernet network connection to the sign as shown below.



4. Make the power connection.

5. Sign will not illuminate until schedule is set up in the software or a manual override message is sent to the sign.

Note: For messages to display on the sign, the network DHCP must be set before power is restored to the sign. If power is restored prior to this occurring, the sign power must be recycled for the network to recognize the sign.



Software and Smart Sign Setup

Section 3.0

Software Overview

General Features

- Can control an unlimited number of signs
- Runs as a Windows service
- Signs can be placed into logical groups
- Notifies the administrator if sign communications fail

Admin Interface

- Shows a live overview of all of your signs and what they are currently displaying
- Allows configuration of signs, schedules, messages, and Web Interface users
- Shows logs of all Web user activities

Web Interface

- The software can provide a Web interface over HTTP
- Shows a live overview of signs (by sign group) and what they are currently displaying
- Users can be given permissions based on sign groups, and manually override schedules or add scheduled overrides to the current schedule
- Optimized for mobile viewing on mobile devices

Scheduling

- Allows for scheduling a repeating weekly schedule
- Allows scheduled and manual overrides of schedules
- Works across multiple time zones

Terminology and Organization

Sign

- Each Smart Sign connected to the software must be configured in the software. Signs are accessed over TCP/IP.

Schedule

- A schedule contains a daily time-based list of messages for each day in the week. Each day can have different message setups, including having time periods where the sign displays nothing. Schedules are specific to sign types and loop until edited or manually overridden.

Sign Type

- The sign type is the product ID of the sign. Same sign types can share schedules.

S-VMS Message Smart Signs

- S-VMS Rebel Series signs. Variable message Smart Signs display programmed messages keyed in by the administrator or user. S-VMS message signs are only available in monochromatic displays.

Static Message Smart Signs

- S-TCL, S-PHX, and S-PHXF series signs. Signs that can only display messages preset by the factory.

Sign Group

- Signs can be placed into logical groups, to make sign organization easier. Web Interface setup will also be easier.

Manual Override

- Schedules can be overridden in real time through the Sign Control Software or Web Interface.

Scheduled Override

- These are part of a schedule, and can be used to override the schedule for holidays or other occasions. Scheduled overrides may be added to a schedule in the administrator area or Web Interface by authorized users.

HTTP User

- Users are only applicable to the Web (HTTP) Interface, and can be given permissions to view specific sign groups.

Organization

- The organization of this software allows you to re-use message groups in schedules, and to use the same schedule on multiple signs

S-VMS Message Name

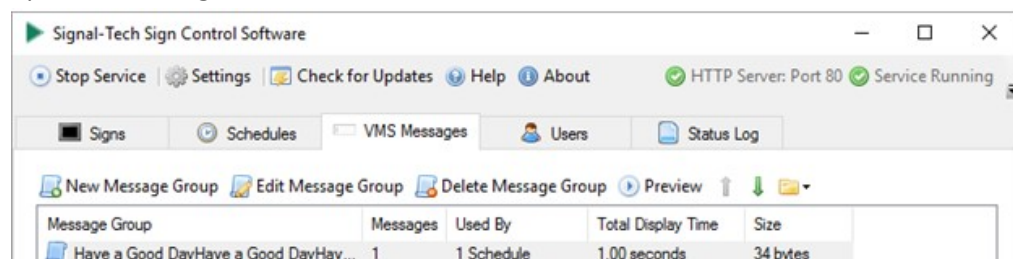
- Used to organize and schedule messages for the S-VMS Rebel Sign. A Message may contain a single part or it may contain many message parts that will display sequentially.

Section 3.1

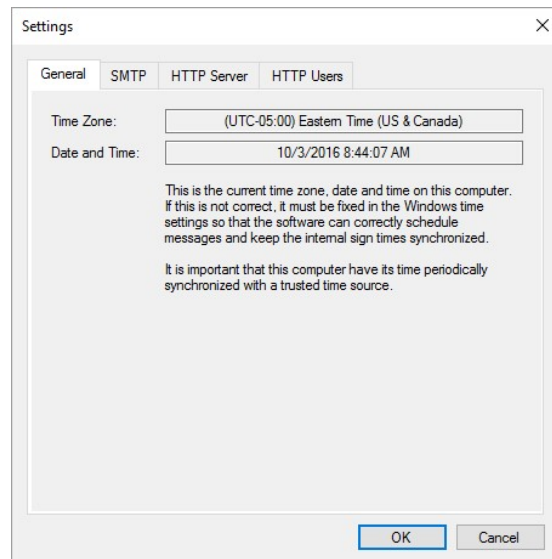
Software Setup – *(This section must be completed by IT/Network Administrator)*

Download Software: <http://www.signal-tech.com/signcontrolsoftware>

1. Complete the software registration page and agree to the license agreement
2. Open the Sign Control Software Setup.exe file
3. Read and agree to the License Agreement
4. Follow the steps to install the software
5. Configure the Sign Control Software
 - a. Open the **Settings** Tab



To Edit the **General** Tab – adjust settings in Windows on the PC



- b. Select the **SMTP** Tab. Error notifications will be sent to the email shown on the SMTP

The screenshot shows the 'Settings' dialog box with the 'SMTP' tab selected. The 'Send Email After' field is set to 15 minutes. Below it, a note states: 'The administrator email will be sent a message in the event of a sign being unresponsive for the period of time specified.' The 'Email Address' field is empty. The 'SMTP Host' field is empty. The 'SMTP Port' field is set to 25. There are checkboxes for 'Use Authentication' and 'Use SSL', both of which are unchecked. The 'SMTP Username' and 'SMTP Password' fields are empty. A 'Test' button is located below the password field. At the bottom of the dialog are 'OK' and 'Cancel' buttons.

tab.

- c. **HTTP Server** Tab – Use to edit HTTP Server settings, Timeout and Support Contact. The **Contact** section should be the internal contact for Web Interface Users to contact with questions.

The screenshot shows the 'Settings' dialog box with the 'HTTP Server' tab selected. The 'HTTP Server' dropdown is set to 'Enabled'. To its right, the 'Port' field is set to 80. Below the 'HTTP Server' dropdown, a note states: 'This will enable access to the software dashboard and override settings through a Web interface. Users must be configured in the software interface.' The 'Timeout' field is set to 15 minutes. Below it, a note states: 'Time, in minutes, before inactive users are logged out of the Web interface. Enter 0 for no timeout.' The 'Contact' field is empty. Below it, a note states: 'This information will be shown in the Web interface as the contact in case of a problem (optional).' The 'Logo' section has a 'Browse' button and a 'Remove' button. Below the 'Logo' section, a note states: 'Import your company logo to have it displayed in the Web interface (optional).' At the bottom of the dialog are 'OK' and 'Cancel' buttons.



You must provide users with a hostname or IP address that is routed to this computer to allow access to the Web Interface

- d. Select the **HTTP Users** Tab - Set up the password requirements for the HTTP Web Interface users.

Settings

General SMTP HTTP Server HTTP Users

Minimum Password Length: 6

Upper Case Characters Required: 0

Numeric Characters Required: 0

Non-Alphanumeric Characters Required: 0

OK Cancel



The completed **Smart Sign Install Log(s)** will be required for **Section 3.2 and 3.3**



The signs must have been given IP addresses by IT/Network Administrator.

STATIC Message Smart Sign Setup

Continue to SECTION 3.2

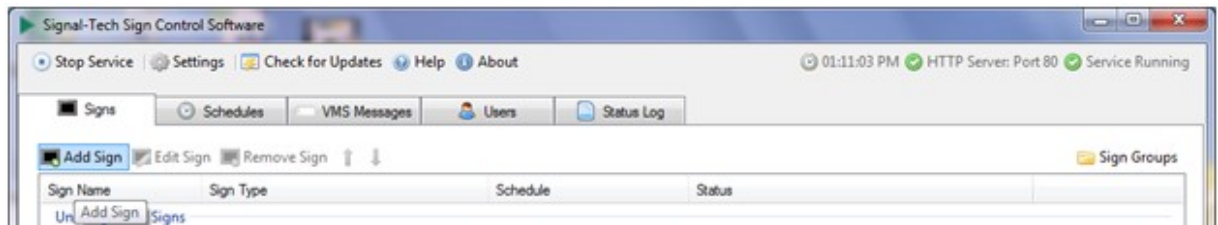
S-VMS REBEL Variable Message Smart Sign Setup

Continue to SECTION 3.3

Section 3.2



Static Smart Sign Setup

1. Refer to the Smart Sign Install Log(s)
2. Select the **Signs** Tab
3. Select **Add Sign** from the **Signs** toolbar and fill in the fields as described below



4. Using the Smart Sign Install Log, enter the Static IP address, port, and address that has been assigned to the sign

Tech Tips for Adding a Smart Sign – Have the Smart Sign Install Logs handy

- Information from the Smart Sign Install Log is needed to add each sign.
- The Install Log should provide Sign Location, Sign Message, Smart Sign Product ID, Smart Sign MAC Address, IP address, and Port. **Make sure the IT/Network Administrator has filled out the IP address and port for each sign before continuing.**
- When adding a sign, be prepared to enter the IP address, port, and address for each sign.
- Default Smart Sign address is 1; default Smart Sign port is 10001
- The green   arrows in the toolbar on the **Signs** tab can be used to reorder the sign list.

Smart Sign Install Log Example

Signal-Tech Smart Sign Install Log
Sign Control Software

IMPORTANT: COMPLETE WHILE INSTALLING Smart Signs

Facility Location: _____

Install Date: _____ Installed By: _____

Sign Location	Product ID# & MAC Address Sticker	IP Address	IP Port

For double faced signs, the orientation of each face needs to be documented in the sign location notes. The inside of the sign will be labeled A and B.

5. Enter Sign Name - We recommend using the sign's physical location (ex. Lane 1)

6. Create a **New Sign Group** or choose an existing one from the drop-down menu (We recommend using the facility name)

7. Time Zone - defaults to 'Same as Server'. Adjust as needed.
8. Create **New Sign Schedule** or select an existing one from the drop down menu
 - a. Assign a **Schedule Name**. (We recommend using the facility location name + sign message such as, 'Branch 339' 'OPEN|CLOSED')
 - b. Double click anywhere on the schedule to get started
 - c. Enter the following information
 - **Messages** – Choose the message to be displayed from the drop down box

- After selecting message(s) to display, press **OK**.

- Day - Select single or multiple days for the message to appear
- Enter Start and End Time for the message to be displayed.

- Press **OK**

- Double click in the schedule, and repeat **Step C** until weekly schedule is complete.
- When schedule is complete, Click **OK**

9. Press **OK** to complete the process of adding that sign

Note: To edit a schedule, go to the **Schedule Tab** and find the **Schedule Name** that needs edited



Tech Tips for using the schedule

- Double-click an empty area to create a new schedule item.
- Double-click an existing schedule item to edit it
- Right-click an existing schedule item to edit or delete
- Drag edges of the daily schedule to change start and end times of the schedule items

If there is a **gap in the schedule**, the sign(s) on that schedule will turn off until the sign schedule reaches an active part of the schedule.

If a **power outage occurs**, the signs will blank out until the power is restored. Once power is restored the sign(s) will resume following the assigned schedule.

Weekly schedule repeats until the schedule is edited.

The weekly schedule can be temporarily interrupted by setting a **Manual or Scheduled Override** message.

If the network goes down the sign will continue to display the last schedule message until the network is restored, at which time it will resume following the assigned schedule.



10. Repeat Steps in **Section 3.2** until all Static Signs have been added to the software.

Section 3.3

Variable Message (S-VMS Rebel) Smart Sign Setup

1. Refer to the Smart Sign Install Log(s)
2. Select the **Signs** Tab

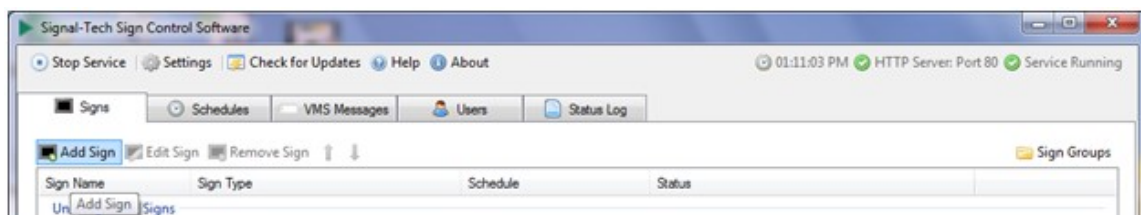
Tech Tips for Adding a S-VMS Rebel – Have the Smart Sign Install Logs handy

- Information from the Smart Sign Install Log is needed to add each sign.
- The Install Log should provide Sign Location, Sign Message, Smart Sign Product ID, Smart Sign MAC Address, IP address, and Port. **The IT/Network Administrator MUST filled out the IP address and port for each sign before continuing.**
- When adding a sign, be prepared to enter the IP address, port, and address for each sign.
- **Default S-VMS Rebel address is 1; default port is 10001**
- The green   arrows in the toolbar on the **Signs** tab can be used to reorder the sign list.

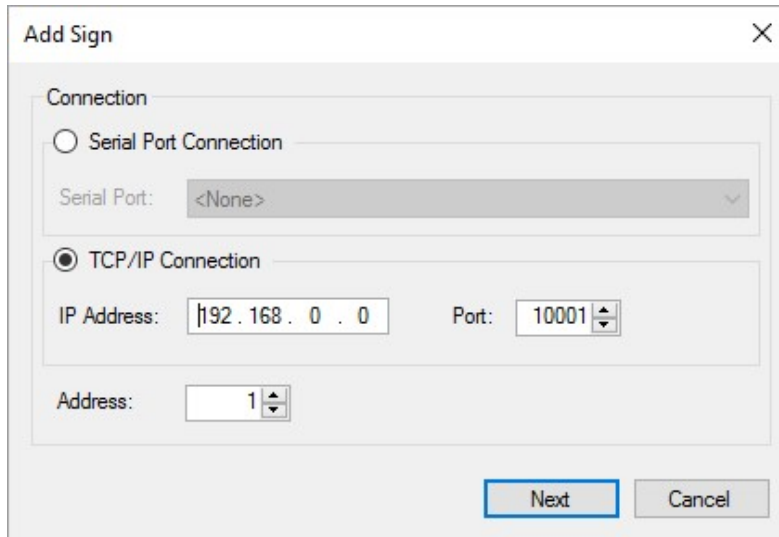
Smart Sign Install Log Example

Signal Tech Signal Control Software			
SmartSign Install Log			
Location: _____		Installed By: _____	
Install Date: _____			
Sign Location	Product ID# & MAC Address Sticker	IP Address	IP Port

3. Select **Add Sign** from the **Signs** toolbar and fill in the fields as described below



- Using the Smart Sign Install Log, enter the Static IP address, port, and address that has been assigned to the sign, Select **NEXT**




The screenshot shows a dialog box titled "Add Sign" with a close button (X) in the top right corner. Inside the dialog, there are two radio button options under the heading "Connection". The first option is "Serial Port Connection", which is unselected. Below it is a "Serial Port:" dropdown menu showing "<None>". The second option is "TCP/IP Connection", which is selected with a filled radio button. Below this, there are three input fields: "IP Address:" with the value "192.168.0.0", "Port:" with the value "10001", and "Address:" with the value "1". At the bottom right of the dialog, there are two buttons: "Next" and "Cancel". The "Next" button is highlighted with a blue border.

- Enter Sign Name - We recommend using the sign's physical location (ex. "South Entrance" or "Lane 1")

Add Sign [X]

Sign Type: **VMS Rebel 16x96**

Connection: **TCP/IP (192.168.1.33:10001) Addr 1**



Sign Name:

Sign Group:

Time Zone:

Schedule:

Brightness

auto (1) low

 high (15)

6. Create a **New Sign Group** or choose an existing one from the drop-down menu (We recommend using a unique location name or Branch # or name)

Sign Name:

Sign Group:

Time Zone:

Schedule:

7. Time Zone - defaults to 'Same as Server'. Adjust as needed.
8. Create **New Sign Schedule** or select an existing one from the drop down menu.

Time Zone:

Schedule:

Brightness:

- NOTE:** A schedule can be created to control a single S-VMS Rebel sign or to be shared among many S-VMS Rebel signs.

b. Double click anywhere on the schedule grid to get started adding messages and creating the schedule.

c. In the “Add Schedule Item” pop up box, click the **Message** drop down box. Select **<New Message>** or select an existing Message.

a. Fill in the **Message Name** – the Message Name is a unique description of the message parts.

New VMS Message

Message Name:

Add Message Part

Text:

Insert Date, Time or Symbol

Display For: second(s) ☐ Small Text ☐ Blink

- b. Enter the message for the sign to display in the box labeled **Text**.

New VMS Message

Message Name:

Add Message Part

Text:

Insert Date, Time or Symbol

Display For: second(s) ☐ Small Text ☐ Blink

Preview Sign Type: VMS Rebel 16x96

OK Cancel

- c. You can preview the message in a specific LED matrix layout by setting the **Preview Sign Type** to the display size. This setting is located on the bottom left corner of the pop-up

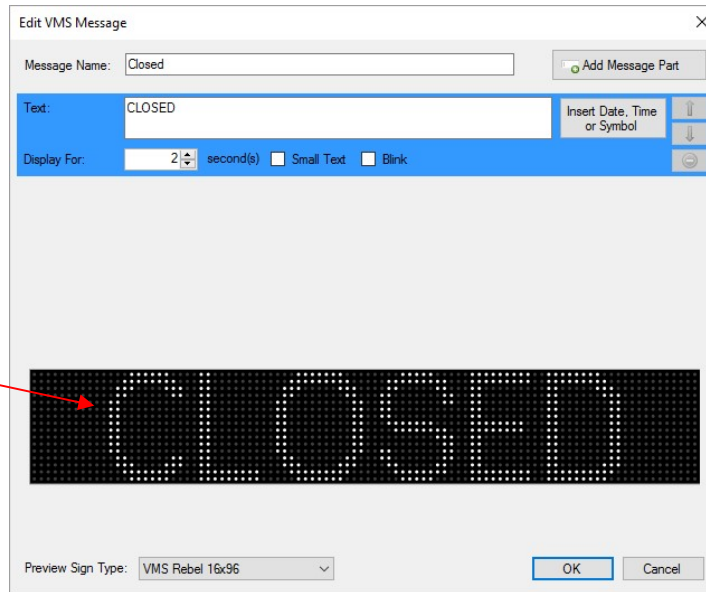
Preview Sign Type: VMS Rebel 16x96

VMS Rebel 16x96

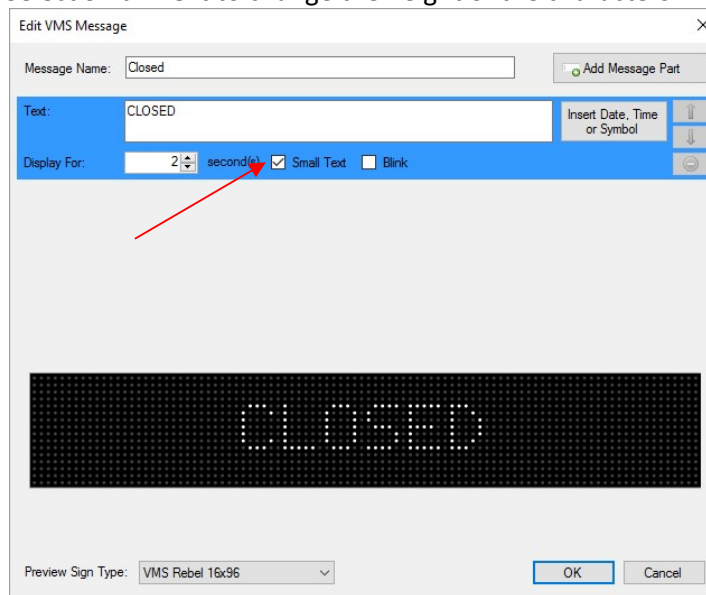
VMS Rebel 16x48

OK Cancel

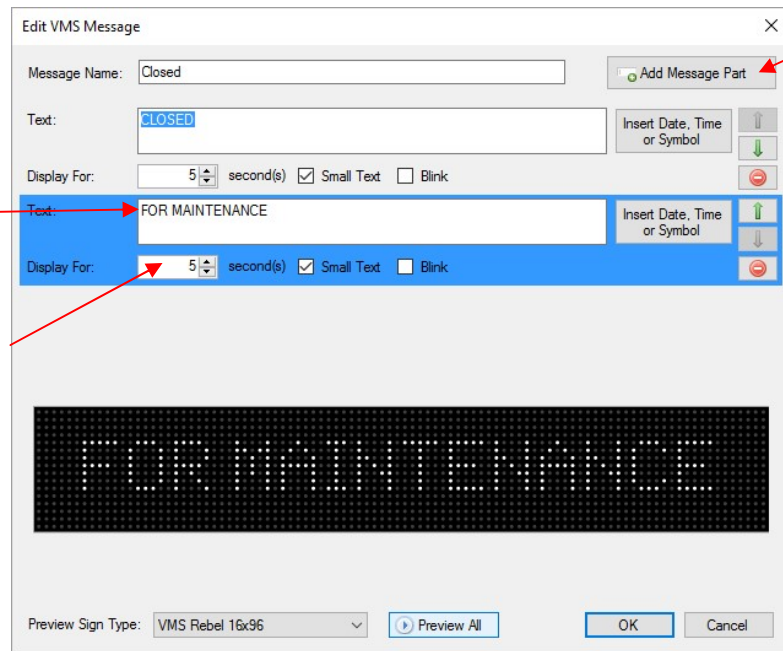
- d. As you type your message it will appear in the preview screen. The message will automatically scroll if the message is too long for the S-VMS Rebel sign.



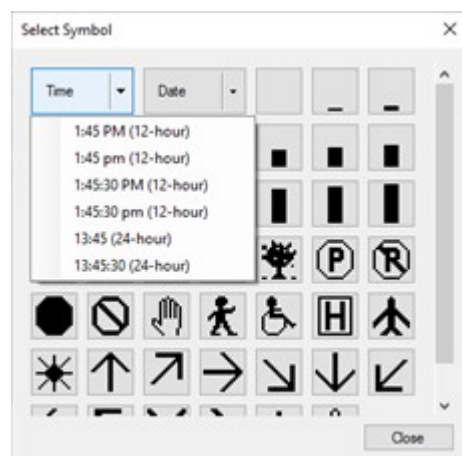
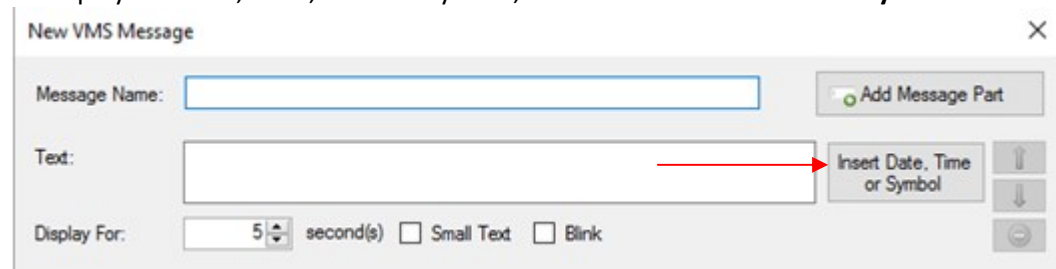
- e. Select **Small Text** to change the height of the characters.



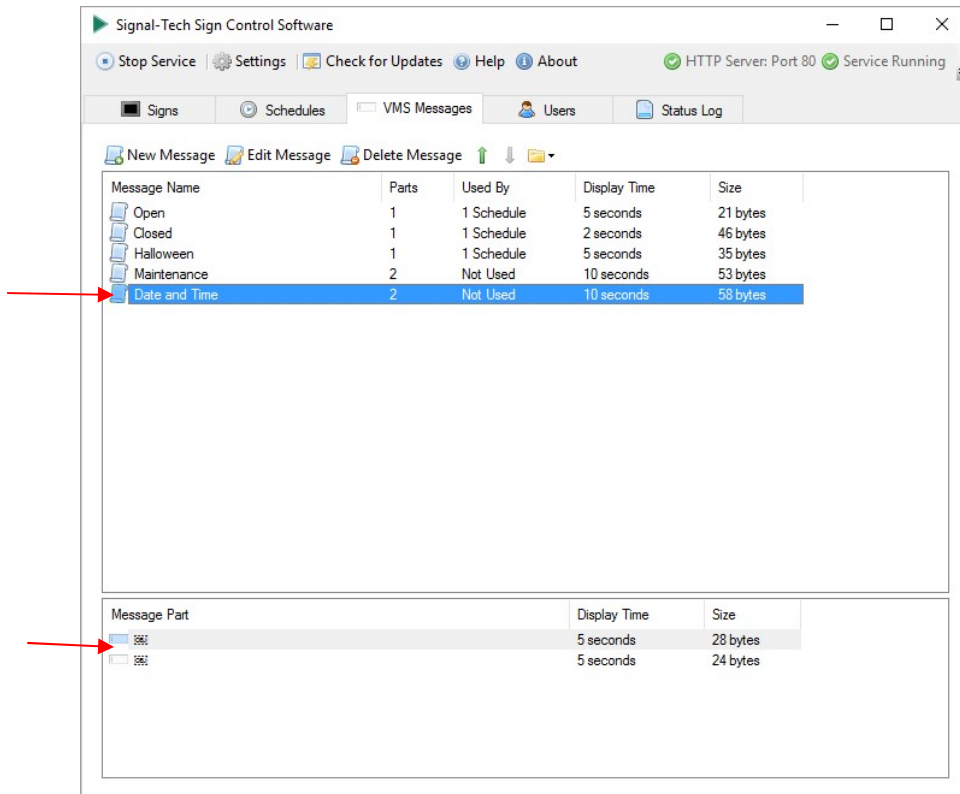
- f. Click **Add Message Part** to add another page to your message. Enter the message part in to the next **Text** area. The message parts will run sequentially and display each message part for the number of seconds entered in the **Display For** selection.



- g. To preview the parts of the message in sequence, press the **Preview All** button.
- h. To display the Date, Time, or add a symbol, use the **Insert Date Time or Symbol** button.



When using symbols, date or time it is important to enter the Message Name with as much detail as possible. When the Message Parts appear in the Text field and on the schedule they will appear as the same symbol space holder as every other symbol. If Date and Time are the display selection, set the Message Name to Date and Time. Make sure they are in the order of the message parts entered.



- i. To edit an existing message, highlight the message you want to change and then click Edit Message. You can also edit or delete a message by right clicking on the message and making the appropriate selection

10. Adding the **Messages** to the **Schedule**

- a. You can select multiple days or just a single day for the selected **Message Group** to display on the S- VMS Rebel sign

Add Schedule Item

Message: ▼

Day: ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday ☐ Saturday

Start Time: 12 : 00 AM

End Time: 12 : 00 AM

Note: You can edit the start and end time after closing this dialog by dragging the schedule item in the schedule view.

OK Cancel

Fill in the Message to display and the days and run time to display.

☒ Saturday

Start Time: 12 : 00 AM

End Time: 12 : 00 AM

Note: You can edit the start and end time after closing this dialog by dragging the schedule item in the schedule view.



Tech Tips for using the schedule feature

- Double-click an empty area to create a new schedule item.
- Double-click an existing schedule item to edit it
- Right-click an existing schedule item to edit or delete
- Drag edges of the daily schedule to change start and end times of the schedule items

If there is a **gap in the schedule**, the sign(s) running that schedule will turn off until the sign schedule reaches an active part of the schedule.

If a **power outage occurs**, the signs will blank out until the power is restored. Once power is restored the sign(s) will resume following the assigned schedule.

Weekly schedule repeats until the schedule is edited.

The weekly schedule can be temporarily interrupted by setting a **Manual or Scheduled Override** message.

If the network goes down the sign will continue to display the last scheduled message until the network is restored, at which time the sign will resume following the assigned schedule.

- After selecting OK, your selection will appear on the **Schedule**. Double click any open area to continue adding to the schedule.

- e. Press OK on the **Add Sign** screen. The sign is now configured and scheduled.

The 'Add Sign' dialog box contains the following information:

- Sign Type: **VMS Rebel 16x96**
- Connection: **TCP/IP (192.168.1.33:10001) Addr 1**
- Sign Name: **South Street S-VMS Rebel 16x96**
- Sign Group: **Uncategorized Signs**
- Time Zone: **<Same Time Zone As Server>**
- Schedule: **East Street Exit S-VMS 16x96**
- Brightness: **high (15)**

11. Scheduled Overrides

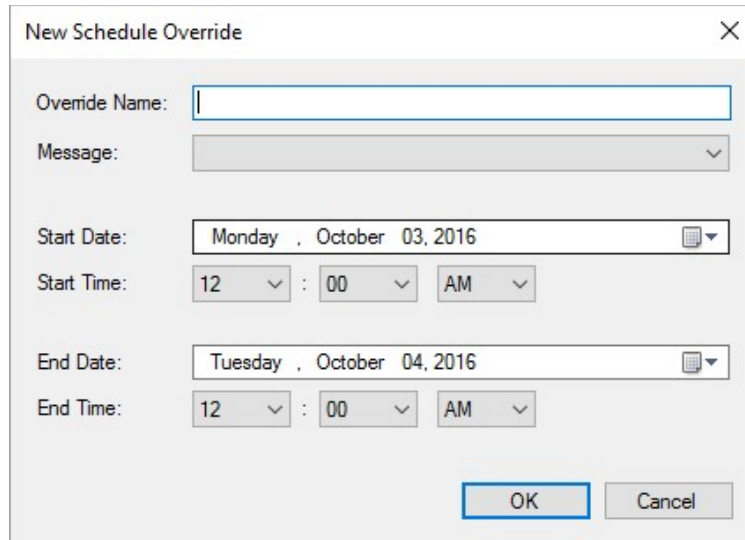
If there are special hours that are outside the regular operating schedule (for example holiday hours or an event), you can schedule them by selecting **New Override** from the lower section of the Schedule page.

- a. Select **New Override** from the sub menu

The 'New Override' dialog box includes the following elements:

- Calendar view for **Saturday** showing a time range from **12am** to **12pm**.
- Buttons: **New Override**, **Edit Override**, **Delete Override**, and **Clear Past Overrides**.
- Fields: **Description**, **Start Time**, **End Time**, and **Message**.

- b. Fill in the **Description** of the Override in the provided text box. The Description is just an explanation of the reason for the override. An example may be "Labor Day Holiday Message" to describe shortened hours during a particular day.
- c. Click the **Message** drop down arrow and either select an existing message or select **New Message**.



New Schedule Override

Override Name:

Message:

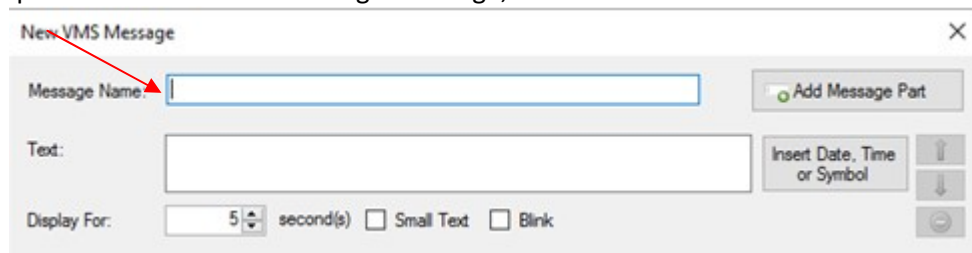
Start Date:

Start Time: : AM

End Date:

End Time: : AM

d. For a new **Message** fill in the **Message Name**, and then enter the message text. For specific instruction on creating a message, refer to **Section 3.3** for details.



New VMS Message

Message Name:

Text:

Display For: second(s) ☐ Small Text ☐ Blink

e. Enter your message and animation (if necessary) **Refer to Step 9**, and press OK.
 f. Select the Start Date and Time, as well as the End Date and Time and press OK.

It will appear in the lower part of the Schedule screen.


<input type="button" value="New Override"/> <input type="button" value="Edit Override"/> <input type="button" value="Delete Override"/> <input type="button" value="Clear Past Overrides"/>			
Description	Start Time	End Time	Message
Football Games	7/21/2016 3:00:00 PM	7/21/2016 11:00:00 PM	Football

12. Press OK to complete
13. Adjusting the sign brightness.
 - a. To adjust the brightness of the S-VMS Rebel Display, use the slide ruler

Add Sign

Sign Type: **VMS Rebel 16x96**

Connection: **TCP/IP (192.168.1.33:10001) Addr 1**



Sign Name: South Street S-VMS Rebel 16x96

Sign Group: Uncategorized Signs

Time Zone: <Same Time Zone As Server>

Schedule: East Street Exit S-VMS 16x96

Brightness

auto (1) low high (15)

Set

OK Cancel

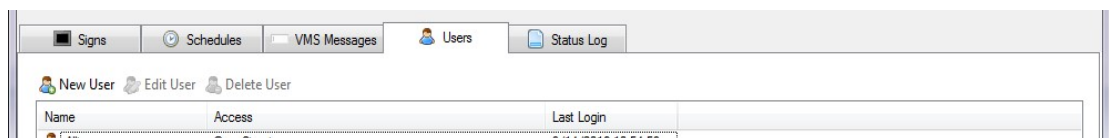
- b. Press the **Set** button then press **OK**.

Section 3.4

Web Interface Setup

The **Web Interface** can be used by individuals other than the administrator to view sign messages and override a scheduled message(s). Within an assigned **Sign Group(s)** users can view the status of each sign and the name of the schedule being run. Users can also override the message schedule to display a new message.

1. Configure the Web Interface; it is hosted in the Sign Control Software. (See [Section 2](#))
2. Assign Users access to the Web Interface
 - a) Select the **Users** Tab
 - b) Select **New User** from the menu



- c) Enter the users **Name** and create their **Login Username**, select which **Sign Groups** the user has access to.

A screenshot of the 'New HTTP User' dialog box. It contains the following fields and options:

- Name:** John Smith
- Login Username:** johns
- Login Password:** password (with a 'Reset to "password"' button)
- Access:** A list box with two checked items: 'Uncategorized Signs' and 'Diamond Parking Garage'. Below the list box are 'All' and 'None' buttons.
- Buttons at the bottom: 'OK' and 'Cancel'.

3. Provide Authorized Users with the Web Interface path and their assigned User Name. The password will default to "password", until the user changes it in the web interface.
4. Repeat until all authorized users have been added.