TraffiCloud™

Sign Manager Manual

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Contents

Welcome to TraffiCloud!

TraffiCloud is All Traffic Solutions' secure, web-based ecosystem for managing your traffic safety equipment. While our best-in-class hardware helps improve your traffic flows, complimenting this equipment with our TraffiCloud helps improve your workflows. Leveraging a consistent interface across all your traffic management equipment, TraffiCloud provides a new level of awareness while reducing the amount of time needed to manage your equipment and information.

TraffiCloud is best experienced using the subscription cellular-based remote management services. However, these services are not required to use your equipment. **TraffiCloud Sign Manager** a PC application (not a website) that allows you to manage your equipment, traffic data, and VMS messages directly from a Windows PC, laptop, or tablet.

While **TraffiCloud Sign Manager** is a standalone program, it does link to the TraffiCloud web platform when an Internet connection is present. This link allows traffic data to up uploaded, warehoused, and assigned to a collection Site for reporting purposes. The web platform also provides a library for VMS messages where anyone in your organization can store and share VMS messages for use on other PCs and equipment.

Installation and Setup

TraffiCloud Sign Manager is intended to be compatible with all versions of Windows between XP and Windows 10, excluding Windows RT. The latest version of the software can be downloaded here:
http://c.alltrafficsolutions.com/signmanager

If you plan to use USB to connect to your equipment, you may need the USB drivers. They can be found here:
http://c.alltrafficsolutions.com/usb

If you plan to use Bluetooth to connect to your equipment, you must pair your PC and sign using your PC's Bluetooth tools first. The PIN code for paring is "**ATS**".

The first time the software runs, it will ask you to enter an **Account Access Key** or log into TraffiCloud to retrieve the key automatically. Your credentials were sent to you in an email when your user was created in TraffiCloud and the Account Access Key was sent to your account Admin when your account was created. Reference the 'Security Keys' section for more details.

Security Keys

Quite simply, **Security Keys** give you access to your equipment and keep others out. TraffiCloud Sign Manager requires a device's unique key to allow you to change its settings or download data. To make this easy we provide a single **Account Access Key** that the software uses to download and install all of the **Device Keys** registered to your account. All those keys are stored in a Profile on your PC. The Account Key also gives the software access to the TraffiCloud web platform services for things like uploading traffic data or utilizing the VMS message libraries on your account.

You will be prompted to enter your Account Access Key the first time you run the software. This key was emailed to your TraffiCloud account Admin. Alternatively, you can use your TraffiCloud platform login credentials to download the keys automatically.

Additional Notes

- The default profile is the Guest profile. If no keys are installed, the software will allow connection to the equipment using the Guest profile but the access level will be Read Only.
- If a PC does not have access to the Internet, individual Device Keys may be added to the Guest profile for full access.
- More than one account key may be added to the software, creating multiple account profiles.

For additional assistance or unusual security requirements, please contact technical support at support@alltrafficsolutions.com or 866-366-6602 opt2
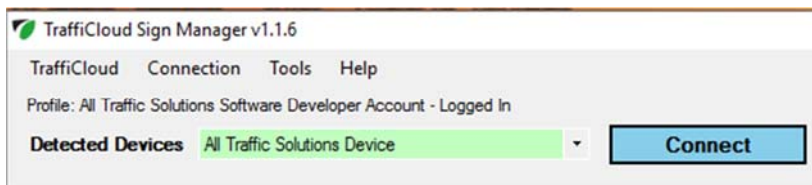
Connecting to Equipment

TraffiCloud Sign Manager allows connections to equipment over USB or optionally Bluetooth given the PC and sign both support it.

USB Connections

All Traffic Solutions signs typically use a USB mini connector. On Shield style signs the connection is located above the power switch under a small rectangular rubber plug. In InstAlert 24" signs the connection is inside an access panel on the back of the sign along the top edge. Reference images below.

Once the sign is connected, run the software. The 'Detected Devices' selection box should say "All Traffic Solutions Device". If not, the USB drivers may need to be installed on your PC. Reference the 'Installation and Setup' section for more info.

Click the 'Connect' button to read and display the settings from your equipment.

Bluetooth

When attempting a Bluetooth connection, please be sure your PC supports it and that the option was purchased for your equipment.

Before using the software, the equipment must be 'paired' with the PC. Use your PC's Bluetooth software to search and find the device and connect to it to pair. The pairing PIN code is "ATS".

Once the device is paired, run TraffiCloud Sign Manager and select *Bluetooth* under the *Connection* menu. This will populate the *Detected Devices* list with the names of your paired equipment. Select the name of the desired sign and click the *Connect* button. Upon successful connection all of the device's settings will be read and displayed.
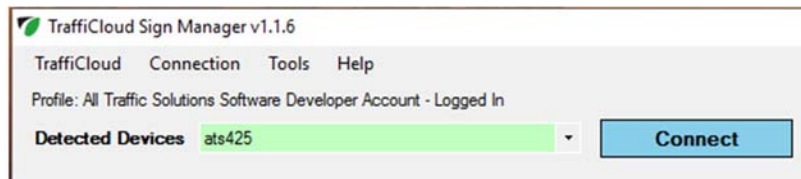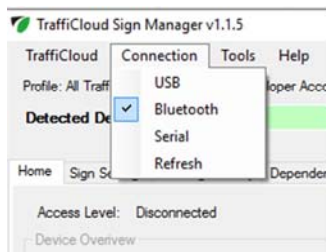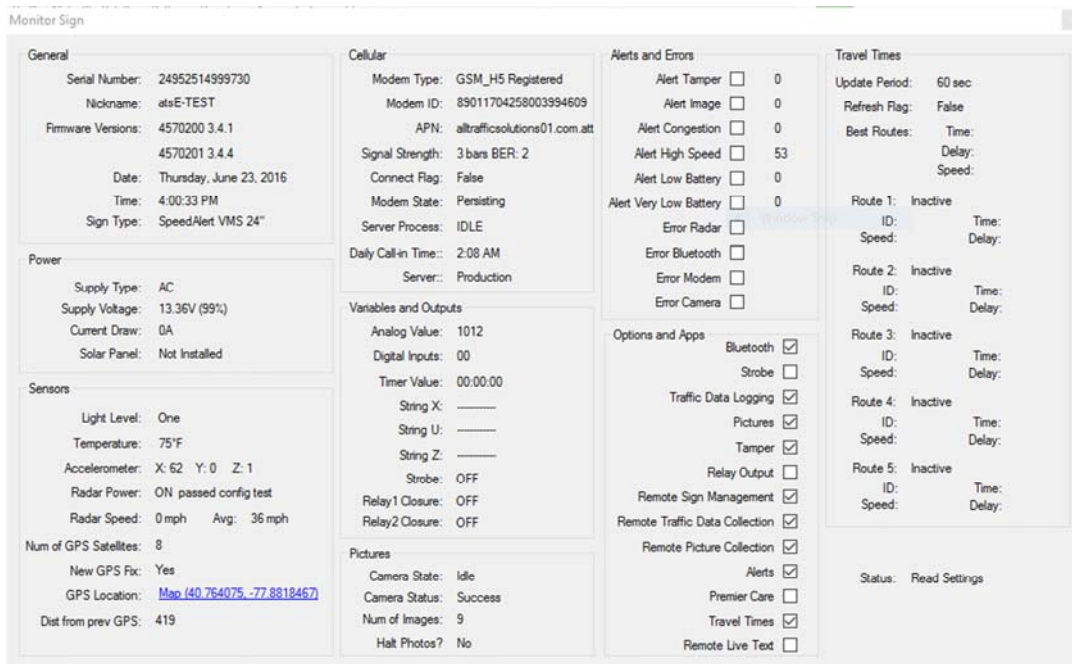
Home Tab

The Home tab shows an overview of the equipment identification and status information. It also shows your current access level to the sign's settings and data.
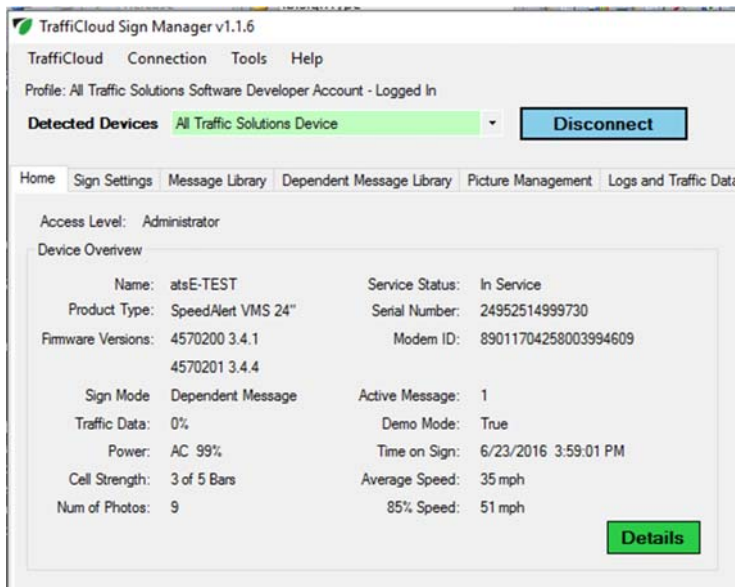
The *Details* button brings up a live monitor view of many internal values for your equipment. These can be helpful in troubleshooting any problems.

Sign Settings Tab

The *Sign Settings* tab allows you to change how your equipment operates. The most important setting is the *Sign Mode*. The available sign modes are determined by the type of product connected.

| Sign Mode	Description	Available on
Display Off	The display is blank. Continues to collect traffic data if equipped with radar.	All models
Changeable Speed Limit	Displays the speed limit value	All models
Speed Display	Displays speed of approaching vehicles	Models with radar
Single Message	Continually loops a single VMS Message	Models with full matrix displays
All Messages	Continually loops through all loaded VMS Messages	Models with full matrix displays
Dependent Message	Displays the appropriate Message in the Dependent Message Group	Models with full matrix displays
Daily Schedule	Sign Mode is determined by a schedule that repeats daily	All models
Weekly Schedule	Sign Mode is determined by a schedule that is based on the day of the week	All models

Once the desired setting changes have been made, click the *Apply Changes* button to send them to the sign. Below are some examples of how the settings area may look differently depending on the mode selected. Also note that some features may be hidden if the attached product does not include them.
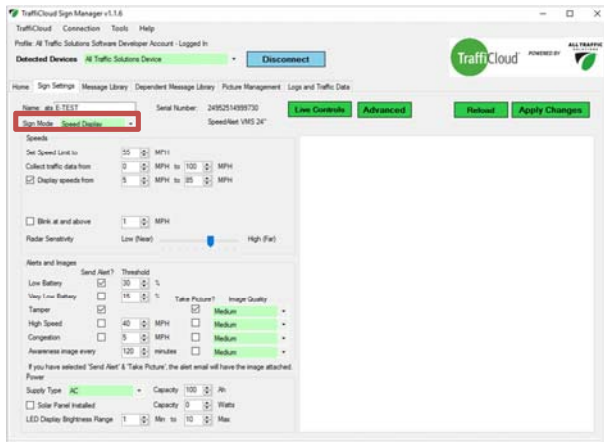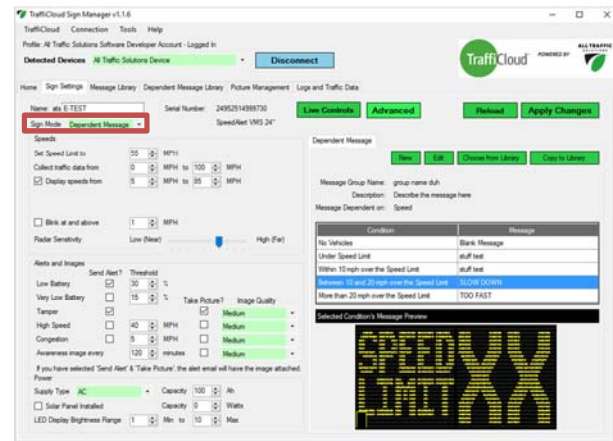

Speed Display Mode
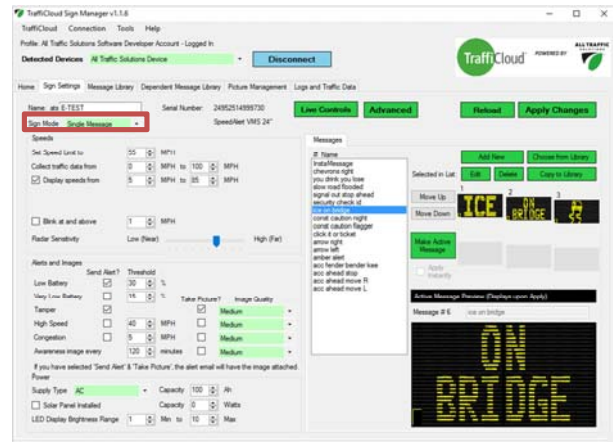
Single Message Mode
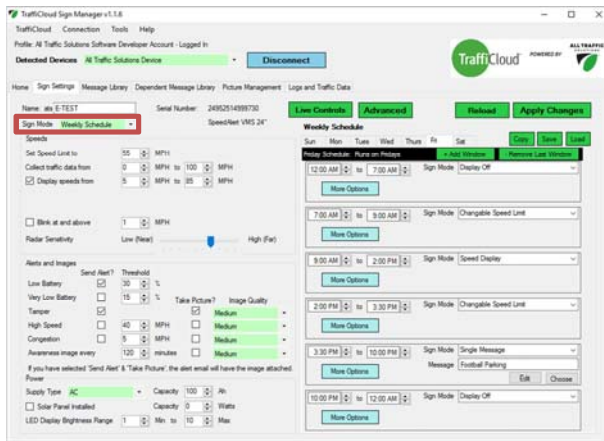
Weekly Schedule Mode

Dependent Message Mode

Message Library

This is the area where VMS Messages are stored and are available to any equipment of relevant type.

A **Message** is a sequence of text and/or graphic **Screens** that are displayed on a sign and looped through continuously.

Messages may be created, edited, copied, or deleted from this library. Messages may also be imported or exported to/from your account's TraffiCloud Message Library.
A quick preview of the selected message is shown in the right-hand side column.

Use the filter at the top of the table to limit the view of messages to a particular compatible equipment size if both sizes are available.

Messages may be selected from or added to this library directly in the Sign Settings tab as well.

For more information about Messages, see the **Editing Messages** section below.

Editing Messages

Messages

A *Message* is a sequence of text and/or graphic *Screens* that are displayed on a sign and looped through continuously.

- Messages are referenced by a "Name" but a more detailed *Description* can be included
- Choose the number of screens included immediately or add/remove them as needed
- The *Size* of the Message must match the type of equipment on which it will be displayed.

Screens

To edit a Screen, select a tab with the screen number on it.

Screen Types

Screens have a selectable Type which dictates part of the format and information displayed

- Large / Medium / Small Lines are text only
- Graphics allows individual control of each LED pixel on the screen
- Speed Limit displays the value of the speed limit setting stored in the sign
- Your Speed displays the speed of an approaching vehicle (radar required)
    - Recommended for use as part of a Dependent Message only, otherwise the speed of 0 will be displayed when no vehicles are present.
    - Note: this uses the speed detected at the beginning of the message only and is not updated again until the message loops. Therefore it is best to place it as the first screen in the message and keep the message short.
- Clock screens show the current time as shown in the preview

Screen Properties

- Duration is the number of seconds the screen will be displayed until going to the next
- Blink Types are no blinking, blinking, or inverting
    - Inverting blink is where illuminated parts of the screen go dark and non-illuminated parts light up for a time then revert back to normal repeatedly.
- Blink Rate is only relevant when the screen is set to blink or invert.
    - Slow is timed as 1 sec on / 1 sec off
    - Medium is timed as 0.75 sec on / 0.75 sec off
    - Fast is timed as 0.5 sec on / 0.5 sec off
- Screen Power Usage indicates how much of the display is illuminated. It is a tool to help with battery conservation. Low power usage will translate to longer battery life.
    - Note blinking a screen effectively halves its power usage

Variable Text {x} Feature

At certain times it may be desirable for a text screen to include a value that changes, such as the current day of the week. This is possible by using the {x} button to insert a placeholder for the variable text. When displayed, the sign will translate the placeholder into the actual value.

For more information on this feature or custom applications please contact ATS at support@alltrafficsolutions.com

Individual Screens may be copied to other screens or messages; this is especially useful for graphical screens.

If a compatible sign is connected to the software, this message may be displayed immediately with one click!
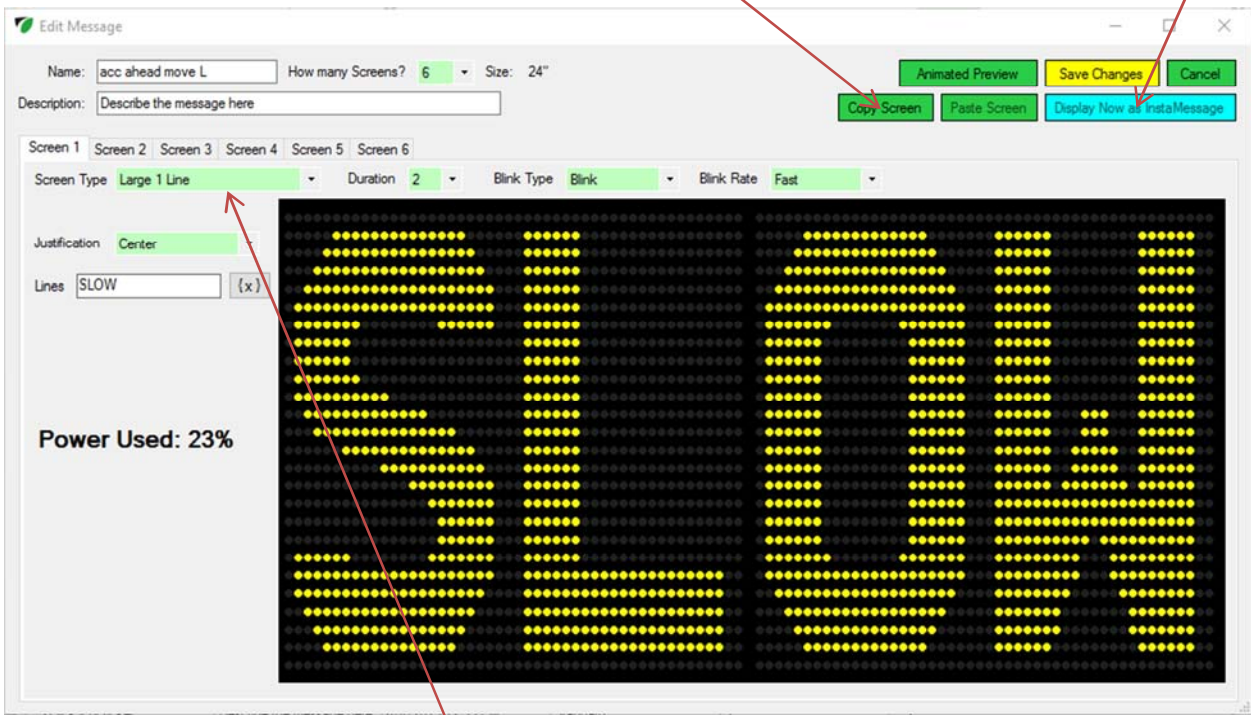
The Screen Type determines how many characters and lines are will fit on the screen. Special types are also available.

![TraffiCloud logo]

Dependent Message Library

This is an area where Dependent Message Groups are stored and are available to any equipment of relevant type.

Dependent Message Groups allow a variable message sign to show different messages depending on the value of a variable input. The Dependent Message Group provides a convenient way of grouping together related messages along with the conditions under which they should be displayed all in one place. Dependent Message Groups can be dependent on various input conditions and variables, the most common of which is detected vehicle speed (radar speed sensor required).

Dependent Message Groups may be created, edited, copied, or deleted from this library.
A quick preview of the selected dependent message is shown in the right-hand side column where each message and its dependency can be viewed.

Use the filter at the top of the table to limit the view of dependent message groups to a particular compatible equipment size if both sizes are available.

Dependent Message Groups may be selected from or added to this library directly in the Equipment -> Edit Equipment Settings area as well.

For more information about Dependent Message Groups, see the **Editing Dependent Messages** section below.

Editing Dependent Messages

The different types of Dependent Message Groups are shown below.

Detected Speed
A group that displays an appropriate message based on the detected speed of an approaching vehicle. Often used for traffic calming. Radar speed sensor required.

Timer Value
Displays different messages based on the value of the internal timer. Often used for New Year's countdowns or casual race information. Manual timer start / stop control is usually required.(Timer should not be used as an official timekeeping device)

Digital Inputs
Different messages can be displayed based on digital input values. Custom firmware and wiring is required. Contact support@alltrafficsolutions.com or your regional sales rep if you are interested in using this feature.

String Value
A string of text characters can be sent to the sign and compared with a pre-determined value. If the strings match, the corresponding message will display. Text strings can be sent to the sign manually using the "Live Values" area of the PC software. Use the 'string 1' value. For more information contact support@alltrafficsolutions.com or your regional sales rep.

Analog Input
Displays different messages based on the value of an analog input. Custom firmware and wiring is required to use this type of Dependent Message Group. Contact support@alltrafficsolutions.com or your regional sales rep if you are interested in using this feature.

Best Route
Travel Times feature required. If there are multiple routes to a given destination, each route may be assigned to a message. The message assigned to the route with the fasted overall travel time will be displayed.

Route Info Dependent
Travel Times feature required. A travel route may be assigned to this group. Different messages can be displayed depending on the travel time, average speed, or overall delay for the route.

Dependent Message Group

Message Group Size:	18"
Message Group Name:	Speed Dependent Msg
Message Group Description:	Default Speed Dependent Message for 18" signs
Messages Dependent on:	Speed

Condition	Message
No Vehicles	SM BlankMessage
Under Speed Limit	SM nice day
Within 9 mph over the Speed Limit	SM your speed limit
Between 9 and 19 mph over the Speed Limit	SM YS slow down
More than 19 mph over the Speed Limit	SM YS too fast

Selected Condition and Message

New   Edit   Choose from Library   Copy to Library   Animated Preview

Over the speed limit by 9 but not   19   mph over the speed limit

1	2	3
XX	LIMIT XX	SLOW DOWN

Save   Cancel

Picture Management

Here images taken by equipment may be downloaded and viewed. While equipment is connected, test images may be taken and reviewed as well.

Comments may be added to individual images and an image can be printed along with its corresponding metadata.

Filters are available to sort images by date/time taken or by trigger type.

Information from the connected device regarding the picture settings and number stored in memory is displayed in the 'Camera Information' section.

Logs and Traffic Data

On this tab Traffic Data and other logs can be downloaded from attached equipment. The downloaded data is stored in individual files and shows up in the list.

The selected file in the list may be reviewed by clicking the 'View' button which shows the included information. Here data may be exported to a 'csv' type file compatible with spreadsheet programs for custom analysis.

Traffic data files are best viewed using the reporting engine on the TraffiCloud platform. To do this, first the file must be uploaded using the 'Upload to TraffiCloud Site' button. The data must be assigned to a 'Site', which is a geographic location, for use on the TraffiCloud website. Once a file is uploaded, it should not be uploaded again, otherwise duplicate data will be written and result in doubling of traffic counts. Refer to the TraffiCloud Website Manual for more information on 'Sites' and 'Reporting'.

http://www.alltrafficsolutions.com/SupportDocs/InstructionManuals/TraffiCloud-Platform-Manual.pdf

Tools

Various tools are provided for your convenience.

'Check for Sign Update' reaches out to the TraffiCloud platform and searches for any applicable firmware updates for your sign. If it finds any, it can install the new firmware automatically and safely.

'Sync Time' allows the time on your sign to be verified and set for accuracy. Please be sure the PC time is correct before using this tool.

'Locate Sign' sends a signal to the sign to display its boot-up screen for a few seconds. This tool is useful when using Bluetooth in an area where many signs are active to determine which sign is connected.

'Initiate Move Sign' triggers a change in Site for equipment subscribed to the Remote Equipment Management services provided by TraffiCloud.

'Reboot Sign' yeah, it does what it says.

'Start Sign Cloud Connect' triggers the sign to contact the TraffiCloud server to send settings or look for updates.
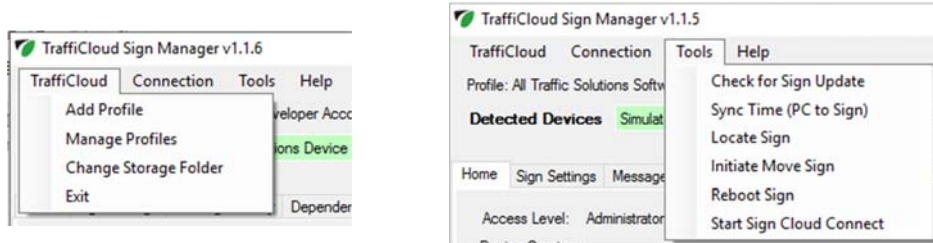
'Manage Profiles' allows you to select another account profile to use with the software allowing admin access to that profile's devices and TraffiCloud libraries. Additional Account Access Keys can be added in this area as well.

'Change Storage Folder' allow you to move where the software stores its message, image, and log files. Default location is the 'My Documents' folder. Some IT departments require files to be stored elsewhere.

Help

For further technical assistance please contact technical support at:
support@alltrafficsolutions.com or 866-366-6602 opt 2