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Outdoor Warning

S.A.M.
**Siren Activation
Monitoring Software
Software Guide**

Overview...

The SAM (Siren Activation and Monitoring) software, combined with the SAMI (Siren Activation and Monitoring Interface) module, allows a user to control and monitor from 1 to 10,000 individual siren sites from within a Microsoft Windows environment (Windows 2000 or higher). The SAM software uses highly detailed maps, onto which sirens are precisely positioned, along with their theoretical areas of coverage. With all sirens in place, the user can test or activate groups or individual sirens. This can be accomplished through manual control or automated activation through the use of individual, custom Call Keys.

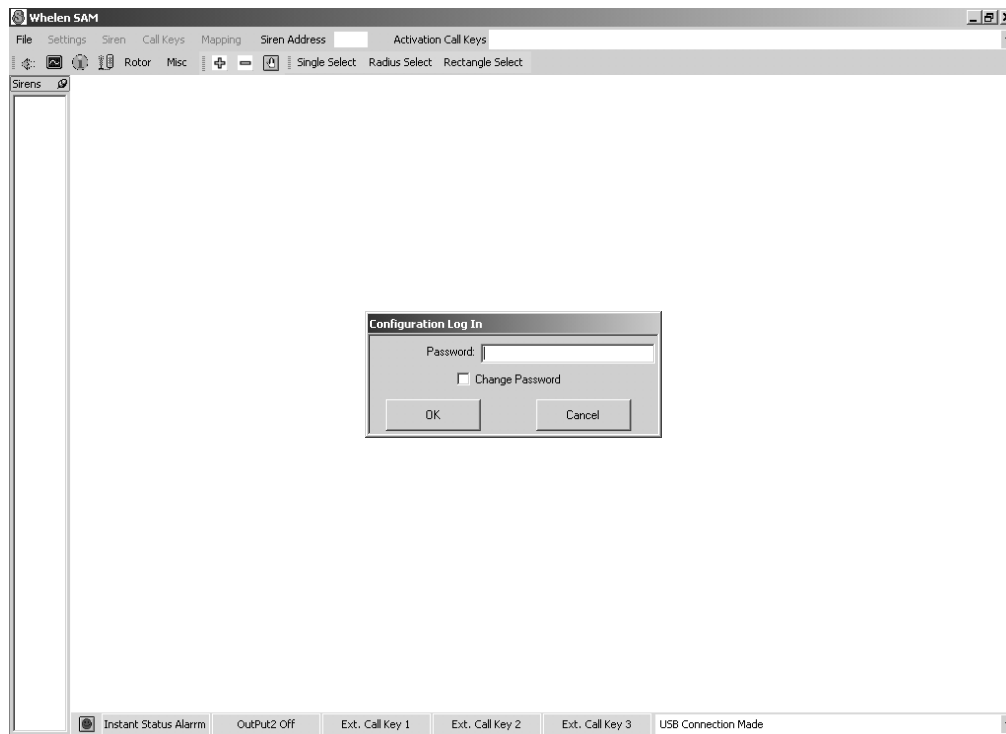
Although this software has been designed for ease of use, it is necessary for the user to thoroughly read and understand this manual before using the SAM software. This manual assumes the user has a basic understanding of the Windows operating system.

IMPORTANT! The user must be logged into Windows as an administrator before this software can be used.

Logging In...

Before the configuration portions of the SAM software can be used, a user must be logged in. Until a user is logged in, Settings, Siren, Call Key and Mapping commands are not available. Logging in is accomplished as follows:

1. Start the SAM program.
2. Go to **File>Configuration Log In**. This opens the **Configuration Log In** window. Here the user will be prompted to enter a password as shown below:

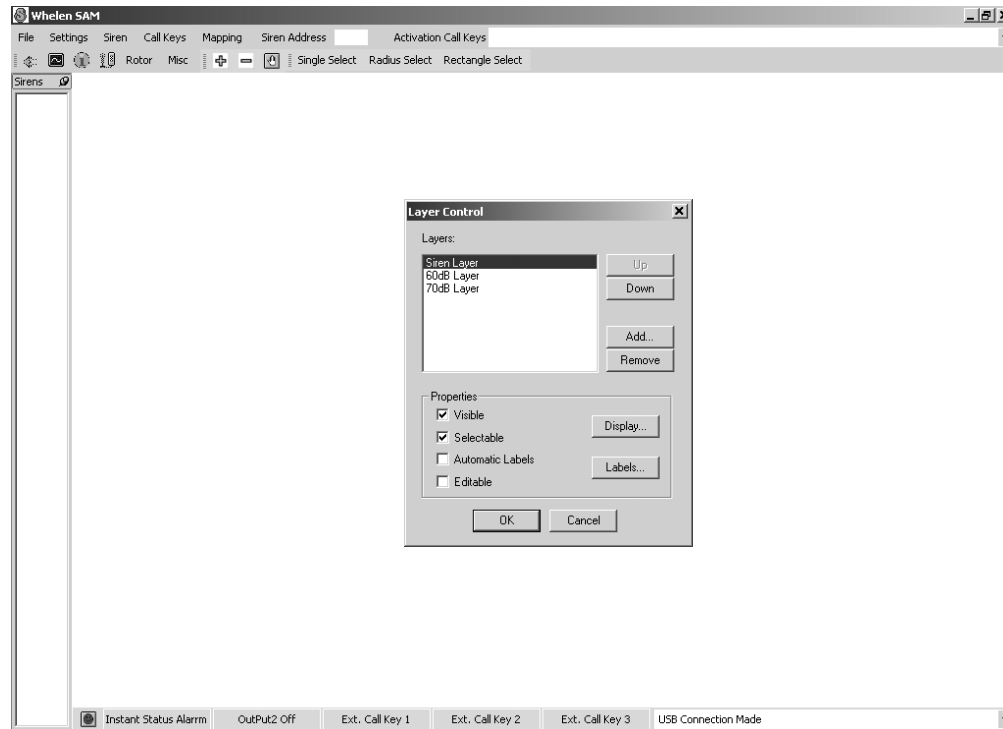


If a password has not yet been specified, the user may click on the **OK** button without entering a password. This will log the current user in and unlock the configuration features. No password is required *until* a password has been specified. To specify a password, click on the **Change Password** check box. This will expand the **Configuration Log In** window to include new information fields; **New Password** and **Confirm Password**. Leaving the **Password** field blank, enter the desired password in the **New Password** field. The user must then re-enter the *exact* same password in the **Confirm Password** field. **IMPORTANT!** When selecting a password any alpha-numeric characters (including spaces) are acceptable, but keep in mind that the password is case sensitive. Remember to write the password down and keep it in a safe, secure place. In the event of the password being lost, contact Whelen Engineering.

Maps and map layers...

After logging in for the first time, a map must be generated. This is accomplished by loading layers into the software. This step is only required to be performed once, as the layers (and the map they in turn generate) will be subsequently loaded whenever the software is started. Each layer contains specific map elements. For example, one layer may contain state and national parks, while another layer may contain all public buildings and schools. A layer may be configured to be visible or not visible, depending on the degree of detail the user wishes to be displayed.

1. Got to **Mapping>Layer Control**. This will open the Layer Control window:



As shown, 3 layers will be pre-loaded; **Siren Layer**, **60dB Layer** and **70dB Layer**. The mapping layers must now be added to the map.

2. Click on the **Add** button. From the open window, navigate to the following address:

C:\Documents and Settings\All Users\Application Data\Whelen\SAMMaps

Note: The 'Application Data' folder is a system folder and is hidden by default. System and Hidden folders and files can not be hidden for this procedure. Consult your windows operating system guide on changing this parameter.

3. Select all of the ***.TAB** files in this folder. HINT: Hold the Ctrl key and click once on each file to select multiple files. With all the files highlighted, click the **Open** button. As the screen will now show, the mapping layers have now been added to the map.
4. Using the **Up** button, move the **Siren Layer**, **60dB Layer** and **70dB Layer** to the top of the layers list.

With the layers successfully loaded, the Radio and Station settings must now be configured.

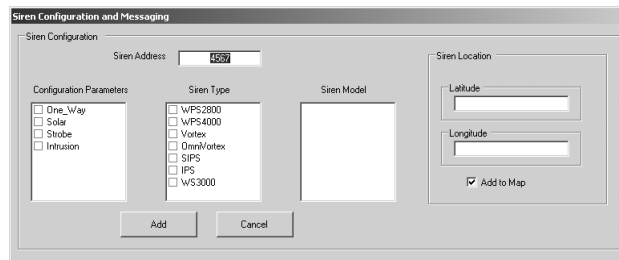
Radio and Station settings...

Configuring the Radio and Station settings is accomplished by clicking on **Settings>Radio** and **Settings>Station** respectively. In each window, click the **OK** button after the appropriate information has been entered.

Adding and working with sirens...

Adding a siren

1. Click on **Siren>Add Siren** to open the **Siren Configuration** window:



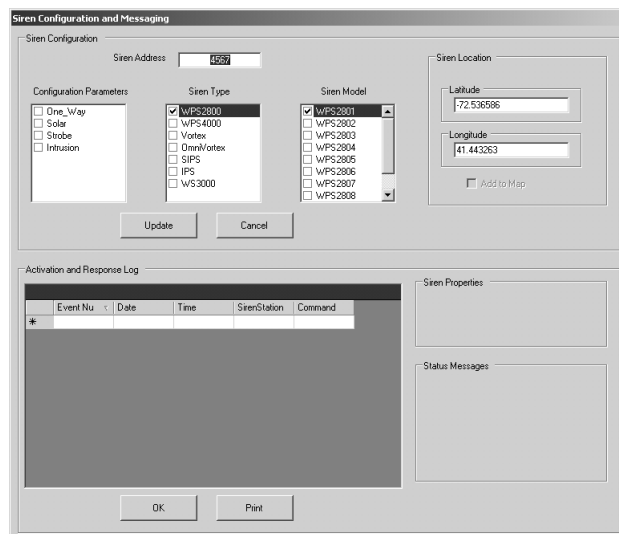
In this window the user will configure the type of siren being added to the map. Configuration consists of defining siren address, the options present on the siren in question, the siren type, the siren model and, if required, the Latitude & Longitude of the sirens location. Please refer to your siren manual for further information on siren features and addressing. **IMPORTANT!** Each station's address must be a unique number. If latitude & longitude values are not entered, and the **Add to Map** box is checked, the siren will be located at the center of your display.

Deleting a siren

1. Locate the list of siren address in the column on the left side of the screen. Click on the address of the siren to be deleted.
2. Click on **Siren>Delete Siren**. The user will then be reminded that a siren is about to be deleted. If the correct siren was highlighted in Step 1, click the **Yes** button to delete the siren. If the wrong siren was selected in Step 1, Click **No** to abort the command.

Configure/Inquire siren

Click on **Siren>Configure/Inquire Siren** to review or change information pertaining to a specific siren. The following window will open:



This window is similar to the Siren Configuration window, with the additional display of the **Activation and Response Log** data.

Call Keys...

A Call Key offers the user an easy way to handle routine siren station activations. Essentially, a Call Key automates the execution of a series of command instructions. For demonstration purposes, this section will outline the steps used to create a Call Key that will be used to issue tornado warnings. In this example, the following siren equipment is in use:

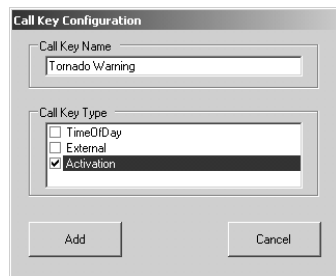
Siren #1	WPS4003	(Address 1001)
Siren #2	WPS4003	(Address 1002)
Siren #3	WPS4003	(Address 1003)

When this Call Key, named Tornado Warning, is activated, the following events will occur:

- **Rotate all sirens to NORTH (allow 35 seconds to complete this task).**
- **Broadcast DV1 (allow 30 seconds to complete this task).**
- **Rotate all sirens to EAST (allow 10 seconds to complete this task).**
- **Broadcast DV1 (allow 30 seconds to complete this task).**
- **Rotate all sirens to SOUTH (allow 10 seconds to complete this task).**
- **Broadcast DV1 (allow 30 seconds to complete this task).**
- **Rotate all sirens to WEST (allow 10 seconds to complete this task).**
- **Broadcast DV1 (allow 30 seconds to complete this task).**
- **Broadcast the Alert tone (allow 3 minutes to complete this task)**
- **Send the Clear command to all sirens (allow 2 seconds to complete this task)**

The steps required to create this sequence of events are presented here in a step-by-step format.

1. Click on **Call Keys>Add Call Key** to open the following window:



In the **Call Key Name** text box, enter **Tornado Warning** and place a checkmark in the **Activation** check box.

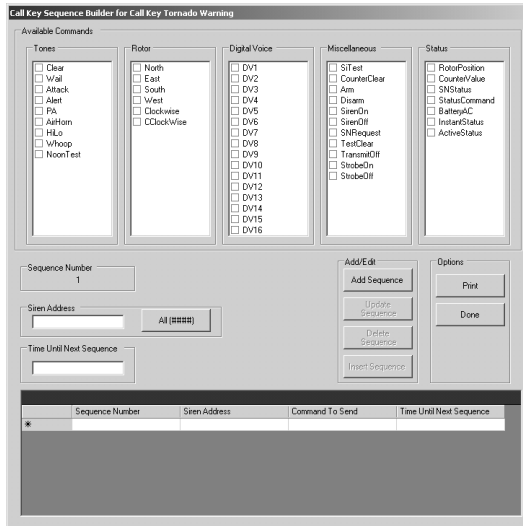
2. Click the **Add** button to create the Call Key.

The Tornado Warning call key being created will be used to activate the siren. In this example the user will place a check mark in the **Activation** box. If the Call Key is to be used as part of a routine, automated test, the user would place a check in the **Time of Day** box. When this box is checked, the dialog window changes to allow the user to select the frequency of this particular system test.

If the Call Key being created is to be activated with an external contact closure, the dialog window changes to allow the user to select which one of three available external contact closures will initiate this Call Key.

Regardless of the Call Key type being selected, the subsequent programming procedures are the same.

- After clicking **Add**, a new window will appear. Here, the user will create the sequences that will comprise the Tornado Warning Call Key.

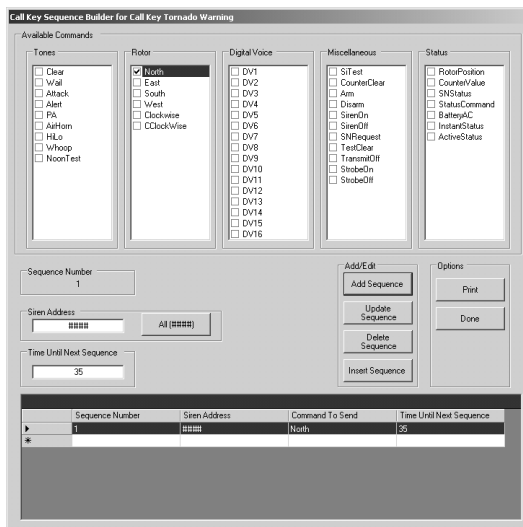


- Sequence 1** - The first sequence requires all sirens to be rotated to face North. To accomplish this, the user places a checkmark in the **North** check box in the **Rotor** section.

All sirens are required to face North. To accomplish this the user will click the **All (####)** button. This will add four 'Wild Cards' to the **Siren Address** text box (refer to your siren manual for an explanation of siren addressing protocols and Wild Cards).

The user must allow sufficient time for all the sirens to rotate to the North before progressing to the next sequence. To accomplish this, the user will enter **35** in the **Time Until Next Sequence** text box.

After all the data for this first sequence has been entered, the user will click on the **Add Sequence** button in the **Add/Edit** section of the window. The window will now display Sequence 1 in the table in the lower portion of the window as shown:

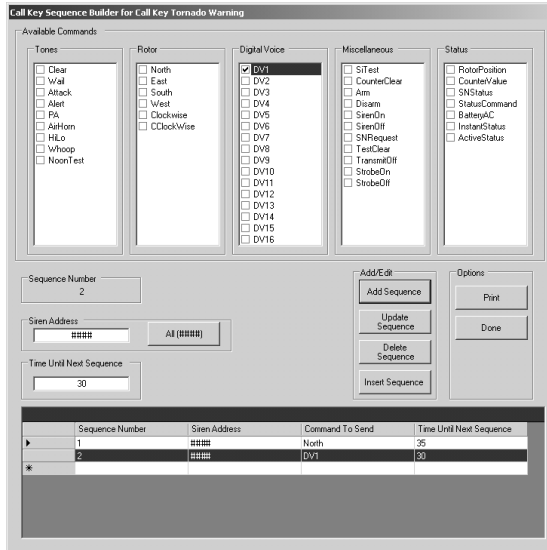


- Sequence 2** - The second sequence requires all sirens to broadcast **Digital Voice Message 1 (DV1)**. To accomplish this the user places a checkmark in the **DV1** Check Box in the **Digital Voice** section of the window.

All sirens are required to broadcast this message, so the 4 'Wild Cards' will be left in the **Siren Address** section.

The user must allow sufficient time for the message to be completed. In this example, DV1 takes 28 seconds to complete. The user will enter **30** in the **Time Until Next Sequence** text box.

After all the data for Sequence 2 has been entered, the user will click on the **Add Sequence** button in the **Add/Edit** section of the window. This will add Sequence 2 to the table in the lower portion of the window as shown:

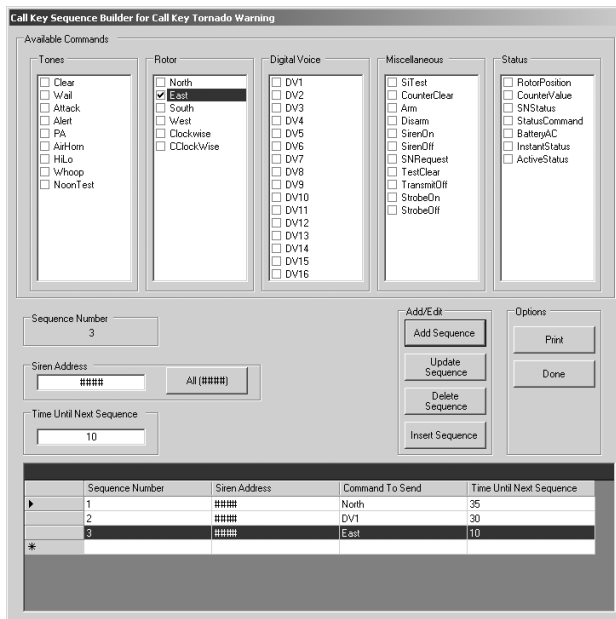


- Sequence 3** - The third sequence requires all sirens to be rotated to face **East**. To accomplish this, the user places a checkmark in the **East** check box in the **Rotor** section.

All sirens are required to face East. To accomplish this the user will click the **All (####)** button. This will add four 'Wild Cards' to the **Siren Address** text box (refer to your siren manual for an explanation of siren addressing protocols and Wild Cards).

The user must allow sufficient time for all the sirens to rotate to the East before progressing to the next sequence. Since prior to the execution of this sequence, all sirens were facing North, it will not take as long to orient the sirens to face to the East. The user will enter **10** in the **Time Until Next Sequence** text box.

After all the data for Sequence 3 has been entered, the user will click on the **Add Sequence** button in the **Add/Edit** section of the window. The window will now display Sequence 3 in the table in the lower portion of the window as shown:

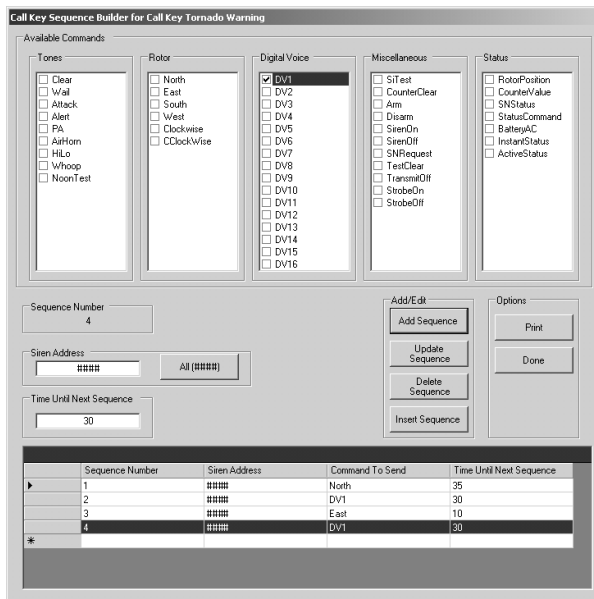


7. **Sequence 4** - The second sequence requires all sirens to broadcast **Digital Voice Message 1 (DV1)**. To accomplish this the user places a checkmark in the **DV1** Check Box in the **Digital Voice** section of the window.

All sirens are required to broadcast this message, so the 4 'Wild Cards' will be left in the **Siren Address** section.

The user must allow sufficient time for the message to be completed. In this example, DV1 takes 28 seconds to complete. The user will enter **30** in the **Time Until Next Sequence** text box.

After all the data for Sequence 4 has been entered, the user will click on the **Add Sequence** button in the **Add/Edit** section of the window. This will add Sequence 4 to the table in the lower portion of the window as shown:



8. **Sequence 5** - Follow the same procedure used for Sequence 3, using **South** as the desired direction.
9. **Sequence 6** - Follow the same procedure used for Sequence 4.
10. **Sequence 7** - Follow the same procedure used for Sequence 3, using **West** as the desired direction.
11. **Sequence 8** - Follow the same procedure used for Sequence 4.
12. **Sequence 9** - This sequence requires all sirens to broadcast the Alert siren tone for 3 minutes. To accomplish this, the user places a checkmark in the **Alert** check box.

All sirens are required to broadcast this tone, so the 4 'Wild Cards' will be left in the **Siren Address** section.

This tone must be broadcast for 3 minutes. The user will enter **180** in the **Time Until Next Sequence** text box.

13. **Sequence 10** - This sequence will send the Clear command to the siren. To accomplish this, the user will place a checkmark in the **Clear** check box.

All sirens are to receive this command, so the 4 'Wild Cards' will be left in the **Siren Address** section.

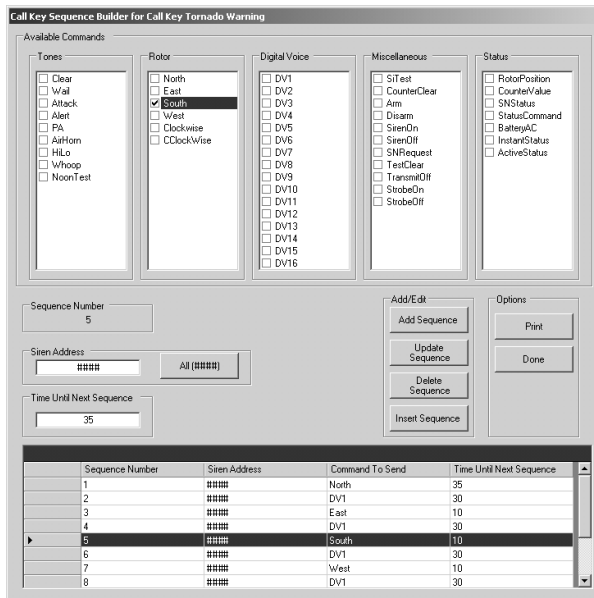
The Clear command will be broadcast for 2 seconds. The user will enter **2** in the **Time Until Next Sequence** text box.

After all the data for Sequence 10 has been entered, the user will click on the **Add Sequence** button in the **Add/Edit** section of the window. This will add Sequence 10 to the table in the lower portion of the window.

14. The user will now click the **Done** button to complete the programming procedure and close this window.

This Call Key is completed and ready to be used. Activation Call Keys are activated by clicking on the **Activation Call Key** pull-down list located in the upper right area of the program window. Select the desired Call Key. The user will be presented with the option of either sending the selected Call Key sequence or aborting without transmitting the sequence.

Editing a Sequence - If a particular sequence needs to be edited, the user will select the desired sequence by clicking on the grey bar preceding the sequence to be edited. In this example, Sequence 5 is to be edited.



After the desired changes have been made, the user must then click the **Update Sequence** button in the Add/Edit section. Click the **Done** button to complete the editing procedure and close this window.

Deleting a Sequence - If a sequence needs to be deleted the user would highlight the sequence to be deleted. The user would then click the **Delete Sequence** button. After all the designated sequences have been deleted, click the **Done** button to complete the editing procedure and close this window.

Inserting a Sequence - If an additional sequence needs to be added, the user would highlight the sequence where the new sequence is to be inserted. After all the data for the new sequence has been entered, the user will click on the **Insert Sequence** button to insert the new sequence.