

# Weather Message

Version 3.8

Weather Alerting Software for your network.

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# Weather Message Server

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### **Publisher**

*Weather Message Software*

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### **Special thanks to:**

*All of the Weather Message users that have helped with the development of this software. I have listened carefully to your requests. Without your continued devotion, this version would not be possible.*

*Also to the people that make reporting and responding to severe weather a priority. Your dedication saves lives.*

### **Our Goal:**

*"To provide users with software that can help save lives. If one life is saved through our combined efforts the value is immeasurable."*

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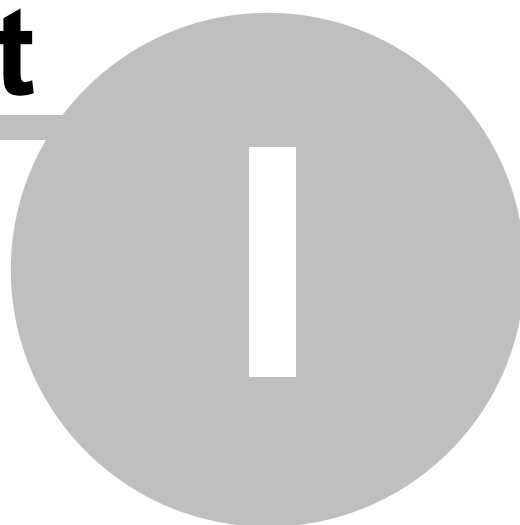
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**Part**



# 1 Introduction

## 1.1 Overview

**Weather Message .Net 3.8** is a full-featured weather alerting software package. Utilizing data streams from the National Weather Services, Weather Message provides the ability to view weather text and weather graphics on computers connected to a network with audible alerts for severe weather; provides a map for seeing a visual representation of weather alerts; can send abbreviated or full text weather messages to pagers, e-mail addresses, fax machines, and social networks; archives weather products locally or to a website; retrieves radar images; and has the ability to activate electrical devices using X10 control.

Weather Message operates as a server for connected clients. The Weather Message Server can be run as a standalone application or as a [Windows service](#). The message viewer, image viewer and map are considered clients. These clients can be run on the same computer as the server or located on a number of computers on your network.

Weather Message works by receiving weather products from the National Weather Service EMWIN data stream, Weather Wire Service, or NOAAPort. For additional information, see [What is EMWIN](#), [What is Weather Wire](#), and [What is NOAAPORT](#). Weather Message can receive weather products from satellite, radio modem, or Internet. The received weather products are processed against alarms you setup in Weather Message.

Why use Weather Message? It allows you to send abbreviated messages to pagers and cellular phones, in addition, it allows you to send weather products to other computers on your network and even ftp weather messages and warning maps to a website. It includes support for posting weather alerts on Facebook and Twitter. Weather Message Server, Message Client and Weather Message Map run in the background on the client computers.

Weather Message can be downloaded from the Internet and has a 30-day evaluation period. You can download it at <http://www.wxmesg.com>.



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## 1.2 Data Warning

### ***Warning***

Due to the nature of the **EMWIN**, **Weather Wire**, and **NOAAPORT** data streams, it is possible, on rare occasions, for weather messages to be missed or not processed. This can be caused by satellite black out, technical problems, weather conditions, poor Internet connections or corrupted messages. *Weather Message* makes deliberate attempts to process all received messages, even those that may have been corrupted. Because of

this, the expiration times of some messages may be set to a default of 30 minutes or 72 hours. With any watch or warning, you should read the text of the message to validate the expiration time.

## 1.3 Obtaining Help

### Email Support

If you need help with Weather Message, send an email to [help@wxmesg.com](mailto:help@wxmesg.com).

### Mail Support

You can reach the program author by mail to Weather Message Software, 203 Old Shepard Road, Dadeville, Alabama 36853.

### Weather Message Website

You can check for software updates and information on the [Weather Message Website](#).

### Discussion Group

A Yahoo Discussion Group has also been established for users to exchange ideas and help each other. You can join this group at <http://groups.yahoo.com/group/WxMesg/join>.

## 1.4 Installation

Weather Message can be purchased on CD or downloaded from the [website](#). The CD will automatically load the installation program. If you download the software from the Internet, you will need the full installation executable. It contains all of the files necessary for a full installation. A [Quick Start](#) guide can be downloaded from the website to assist you with installation and initial setup.

Updates to the software can also be downloaded from the Internet. The program updates only contain changes to the Weather Message programs. It cannot be used for a full installation.

Weather Message can be uninstalled using the standard Windows Add/Remove Programs facility. The uninstaller will not delete files created while running Weather Message. After uninstalling the software, you can safely remove the WxMesgNet directory.

Weather Message features a full 30 day fully functional evaluation. During the evaluation period, all aspects of the software function normally. At the end of the 30 day evaluation, the software will display an message, asking you to register the software.

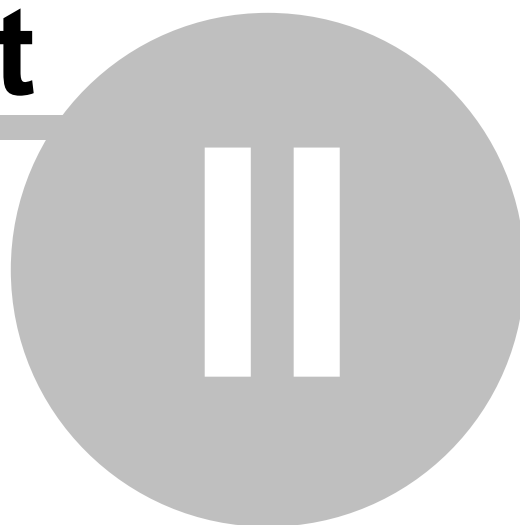
**Note:** *If your installation will use multiple user login names/profiles, we recommend that you install Weather Message using the administrator login. This will insure that all users have access to the programs.*

**Note:** *It is not necessary to uninstall a previous version of Weather Message before installing an updated software version. Uninstalling the software will delete your operating setup information.*



# Part

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## 2 Weather Message Server Setup

### 2.1 Overview

The Weather Message Setup program is used to configure the operation of Weather Message. It has a number of options that are detailed in this manual. The default installation is pre-configured to work immediately and alarm all received weather products.

Weather Message Setup

File Support Setup Help

TCP/IP Port: 9501

Ingest Path: c:\WxMesgNet\WxData\RxFiles

Data Path: C:\WxMesgNet\WxData\WxText

Graphics Path: C:\WxMesgNet\WxData\WxGraph

Alarm File #: 1

Ingest Engine

Emwin Serial ☒ Weather Wire ☐

Emwin Internet ☐ NOAAPort ☐

Emwin So/De ☐

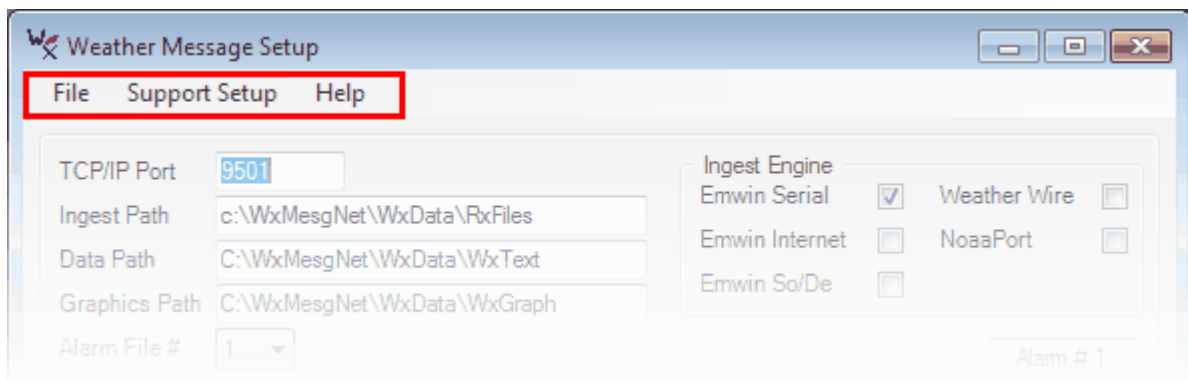
Alarm # 7

Product	State	County(s)	Client	Map	Alarm Type	Pager Group(s)
??????			Yes	No	0	None
???AL			Yes	No	0	None
FFA???			No	Yes	0	None
FFS???			No	Yes	0	None
FLS???			No	Yes	0	None
G08HURUS			No	No	0	None

Save Exit

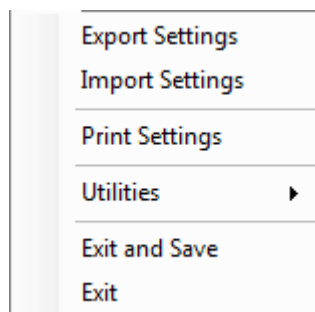
Weather Message processes received weather products based on [alarms](#) that you configure. Only products that match your alarms will be processed.

### 2.2 Menu Options



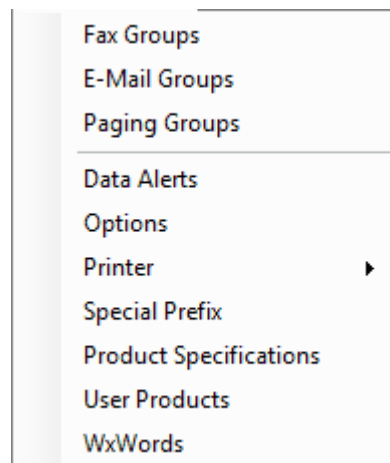
The menu buttons perform these functions:

The **File** menu allows you to export and import the program registry values, print the alarm and group settings and exit the program.



- The **Export Settings** option will export all of the registry settings for the Weather Message programs. They are exported to WxRegSet.txt. By exporting the registry settings, you can easily backup the weather message directory and save all of your settings.
- The **Import Settings** option will import the registry settings contained in the WxRegSet.txt file. After the registry entries have been imported, the setup program will exit. When you restart the setup program, the imported registry values will be used. You should stop all of the weather applications before importing settings.
- The **Print Settings** option will print the alarm, email, fax, and paging group setup information.
- The **Utilities** option opens another menu with the following option.
  - **Change Archive Password** - This option will mass change all archive passwords.
- The **Exit and Save** option saves any changed data and exits the program.
- The **Exit** option exits the program without saving any alarm changes.

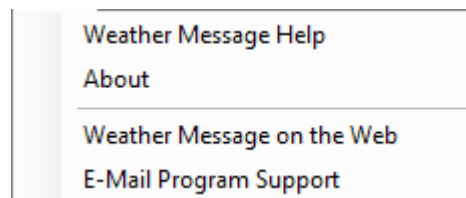
The **Support Setup** menu allows you to change the systems settings.



- The **Fax Groups** option allows you to setup fax groups and fax associated settings.
- The **E-Mail Groups** option allows you to setup email groups and fax associated settings.
- The **Paging Groups** option allows you to setup fax groups and fax associated settings.
- The **Options** option allows you to specify general program operation settings.
- The **Printer** option opens another menu with the following options.
  - **Default Printer** - Allows you to select the default printer used by Weather Message.
  - **Default Font** - Allows you to select the default font used to print text products.
- The **Special Prefix** option allows you to establish prefixes that can be used to alarm more than one product per alarm.
- The **Product Specifications** option allows you to establish and maintain short message formats by product.
- The **User Products** option allows you to create custom product identifiers.
- The **WxWords** option allows you to edit the word replacement file.

The **Register** menu allows you to [register](#)<sup>52</sup> Weather Message. This button does not appear if the software is registered. Note: If the software is not registered after 30 days, it will stop functioning.

The **Help** menu allows you to see this manual, and display information about the program.



## 2.3 Main Window

The main setup window allows you to configure the general program operation, along with product alarms.



Product	State	County(s)	Client	Map	Alarm Type	Pager Group(s)
??????			Yes	No	0	None
???AL			Yes	No	0	None
FFA???			No	Yes	0	None
FFS???			No	Yes	0	None
FLS???			No	Yes	0	None
G08HURUS			No	No	0	None

The main screen is used to setup the **TCP/IP Port** address that the [clients](#) will use to access the Weather Message Server. Weather Message uses the port specified plus the next sequential port number. If you specify port 9501, the program will also use port 9502.

The **Ingest Path** field contains the directory path where received weather files are initially stored. Weather Message Server looks in this directory for incoming files to process. This path is used by the EMWIN ingest (WxEmwin), weather wire ingest (WxWw2000), and NOAAPort (WxPort) programs to store received weather files.

The **Data Path** field contains the directory path to store processed text weather messages. The **Graphics Path** field contains the directory path to store processed graphic products.

The **Alarm File #** field allows you to select from 1 to 9 different alarm files. Only one alarm file is active at a time. This option is useful if you want to define a different set of alarms for different times of the year.

Select the **Ingest Engine(s)** to be automatically started when Weather Message Server is loaded. Check Emwin Serial to start the EMWIN serial port ingest program. Check Emwin Internet to start the EMWIN Internet ingest program. Check Emwin So/De to start the EMWIN Software Demodulator ingest. Check Weather Wire to start the Weather Wire ingest program. Check NOAAPort to start the NOAAPort ingest program.

**Note:** Weather Message supports simultaneous ingesting from all data sources. If you want to receive data from multiple sources, select each source as appropriate. Weather Message will filter duplicate messages so they will not be alarmed twice. Simultaneous ingesting provides a level of redundancy.

When the **Save** button is clicked, the Ingest, Data and Graphics paths are validated. If they do

not exist, a message box will appear asking you if they should be created.

This screen also contains a grid for entering alarms. The alarms displayed in the grid are from the alarm file selected in the **Alarm File #** field. The alarm grid can be sort by clicking on the column header. Click once for descending order, click again for ascending order.

**Hint:** The widths of the alarm columns can be changed. To change a column width, position your cursor over the column line, hold down the left mouse button and drag the column line.

**Hint:** The location of a column can be changed by dragging the column to another location.

**Hint:** Inactive alarms are shown in the alarm grid with a yellow background.

Weather Message 50 connections supports 1000 alarms, 500 e-mail groups, 500 fax groups and 500 pager groups. Weather Message 100 and 250 connections support 5000 alarms, 2500 e-mail groups, 2500 fax groups and 2500 pager groups.

**Note:** Changing any of the alarms will cause the setup program to notify Weather Message Server that changes have occurred. The Server will reload the current alarm file. You will see the message "Loaded Alarm Table" on the Weather Message Server status screen. If you change the TCP/IP port, you must stop and restart Weather Message Server.

## 2.4 Support Setup

### 2.4.1 Fax Groups

#### 2.4.1.1 Fax Settings

The Fax Setup window allows you to set the faxing program to use along with your fax groups.

Group Name	Style
FaxOffice	Selected

Enter your name in the **Fax Name From** field. Enter your fax telephone number in the **Fax Telephone #** field.

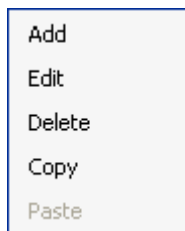
The **Create Fax Header/Trailer** button allows you to create text that will be added to the beginning and end of "selected" and "full" fax messages. See [Message Header/Trailer](#)<sup>[51]</sup> for an example. When you click on this button, a screen will be displayed to enter the header and trailer. If you only want a head/trailer message for certain groups, see the [Fax Group](#)<sup>[17]</sup> section.

**Hint:** Clicking on one of the column headers will sort the list for that column.

**Note:** WinFax Pro is not provided with Weather Message. This third party software can be purchased directly from Symantec.

**Note:** For faxing to work properly, you must have your faxing software setup properly. It is recommended that you test your faxing software setup before instructing Weather Message to send faxes.

To edit an existing group, double click the group. For other options, select the group and right click to see these menu options.



- The **Add** option will add a new group.
- The **Edit** option will edit the selected group.
- The **Delete** option will delete the selected group.
- The **Copy** option will copy the selected group.
- The **Paste** option will paste the last copied group as a new group.

#### 2.4.1.2 Fax Group

The Edit Fax Group window allows to setup a group to receive faxes.

Enter the name of the group to be setup in the **Group Name** field. This name will appear in the alarm setup window as an available fax group.

Select the **Style** of fax to send. Select **Selected** for selected text from the alarmed **UGC** group; **Selected No Head** for selected text from the alarmed **UGC** group without the header; **Full** for Full Text; **Full No Head** for Full Text without header

**Hint:** The No Head style option removes the heading lines from the messages. This option removes all of the heading text from the first line in the message or UGC group down to the issued date/time line.

The **Subject Style** allows you to specify how the fax subject line is formatted. **Full** gives you the description, for example, "Tornado Warning". **Product** gives you just the product (AWIPS) code, for example, "TORBHM". The **None** option causes the faxing program to not include a subject line.

The **Subject Override** allows you to override the default subject line with one of your choosing. You can enter any text and embed the variable described below.

\$Subject\$	The original subject description based on the subject style.
\$WFO\$	The 3 character office designator extracted from the product identifier.
\$ProductId\$	The 6 character product identifier.
\$IssueTimeZ\$	The product issue time in <b>UTC</b> followed by the letter Z.
\$ExpireTimeZ\$	The product expiration time in <b>UTC</b> followed by the letter Z. (May be blank.)

The **Parse** option can be used to reduce the size of the fax messages sent. Selecting "Y" tells the system to parse the messages, for this group, against the VxWords word substitution file.

Enter the fax telephone numbers in the **Fax List** box. Put one fax number per line. You can also enter a name associated with each address by following the fax number with a single space, then the name. Entering a name will help you identify the person associated with the fax number.

**Hint:** If you are required to dial a nine to obtain an outside line, you can insert a "P" after the 9 to cause the modem to pause for a second dial tone. For example: 9P3292952.

The **Create Group Fax Header/Trailer** button allows you to create text that will be added to the beginning and end of "selected" and "full" fax messages for this group. When you click on this button, a screen will be displayed for you to enter the header and trailer. See [Message Header/Trailer](#)<sup>[51]</sup> for an example.

## 2.4.2 Email Group

### 2.4.2.1 Email Settings

The Email Setup window allows you to set the email server information along with your email groups.

Group Name	Style
Danny	Full
Phone	Short
Phon2	Full No Head
Graphic	Full
DannyTest	Short

Enter the name of your **SMTP Server** and your **E-mail Address**. The **E-Mail From** field can be used to attach your agency name and/or abbreviation. This field will be shown in the e-mail From field.

Note: Weather Message does not natively support secure SMTP connections. If your ISP requires a secure SMTP connection using SSL or TLS, download this [document](#) for details.

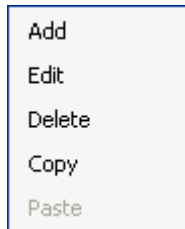
The **Email Options** button is used to setup SMTP port, authentication, retries, and backup e-mail servers. See [Email Options](#)<sup>[20]</sup>.

The **Create E-Mail Header/Trailer** button allows you to create text that will be added to the beginning and end of all "selected" and "full" email messages. See [Message Header/Trailer](#)<sup>[51]</sup> for an example. When you click on this button, a screen will be displayed for you to enter the header and trailer. If you only want a header/trailer message for certain groups, see the [Email Group](#)<sup>[22]</sup> section.

**Hint:** *Clicking on one of the column headers will sort the list for that column.*

**Note:** *When you are ingesting from the Internet, WxEmwin uses the email address entered on this screen to validate you as a user.*

To edit an existing group, double click the group. For other options, select the group and right click to see these menu options.



- The **Add** option will add a new group.
- The **Edit** option will edit the selected group.
- The **Delete** option will delete the selected group.
- The **Copy** option will copy the selected group.
- The **Paste** option will paste the last copied group as a new group.

#### 2.4.2.2 Email Options

The Email Options window allows you to set STMP port, authentication, retries and backup e-mail servers.

The screenshot shows a dialog box titled "Email Options" with two main sections: "Primary Server" and "Backup Server".

**Primary Server:**

- SMTP Port: 25
- SSL Required: No
- Send Using BCC: ☒
- Priority Flag: ☒
- Append Time: ☐
- Test Server: [button]
- SMTP Authentication:
  - User Name: kb4mdd@hughes.r
  - Password: [masked]
  - Method: Password
- Failure Retries: 2
- Retry Minutes: 2

**Backup Server:**

- Server: smtp.everyone.net
- SMTP Port: 465
- SSL Required: Auto
- Test Server: [button]
- Backup SMTP Authentication:
  - User Name: danny@wxmesg.cc
  - Password: [masked]
  - Method: Password

At the bottom of the dialog are "Save" and "Cancel" buttons.

The **SMTP Port** defaults to port 25. If your ISP uses a different port, enter that port number in this field.

**Hint:** SSL (secure) connections use port 465 or 587.

If your email server requires a secure connection, set the **SSL Required** field to Auto, Implicit or Explicit. The Auto setting will work for most secure email servers.

**Hint:** The Implicit setting starts the connection to the server with a secure channel. The Explicit settings starts the connection to the server with an unsecured channel, then uses the STARTTLS command to switch to a secure channel. Google's port 465 uses Auto or Implicit. Google's port 587 uses Explicit.

The **Send Using BCC** field should be checked if you want to send email using the email field BCC (Blind Carbon Copy). The email program normally sends email using the email field To. Using the BCC email field prevents each email address that you entered for a group from appearing in each email. The To address field will be displayed as *undisclosed recipients*.

The **Priority Flag** option should be checked if you want the recipients email to be flagged as priority.

**Hint:** Some spam filters may flag messages with priority flags as spam. If you run into a problem with a spam filter, uncheck this option.


The **Append Time** check box is used to add a date and time to the email subject. This option can be used with email forwarding software that does not forward email messages with duplicate subject lines.

Some ISPs require that you authenticate your connection when you connect to their SMTP servers. If your ISP has this requirement, enter your **User Name**, **Password** and select the authentication **Method** in the Primary SMTP Authentication fields.

**Hint:** Use the SMTP authentication fields if they are required, otherwise leave them blank. If your ISP does not require authentication and you enter a user name and password, connection attempts to your email server will fail.

**Hint:** The default authentication method is Password. This setting is used by most servers. You can optionally select CRAM or NTLM based on your servers requirements.

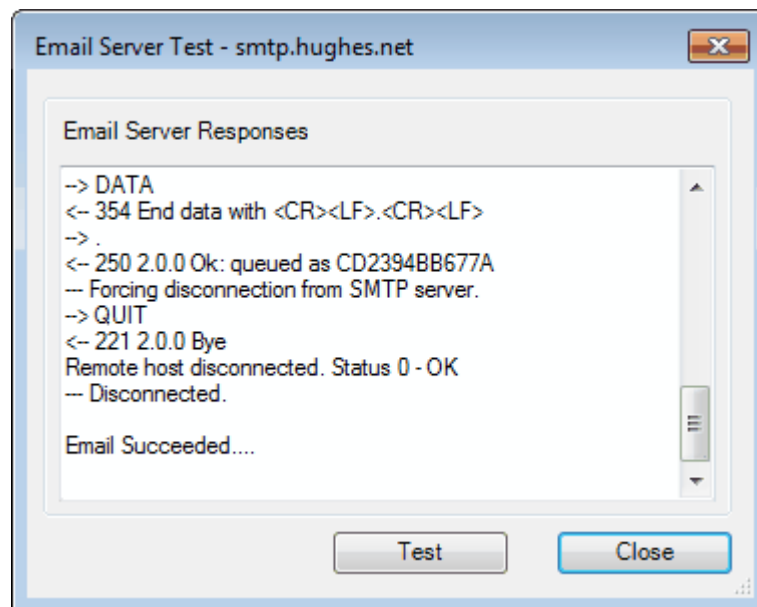
In the event that an email message cannot be delivered, you can specify the number of times the software will attempt to deliver the message. Enter the number of retries in the **Failure Retries** field. Enter the number of minutes between retries in the **Retry Minutes** field.

Clicking the **Test Server**  option will open a window that will test your Email Server settings.

The **Backup Server** and **Backup SMTP Authentication** fields can be used for a backup email server. In the event that the primary server fails to respond, the software will automatically switch to the backup server.

#### 2.4.2.2.1 Test Email Settings

The Test Server option will display this window. Use this option to test your email settings.



Click the **Test** button to test your Email Server. The text box will show the responses from your email server. If you have your Email Server settings correct, you will see the Email Succeeded message, otherwise an error message will be displayed.

#### 2.4.2.3 Email Group

The Edit Email Group window allows to setup a group to receive emails.



Enter the name of the group that you are creating in the **Group Name** field. This name will appear in the alarm setup window as an available email group.

Select the **Style** of email to send. Select **Short** for a short message; **Selected** for selected text from the alarmed **UGC** group; **Selected No Head** for selected text from the alarmed **UGC** group without the header; **Full** for Full Text; **Full No Head** for Full Text without header

**Hint:** The No Head style option removes the heading lines from the messages. It removes all of the heading text from the first line in the message or UGC group down to the issued date/time line.

The **Subject Override** allows you to override the default subject line with one of your choosing. You can enter any text and embed the variable described below.

\$Subject\$	The original subject description based on the subject style.
\$WFO\$	The 3 character office designator extracted from the product identifier.
\$ProductId\$	The 6 character product identifier.
\$IssueTimeZ\$	The product issue time in <b>UTC</b> followed by the letter Z.
\$ExpireTimeZ\$	The product expiration time in <b>UTC</b> followed by the letter Z. (May be blank.)
\$Message\$	The text that is included in the body of the message. (Can be used for FaceBook updates.)

The E-mail messages can be broken down into small packets to be sent to cellular phones and pagers. These devices normally cannot receive a large email message. Entering 0 (zero) for **Size** will tell the system to not break the message down into packets. In addition, you can limit the number of these packets you want to send, by specifying that number in the **Maximum** field. Entering 0 (zero) for Maximum will tell the system to send all of the packets.

The **Subject Override** allows you to override the default subject line with one of your choosing.

You can enter any text and embed the variable \$Subject\$ to include the original subject description. The variable \$WFO\$ can be used to include the 3 character WFO.

The **Parse** option can be used to reduce the size of email messages sent. Selecting "Y" tells the system to parse the messages, for this group, against the WxWords word substitution file.

The **Time Zone** option allows you to select the time zone for this group. This option is used when the Style is set to Short. The system will adjust the received message to the selected time zone.

Enter the email addresses in the **E-mail List** box. Put one e-mail address per line. You can also enter a name associated with each address by following the email address with a single space, then the name. Entering a name will help you identify the person associated with the email address.

If you do not know the domain name for a cell phone provider, click the [@ button](#)<sup>[24]</sup> to see a list of cell phone provider formats.

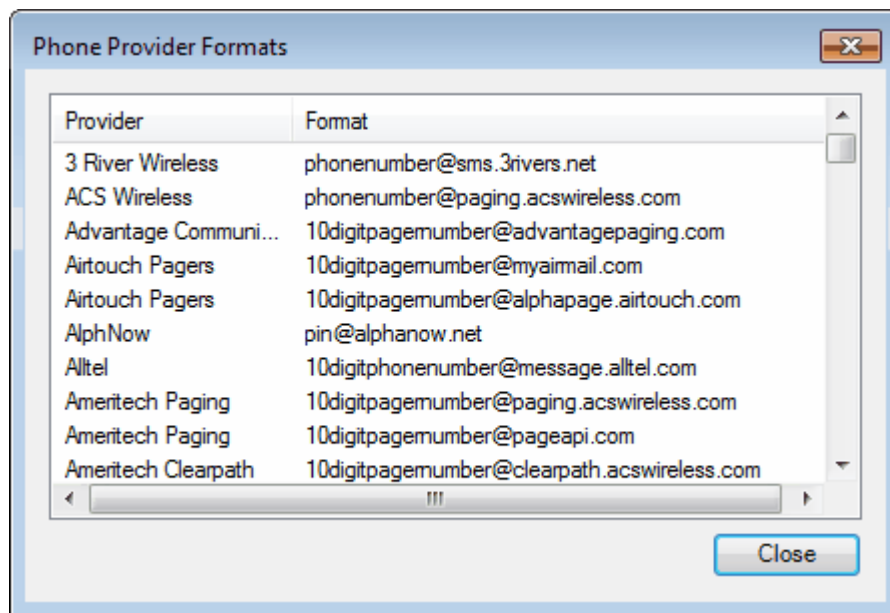
The **Create Group E-Mail Header/Trailer** button allows you to create text that will be added to the beginning and end of "selected" and "full" e-mail messages for this group. When you click on this button, a screen will be displayed for you to enter the header and trailer. See [Message Header/Trailer](#)<sup>[51]</sup> for an example.

The **Create Group Short Message** button allows you to create a short message for this group. This option allows you to modify the system short message format for this group. See [Short Message](#)<sup>[44]</sup> for additional information.

**Note:** *If you enter a short message for a group, it overrides the default and product specific specifications.*

#### 2.4.2.3.1 Phone Provider Formats

The Phone Provider Formats window displays a list of cell phone providers along with the format for sending messages to their phones.

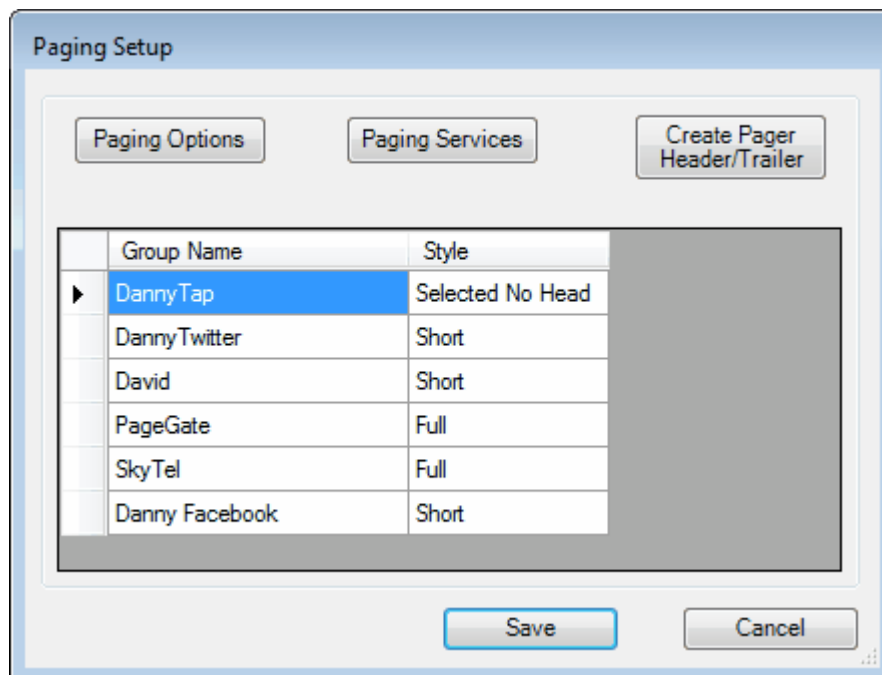


If you have updated information for your cell phone provider, please forward the information to [support@wxmesg.com](mailto:support@wxmesg.com).

## 2.4.3 Paging Groups

### 2.4.3.1 Paging Settings

The Paging Setup window allows you to set the paging information along with your paging groups.



The **Paging Options** button is used to setup the paging subsystem. See [Paging Options](#) <sup>26</sup>.

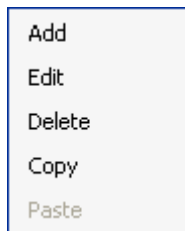
The **Paging Services** button is used to setup paging service providers. Paging services must be established before adding paging groups. See [Paging Services](#)<sup>[28]</sup>.

The **Create Pager Header/Trailer** button allows you to create text that will be added to the beginning and end of "selected" and "full" pager messages. See [Message Header/Trailer](#)<sup>[51]</sup> for an example. When you click on this button, a screen will be displayed for you to enter the header/trailer. If you only want a header/trailer message for specific groups, see the Editing Paging Groups section.

**Note:** *Weather Message removes all control characters from messages sent to a pager. Most paging companies do not allow embedded control characters.*

**Hint:** *Clicking on one of the column headers will sort the list for that column.*

To edit an existing group, double click the group. For other options, select the group and right click to see these menu options.



- The **Add** option will add a new group.
- The **Edit** option will edit the selected group.
- The **Delete** option will delete the selected group.
- The **Copy** option will copy the selected group.
- The **Paste** option will paste the last copied group as a new group.

#### 2.4.3.2 Paging Options

The Paging Options window allows you to set modem, SNPP and WCTP information.

**Paging Options**

Modem  
Serial Port: 3

Modem Initialization  
AT&FQ0V1X4&D2+MS=Bell103,0;+ES=1,0,1

SNPP  
Default SNPP Port: 444    Connect Mode: ☒

WCTP  
Default WCTP Port: 80

Save    Cancel

Select the **Serial Port** that is attached to your modem. The **Modem Initialization** box is used to enter the initialization string needed for your modem.

For SNPP Paging, enter the **Default SNPP Port** number. Most paging companies use port 444 for SNPP connections. The **Connect Mode** option, when checked, causes the software to remain connected to the SNPP server when sending a group of messages.

For WCTP Paging, enter the **Default WCTP Port** number.

### Modem Initialization Strings

Modem initialization strings can be different for each modem manufacturer and in most cases are different. The following generic strings can be used with most modems.

Generic		AT&FQ0V1X4&D2
Generic	14.4 & 28.8	AT&FQ0V1X4&D2N0S37=5
US Robotics		AT&F0Q0V1X4&D2&B1&K0&M0&N2

Some US Robotic modems will not communicate with computers at slow baud rates. If you encounter problems with your US Robotics modem, use the above initialization string and set the baud rate for your users and groups to 19200.

In general your initialization string should do the following.

Send the attention command	AT	
Load factory defaults	&F	
Turn echo off	E0	
Enable result codes	Q0	
Display result codes as words	V1	
Enable extended result codes	X4	(could be X0)
Enable modem hang up DTR change	&D2	

In addition, these options should be specified – they vary by manufacturer.  
Turn off data compression

Turn off error correction  
Turn off flow control

If these codes do not work with your modem, send e-mail to [help@wxmesg.com](mailto:help@wxmesg.com). Include your modem model number and we will try to send you an initialization string that will work.

### 2.4.3.3 Paging Services

The Paging Services window allows you to setup different paging services.

To add a new service, click the **New Service** button and enter a new **Service** name. To delete a service, select the service from the drop down list and click the Delete button. To change a service, select the service from the drop down list.

#### Service Type

The **Service Type** field allows you to specify the type of paging service. Select **TAP** for modem dial-up paging, **SNPP** or **WCTP** for direct Internet paging, **HTTP Post** or **HTTP Get** to interface with a web page / web server, **TCP** for TCP connections, **PageGate** if you want to interface with PageGate software, **Twitter** to post updates to Twitter, or **Facebook** to post updates to Facebook.

**Note:** The PageGate option will cause the software to create messages named "Page#.asc" in the "C:\Program Files\WxMesgNet\WxData\PageGate" directory. You should configure PageGate to scan this folder for messages.

The fields on the screen change based on the service type selected. For TAP paging, enter the service Telephone Number, Baud Rate and Parity/Bits. For SNPP, WCTP, HTTP, or TCP paging, enter the service Address and SNPP Port, WCTP Port, HTTP Port, or TCP Port.

### Page Size

Most paging devices have a limitation on the number of characters they can receive in one page. If your provider has a limit on the size of messages, this limit should be entered in the **Maximum Page Size** field. Entering 0 (zero) for **Size** will tell the system to not break the message down into packets.

**Hint:** *Some paging companies restrict the message size that can be sent to their pagers. If you exceed the size limitation the page request may be refused or rejected by the paging company. If your page requests are being rejected, try a shorter message length.*

**Note:** *Due to message size limitations for the TAP protocol, you will be required to enter a maximum page size between 1 and 1000 characters.*

### Retry Times

In the event that a page cannot be delivered, you can specify the number of times the software will attempt to deliver the message. Enter the number of retries in the **Failure Retries** field. Enter the number of minutes between retries in the **Retry Minutes** field.

**Note:** *For the TAP protocol, the Failure Retries field is used to specify the number of times that the program will attempt to connect to your paging provider when their modem line number is busy.*

### HTTP Post / GET

The HTTP Post and HTTP Get option allows you to interface directly with a web page or web server. The Post option posts variables to the web server. The Get option URL encodes the variables before appending them to the http address. These options require a good understanding of posting data to web servers and the paging providers webpage. It is beyond the scope of this manual to describe these requirements. If you have questions contact Weather Message Support.

For HTTP, you must enter the information and variables to be posted or URL encoded to the HTTP server. Enter the required information in the HTTP Post Variables field. They are entered in the format variable=value. Three replacement variables are available to insert the pager pin, group name and message. Use the variable \$Pin\$ to insert the pager pin, \$Group\$ to insert the paging group name, and \$Message\$ to insert the pager message.

The following is an example of the variables needed for the SouthernLinc HTTP server.

```
PageArea1=
PageNum1=$Pin$
From=EMWIN
PageMsg=$Message$
NumChars=
Page=Send Message
```

### TCP Paging

The TCP option supports simple paging using the TCP protocol. The application will connect to a specified TCP/IP address and port. It will send the group name followed by the message. The group name appears in the first 20 characters. The message starts at position 21. The message

is terminated with a carriage return/line feed. After the message is sent, the application disconnects.

### Twitter / Facebook

The Twitter and Facebook options require you to authorize Weather Message to post status updates. When you select the Twitter or Facebook option, an authorize button will appear in the window. Click this option to display a browser window. You will need to log into your account and authorize Weather Message. The web page will give you the instructions for authorizing Weather Message.

When you authorize Weather Message, the browser window will close. The respective service will give Weather Message an access token to send updates to Twitter or Facebook.

For more information see [Sending Tweets using Twitter](#)<sup>[252]</sup> and [Facebook Status Updates](#)<sup>[255]</sup> in the Supplement.

#### 2.4.3.4 Paging Group

The Edit Paging Group window allows to setup a group to receive pages.

Enter the name of the group to be setup in the **Group Name** field. This name will appear in the alarm setup window as an available paging group.

Select the **Style** of page to send. Select **Short** for a short message; **Selected** for selected text from the alarmed **UGC** group; **Selected No Head** for selected text from the alarmed **UGC** group without the header; **Full** for Full Text; **Full No Head** for Full Text without header

**Hint:** The No Head style option removes the heading lines from the messages. This option removes all of the heading text from the first line in the message or UGC group down to the



*issued date/time line.*

The pager messages can be broken down into small packets to be sent to cellular phones and pagers. These devices normally cannot receive a large email message. Entering 0 (zero) for **Size** will tell the system to not break the message down into packets. In addition, you can limit the number of these packets you want to send, by specifying that number in the **Maximum** field. Entering 0 (zero) for Maximum will tell the system to send all of the packets.

***Hint:** Some paging companies restrict the message size that can be sent to their pagers. If you exceed the size limitation the page request will be refused or rejected by the paging company. If your page requests are being rejected, try a shorter message length.*

The **Parse** option can be used to reduce the size of email messages sent. Selecting "Y" tells the system to parse the messages, for this group, against the WxWords word substitution file.

The **Time Zone** option allows you to select the time zone for this group. This option is used when the Style is set to Short. The system will adjust the received message to the selected time zone.

Select a paging service provider from the **Service Name** drop down list. See [Paging Services](#)<sup>[28]</sup> to add a new service.

Enter the pager pins in the **Pager Pin List** box. Put one pin per line. You can also enter a name associated with each pin by following the pin with a single space, then the name. Entering a name will help you identify the person associated with the pager.

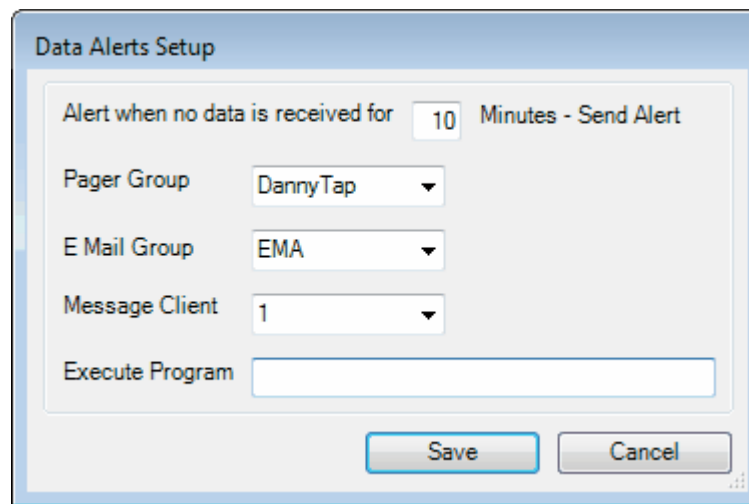
The **Create Group Pager Header/Trailer** button allows you to create text that will be added to the beginning and end of "selected" and "full" pager messages for this group. When you click on this button, a screen will be displayed for you to enter the header and trailer. See [Message Header/Trailer](#)<sup>[51]</sup> for an example.

The **Create Group Short Message** button allows you to create a short message for this group. This option allows you to modify the system short message format for this group. See [Short Message](#)<sup>[44]</sup> for additional information.

**Note:** *If you enter a short message for a group, it overrides the default and product specific specifications.*

## 2.4.4 Data Alerts

The Data Alerts window allows you to configure the software to notify a group of people if it does not receive data for a specific period of time.

The image shows a 'Data Alerts Setup' dialog box. It has a title bar with the text 'Data Alerts Setup'. Inside the dialog, there is a section with the text 'Alert when no data is received for' followed by a text box containing '10' and the text 'Minutes - Send Alert'. Below this, there are three dropdown menus: 'Pager Group' with 'DannyTap' selected, 'E Mail Group' with 'EMA' selected, and 'Message Client' with '1' selected. At the bottom, there is a text box labeled 'Execute Program' which is currently empty. To the right of the text box are two buttons: 'Save' and 'Cancel'.

To activate data alerting, set the number of minutes that the program should wait, without receiving data, before sending an alert. You can specify a **Pager Group**, **Email Group**, **Message Client** to receive the message. The program will send a brief message indicating it is no longer receiving data. The message will also includes the name of the computer. When data resumes, you will get a second message indicating that it has resumed.

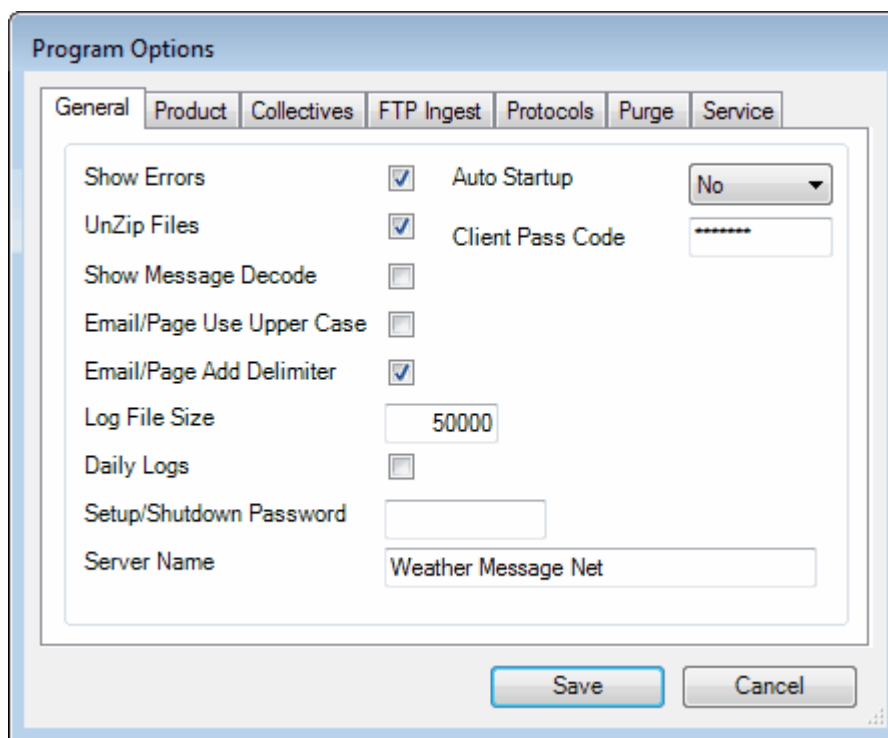
In addition to sending Pager and Email alerts, you can also execute an external program. Enter the external program, including the full path, in the **Execute Program** field. This program will be executed when data stops. It will not execute the program when data resumes.

**Hint:** Loss of data occurs when Weather Message server does not find any files in the [Ingest Directory](#)<sup>[14]</sup> for the period specified.

## 2.4.5 Options

### 2.4.5.1 General Tab

The Option's General Tab contains general settings for the server.



The **Show Errors** check box, when checked, will cause the software to pop-up an error box when a problem is encountered during program operation. Regardless of this setting, all errors are logged to the log file.

The **UnZip Files** check box, when checked, will cause the software unzip received compressed files. Files with the extensions "zis" and "zip" will be uncompressed when this option is enabled. This option is checked by default.

The **Show Message Decode** option, when checked, will cause Weather Message Server to show detailed information in the server window about each message as it is decoded. This option is only used for debugging and should not be used for normal operation.

The **Email/Page Use Upper Case** option, when checked, will cause all email and paged messages to be sent in upper case.

The **Email/Page Add Delimiter** option, when checked, will cause the program to add a comma between county names when using the short message option.

The **Log File Size** field allows you to specify this size of your Weather Message log files. The default is 50,000 bytes.

The **Daily Logs** option, when checked, causes the program to store the log files for each day in the ..\WxMesgNet\WxLogs directory. The logs for each day are copied to this directory. The log file name is appended with the day number. These logs will be overwritten with the next month's logs. After enabling this option, you must restart all Weather Message programs.

**Note:** Enabling the Daily Logs option disables the log file size option.

The **Setup/Shutdown Password**, if entered, will cause the Weather Message Server, WxEmwin and WxRadar programs to prompt the user for a password before stopping the respective program. The Weather Message Server Setup program will also require this password before

allowing setup options to be changed.

**Hint:** *Entering a password will prevent the server and ingest programs from being accidentally shutdown.*

The **Server Name** field is used to record a name for your Weather Message Server. The server name is transmitted to each connected client.

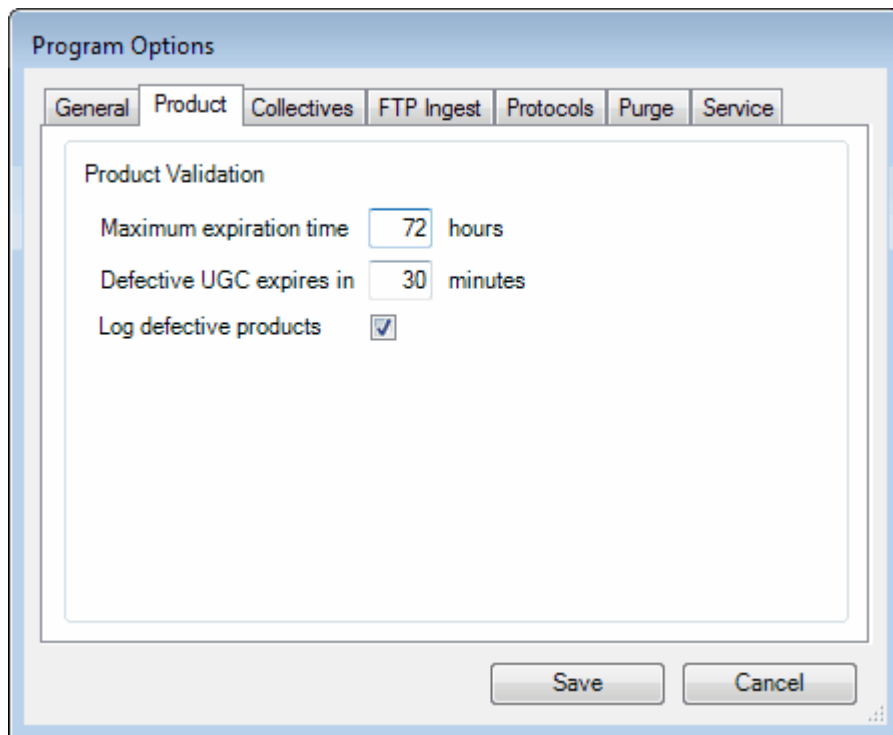
The **Auto Startup** option allows you to specify whether Weather Message Server is automatically started when Windows starts. The options are No; Yes, for the current user; and Everyone, for any user.

**Note:** *The options available for **Auto Startup** are based on your user permissions. Administrator and Power users will have all of the options. Other users may only have the Yes option.*

The **Client Pass Code** field contains the password or pass code used to validate messages sent from the Message Creator or Siren Controller. The Pass Code entered in the Message Creator and Siren Controller must match this Pass Code, otherwise, the received messages will be ignored.

#### 2.4.5.2 Product Tab

The Product Tab allows you to specify validation options for received products.



The **Maximum expiration time** limits the expiration date and time of a received product to the number of hours entered. If the product expiration time, as compared to the product issue time, exceeds the number of hours entered, the expiration time is reset to the number of hours

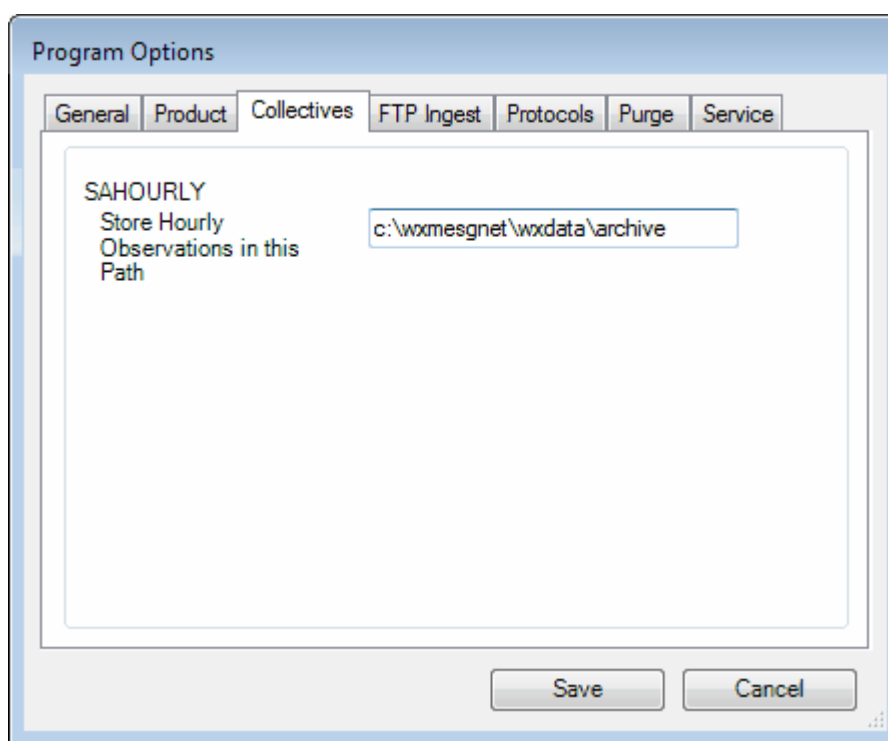
entered.

The **Defective UGC expires** field sets the number of minutes that should be used for the expiration time should a received product have a defective **UGC** line. If a received product has a defective UGC line, these minutes will be added to the product issue time to establish the product expiration time.

The **Log defective products** option, when checked, will cause the software to log all defective products in the log file.

#### 2.4.5.3 Collectives Tab

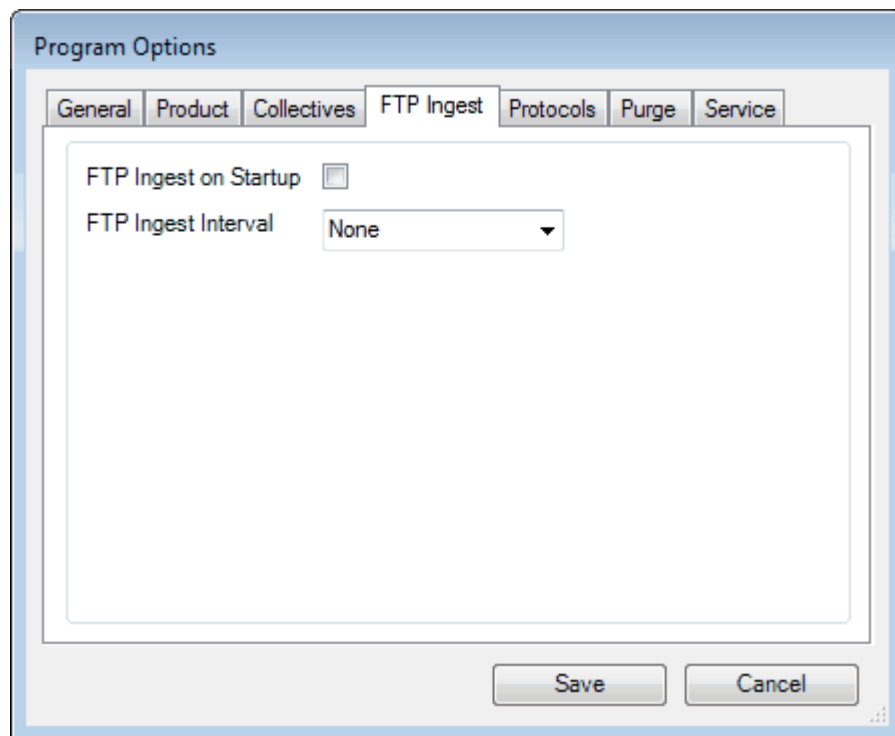
The Option's Collectives Tab allows you to optionally store collectives in a user defined directory.



The software currently supports the SAHOURLY collective. Enter the directory path to store this file.

#### 2.4.5.4 FTP Ingest Tab

The Option's FTP Ingest Tab allows you to configure FTP ingesting of EMWIN data.



The FTP Ingest on Startup, when checked, will cause Weather Message to automatically request the three hour file when the program is first launched.

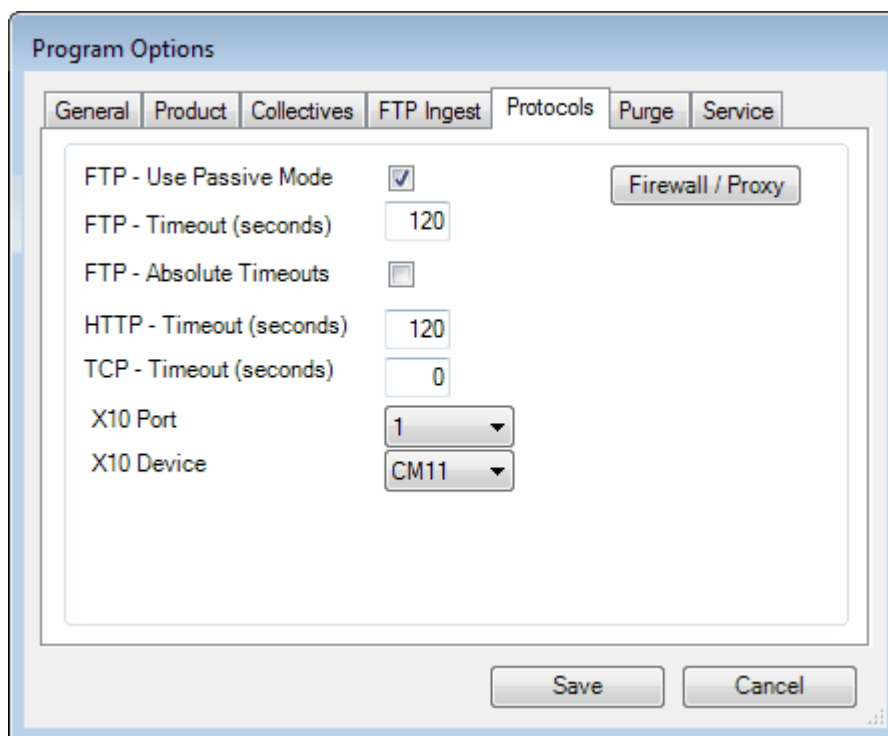
**Hint:** *This option pre-loads the system with the last three hours of EMWIN data. This can be used when Weather Message is not run continuously.*

The FTP Ingest Interval allows you to specify whether you want the software to automatically request FTP files for ingesting. You can select these options; None for no FTP Ingesting, 15 Minutes for FTP Ingesting every 15 minutes, 1 Hour for FTP Ingesting every hour, and 3 Hour for FTP Ingesting every 3 hours.

**Note:** *FTP Ingesting requires an Internet connection.*

#### 2.4.5.5 Protocols Tab

The Option's Protocol Tab allows you to configure the protocols used by Weather Message.



The **FTP – Use Passive Mode** option, when checked, will cause the ftp program to use the passive mode. This option may be needed for firewalls that restrict incoming connections.

The **FTP Timeout** field allows you to specify the maximum amount of time the program will wait for responses from ftp servers.

The **FTP – Absolute Timeouts** option, when checked, will cause the ftp program to use absolute timeouts. An absolute timeout requires the ftp software to complete a ftp command within the timeout seconds specified. When unchecked, the ftp software will use normal timeouts. Normal timeouts are based on communication activity between the ftp software and the ftp server.

The **HTTP Timeout** field allows you to specify the maximum amount of time the program will wait for responses from http servers.

The **TCP Timeout** field allows you to specify the maximum amount of time the program will wait for responses from clients connected to the Weather Message Server. The default is 0 (zero), wait indefinitely. Use caution when changing this value. If a value is entered, the Server will disconnect clients that have not received data stored in the internal buffer within the specified time. The minimum time value allowed is 30 seconds.

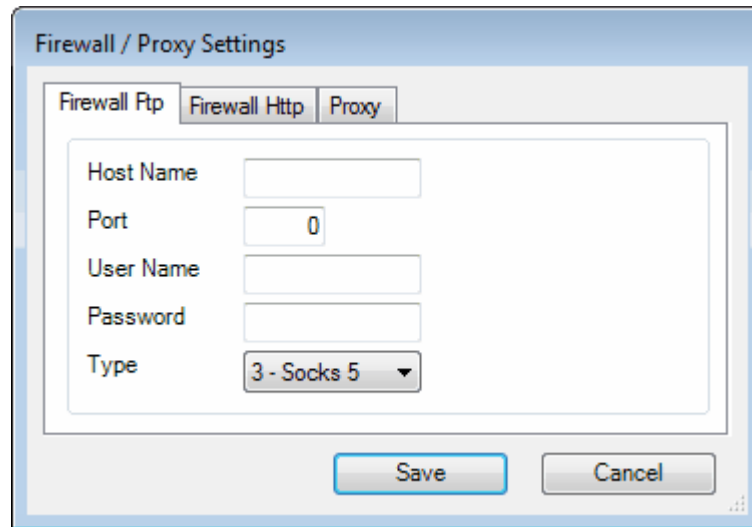
The **X10 Port** field allows you to specify the serial port that is connected to X10 interface hardware. If X10 is not used, select an unused port.

The **X10 Device** field is used to select the type of X10 interface device connected to your system. The valid options are CM17 and CM11.

The **Firewall / Proxy** button allows you to configure Firewall and Proxy settings for your computer. See [Firewall / Proxy](#) <sup>38</sup>.

## 2.4.5.5.1 Firewall / Proxy

The Firewall / Proxy window allows you to configure firewall / proxy information for your computer.



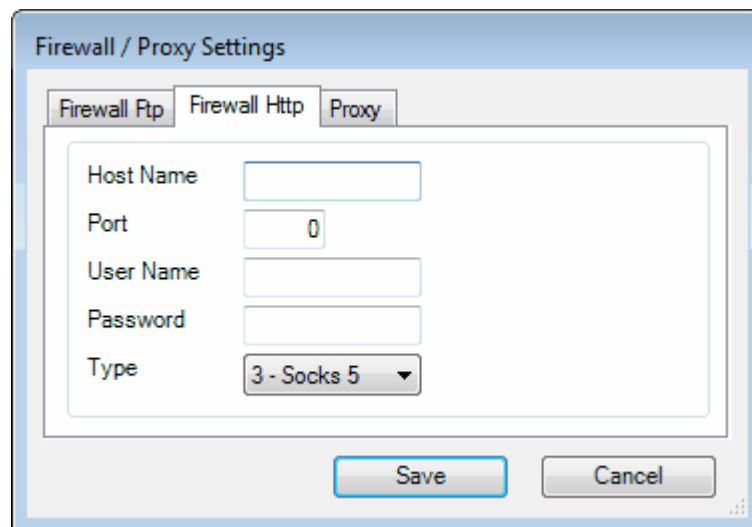
The screenshot shows the 'Firewall / Proxy Settings' dialog box with the 'Firewall Ftp' tab selected. The dialog contains five input fields: 'Host Name', 'Port' (with the value '0'), 'User Name', 'Password', and 'Type' (a dropdown menu showing '3 - Socks 5'). At the bottom right are 'Save' and 'Cancel' buttons.

For a FTP firewall, enter the domain name or TCP/IP address of the firewall in the **Host Name** field.

Enter the **Port** number for the firewall.

If required, enter a **User Name** and **Password**. This should be a user name and password setup in the firewall.

Select the **Type** of firewall. Valid entries are 1-Tunnel, 2-Socks version 4, or 3-Socks version 5.



This screenshot is identical to the one above, showing the 'Firewall / Proxy Settings' dialog box. In this instance, the 'Firewall Http' tab is selected, but the input fields and their values remain the same.

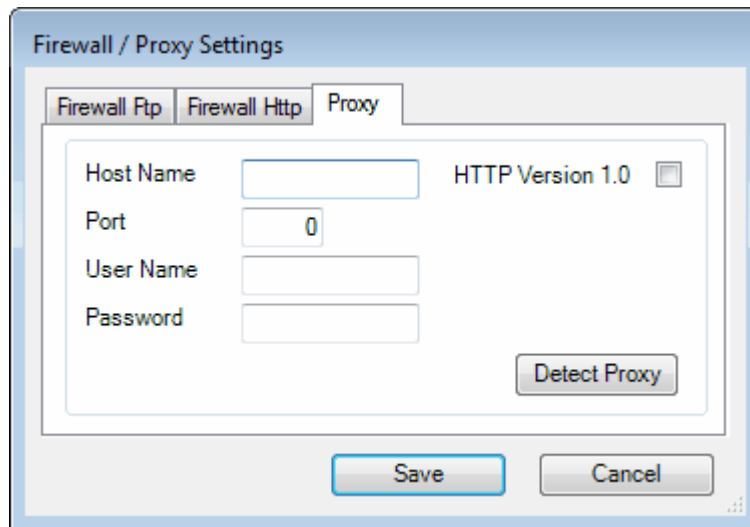
For a HTTP firewall, enter the domain name or TCP/IP address of the firewall in the **Host Name** field.



Enter the **Port** number for the firewall.

If required, enter a **User Name** and **Password**. This should be a user name and password setup in the firewall.

Select the **Type** of firewall. Valid entries are 1-Tunnel, 2-Socks version 4, or 3-Socks version 5.



For a Proxy access, enter the domain name or TCP/IP address of the proxy in the **Host Name** field.

Enter the **Port** number for the firewall.

If required, enter a **User Name** and **Password**. This should be a user name and password setup for the proxy.

If **HTTP version 1.0** is required for the proxy server, check this box.

The **Detect Proxy** button will automatically detect the proxy settings for your computer and populate the host name and port fields.

**Note:** *The Firewall / Proxy settings are common to all Weather Message applications. Changing these settings will automatically change them for the other applications.*

#### 2.4.5.6 Purge Tab

The Option's Purge Tab allows you to configure the purge interval and product count for received products.

Program Options

General Product Collectives FTP Ingest Protocols **Purge** Service

Global Purge Time  Hours

Global Product Count

	Product Id	Hours	Count
▶	RWRAL	0	2
	???BMX	12	1
*			

Save Cancel

The **Global Purge Time** field specifies the number of hours to keep expired weather and graphic products, before deleting them from the directories entered in Data Path and Graphics Path.

The **Global Purge Count** allows you specify the minimum number of products to keep on file after the Global Purge Time as elapsed.

### Individual Product Purging

Purge options can also be specified for individual products or wildcard patterns. These options override the global options. To enter a new product identifier, click in the **Product Id** field on the row that has the "\*". Enter the **Hours** and **Count** for this product.

The Product Id field supports the wildcard "?" and "\*" characters.

To change an entry, click in the cell to be changed. To delete an entry, select the row and press the delete key.

### Purge Option Combinations

Product purging give you three options:

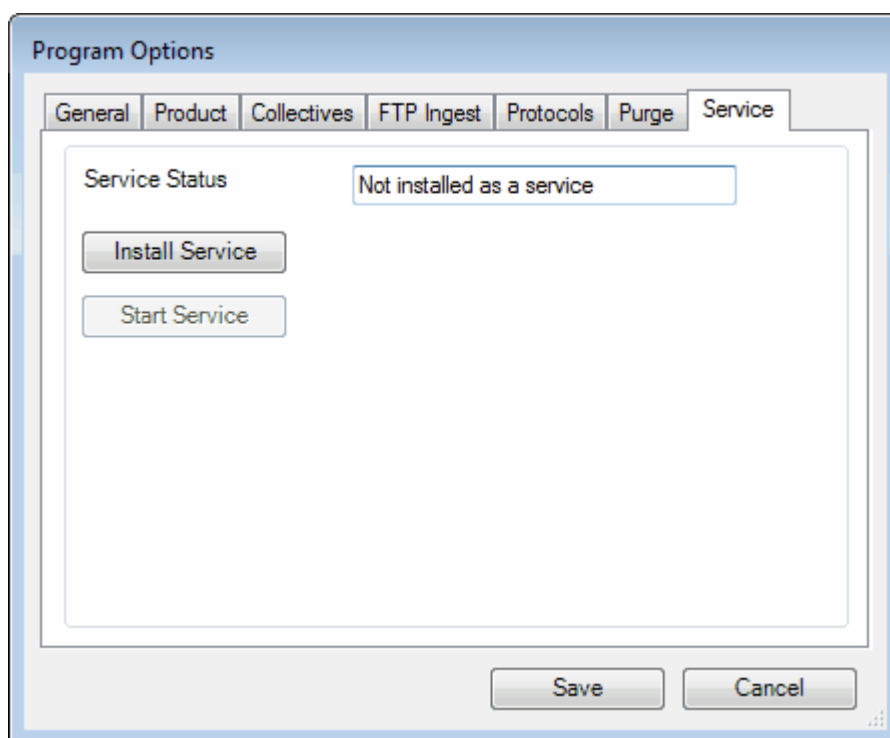
- Hours > 0 and Count = 0  
This purges the product based on the expiration time.
- Hours > 0 and Count > 0  
This purges the product based on expiration time and product count. The program favors the hours parameter first. That is it will always keep a product until the hours elapses, then it will honor the count setting.
- Hours = 0 and Count > 0  
This purges the product based on the count of products. If you set the count to 2 and 4

product have been received in the last 30 minutes, the purge cycle will keep the last 2 product received and the previously received products will be deleted.

**Note:** *Weather Message starts a product purge cycle every 30 minutes.*

#### 2.4.5.7 Service Tab

The Option's Service Tab allows you to configure Weather Message Server to run as a [Windows service](#).



To run Weather Message Server as a Windows service, you need to click the **Install Service** button. This will perform the steps to install Weather Message Server as a service. After the installation completes, the **Install Service** button will change to **Uninstall Service**. You can click **Uninstall Service** to return to normal operation.

If Weather Message is installed as a service, the **Start Service** button will be enabled. Click **Start Service** to start Weather Message Server in the background. After the service starts, the **Start Service** button will change to **Stop Service**. You can stop the service by clicking **Stop Service**.

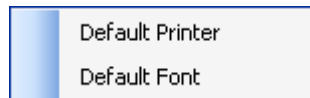
**Hint:** *After installing Weather Message Server as a service, the user interface and system tray icon for the server will not be visible. Use [Weather Message Controller](#) <sup>80</sup> to monitor the server.*

**Note:** *When Weather Message Server is running as a service, Weather Message Server will automatically start in the background when your computer is started. You do not have to log into the computer for the server to start.*

**Note:** When Weather Message Server is running as a service, it will run as the user Local System. Any directories that the server accesses will need to allow Local System to have full control.

## 2.4.6 Printer

The Printer menu allows you to select a default printer and font size.

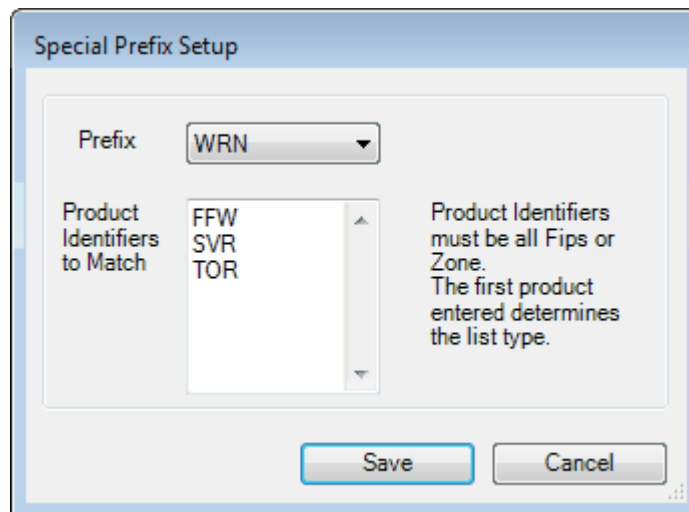


Click the **Default Printer** menu item to select a default printer.

Click the **Default Font** menu item to select a default font.

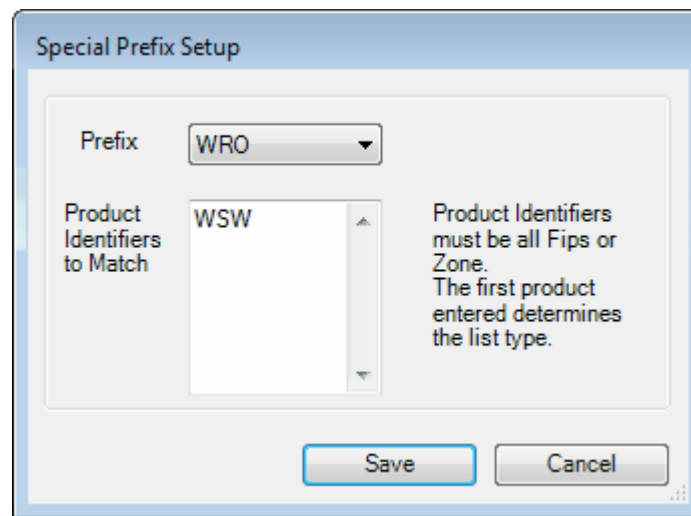
## 2.4.7 Special Prefix

The Special Prefix window allows you select products to be serviced by the WRN, WRO, WRP, WRQ, WRR, and WRS prefixes. These special prefixes are designed to assist you in alarming a group of messages. These prefixes can be used to reduce the number of alarms needed for commonly alarmed products.



The prefix WRN defaults to the products FFW, SVR and TOR. Enter additional products by typing them into the list.

**Note:** All of the products in this list must use the same UGC coding sequence - zone or FIPS.

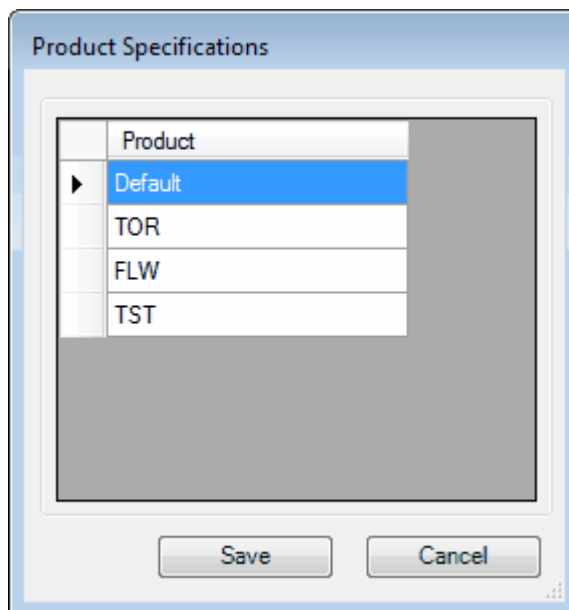


The prefixes WRO, WRP and WRQ have no assigned default values. Select one of these prefixes and enter products by typing them into the list.

**Note:** All of the products assigned to each list must use the same UGC coding sequence - zone or FIPS.

## 2.4.8 Product Specifications

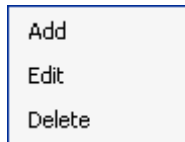
The Product Specifications window allows you establish short message formats for products. These specifications are used to create a short message for email, paging and archive operations.



The **Default** product specification is used for any short message that does not match a product in the list.

**Note:** You cannot delete the Default product.

To edit an existing Product, double click the product. For other options, select the Product and right click to see these menu options.



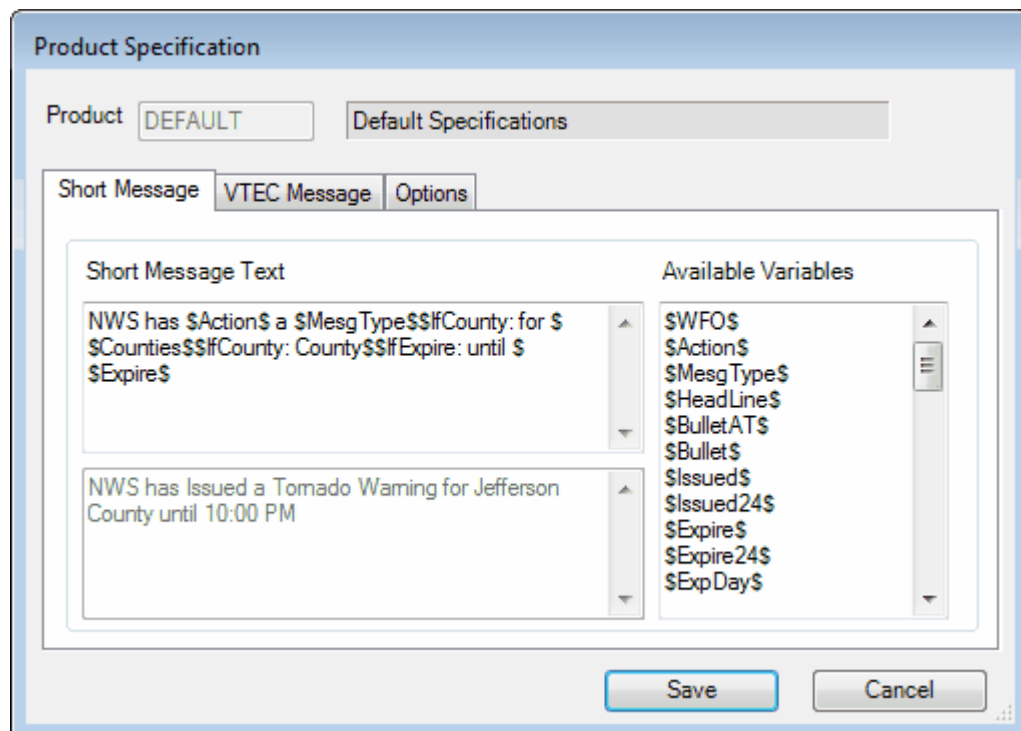
- The **Add** option will add a new product specification.
- The **Edit** option will edit the selected product.
- The **Delete** option will delete the select product specification.

When adding, or editing, the [Product Specification](#)<sup>44</sup> window is displayed.

**Hint:** Product Specifications can be entered for a three character product identifier, or a complete 6 character product plus WFO identifier.

#### 2.4.8.1 Short Message Tab

The Short Message Tab allows you establish a short message.



The **Product** field allows you to enter a product identifier. This field is disabled for the Default product. The description of the product entered is displayed to the right of the product field.

The format of the message is established by typing words and codes in the first text box. To the

right of the first text box, you will see a list of codes that can be used in the message. The text box at the bottom of the window shows a sample of the decoded format.

**Hint:** Pressing the F2 function key will toggle between Issued and Expired/Cancelled mode. This will allow you to see how the message will be formatted when it is expired/cancelled.

The following is a list of the codes available and their meaning:

\$WFO\$	Weather Forecast Office from AWIPS ID, 3 characters.
\$Action\$	The word Issued or appropriate VTEC Action.
\$Amended\$	The words Amended, Corrected, Delayed or nothing.
\$MesgType\$	Description of the message.
\$HeadLine\$	Paragraphs that start with ... and end with ...
\$BulletAT\$	Paragraphs that start with "* AT" or "AT ###".
\$Bullet\$	Paragraphs that start with "* ".
\$Issued\$	Time message issued in local AM/PM format.
\$Issued24\$	Time message issued in local 24 hour format.
\$Expire\$	Time message expires in local AM/PM format.
\$Expire24\$	Time message expires in local 24 hour format.
\$ExpDay\$	Day name when the message expires.
\$ExpDayAbr\$	Abbreviated day name when the message expires.
\$ExpMonthName\$	Month name when the message expires.
\$ExpMonthNameAbr\$	Abbreviated month name when the message expires.
\$ExpDayNbr\$	Day of month when the message expires.
\$TimeZone\$	Time zone selected for the email or paging group.
\$Start\$	Time event starts in local AM/PM format.
\$Start24\$	Time event starts in local 24 hour format.
\$StartDay\$	Day name when the event starts.
\$StartDayAbr\$	Abbreviated day name when the event starts.
\$StartMonthName\$	Month name when the event starts.
\$StartMonthNameAbr\$	Abbreviated month name when the event starts.
\$StartDayNbr\$	Day of month when the event starts.

\$Today\$	For Zone Forecasts – insert the today line.
\$Tonight\$	For Zone Forecasts – insert the tonight line.
\$Forecast\$	For Zone Forecasts - insert the first forecast line.
\$DayOne\$	For Hazardous Weather Outlook – insert day one line.
\$Spotter\$	For Hazardous Weather Outlook – insert spotter line.
\$Counties\$	A list of the counties alarmed.
\$CountiesState\$	A list of the counties alarmed followed by their state.
\$IfCounty:word\$	If county names are available, include "word".
\$IfExpire:word\$	If expiration time is available, include "word".
\$IfExpires:word\$	If expiration time is available and not VTEC cancellation, include "word".
\$UserDef1\$	Paragraphs that start with a user defined string.
\$Lines:x,y\$	Include 'y' lines starting at line 'x'.
\$Now\$	For Now product - insert the now statement
\$Concerning\$	For SWOMCD product - insert the concerning statement
\$AreasAffected\$	For SWOMCD product - insert the areas affected statement
\$Location\$	Paragraphs starting with "* LOCATION" or "LOCATION"
\$HvSiteId\$	HVTEC site identifier.
\$HvSiteDesc\$	HVTEC site identifier description.
\$HvSeverity\$	HVTEC Flood Severity.
\$HvCause\$	HVTEC Cause.
\$HvBegin\$	HVTEC Event Beginning Time AM/PM.
\$HvBegin24\$	HVTEC Event Beginning Time 24 hour.
\$HvCrest\$	HVTEC Crest Time AM/PM.
\$HvCrest24\$	HVTEC Crest Time 24 hour.
\$HvEnd\$	HVTEC Event Ending Time AM/PM.
\$HvEnd24\$	HVTEC Event Ending Time 24 hour.
\$WindSpeed\$	Wind speed in miles per hour.
\$HailSize\$	Hail size in inches.

The \$IfCounty:word\$, \$IfExpire:word\$ and \$IfExpires:word\$ codes can be used to insert words if the message will include county names and/or an expiration time. In the example shown above, the code "\$IfCounty: for \$", means to include the word "for", if county names are available, otherwise do not include the word. The "\$IfCounty: County \$", does the same, to include the word "County", if county names are available.

**Hint:** Use \$IfCounty: Parish \$ to use Parish instead of County.

**Note:** When \$IfCounty: County \$ or \$IfCounty: Parish \$ is used, the system will automatically make County and Parish plural when there are more than one county.

Using these codes you could construct a message that reads: From Lee County EMA: At 13:30 NWS BHM issued a Tornado Warning for Lee County expiring at 14:00. This flexibility allows you to have a shorter or longer message, based on your requirements.



The `$IfExpire:word$` and `$IfExpires:word$` variables support the conditional instruction `$Else$`. The value to the left of `$Else$` will be populated when there is an expiration time. The value to the right of `$Else$` will be populated when there is no expiration time. In the case of `$IfExpires:...$` variable, a cancellation will use the value to the right of `$Else$`.

**Example:** NWS has `$Action$` a `$MesgType$$$IfCounty: for $$Counties$$$IfCounty: County$$$IfExpires: until $Expire$$$Else$ at $Issued$$`

The `$HeadLines$` code will include any headlines found in the alarmed message. Headlines are lines that begin with "..." and end with "...". Headlines are not present in every weather message.

The `$BulletAT$` code will include any text found in the alarmed message after the text "\*\* AT" or "AT ###". This code is useful with TOR (tornado), SVR (severe thunderstorm) and SVS (severe weather statment) messages. It captures the location of the weather system causing the alarm.

The `$Bullet$` code will include any text found in the alarmed message after the text "\*\* ". This code is useful with several types of messages. It captures the location of the weather system or event causing the alarm.

The `$Today$` and `$Tonight$` codes will include the today and/or tonight information from the Zone Forecast product. Specifically, `$Today$` will pull all of the text associated with a line that starts with ".TODAY" or ".THIS". `$Tonight$` will pull all of the text associated with a line that starts with ".TONIGHT".

The `$DayOne$` and `$Spotter$` codes will include the day one and spotter attention lines from the Hazardous Weather Outlook. Specifically, `$DayOne$` will pull the first paragraph after the ".DAY ONE" header. `$Spotter$` will pull the first paragraph after the ".SPOTTER" header.

The `$Now$` code will include all text that follows the .NOW heading.

The `$Concerning$` code will include the text that follows the CONCERNING... line in the SWOMCD product.

The `$Areas Affected$` code will include the text that follows the AREAS AFFECTED... line in the SWOMCD product.

The `$Location$` code will include the text that follows the "\*\*LOCATION" or "LOCATION" line in the TOR, SVR, AND SVS products.

The `$UserDef1$` code will include a paragraph of text, starting at the point where a user definable string is found. See the Options tab to setup the user definable string.

The `$Lines:x,y$` code will include a fixed number of lines from a specified starting line in the message. X is the starting line in the message and Y is the number of lines to include.

**Note:** The `$Start$`, `$Start24$`, `$vEventStart$`, and `$vEventStart24$` variables will contain the word "now" if the incoming message is coded with a blank event start time. A blank event start time generally indicates that the event has already started.

**Note:** The HVTEC variables are only populated when the alarmed message contains HVTEC encoding.

**Note:** When the message contains the words TORNADO EMERGENCY, the `$MesgType$` variable will contain the words Tornado Warning/Tornado Emergency.

### 2.4.8.2 VTEC Message Tab

The VTEC Tab allows you specify a format for the description associated with VTEC coded messages.

The format of the \$MesgType\$ code is established by typing words and codes in the first text box. To the right of the first text box, you will see a list of codes that can be used. The text box at the bottom of the window shows a sample of the decoded format.

The following is a list of the codes available and their meaning:

\$vProduct\$	Product type – Operational, Test, Experimental, Experimental VTEC, System Test
\$vAction\$	Action – New, Cancelled, Extended, etc.
\$vPhenomena\$	Phenomena – Severe Thunderstorm, Tornado, etc.
\$vSignificance\$	Significance – Watch, Warning, etc.
\$vEvent\$	Event number used to track this message.
\$vEventStart\$	Event start time in local AM/PM format.
\$vEventStart24\$	Event start time in 24 hour format.

**Note:** The \$vEventStart\$ variables can be blank if the incoming message is coded with no event start time.

**Note:** The \$vProduct\$ variable will be blank for Operational products. The variable will be populated for the remaining product types.

### 2.4.8.3 Options Tab

The Options Tab allows you to setup user definable text that will be used to populate the \$UserDef1\$ short message code.

The screenshot shows a dialog box titled "Product Specification". At the top, there is a "Product" dropdown menu set to "DEFAULT" and a "Default Specifications" button. Below these are three tabs: "Short Message", "VTEC Message", and "Options", with "Options" being the active tab. The main area of the dialog is titled "User Defined Variable 1" and contains two text input fields. The "Start Sequence" field contains the text ".Discussion\*" and the "Stop Sequence" field is empty. At the bottom right of the dialog are "Save" and "Cancel" buttons.

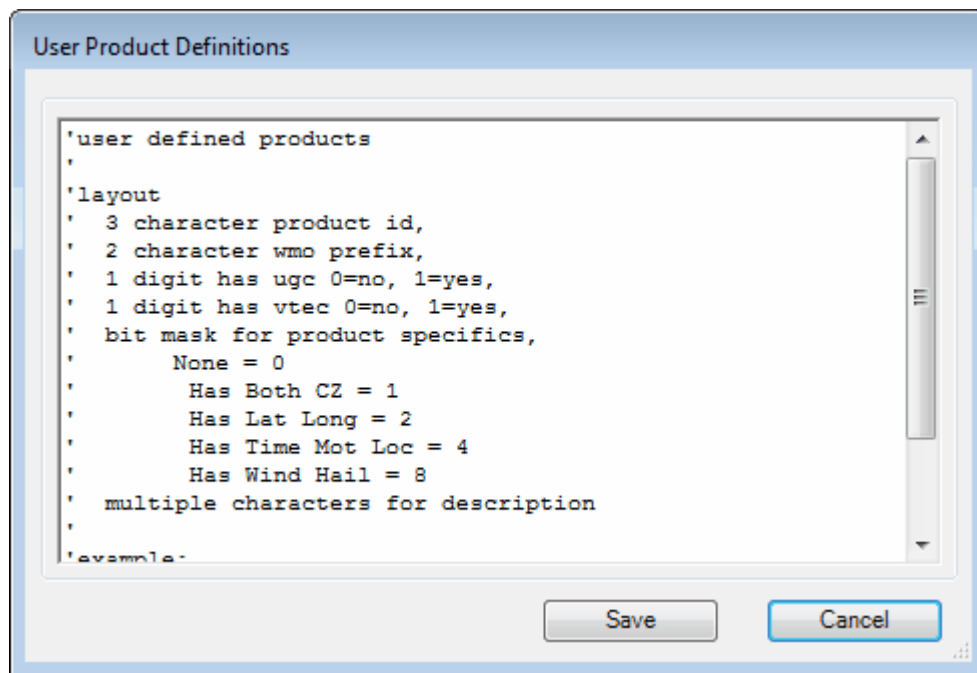
Enter the starting string sequence in the **Start Sequence** field and the stopping string sequence in the **Stop Sequence** field.

These sequences must match the text exactly. In the example above, the program will look for a line that begins with ".Discussion" and is followed by any number of characters. The "\*" character is used to indicate any number of characters. It will stop capturing text from the message when a blank line is encountered.

**Hint:** If you want to find text that is in the middle of a line use the "\*" character before and after the text that you want to find.

### 2.4.9 User Products

The User Product Definitions window is used to create user defined products and/or override the information for existing products.



The layout for the ProductUser.dat file follows:

```

3 character product id followed by a comma
2 character wmo prefix followed by a comma
1 digit has ugc 0=no, 1=yes followed by a comma
1 digit has vtec 0=no, 1=yes followed by a comma
bit mask for product specifics followed by a comma
  None = 0
  Has Both CZ = 1
  Has Lat Long = 2
  Has Time Mot Loc = 4
  Has Wind Hail = 8
product description

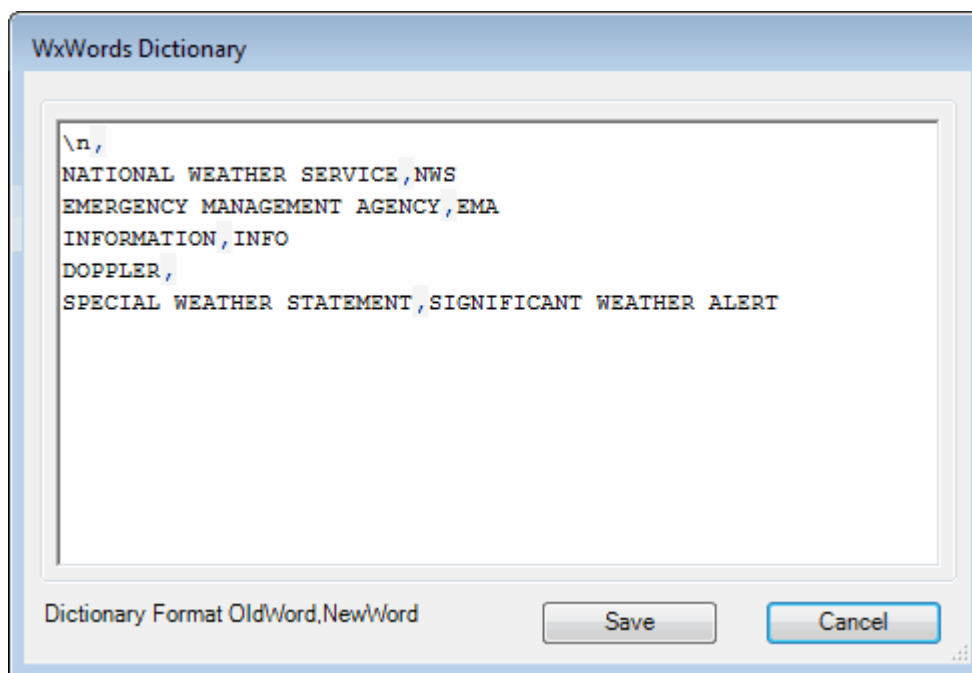
example:
SVR,WU,1,1,14,Severe Thunderstorm Warning

```

Products defined here will override any product already defined in Product.dat.

## 2.4.10 WxWords

The WxWords Window is used to establish word substitutions. These entries are used when the Parse option is enabled on Fax, Email and Paging groups. This capability is specifically designed to reduce the size of paged messages.



The format for WxWords is original word(s), replacement word. There must be a comma between the original word and replacement word. You will notice that the comma is shown in a different color.

**Note:** The words are not case sensitive, however the program will replace the words in the case that you use in WxWords.

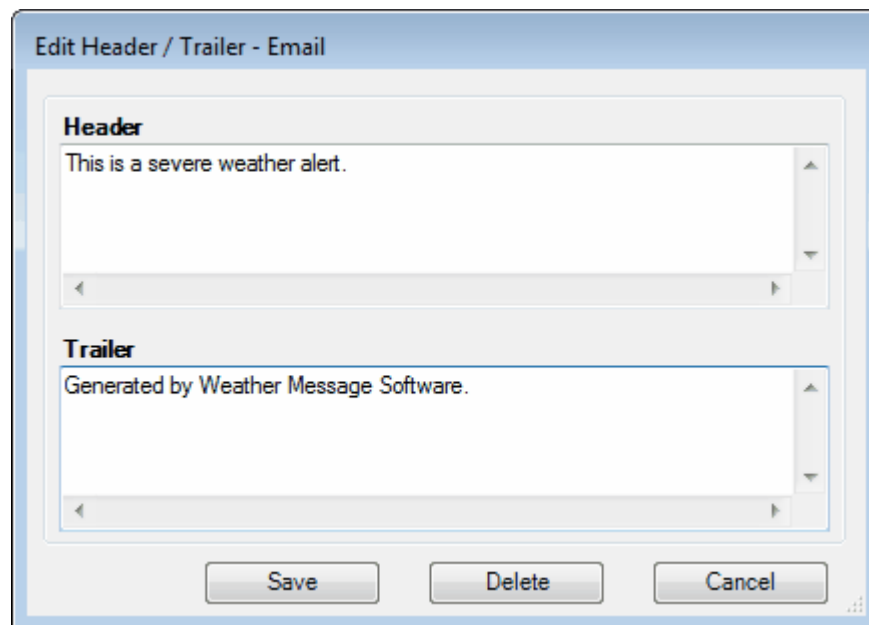
**Note:** A sample WxWords.dat file is available on the Weather Message Additional Downloads webpage. This file contains the most common abbreviations, <http://www.wxmesg.com/misdownloads.htm>.

Since the format for WxWords uses a comma to separate the original word(s) and replacement word(s), a special procedure should be used to replace a comma. To replace a comma, you must enclose the comma character with single quotes. For example – to replace the comma with a semicolon, your entry in WxWords would be ',';. To replace a semicolon with a comma, your entry in WxWords would be ;,,'.

In order to remove carriage return and line feed characters, enter the line \n, . The \n string will match any carriage return line feed characters, which can be replaced with nothing or any other character string, include a blank space.

## 2.4.11 Message Header/Trailer

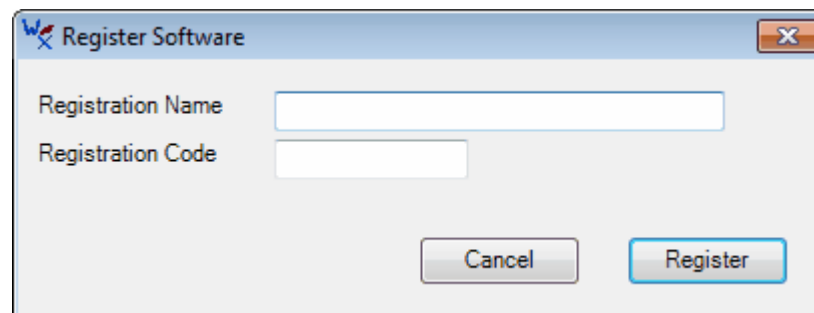
The Edit Header / Trailer window allows you to enter text that will be added to the beginning and ending of a fax, email or pager message.



The Header and Trailer are optional.

## 2.5 Register Software

The Register menu option allows you to register your software.



When you purchase Weather Message, you will be supplied with a **Registration Name** and **Registration Code**. Enter these exactly as they are printed. These fields are case sensitive.

After the software is registered, we recommend that you stop and restart the software.

To purchase the software go to <http://www.wxmesg.com/purchpay.htm>.

## 2.6 Maintaining Alarms

### 2.6.1 The Alarm Grid

The alarm grid allows you to add, edit, delete, copy, paste and set alarms inactive.

	Product	State	County(s)	Client	Map	Alarm Type	Pager Group(s)	E
▶	??????			Yes	No	0	None	N
	WRN???			No	Yes	0	None	N
	TORBMX	AL	ALC123	No	No	0	None	N

The **Product** field contains the product identifier that you want to alarm. The product identifier is assigned by the National Weather Service. It is commonly referred to as an AWIPS identifier. Weather product codes / AWIPS identifiers are listed in [Text Product Abbreviations](#). You can also create user define products identifiers. See [User Defined Products](#)<sup>[245]</sup> for more information.

Text message product codes are generally composed of a three-character message type, followed by a three-character weather forecast office code. There are some product identifiers are four or five characters in length. For example, the regional weather round up for Alabama is RWRAL. If you do not know whether a product uses four, five or six characters, look up the weather forecast office's products using this Internet address <http://www.wxmesg.com/asp/recprod.asp>.

**Hint:** The product code can be an actual product code, or can contain question mark(s) (?) or asterisk (\*) for wildcard operation.

**Hint:** The special prefix, WRN, can be entered in the product code field to catch all of the standard warnings. It includes SVR, TOR and FFW. This can be a time saver when establishing your alarms. Three additional special prefixes, WRO, WRP and WRQ, can also be used. These prefixes are not defined and can be setup using the Support Setup, [Special Prefix](#)<sup>[42]</sup> menu option.

**Hint:** To alarm METAR products, enter MTR as the first three letters of the product identifier, followed by the four-letter station identifier. For example to alarm the METAR for KALX, enter MTRKALX for the product identifier.

**Note:** If a message does not contain a valid Product identifier, the program will use the first six characters of the WMO header. This allows you to alarm products that do not have Product identifiers.



In addition to text products, you can setup alarms for graphic products. Graphic products cannot be sent to the map, or paged. They can be sent to the message client, emailed, archived and passed to an external exe program. To alarm a graphic product, use its 8-character EMWIN file name.

**Hint:** *The product identifier GRAPHI will match all graphic products.*

To aid you with the entry of product identifiers, you can click on **List Products** to view and select a product. To view or select a weather forecast office, click on **List Forecast Offices**.

**Note:** *The product and forecast office list may not include all products or forecast offices distributed by EMWIN, NWWWS or NOAAPort. The National Weather Service routinely updates these lists. As they are updated, they are incorporated into the next Weather Message software release. Check the Weather Message website for updates to these lists.*

### State / County / Marine Zone Selection

To select a specific state(s) or marine zone(s), select the state or marine zone from the state list. To aid you with the state or marine zone abbreviations, you can click on List States to view and select a state or marine zone.

**Note:** *When using state or county selections, the weather text must contain the appropriate Universal Generic Code ([UGC](#)) lines. If you select a specific state or county and the message does not contain a UGC line, it will be not be alarmed. The only exception is the SAW product. Weather Message decodes the text in the SAW product so it can be alarmed by state.*

**Hint:** *When you enter the product identifier for a product that does not contain a UGC line, the state and county list box will have a light gray background color.*

You can select any number of counties to be matched, for the selected state(s). If no counties are selected, the message will be alarmed if the state abbreviation is found in the message UGC lines.

**Hint:** *A warning message will be displayed if you attempt to enter state or county information for a message that does not normally contain [UGC](#) lines.*

**Hint:** *Pressing F5 after selecting a state or county will resort the state or county list based on the selections.*

### Text Matching

In addition to state and county preferences, you can require a message to have a specified text phrase before it is alarmed. The **Match Text** field allows you to enter a word or phrase that should be found in the message before it is alarmed.

This feature can be used with messages that contain different content. For example, the SPS (Special Weather Statement) is used for different purposes. One use of this message is to announce thunderstorm advisories. Entering **"\*THUNDERSTORM ADVISORY"** in this field, for an SPS alarm, will require it to contain these words before it would be alarmed.

The **Exclude Text** field allows you to enter a word or phrase that if found, would cause the message to not be alarmed. This feature can be used to prevent the alarming of test messages. For example entering the word **"\*TEST"** in this field would prevent any message containing the word "TEST" from being alarmed.

**Hint:** *The Match and Exclude fields use wildcards for matching. Be sure to prepend and append an **"\*"**. The matching mechanism supports ? to match Any single character, \* to*

*match Zero or more characters, # to match any single digit (0–9), [charlist] to match any single character in charlist and ![charlist] to match any single character not in charlist.*

The default matching mechanism is fast, but is limited to one set of matching criteria. Checking the **RegEx** box to the right of the **Match Text** and **Exclude Text** boxes allows you to enter [regular expressions](#). Regular expressions allow you to compose complex matching patterns. For more information on regular expressions, visit [Regular-Expressions.info](#). You can test regular expressions at this [RegExLib.com](#), or [RegExr: Online Regular Expression Testing Tool](#).

Here is an example using regular expressions:

Severe Thunderstorm products normally contain the text "WINDS IN EXCESS OF XX MPH". If you want to alarm this product when the winds are 65 MPH to 99 MPH use this regular expression in the Match Text Field `(?s)^.*WINDS\s*IN\s*EXCESS\s*OF\s*([6][5-9]|[7-9][0-9]).*$` Remember to check the RegEx box.

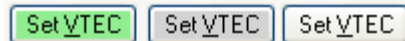
For Hazardous Weather Outlook products, it is common to prevent the alarming of the message when storm spotters are not needed. Enter this regular expression in the Exclude Text field `(?s)^.*(IS\sNOT.*\sANTICIPATED))|(WILL\sNOT\sBE\sNEEDED))|(NO\sHAZARDOUS\sWEATHER\sIS\sEXPECTED).*$` Remember to check the RegEx box.

### Alarm Active Option

The Alarm Active option is used to enable / disable an alarm. When an alarm is disabled, it is shown in the main alarm grid with a yellow background.

### Set VTEC – Valid Time Event Code

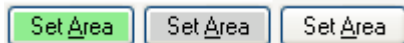
The [Set VTEC](#) <sup>57</sup> button is used to setup specific [VTEC](#) events, primary and hydrologic, to be matched for this product. The color of the Set VTEC button indicates the status of this option.



If the background color is light green, VTEC has been setup for this alarm. If the background color is white, VTEC is available but not set. If the background color is light gray, VTEC is not available for this product.

### Set Area

The [Set Area](#) <sup>58</sup> button is used to establish a geographic area for the alarm. This geographic area is based on a location's latitude and longitude and a radius in miles.

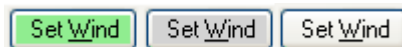


The color of the Set Area button indicates the status of this option. If the background color is light green, Area has been setup for this alarm. If the background color is white, Area is available but not set. If the background color is light gray, Area is not available for this product.

**Note:** Caution should be used when enabling the Area option. This option requires the weather text to contain a LAT...LON information line. This is associated with polygon watch / warnings.

### Set Wind - Wind Speed and Hail Size

The [Set Wind](#) <sup>59</sup> button is used to establish wind speed and/or hail size for the alarm. Wind Speed and Hail size is included in Severe Thunderstorm and Severe Weather Statements.



The color of the Set Wind button indicates the status of this option. If the background color is light green, Wind and/or Hail has been setup for this alarm. If the background color is white, Wind and Hail are available but not set. If the background color is light gray, Wind and Hail is not available for this product.

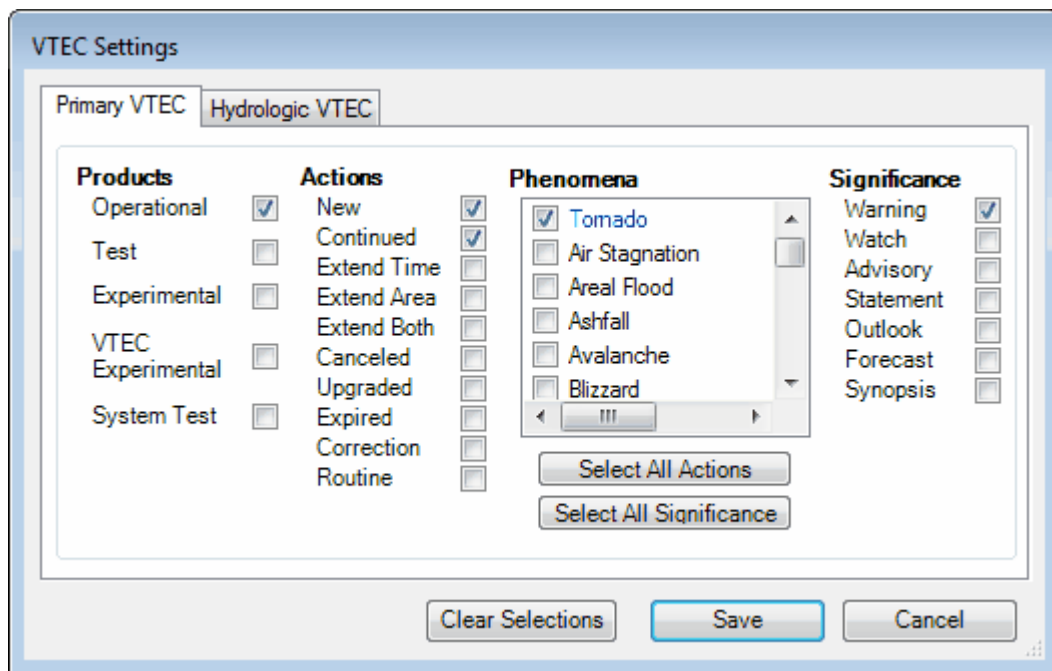
**Note:** The Set Wind option is now being tested by the NWS Central Region forecast products. Users in other areas of the country should not use this option until your local weather service office implements the WIND...HAIL line in their Severe Thunderstorm products.

### Alarm Validation

When the alarm is saved, the program performs a number of validations to insure that the alarm will work properly. Any errors or warning messages are displayed to let you know about potential problems.

#### 2.6.2.1 VTEC Settings

The **VTEC** Settings window allows you to further define your alarm requirements for the product. If the product identifier associated with the alarm is VTEC enabled, this window will be initially populated with all of the Phenomena and Significance supported by the product.



Products	Actions	Phenomena	Significance
Operational <input checked="" type="checkbox"/>	New <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Tornado	Warning <input checked="" type="checkbox"/>
Test <input type="checkbox"/>	Continued <input checked="" type="checkbox"/>	<input type="checkbox"/> Air Stagnation	Watch <input type="checkbox"/>
Experimental <input type="checkbox"/>	Extend Time <input type="checkbox"/>	<input type="checkbox"/> Areal Flood	Advisory <input type="checkbox"/>
VTEC <input type="checkbox"/>	Extend Area <input type="checkbox"/>	<input type="checkbox"/> Ashfall	Statement <input type="checkbox"/>
Experimental <input type="checkbox"/>	Extend Both <input type="checkbox"/>	<input type="checkbox"/> Avalanche	Outlook <input type="checkbox"/>
System Test <input type="checkbox"/>	Canceled <input type="checkbox"/>	<input type="checkbox"/> Blizzard	Forecast <input type="checkbox"/>
	Upgraded <input type="checkbox"/>		Synopsis <input type="checkbox"/>
	Expired <input type="checkbox"/>		
	Correction <input type="checkbox"/>		
	Routine <input type="checkbox"/>		

Buttons: Select All Actions, Select All Significance, Clear Selections, Save, Cancel

#### Primary VTEC

In order to use Primary VTEC, you must select at least one item from **Products**, **Actions**, **Phenomena** and **Significance**. You can select multiple items from each category.

The **Select All Actions** button will select all action items. The **Select All Significance** button will select all significance items. The **Clear Selections** button will reset all selections for both Primary and Hydrologic.

**Note:** You can select Phenomena that may not be included in the message that is being alarmed. You need to verify that the message you are alarming can contain the Phenomena that you select.

**Note:** When you use the Primary VTEC option, the received message must contain the Primary VTEC items you select, otherwise the message will not be alarmed.

**Note:** The System Test product type is not issued by the National Weather Service. Code 'L' is reserved for local system testing.

### Hydrologic VTEC

The screenshot shows the 'VTEC Settings' dialog box with the 'Hydrologic VTEC' tab selected. The 'Site Identifier' section contains a list of items with checkboxes and a scroll bar. The 'Flood Severity' section contains a dropdown menu with several options.

Site Identifier	Flood Severity
<input checked="" type="checkbox"/> HBPA1 AL Tallapoosa River at Horseshoe Bend	None
<input type="checkbox"/> 00000 Areal Flood or Flash Flood	No Observation
<input type="checkbox"/> AAKA2 AK Antler River near Antler River	Minor
<input type="checkbox"/> ABLA2 AK Kobuk River at Ambler	Moderate
<input type="checkbox"/> ACSA2 AK Susitna River at Alexander Creek	Major
<input type="checkbox"/> ALKA2 AK Alsek River at Walker Glacier	Unknown
<input type="checkbox"/> ALLA2 AK Koyukuk River at Allakaket	
<input type="checkbox"/> APBA2 AK Anchor River at Anchor Point	
<input type="checkbox"/> APTA2 AK Anchor River at New Sterling Hwy	

Buttons at the bottom: Clear Selections, Save, Cancel.

Enter **Site Identifier(s)** for the flood area. Select **Flood Severity(ies)** from the drop down list.

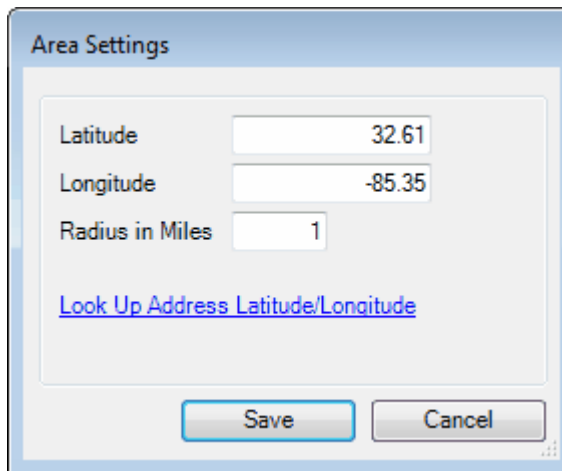
**Note:** Hydrologic VTEC is only found in hydrologic products.

**Note:** These settings are optional. If they are left blank, the software will alarm all products that match your other alarm criteria.

**Note:** When you use the Hydrologic VTEC option, the received message must contain the Hydrologic VTEC items you select, otherwise the message will not be alarmed.

### 2.6.2.2 Area Settings

The Area Settings window allows you to further define the geographic area for your alarm. This area is defined by entering the coordinates and radius for your area.

A dialog box titled "Area Settings" with a light blue border. It contains three input fields: "Latitude" with the value "32.61", "Longitude" with the value "-85.35", and "Radius in Miles" with the value "1". Below these fields is a blue underlined link that says "Look Up Address Latitude/Longitude". At the bottom of the dialog are two buttons: "Save" and "Cancel".

Area Settings

Latitude 32.61

Longitude -85.35

Radius in Miles 1

[Look Up Address Latitude/Longitude](#)

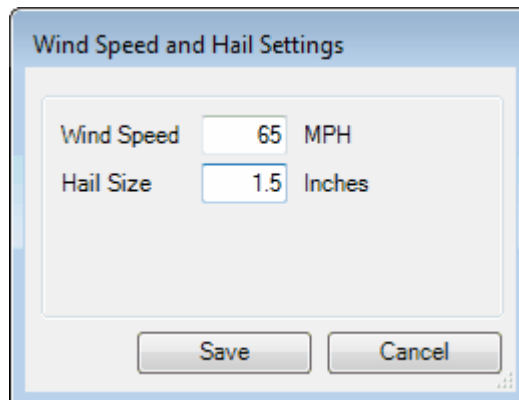
Save Cancel

Enter the **Latitude**, **Longitude** and **Radius** for the alarmed area. The Look Up Address Latitude/Longitude length can be clicked to launch a browser window that will allow you to lookup the latitude and longitude for an address.

**Note:** Caution should be used when enabling the Area option. This option requires the weather text to contain a LAT...LON information line. Incorrect settings can cause your alarm to fail.

### 2.6.2.3 Wind Hail Settings

The Wind Hail Settings window allows you to define a minimum speed and/or Hail Size for the alarm.

A dialog box titled "Wind Speed and Hail Settings" with a light blue border. It contains two input fields: "Wind Speed" with the value "65" and the unit "MPH", and "Hail Size" with the value "1.5" and the unit "Inches". At the bottom of the dialog are two buttons: "Save" and "Cancel".

Wind Speed and Hail Settings

Wind Speed 65 MPH

Hail Size 1.5 Inches

Save Cancel

Wind Speed and Hail Size specify the minimum Wind Speed and/or Hail Size that the message must contain to be alarmed. Entering zero for either value disables the check for that item.

Enter a **Wind Speed** ranging from 60 miles-per-hour to 100 miles-per-hour. A value of zero disables the check for wind speed.

Enter a **Hail Size** ranging from .75 inches to 4.00 inches. A value of zero disables the check for hail size.

**Note:** If both values are entered, the system will attempt to match at least one of the criteria.

**Note:** Caution should be used when enabling the Wind Speed and Hail Size option. This option requires the weather text to contain a WIND...HAIL information line. Incorrect settings can cause your alarm to fail.

### 2.6.3 Client / Map / X10 Tab

The Client/ Map/ X10 tab is used to specify an alarm action for these categories.

**Edit Alarm #1 - TORBMX**

List Products   List Forecast Offices   List States

Alarm   **Client/ Map/ X10**   Paging/Email/Fax   Archive/Html/Exe/Print   Notes

To Client: Yes   Alarm Type: 3   Alarm type is used to play sounds and/or control printing.

To Map: Yes

**X10 Settings**

House Code: A   Unit 1: ☐   Unit 5: ☒   Unit 9: ☐   Unit 13: ☐  
 Command: On   Unit 2: ☐   Unit 6: ☒   Unit 10: ☐   Unit 14: ☐  
 Duration: 0   Unit 3: ☐   Unit 7: ☐   Unit 11: ☐   Unit 15: ☐  
                   Unit 4: ☐   Unit 8: ☐   Unit 12: ☐   Unit 16: ☐

Save   Cancel

#### Message Client

The **To Client** field is used to indicate whether you want this alarm sent to the Message Client(s) connected to the server. Select "Yes" to send the alarm to all Message Clients, or select an individual Message Client identifier. Each Message Client can be set to a different identifier. This allows you to send different alarms to individual Message Clients.

#### Map Client

The **To Map** field is used to indicate whether you want this alarm sent to the Map Client computers connected to the server. Select "Yes" to send the alarm to all Map Clients, or select an individual Map Client identifier. Each Map Client can be set to a different identifier. This will allow you to send different alarms to individual Map Clients.

**Note:** Only messages with UGC lines will be sent to the map client.

#### Alarm Types

The **Alarm Type** field designates an alarm number for this alarm. The Message Client and Map Client use the Alarm Type to determine the sound, message, or text-to-speech option that is

used when the alarm arrives. The Message Client and Map Client will also use this Alarm Type to determine if their windows should be made visible, if they are hidden. Select your choice in the Alarm Type field.

You can establish 40 different alarm type settings in the Message and Map clients. For example: You could assign alarm type 1 to tornado warnings, type 2 to tornado watches, type 3 to severe thunderstorm warnings, 4 to severe thunderstorm watches, etc. The actual wave files that will be played and window popup options are setup in each Weather Message Client.

Leaving the Alarm Type blank will cause the Message Client to show the message in it's text box, however, if the screen is minimized, it will not popup the window to display the message. For types 1 through 20, the Message Client will popup it's window, based on the client settings, if the program is minimized. See the Message Client and Map Client sections for additional information on Alarm Types.

### X10 Settings

The **X10 Settings**, along with the associated X10 hardware, can be used to activate electrical devices when an alarm occurs. Select a **House Code**, **Command**, **Duration** and appropriate **Units** to activate.

The software supports the commands On, Off, All On, All Off, and Blink.

**Hint:** *The Blink option is implemented in software and works best with the CM11a controller.*

The **Duration** field allows you to specify the number of minutes that a device should remain activated. Enter 0 (zero) for it to remain active until turned off.

**Hint:** *With VTEC coded messages; it is possible to turn on a device when a watch is issued and off when the watch expires.*

**Note:** *You should set the X10 Port and X10 Device in Support Setup Options before entering alarms for X10 devices.*

See the Weather Message website for additional [X10 information](#) and sources for X10 hardware.

## 2.6.4 Paging/Email/Fax Tab

The Paging/Email/Fax tab is used to specify an alarm action for these categories.

**Edit Alarm #1 - TORBMX**

List Products   List Forecast Offices   List States

Alarm   Client/ Map/ X10   **Paging/Email/Fax**   Archive/Html/Exe/Print   Notes

**E Mail**

☒ Phone

☐ None

☐ Danny

☐ DannyShort

**Pager**

☒ Danny Facebook

☒ Danny Twitter

☐ None

☐ DannyLinc

**Fax Group**

☒ None

☐ FaxOffice

Time Restrict: No

Time Begin: : HH:MM - Start Receiving

Time End: : HH:MM - Stop Receiving

Days of Week: S M T W T F S

☒ ☒ ☒ ☒ ☒ ☒ ☒

Save   Cancel

## Paging

To send a message to a pager, you first have to establish your paging groups. Weather Message supports TAP, SNPP, WCTP protocols, along with a number of other speciality formats. See the section on setting up paging groups. After the groups have been established, select one or more of the groups from the list.

Upon receiving a valid alarm for a pager group, Weather Message will send a message to the pager group(s) based on the style you selected for the group.

If you selected the short message format and a "TORBHM" was issued with counties, ALC123 and ALC037, the paging message will read "NWS has issued a Tornado Warning for Tallapoosa Coosa County until 07:00 PM". Examples of the message formats can be seen in [Paging / E-Mail Formats](#).

**Note:** If the alarm was only for Tallapoosa County, only the name Tallapoosa will appear. The same goes for Coosa. If both counties are in the weather message, then both will appear. The format of this short message format can be changed from the Support Setup menu.

**Note:** It is possible for you to select counties that may be in different groups in the alarmed message. Some weather products contain multiple groups that each contains counties. In the event that you select multiple counties and they are in different groups, you will get one message for each group that contains a matching county.

If you use the Any County code, for example "ALC000", the short message will contain a list of every county appearing in the weather message. This can make the short message longer than what will fit on a pager's display.

**Note:** It is not recommended to use the all county code when you are sending "Selected" or



*"Full" message text. Doing so will result in an email/page being generated for each UGC line in the weather message.*

The file Product.dat, in the WxMesgNet directory, contains the descriptions of all weather products. This description appears in the short message and on the Message Client screen. To change a product description, copy the line from Product.dat to ProductUser.dat and make your modifications. The Product.dat file should not be modified. It is replaced during software updates.

## E-Mail

To Email a message, you first have to establish your e-mail groups. See the section on setting up email groups. After the groups have been established, select one or more of the groups from the list. E-mail alarms work just like the pager and have the same format options. Upon receiving a valid alarm for an e-mail group(s), Weather Message will send a message to the e-mail group(s) based on the style you selected for the group.

**Hint:** *Graphic products can be alarm to an Email group. The graphic is attached to the Email as an in-line file.*

## Fax

To fax a message, you first have to establish your fax groups. See the section on setting up fax groups. After the groups have been established, select one or more of the group(s) from the list. Fax alarms work just like the pager and have the same format options. Upon receiving a valid alarm for a fax group, Weather Message will send a message to the fax group based on the style you selected for the group.

## Time Restrict or Delaying Paging / E-Mail / Fax

The **Time Restrict**, **Time Begin**, **Time End**, and **Days of Week** fields are used to limit or delay the times and days that a page, e-mail or fax can be sent for a particular alarm. To restrict a message to a defined time period, set the Time Restrict field to **Yes**. Enter the beginning time you want to send the page, e-mail or fax. Enter the time to stop sending the page, email or fax. Select the days of the week that you want the page, e-mail or fax sent.

For example, you may not want an alarm paged or emailed from 22:00 hours through 07:00 hours. The Time Begin field should be the time that you want paging/emailing started, in this example 07:00. The Time End field should be the time that you want paging, emailing or faxing stopped, in this example 22:00. Check all of the days of the week to receive that you want the message sent. From 22:00 through 07:00, messages will not be paged or emailed.

To delay a message until a later time, set the Time Restrict field to **Hold**. Using the above example, you want all messages received from 22:00 through 07:00 to be delayed until 07:00. The Time Begin field should be the time that you want paging/emailing started, in this example 07:00. The Time Begin time is also the time that any held messages would be sent. The Time End field should be the time that you want paging, emailing or faxing stopped, in this example 22:00. From 22:00 through 07:00 messages will be held until 07:00. At 07:00 any held messages will be sent. Any messages that arrive from 07:00 through 22:00 it will be paged, emailed or faxed as soon as they arrive.

To delay a message and only send the last one received for a group, set the Time Restrict field to **Hold Last**. Using the above example, you want all messages received from 22:00 through 07:00 to be delayed until 07:00 and only the last message received to be sent. The Time Begin field should be the time that you want paging/emailing started, in this example 07:00. The Time Begin time is also the time that any held messages would be sent. The Time End field should be the time that you want paging, emailing or faxing stopped, in this example 22:00. From 22:00

through 07:00 messages will be held until 07:00. At 07:00 any held messages will be evaluated and the last one received for a product will be sent. Any messages that arrive from 07:00 through 22:00 it will be paged, emailed or faxed as soon as they arrive.

**Note:** For Hold Last restriction, the system groups the held messages using the original product identifier and group name. It sends the last message received for the product and group.

When the Time Restrict option is used, you must select the Days of Week that you want the message sent. Check the days that you want the message sent. If a day is unchecked, the message will not be sent.

## 2.6.5 Archive/Html/Exe/Print Tab

The Archive/Html/Exe/Print tab is used to specify an alarm action for these categories.

The **Archive Action** field indicates the style of message to archive. Select **No** for no archiving; **Short** for a short message; **Selected** for selected text from the alarmed UGC group; **Selected No Head** for selected text from the alarmed UGC group without the header; **Full** for Full Text; **Full No Head** for Full Text without header; or Raw for raw data.

**Hint:** The No Head style option removes the heading lines from the messages. This option removes all of the heading text from the first line in the message or UGC group down to the issued date/time line.

**Hint:** For graphic products, use the Full option.

**Note:** The Raw option is used by WxLoader to reconstruct a message from the individual

*parts of a message.*

The **Archive Type** field is automatically selected by the software based on the protocols selected on the [HTML Template](#) <sup>[67]</sup> window. This field can be blank or one of these options: Local, HTTP, FTP, FTPS, SFTP Password, or SFTP Certificate.

The **Archive Path** field contains the directory and file name to save. The default archive type is Local. To save a file to a local directory, simply enter the directory path and file name to save in the Archive Path field. To use the FTP, FTPS, SFTP or HTTP protocols, press the HTML Template button.

An example of archiving to a local directory using the original EMWIN file name along with the message expiration date/time would be "c:\weather\\${FileName}\$\$Expire\$\$FileExt\$". This would result in a file with a eight character EMWIN file name appended with the expiration date/time in the format MMDDYYHHMM followed by the extension for the file.

### Path / File Name Variables

The following variables are supported in the path / file name.

- \$MM\$ for the current two digit month.
- \$DD\$ for the current two digit day.
- \$YY\$ for the current two digit year.
- \$YYYY\$ for the current four digit year.
- \$UTCHOUR\$ for the current [UTC](#) two digit hour.
- \$UTCMMS\$ for the current UTC two digit month.
- \$UTCDD\$ for the current UTC two digit day.
- \$UTCYYYY\$ for the current UTC four digit year.
- \$FileName\$ for the EMWIN base file name.
- \$ProductId\$ for the 4 to 6 character product identifier.
- \$FileExt\$ for the file extension.
- \$Expire\$ for the message expiration date and time.
- \$ExpireUTC\$ for the message expiration date and time in UTC.
- \$Issued\$ for the message issued date and time.
- \$IssuedUTC\$ for the message issued date and time in UTC.

**Hint:** The \$MM\$, \$DD\$, and \$YY\$ variables can be used to archive files to a directory structure that includes one of the numeric date variables. The variables are two digits in all cases and have a leading zero when single digit is encountered.


**Note:** The software does not create directories. You will need to create the directory structure prior to setting up the alarm.

**Hint:** The program normally overwrites duplicate files. You can use the No Overwrite Archive Option to add a sequential number between the file name and extension.

The **Archive Option** indicates whether the resulting message is appended, overwritten or made unique if it already exists. Selecting the Append option will cause the program to append the an exiting file with the archived data. The Overwrite option will overwrite any existing message. The No Overwrite option will cause the program to insert a sequential number to the message to make the file name unique.

**Note:** The Append option works with FTP, FTPS, SFTP and Local.

### FTP / HTTP / HTML Button

The [FTP / HTTP / HTML](#)  button will launch the FTP / HTTP / HTML Setup window. It can be used to create html templates, select upload protocols and set your server options.

### Execute External Program

The Exe Program field is used to start a third-party program when an alarm occurs. Enter the full path and program name for the third-party program. Weather Message can pass the file name of the message that caused the alarm. To do this put one space after the program name and enter the characters "\$1". For example, to start Notepad each time an alarm is triggered, enter "Notepad.exe \$1" in the Exe Program field.

**Hint:** *If the path to the executable contains a space, you should enclose the path and program name in quotes. For example: "c:\program files\myprogram.exe" \$1*

### Print Action

To print a text or graphic product to a printer setup on the computer running Weather Message Server, select one of these print options. Select **No** for no printing; **Short** for a short message; **Selected** for selected text from the alarmed UGC group; **Selected No Head** for selected text from the alarmed UGC group without the header; **Full** for Full Text; or **Full No Head** for Full Text without header.

## 2.6.6 Notes

The Archive/Html/Exe/Print tab is used to specify an alarm action for these categories.

**Edit Alarm #1 - TORBMX**

List Products   List Forecast Offices   List States

Alarm   Client/ Map/ X10   Paging/Email/Fax   Archive/Html/Exe/Print   Notes

Notes

enter notes about this alarm here

Save   Cancel

Optionally enter any information about this alarm.

### 2.6.7 FTP / HTTP / Html Setup

The Html Setup is used to select upload protocols and associate an optional html template for merging weather text.

**FTP / HTTP / HTML Setup**

**Settings**

Template File Name: C:\WxMesgNet\WxData\Template\Template.htm Browse

Destination File Name: c:\wxmesgnet\wxdata\archive\\${filename}\${expire}\${fileext}

Save To: Local

Server Address:  Port: 0

User Name:

Password:

**HTML Code**

```
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=windows-1252">
<title>Sample Template File</title>
</head>
<body>
<p align="center">Test Weather Message</p>
<p align="center">&nbsp;</p>
<p align="center">${MESSAGE}</p>
```

Use \$MESSAGE\$ to include weather text in your html code.

Save Cancel

The **Template File Name** is the name of the html file that contains your template. The **Browse** button can be used to locate the template file. The program automatically defaults to ..\WxMesgNet\WxData\Template for template files. You can place templates in any directory. The Template File Name is not required. Leave this blank if you want to send the weather text without html encoding.

If you have not established a template file, enter a name for a new template file. This file will be created, using the html code you specify when the **Save** button is clicked.

The **Destination File Name** is the name you want the resulting message to be named on your server. This field is required. You can use variables in the path and file name, see [Path / File Name Variables](#) <sup>[64]</sup>

Select the **Save To** type, Local, FTP, FTPS, SFTP with Password, SFTP with Certificate, or HTTP. If one of the FTP options or HTTP is selected, the program will allow you to enter information about your FTP or HTTP server. Enter the FTP Server address, Port number, User Name and Password. These settings will be used to log into your server.

**Note:** When using the SFTP with Certificate option, you should enter your private key password in the password field. Your private certificate must be saved in c:\Program Files\WxMesgNet\SSHKeys directory. The file should be named as follows: server name plus underscore character plus user name with the extension .pem. For example wxmesg.com\_danny.pem.

The **HTML Code** box is used to enter the html code to encapsulate the weather text. Remember to use the variable \$MESSAGE\$ in this code as a place marker for your text.

The **Save** button will save your html template and update the Archive Path field.

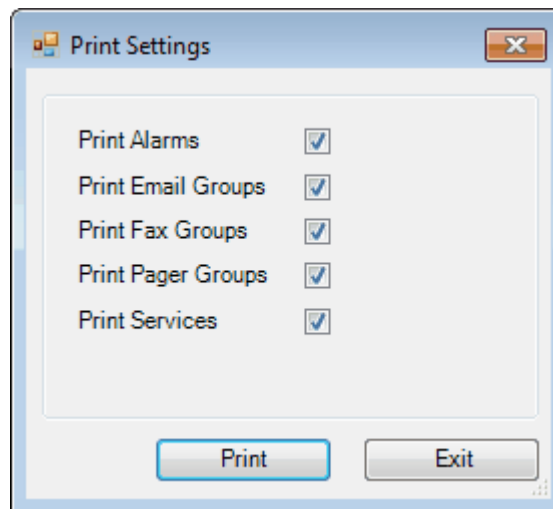
**Note:** If a *html* template is specified, the program will change any *html* reserved-characters in the weather text to their corresponding *html* abbreviation. This prevents *html* browsers from misinterpreting the weather text as *html* code.

**Note:** The *http PUT* command requires write access to the directory specified in the command.

**Note:** See [Publishing Data to a Web Page](#) for examples.

## 2.7 Print Settings

The Print Settings window allows you to print you print Alarms, Email Groups, Fax Groups, and Pager Groups.



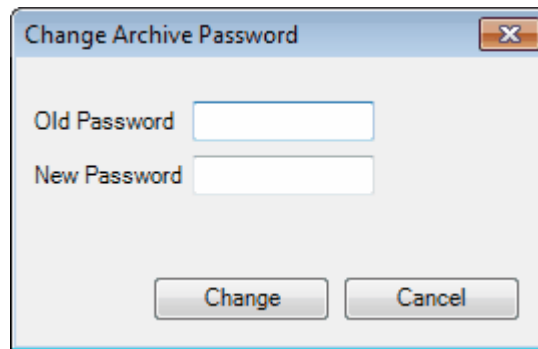
Select the items to print and click the **Print** button.

## 2.8 Utilities

The Utilities menu has the following option.

### Change Archive Password

The Change Archive Password window allows you to change the password entered in alarms used to archive products.

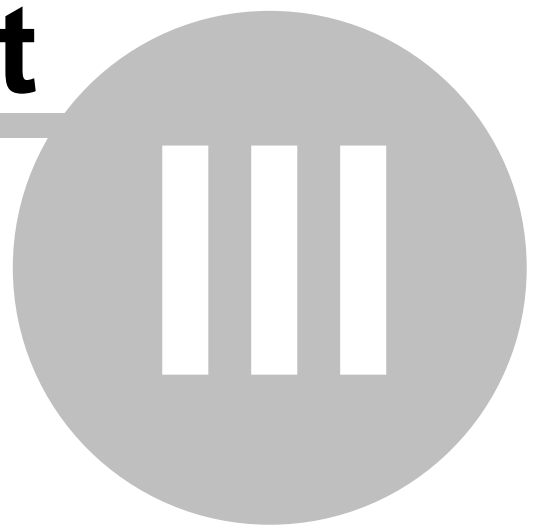


Enter the old archive password and new archive password. When change is clicked, this utility will search through your alarms and change the archive passwords on the alarms that match the old password.



# Part

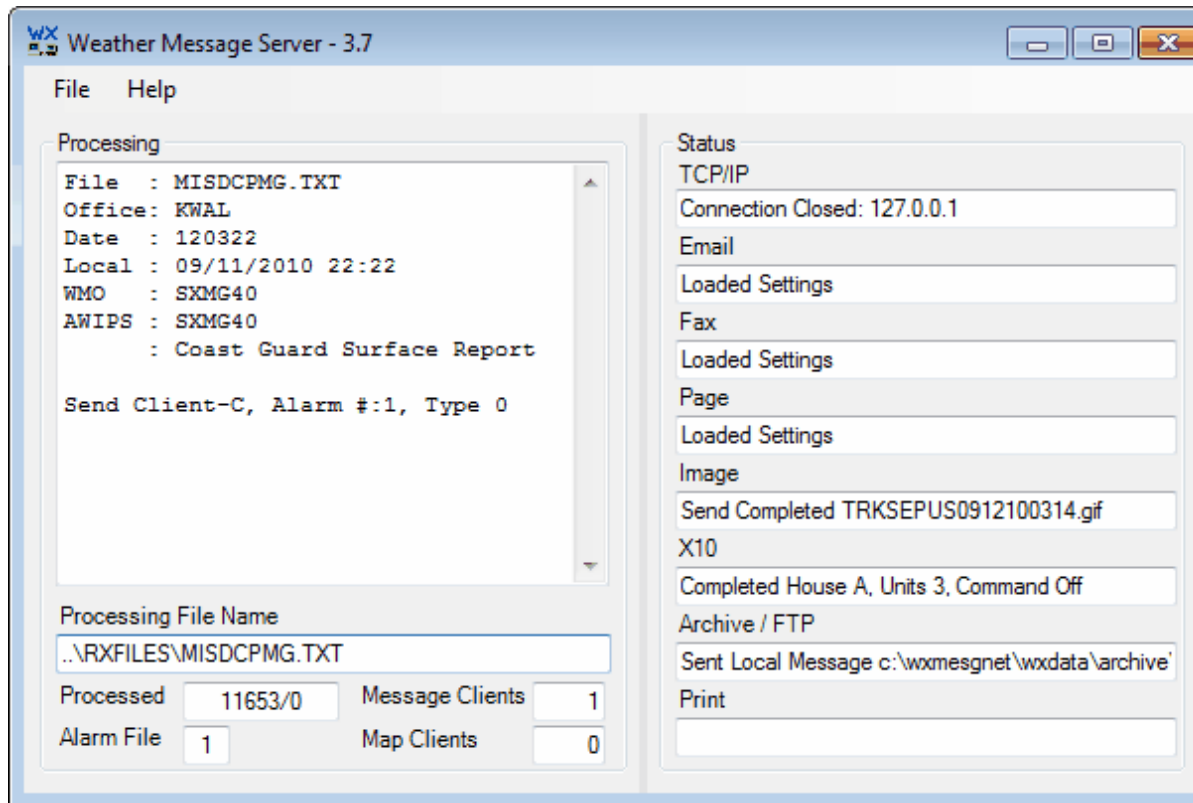
---



## 3 Weather Message Server

### 3.1 Overview

Weather Message Server is the heart of the Weather Message applications. When you start the Weather Message Server as an application, it runs from the system tray. When it starts, it will automatically start the ingest program(s) that you selected in Weather Message Setup.



#### Processing

The left pane contains the current processing information. The last decoded message information is displayed. This file currently being processed is displayed in the **Processing File Name** box.

The **Processed** box displays the number of alarms or messages that have been received since the server was started. The number to the right of the slash is the number of messages that are queued for processing, but have not been processed.

The **Alarm File** box displays the number of the alarm file current loaded. See [Alarm File](#)<sup>14</sup> in Weather Message Server Setup for information on selecting alarm files.

The **Message Clients** box contains the number of connected message clients. The **Map Clients** box contains the number of connected map clients.

**Note:** Weather Message currently allows for 50 client connections. This can be increased to

100 or 250 by purchasing a 100 or 250-user license.

**Note:** If Weather Message is stopped with the window minimized, the next time it is started, it will start minimized.

**Note:** Weather Message will process files with the extensions txt, gif, jpg, zis, zip, bmp, png, tif and bin. Other extensions will be handled as a regular text file.


**Note:** If Weather Message is running as a [service](#), you will not see this window or the system tray icon. Use [Weather Message Controller](#)<sup>[80]</sup> to monitor the operation of the server. Service setup information can be found in Weather Message Server Setup, Support Setup, Options, [Service Tab](#)<sup>[41]</sup>.

### Status

The right pane contains status messages from the subsystems. Each subsystem displays status messages as they process messages that meet your alarm criteria.

**Hint:** The left and right pane can be resized by dragging the white separator line between the panes.

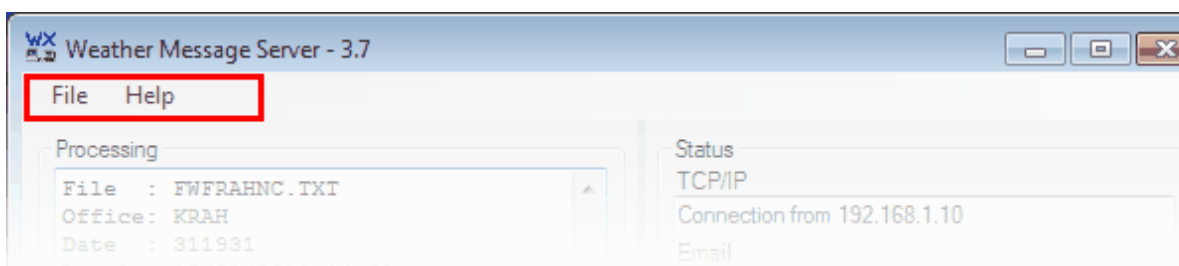
### System Tray

When Weather Message Server is minimized, you can restore the main screen by right clicking on the system tray icon , then select open.

### Special Keys

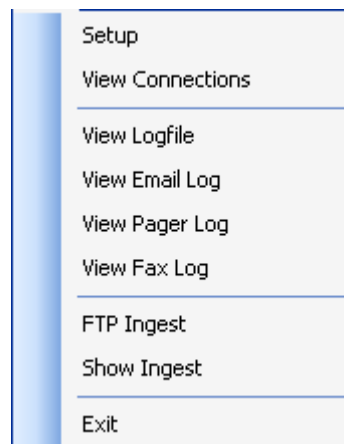
Pressing control-u while the main window has focus causes the program to start a file purge cycle.

## 3.2 Menu Options



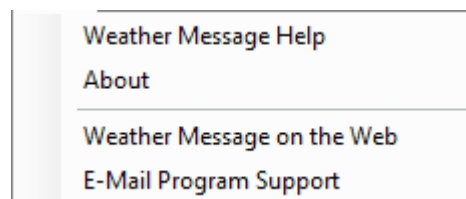
The menu buttons on this screen perform these functions:

The **File** menu allows you to setup the server, view connections, log files, show the active ingest programs and exit the program.



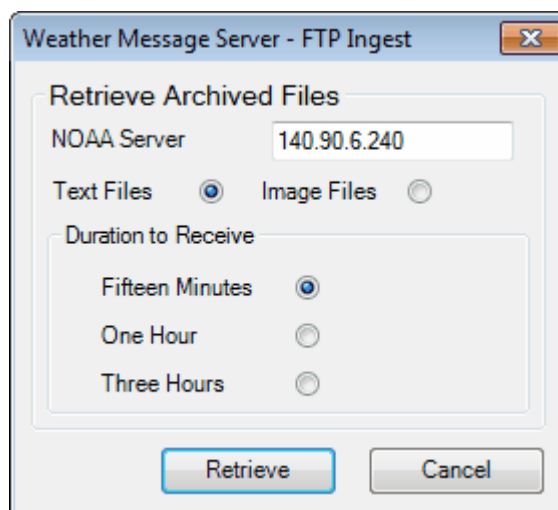
- The **Setup** option launches the [Weather Message Server Setup](#)<sup>[12]</sup> application.
- The **View Connections** option displays a window with the [Active Connections](#)<sup>[75]</sup>.
- The **View Logfile** displays the server log file in notepad.
- The **View Email Log** displays the email log in notepad.
- The **View Pager Log** displays the pager log in notepad.
- The **View Fax Log** displays the fax log in notepad.
- The **FTP Ingest** option display a window to manually request a [FTP file ingest](#)<sup>[74]</sup>.
- The **Show Ingest** option shows the main window of each ingest program running the background.
- The **Exit** option shuts down Weather Message Server.

The **Help** menu allows you to see this manual, and display information about the program.



### 3.3 FTP Ingest

The FTP Ingest window is used to manually request a FTP ingest of weather products. This option requires an Internet connection. NOAA current offers text and image products for these durations; fifteen minutes, one hour and three hours.



The **NOAA Server** address is locked and can only be changed by modifying a registry value. Select the file type and duration that you want to retrieve and click on the **Retrieve** button.

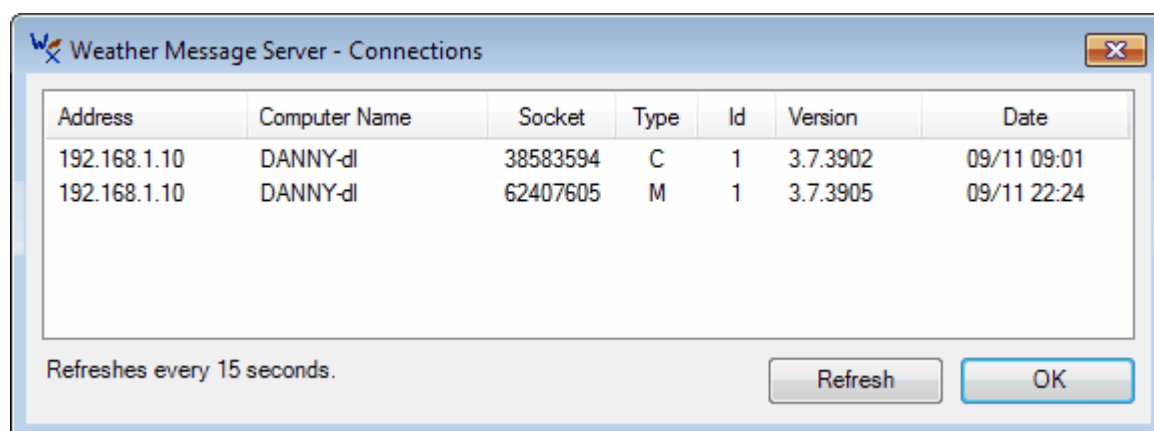
The Server's Archive / FTP status line is updated as the file is downloaded.

**Note:** Since the one and three hour files can be quite large, it may take some time for them to be retrieved and uncompressed.

**Note:** On occasion, you may see a "permission denied" message when you attempt to retrieve products. This error message is returned by the NWS ftp server when it is updating files. If this occurs, wait a few minutes and try again.

### 3.4 Active Connections

The Active Connections window displays a list of clients connected to the server.




The **Address** column contains the TCP/IP address of the connected client. The **Computer Name** column contains the computer name. The **Socket** column contains the internal socket number associated with the client. The **Type** column contains a C for message clients or a M for map clients. The **Id** column contains the client's client identifier. The **Version** column contains the version number of the client software being used. The **Date** column contains the date and

time that the client connected.

This window automatically updates every 15 seconds. The **Refresh** button can be used to force a refresh immediately.

Clicking on a column header will sort the list alphabetically based on that column.

## 3.5 Testing Alarms

In order to test your alarms, a message that matches your alarms must be received. There are two methods for creating a test message. Use the [Test Alarm](#)  option from the main alarm grid, or Weather Message Text Creator. See the section on [WxMesgText Message Creator](#) for specific program operation.

## 3.6 Data Files

Weather Message uses a number of data files to translate the codes used in the weather products. In some cases, users may want to modify the descriptions contained in these files. The following files are located in the WxMesgNet directory.

File Name	Description
County_F.dat	Contains the county FIPS code, county name, longitude and latitude.
County_FZ_Z.dat	Contains the county fire zone code, county name, longitude and latitude.
County_Z.dat	Contains the county zone code, county name, longitude and latitude.
FipsZone.dat	Contains a cross reference between the county FIPS code to county Zone code.
Nwsli.dat	Contains the NWS Location Identifier for rivers.
Product.dat	Contains the product identifiers and descriptions.
ProductUser.dat	Contains user defined product identifiers and descriptions.
States.dat	Contains the state identifiers and descriptions.
VtAction.dat	Contains the VTEC action identifiers and descriptions.
VtCross.dat	Contains the VTEC phenomena cross reference to product identifiers.
VtPhenom.dat	Contains the VTEC phenomena identifiers and descriptions.
WfoSites.dat	Contains the WFO identifiers and descriptions.
WxCType.dat	Contains a list of product identifiers that are coded with FIPS codes.

**Note:** *These files are routinely overwritten during upgrades. The installer will backup the files to c:\Program Files\WxMesgNet\Backup. If you changed the files, you can restore or compare your old version with the new version.*

**Warning:** *Use caution when editing any of these files. If the files are not properly formatted, the software may not start or will display error messages. We recommend that you backup the current file before making any modifications.*

## 3.7 Log Files

Weather Message creates a number of log files to record the operation of the software. For Weather Message Server, the main log file is named LogFile.txt. This log file records alarms activated for pagers, emails, faxes, clients, archives and print requests. This file is located in the WxMesgNet directory. It also contains connection requests from clients and disconnect request from clients. You will also find any program error messages encountered, when processing weather messages.

If you send messages to an email, paging or fax group, a log file is created for these operations. Email activity is recorded in EmailLog.txt; pager activity is recorded in PagerLog.txt; fax activity is recorded in FaxLog.txt.

The Weather Message Server Setup screen allows you to change the log file size. The default size is 50,000 bytes. Once it reaches this limit, it is copied to the file LogFile.old and a new log file is created. This prevents your hard drive from filling up with large log files. If you have the Daily Logs option enabled, the log files are stored in the WxLogs directory.

## 3.8 Debug Files

Weather Message creates a number of debug files to assist users when they encounter trouble with Email, Paging, Faxing, Archiving and X10 control. The following debug files are located in the WxMesgNet directory.

File Name	Description
DebugEm.txt	This file contains the communications between Weather Message and your SMTP (email) server. If you encounter trouble with delivery of emails, this file can be used to help diagnose the problem.
DebugFt.txt	This file contains entries for archive operations. You will find different entries depending on the protocol used for archiving. For HTTP and FTP, it contains the communications between Weather Message and your server. If you encounter trouble with archiving operations, this file can be used to help diagnose the problem.
DebugFx.txt	This file contains the communications between Weather Message and your Fax server. If you encounter trouble with faxing operations, this file can be used to help diagnose the problem.
DebugPg.txt	This file contains entries for paging operations. You will find different entries depending on the protocol used for paging. For each protocol, it contains the communications between Weather Message and the paging server. If you encounter trouble with paging operations, this file can be used to help diagnose the problem.
DebugX1.txt	This file contains the communications between Weather Message and your X10 controller. If you encounter trouble with X10 operation, this file can be used to help diagnose the problem.

These debug files are limited in size to 50,000 bytes. Once they reach this limit the original file is

renamed with the extension **.old** and new debug file is created.

**Note:** Should you need to increase the size of these debug files, you can add the following registry key **HKEY\_Local\_Machine\Software\Weather Message Net\WxMesg\Shared\DebugLogSize** and set the log file size in bytes.

*This is accomplished by using RegEdit and navigating to HKEY\_Local\_Machine\Software\Weather Message Net\WxMesg\Shared. Then right clicking on Share and selecting New String Value. Enter the name DebugLogSize then right click on DebugLogSize and enter the size of the logfile in bytes.*



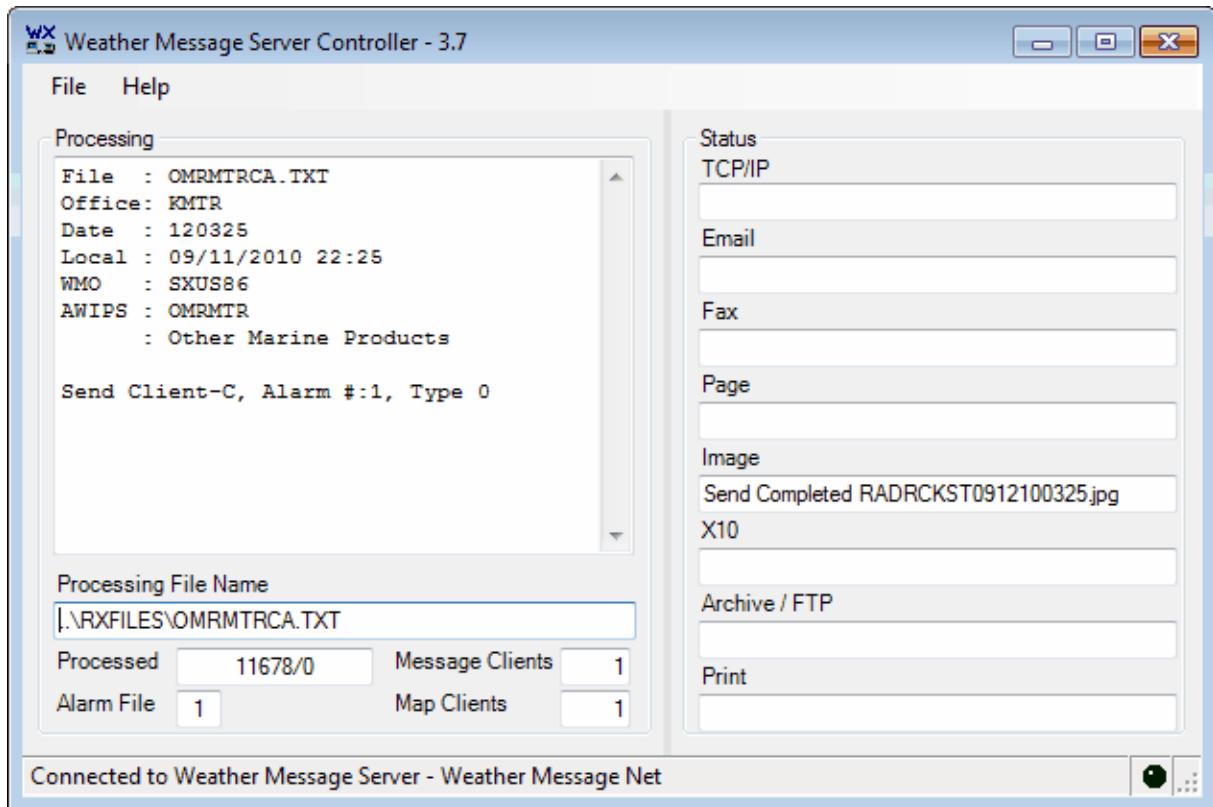
**Part**

**IV**

## 4 Weather Message Controller

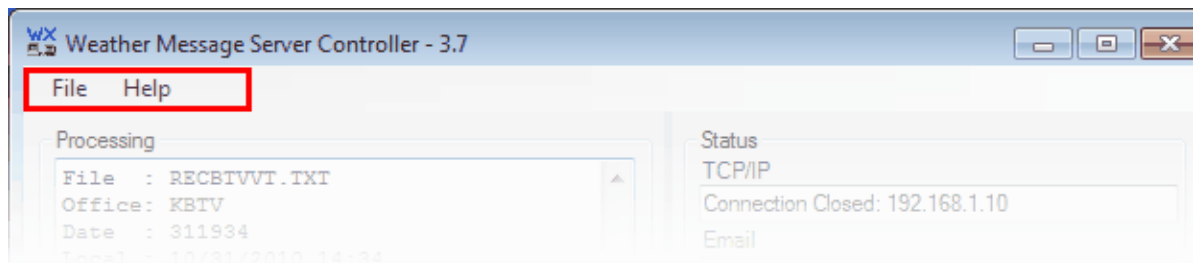
### 4.1 Overview

Weather Message Server Controller is used to monitor Weather Message Server when it is running as a service. When you start Weather Message Server Controller, it runs from the system tray.



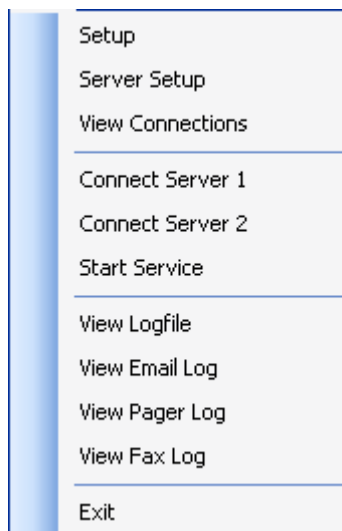
This screen is almost identical to Weather Message Server. See [Weather Message Server](#)<sup>72</sup> for field level details. It includes a status bar that shows when you are connected to Weather Message Server and the name of the server.

## 4.2 Menu Options



The menu buttons on this screen perform these functions:

The **File** menu allows you to setup the controller, server, view connections, log files and exit the program.

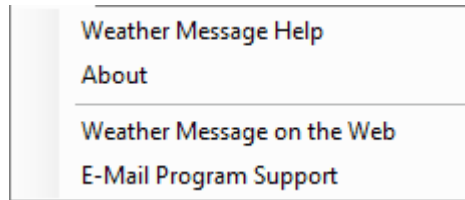


- The **Setup** option displays the setup options for Weather Message Server Controller.
- The **Setup Server** option launches the [Weather Message Server Setup](#)<sup>[12]</sup> application.
- The **View Connections** option displays a window with the [Active Connections](#)<sup>[75]</sup>.
- The **Connect Server 1** option starts a connection to the address defined for Weather Message Server 1.
- The **Connect Server 2** option starts a connection to the address defined for Weather Message Server 2. This option will only appear if an address has been defined for a second Weather Message Server.
- The **Start Service** option will appear if Weather Message is running as a service and needs to be started. This option will change to **Stop Service** if the service is presently running.
- The **View Logfile** displays the server log file in notepad.
- The **View Email Log** displays the email log in notepad.
- The **View Pager Log** displays the pager log in notepad.
- The **View Fax Log** displays the fax log in notepad.
- The **Exit** option shuts down Weather Message Server Controller.

**Note:** The View Logfile, Email Log, Pager Log and Fax log options will only be displayed when

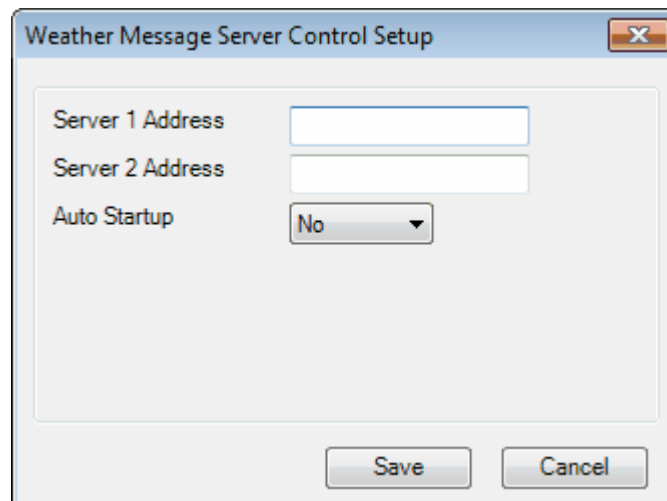
*there is a log file to view.*

The **Help** menu allows you to see this manual, and display information about the program.



## 4.3 Setup

The Setup window allows you to set general program operations.



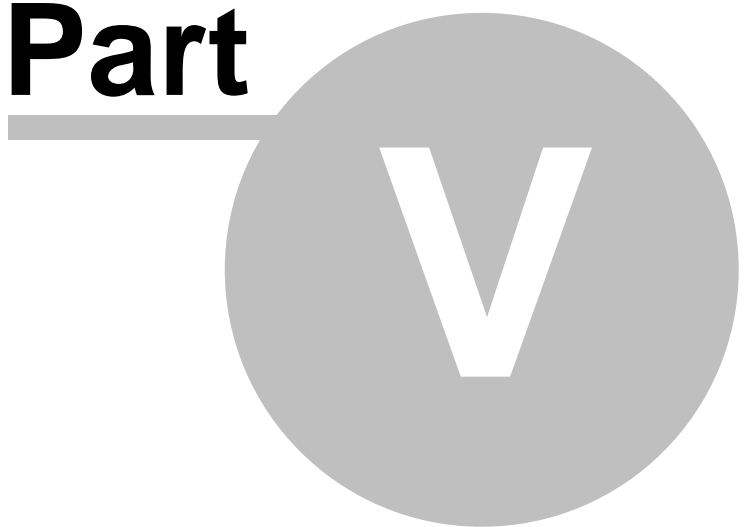
The **Server 1 Address** field is normally left blank. When it is blank, the program will attempt to connect to Weather Message Server running on the local computer. If Weather Message Server is not running on the local computer, enter the TCP/IP address of the server in this field.

The Server 2 Address field can be used to monitor a second Weather Message Server. Enter the address for the second server.

The **Auto Startup** option allows you to specify whether Weather Message Server Controller is automatically started when Windows starts. The options are No; Yes, for the current user; and Everyone, for any user.

**Note:** *The options available for **Auto Startup** are based on your user permissions. Administrator and Power users will have all of the options. Other users may only have the Yes option.*

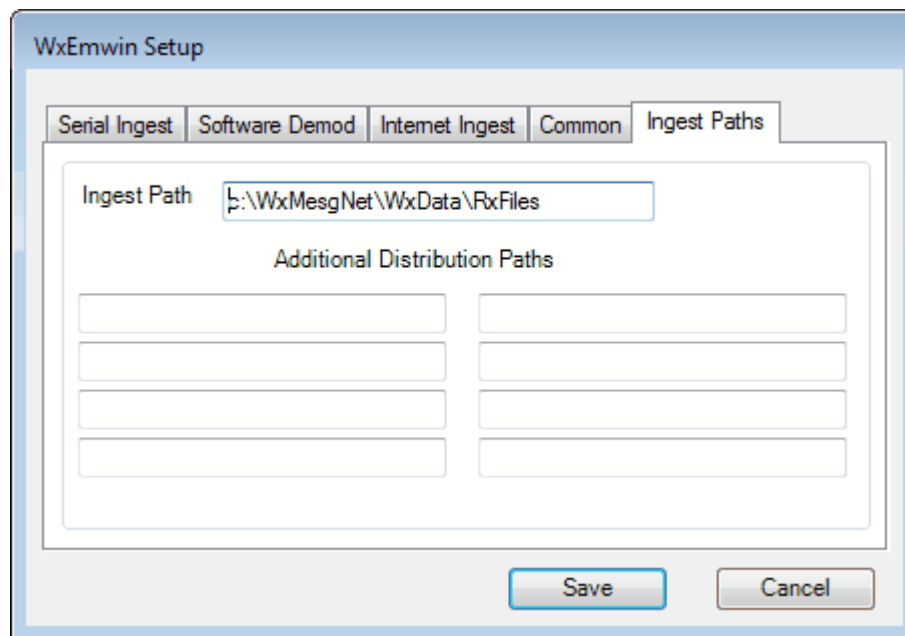
**Part**



## 5 Third-party Applications

Weather Message can be setup to provide data for use by other third-party programs. The ingest programs have the ability to copy received files to multiple directories. This ability allows third-party programs to have their own dedicated ingest directory.

To setup the Weather Message Ingest programs for multiple directory support, see the section on WxEmwin, WxWw2000, or WxPort. The Paths tab in the ingest programs allows you to specify additional distribution paths for third-party programs to pick up the arriving files.



**Part**

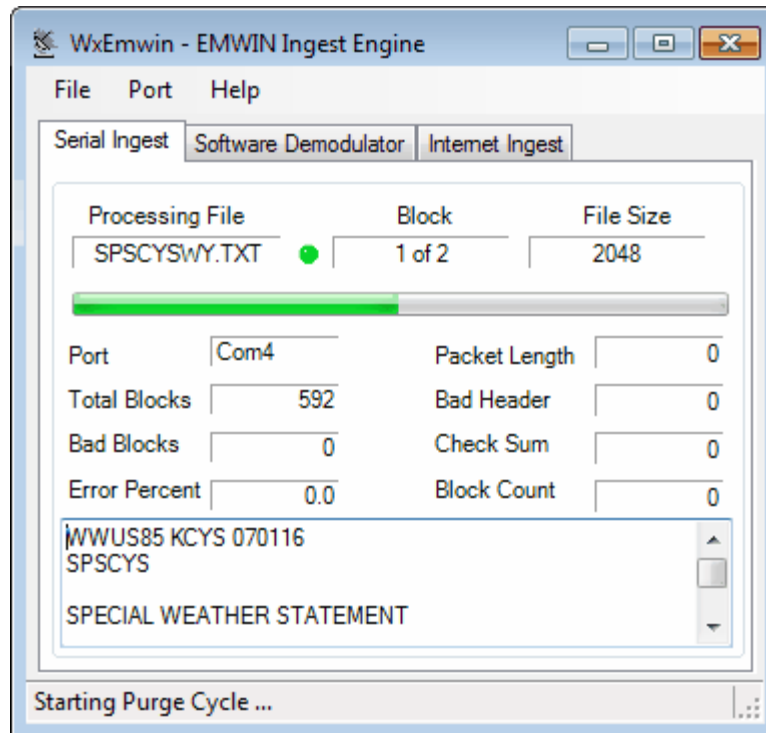
---

**VI**

## 6 WxEmwin - EMWIN Ingest

### 6.1 Overview

WxEmwin is used by Weather Message to receive EMWIN data. EMWIN data can be received from a serial port, software demodulator or Internet. The ingest program can be started automatically by the Weather Message Server or manually.




The main screen may contain up to three tabs that show the status of the serial, software demodulator and internet ingest subsystems.

The status bar at the bottom of the window contains status message indicating the operation of the application. Should the program stop receiving data, you will see a red **Data Alert** message indicating the data failure.

**Note:** If WxEmwin is stopped with the window minimized, the next time it is started, it will start minimized.

**Note:** You can have one or more ingest engines running at the same time. It is common to have both the Serial Ingest and Internet Ingest running at the same time for dual ingesting of EMWIN data.

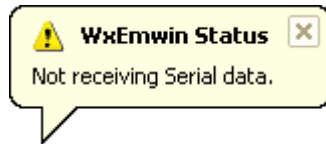
#### System Tray

When WxEmwin is minimized, you can restore the main screen by right clicking on the system tray icon , then select open.



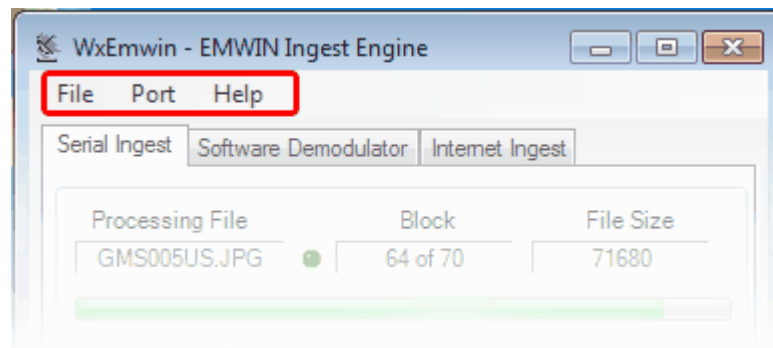
### Data Alert Notification

Should the program stop receiving data, you will see a notification message above the system tray icon. This message will indicate the data stream that has failed.



Copyright © 2011 Weather Message Software

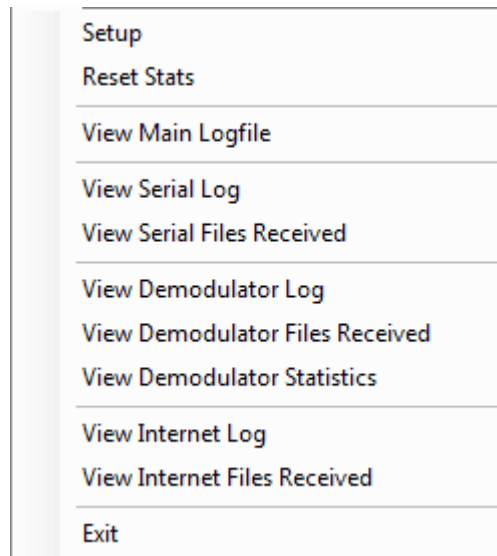
## 6.2 Menu Options




The menu buttons on this screen perform these functions:

**Note:** The Port menu option only appears when the Serial Ingest tab is selected. The Demodulator menu option only appears when the Software Demodulator tab is selected. The Connect menu option only appears when the Internet Ingest tab is selected.

The **File** menu allows you to setup this program, view logfiles, and exit the program.

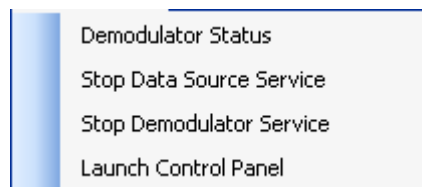


- The **Setup** option opens the [Setup window](#) .
- The **View Main Logfile** displays the main log file, WeLog.txt, in notepad.
- The **View Serial Log** displays the serial ingest log file, WsLog.txt, in notepad.
- The **View Serial Files Received** displays the received files log, WsFiles.txt, in notepad.
- The **View Demodulator Log** displays the serial ingest log file, WdLog.txt, in notepad.
- The **View Demodulator Files Received** displays the received files log, WdFiles.txt, in notepad.
- The **View Demodulator Statistics** displays the demodulator statistics log, WdStatus.txt, in notepad.
- The **View Internet Log** displays the serial ingest log file, WiLog.txt, in notepad.
- The **View Internet Files Received** displays the received files log, WiFiles.txt, in notepad.
- The **Exit** option shuts down WxEmwin.

**Note:** In order to view the Files Received Log, the Log Received Files option must be enabled.

The **Port** menu, when present, allows you to switch between the main serial port and a backup serial port.

The **Demodulator** menu, when present allows you to interact with the EMWIN Software Demodulator provided by the National Weather Service.



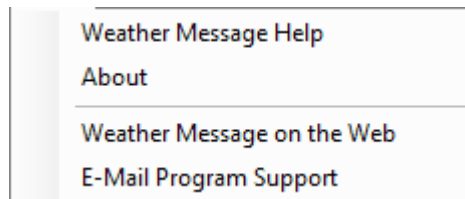
- The **Demodulator Status** opens the software demodulator status window.
- The **Stop Data Source Service** or **Start Data Source Service** option stops or starts the software demodulator data source service.
- The **Stop Demodulator Service** or **Start Demodulator Service** option stops or starts the software demodulator data source service.
- The **Launch Control Panel** option launches the software demodulator control panel.

**Note:** When using the EMWIN Software Demodulator, both the EMWIN Data Source and Demodulator service must be running.

**Note:** The Demodulator Status screen requires the Weather Message Demodulator service to be installed. The Demodulator service distributed by the National Weather Service does not output statistics.

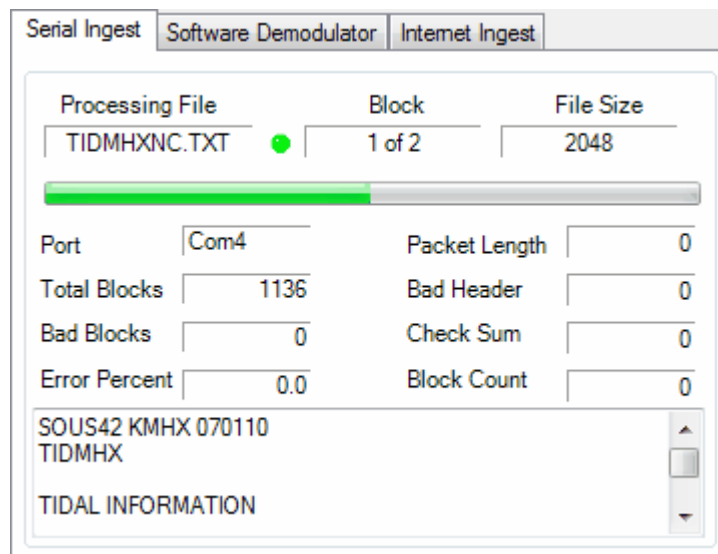
The **Connect** or **Disconnect** menu, when present allows you to force the Internet Ingest engine to disconnect and connect to the next available Internet EMWIN server.

The **Help** menu allows you to see this manual, and display information about the program.



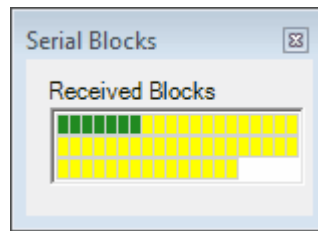
## 6.3 Serial Ingest Tab

The Serial Ingest tab, when visible, shows the option of the serial ingest engine.



The **Processing File**, **Block** and **File Size** fields show information about the received file. A **green** or **red** led appears to the right of the Processing File field. This led will normally appear green. If any of the blocks received for this message are defective, the led will change to red.

To monitor the received blocks, click on the **green** or **red** led. The following window will appear displaying the received blocks.



The **Port** field displays the serial port that is receiving the data. If you have a second receiver, you can switch to the backup port by clicking on the **Port** menu option.

The **Total Blocks** field shows the total number of blocks received for a one-hour period, the **Bad Blocks** field shows how many of the total blocks received were defective. The bad blocks field is a total of the **Packet Length**, **Bad Header** and **Check Sum** fields. The **Block Count** field counts the number of messages that any blocks missing.

The **Error Percent** field shows the error percentage of the blocks received verses bad blocks. You want this field as low as possible. The background color of this field will change based on the quality of the received data. If the background is white, the received data has 10% or fewer errors. If the background is yellow, the received data has between 10% and 20% errors. If the background is red, the received data has an error rate greater than 20%.

If the received message is text, you will see the text associated with the packet being processed in the text box.

The ingest program will attempt to repair defective messages, if a duplicate message is sent through the EMWIN data stream.

WxEmwin Serial Ingest supports a backup satellite system, retransmission receiver and/or backup by Internet. This option is enabled on the Setup [Serial Ingest Tab](#)<sup>[96]</sup>.

Should the Serial Ingest engine stop receiving data, the status bar will display a message in red indicating that data has stopped. A notification icon will also appear in the system tray. If the [Send Data Alerts](#)<sup>[100]</sup> option is enabled, a text message is generated and placed in the ingest directory for processing by Weather Message. You can alarm the product ADMWXM to receive notifications of data loss.

**Note:** *It is recommended that you run the ingest program on a computer that will not be used for normal user programs. The processing of serial data can be interrupted by other software programs, which can result in lost weather products.*

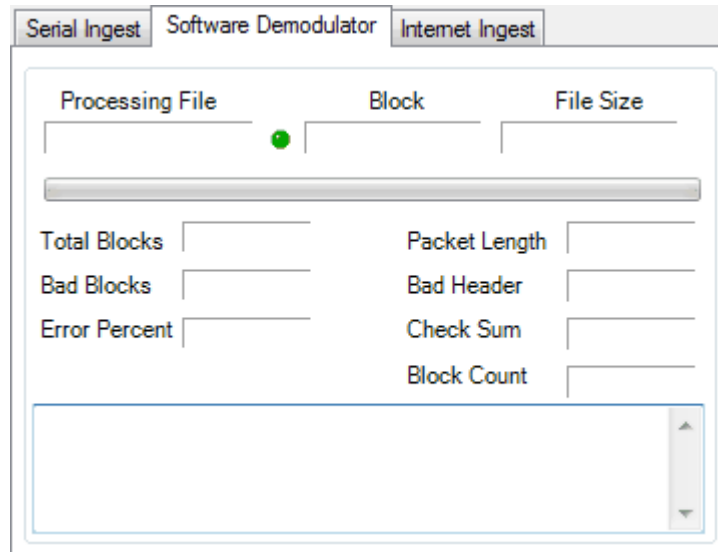
**Note:** *While the program is using Internet Ingest as a backup data source, the fields on the screen may not be updated. They will resume showing data when the main serial port begins to receive data.*

**Note:** *The program supports a second log file. The second format uses a fixed field size for easy analysis. This log file is never purged and remains until the user deletes the log files. To enable this logging option, create the directory "NwsLogs" in the c:\program files\WxMesgNet directory.*

**Note:** *Some computers may detect your satellite receiver as a serial mouse. This generally occurs when the satellite receiver is turned on when booting the computer. If this occurs, your mouse will begin to move on it's own. To correct this problem, turn off the satellite receiver. Download the comdisable tool from Microsoft at this web address <http://support.microsoft.com/default.aspx?scid=kb;en-us;819036>.*

## 6.4 Software Demodulator Tab

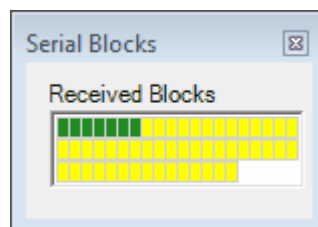
The Software Demodulator tab, when visible, shows the option of the Software Demodulator ingest engine.



The **Processing File**, **Block** and **File Size** fields show information about the received file. A **green** or **red** led appears to the right of the Processing File field. This led will normally appear green. If any of the blocks received for this message are defective, the led will change to red.

**Note:** In order to process data, the EMWIN Data Source service and EMWIN Demodulator service must be running. Use the Demodulator menu to start and stop these services.

To monitor the received blocks, click on the **green** or **red** led. The following window will appear displaying the received blocks.



The **Total Blocks** field shows the total number of blocks received for a one-hour period, the **Bad Blocks** field shows how many of the total blocks received were defective. The bad blocks field is a total of the **Packet Length**, **Bad Header** and **Check Sum** fields. The **Block Count** field counts the number of messages that any blocks missing.

The **Error Percent** field shows the error percentage of the blocks received verses bad blocks. You want this field as low as possible. The background color of this field will change based on the quality of the received data. If the background is white, the received data has 10% or fewer errors. If the background is yellow, the received data has between 10% and 20% errors. If the background is red, the received data has an error rate greater than 20%.

If the received message is text, you will see the text associated with the packet being processed in the text box.

The ingest program will attempt to repair defective messages, if a duplicate message is sent through the EMWIN data stream.

WxEmwin Software Demodulator ingest supports a backup satellite system, retransmission receiver and/or backup by Internet. This option is enabled on the Setup [Software Demod Tab](#)<sup>[98]</sup>.

Should the Software Demodulator ingest engine stop receiving data, the status bar will display a message in red indicating that data has stopped. A notification icon will also appear in the system tray. If the [Send Data Alerts](#)<sup>[100]</sup> option is enabled, a text message is generated and placed in the ingest directory for processing by Weather Message. You can alarm the product ADMWXM to receive notifications of data loss.

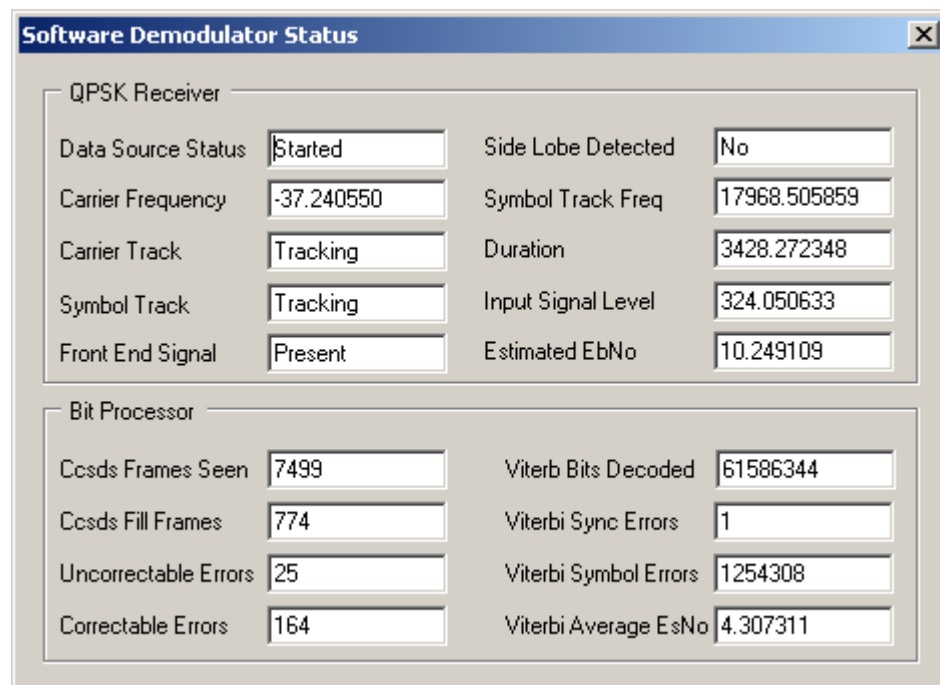
**Note:** *It is recommended that you run the ingest program on a computer that will not be used for normal user programs. The software demodulator requires a large percentage of your computer processor in order to decode the data. This process can be interrupted by other software programs, which can result in lost weather products.*

**Note:** *While the program is using Internet Ingest as a backup data source, the fields on the screen may not be updated. They will resume showing data when the main serial port begins to receive data.*

**Note:** *The program supports a second log file. The second format uses a fixed field size for easy analysis. This log file is never purged and remains until the user deletes the log files. To enable this logging option, create the directory "NwsLogs" in the c:\program files\WxMesgNet directory.*

### 6.4.1 Software Demodulator Status

The Software Demodulator Status screen can be displayed by opening the [Demodulator](#)<sup>[87]</sup> menu option and clicking on Demodulator Status. This window displays status information from the software demodulator.



QPSK Receiver	
Data Source Status	Started
Carrier Frequency	-37.240550
Carrier Track	Tracking
Symbol Track	Tracking
Front End Signal	Present
Side Lobe Detected	No
Symbol Track Freq	17968.505859
Duration	3428.272348
Input Signal Level	324.050633
Estimated EbNo	10.249109

Bit Processor	
Ccsds Frames Seen	7499
Ccsds Fill Frames	774
Uncorrectable Errors	25
Correctable Errors	164
Viterbi Bits Decoded	61586344
Viterbi Sync Errors	1
Viterbi Symbol Errors	1254308
Viterbi Average EsNo	4.307311

**Note:** The Demodulator Status screen requires the Weather Message Demodulator service to be installed. The Demodulator service distributed by the National Weather Service does not output statistics.

Depending on the EMWIN signal being decoded, the first group will display FSK Receiver or QPSK Receiver. When the FSK Receiver is being used, the Bit Processor will not display any data.

The following information is a brief and non-technical explanation of the fields.

### QPSK / FSK Receiver

**Data Source Status** - Display the state of the software demodulator. These status messages may appear: Not Configured, Not Connected, Connected, Opened, Started, Retry, Unknown. The operating status is Started.

**Carrier Frequency** - Displays the current frequency being tracked by the software demodulator. This value will normally be zero, however, it may appear as plus or minus numbers based on your receiver hardware.

**Carrier Track** - Displays the state of the internal carrier tracking software. These status messages may appear: Acquire, Verify, False Lock, Tracking, Unknown. The operating status is Tracking.

**Symbol Track** - Displays the state of the internal symbol tracking software. These status messages may appear: Acquire, Verify, False Lock, Tracking, Unknown. The operating status is Tracking.

**Front End Signal** - Indicates whether the software demodulator has detected a signal. This field will display Present or Absent. The operating status is Present.

**Side Lobe Detected** - Indicates whether a side lobe has been detected. The operating status is No.

Symbol Track Frequency - Displays the current symbol frequency being tracked by the software demodulator. This value will vary between the limits entered in the Software Demodulator Control Panel.

Duration - Displays the time, in seconds, that the software demodulator has been running.

Input Signal Level - Displays the internal received signal level.

Estimated EbNo - For QPSK, displays the estimated energy per bit to noise power spectral density ratio. It is a normalized signal to noise ratio.

Low / High Signal - For FSK, indicates whether the low and high signals are present.

### **Bit Processor**

CCSDS Frames Seen - Displays the number of received packets. CCSDS formatted packets represents a standard established by the Consultative Committee for Space Data Systems.

CCSDS Fill Frames - Displays the number of received packets that do not contain any data.

Uncorrectable Errors - Displays the number of received packets that could not be corrected. This number should remain zero or close to zero. Numbers here indicated lost packets.

Correctable Errors - Displays the number of received packets that could be corrected.

Viterbi Bits Decoded - Displays the number of viterbi bits decoded. The QPSK receiver uses a viterbi decoder. A viterbi decoder uses the Viterbi algorithm for decoding a bitstream that has been encoded using Forward error correction based on a Convolutional code.

Viterbi Sync Errors - Displays the number of viterbi synchronization errors.

Viterbi Symbol Errors - Displays the number of viterbi symbols errors.

Viterbi Average EsNo - Displays the average energy per symbol to noise power spectral density.

## **6.5 Internet Ingest Tab**

The Internet Ingest tab, when visible, shows the option of the Internet ingest engine.



The screenshot shows the 'Internet Ingest' window with the following data:

Processing File	Block	File Size
WWAWNSUS.TXT	1 of 2	2048

Below the table is a green progress bar. Further down, a table displays connection and error statistics:

Server	140.90.128.132	Connect Time	0:01:26
Total Blocks	67	Bad Header	0
Bad Blocks	0	Check Sum	0
Error Percent	0.0	Block Count	1

At the bottom, a list of received blocks is shown:

```

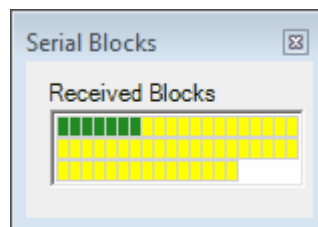
WVUS20 KWNS 070137
WWASPC
SPC WW-A 070140
SDZ000-070240-
  
```

Internet Ingest uses information from EMWIN [Byte Blaster Servers](#) to maintain a list of public servers. It attempts to connect to the first available server. Should a server stop functioning, the Internet Ingest engine will attempt to contact the next available server. Every 10 minutes the internal list of servers are updated.

Internet Ingest uses TCP/IP port 1000 or 2211 to communication with the servers. If you have a firewall, port 1000 and 2211 must be open for outbound connections.

The **Processing File**, **Block** and **File Size** fields show information about the received file. A **green** or **red** led appears to the right of the Processing File field. This led will normally appear green. If any of the blocks received for this message are defective, the led will change to red.

To monitor the received blocks, click on the **green** or **red** led. The following window will appear displaying the received blocks.



The **Server** field displays the address of the current Byte Blaster Server in use. You can force the program to connect to the next available server by clicking on the **Disconnect** or **Connect** menu option.

The **Total Blocks** field shows the total number of blocks received for a one-hour period, the **Bad Blocks** field shows how many of the total blocks received were defective. The bad blocks field is a total of the **Packet Length**, **Bad Header** and **Check Sum** fields. The **Block Count** field counts the number of messages that any blocks missing.

The **Error Percent** field shows the error percentage of the blocks received verses bad blocks. You want this field as low as possible. The background color of this field will change based on the quality of the received data. If the background is white, the received data has 10% or fewer errors. If the background is yellow, the received data has between 10% and 20% errors. If the

background is red, the received data has an error rate greater than 20%.

If the received message is text, you will see the text associated with the packet being processed in the text box.

The ingest program will attempt to repair defective messages, if a duplicate message is sent through the EMWIN data stream.

WxEmwin Internet Ingest supports backup with the Weather Wire Ingest program. This option is enabled on the Setup [Internet Ingest Tab](#)<sup>[99]</sup>.

**Note:** *To use Weather Wire Ingest as a backup, you must have an active subscription for Weather Wire and have purchased a license from Weather Message for that ingest engine.*

Should the Internet Ingest engine stop receiving data, the status bar will display a message in red indicating that data has stopped. A notification icon will also appear in the system tray. If the [Send Data Alerts](#)<sup>[100]</sup> option is enabled, a text message is generated and placed in the ingest directory for processing by Weather Message. You can alarm the product ADMWXM to receive notifications of data loss.

**Note:** *While the program is using Weather Wire Ingest as a backup data source, the fields on the screen may not be updated. They will resume showing data when a Byte Blaster Server begins to send data.*

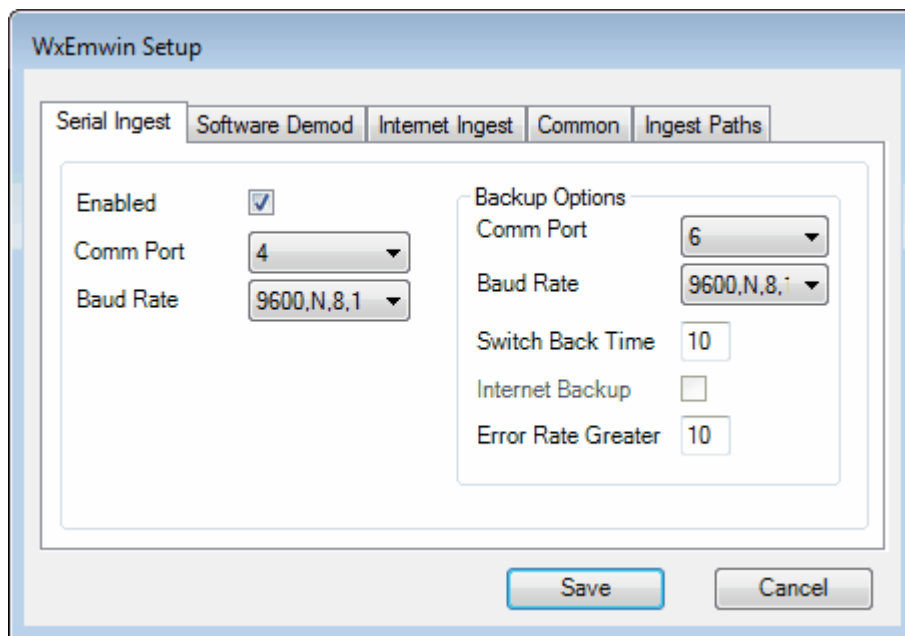
**Note:** *The program supports a second log file. The second format uses a fixed field size for easy analysis. This log file is never purged and remains until the user deletes the log files. To enable this logging option, create the directory "NwsLogs" in the c:\program files\WxMesgNet directory.*

**Note:** *The Internet Ingest engine has the ability to block a user defined list of EMWIN Byte Blaster servers. To enable this option, create the file WxSvrBlock.txt in the application directory. Enter the server addresses to block exactly as they appear in the WxSvrus.txt file. This option should only be used in special situations.*

## 6.6 Setup

### 6.6.1 Serial Ingest Tab

The Serial Ingest Tab is used to define the communication port, backup options and other general operations.



The **Enabled** option should be checked if you want the Serial Ingest engine to automatically start when WxEmwin is started.

### Primary Receiver

Select the **Comm Port** (communications port or serial port) for your satellite receiver, along with the **Baud Rate** for that device. For EMWIN satellite reception, select a baud rate of 9600,N,8,1.

### Secondary Receiver / Backup Options

If you have a second satellite system or retransmission receiver, enter the **Comm Port** and **Baud Rate** under the backup options. Also, if you want to use Internet Ingest as a backup, check that option. The **Switch Back Time** is used to specify the number of minutes that the program should check back to see if the main port is functioning, when using a second serial port. If the Switch Back Time is set to zero, the program will not attempt to switch back to the main port.

The **Error Rate Greater** field sets the error rate percentage for switch over to backup. This field can be set from 5 to 95 percent. Should the error rate, of the received data, exceed the set amount, the program will switch over to the backup port or Internet Ingest.

If the main port stops sending data for 15 seconds, the program will switch to the backup port, if one is specified. If the backup port does not send data for 15 seconds, it will switch to Internet Ingest, if **Internet Backup** is enabled. If the backup port is not specified, it will switch from the main port directly to Internet Ingest.

Based on the Switch Back Time specified, it will change back over to the main port. The process will start all over again. If no data is received in 15 seconds, it will switch to the backup port and/or Internet Ingest.

**Note:** Once Internet Ingest is started, it will not be stopped until Serial Ingest begins to receive valid data from one of the serial ports.

When the program switches from Serial Ingest to Internet Ingest, it will create a notification message in each ingest directory. The product identifier for this message is ADMWXM. If you

want to be alerted when the program switches between ingest sources, alarm the product ADMWXM, with no state or county selected. The notification message contains the current ingest method and computer name.

Should the serial port stop sending data and no backup source is selected, a data loss notification message is created in each ingest directory. The product identifier for this message is ADMWXM. If you want to be alerted when the program loses data, alarm the product ADMWXM, with no state or county selected.

**Note:** This program communicates with WxBBSrvr using UDP port 9510 on the local loop back address.

## 6.6.2 Software Demod Tab

The Serial Ingest Tab is used to define the communication port, backup options and other general operations.

The screenshot shows the 'WxEmwin Setup' dialog box with the 'Software Demod' tab selected. The 'Enabled' checkbox is checked. The 'Address' field contains '192.168.1.71' and the 'Port' field contains '18000'. The 'Internet Backup' checkbox is unchecked. The 'Error Rate Greater' field contains '15'. The 'Log Demod Stats' checkbox is unchecked. A 'Not Installed.' button is visible next to the 'Enabled' checkbox. At the bottom are 'Save' and 'Cancel' buttons.

The **Enabled** option should be checked if you want the Software Demodulator Ingest engine to automatically start when WxEmwin is started.

The **Address** field should contain the address of the software demodulator. The default setting is 127.0.0.1. The **Port** field should contain the address of the EWMWIN Demodulator service. The default port is 18000.

The **Error Rate Greater** field sets the error rate percentage for switch over to Internet Ingest backup. This field can be set from 5 to 95 percent. Should the error rate, of the received data, exceed the set amount, the program will switch over to Internet Ingest, if **Internet Backup** is enabled.

If the software demodulator stops sending data for 8 seconds, the program will switch to Internet Ingest, if **Internet Backup** is enabled.

**Note:** Once Internet Ingest is started, it will not be stopped until the Software Demodulator

*Ingest begins to receive valid data.*

When the program switches to Internet Ingest, it will create a notification message in each ingest directory. The product identifier for this message is ADMWXM. If you want to be alerted when the program switches between ingest sources, alarm the product ADMWXM, with no state or county selected. The notification message contains the current ingest method and computer name.

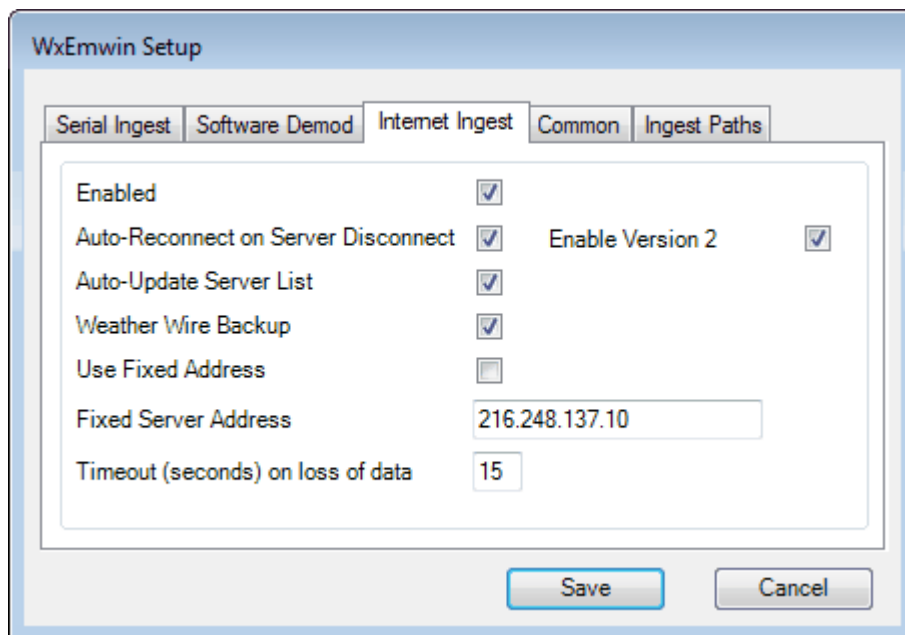
Should the tcp/ip port associated with the software demodulator stop sending data and no backup source is selected, a data loss notification message is created in each ingest directory. The product identifier for this message is ADMWXM. If you want to be alerted when the program loses data, alarm the product ADMWXM, with no state or county selected.

The **Log Demod Status**, when checked, will cause the program to log the software demodulator statistics every three seconds.

**Note:** This program communicates with WxBBSrvr using UDP port 9510 on the local loop back address.

### 6.6.3 Internet Ingest Tab

The Serial Ingest Tab is used to define the communication port, backup options and other general operations.



The **Enabled** option should be checked for the Internet Ingest engine to automatically start when WxEmwin is started.

The **Auto-Reconnect on Server Disconnect** option, when checked, will cause the Internet Ingest engine to try to connect to another server if it is disconnected from the current server. This option is enabled by default and is the recommended setting.

The **Auto-Update Server List** option, when checked, will enable automatic maintenance of the available internet servers. If Internet Ingest does not maintain this list, you will need to manually update the WxSvrus.txt file to include the servers that you want it to use.

**Note:** When the [Enable Byte Blaster Server Support](#)<sup>[100]</sup> option is checked, the program uses a fixed list of NWS Byte Blaster Servers. These servers are configured in WxSatus.txt. The servers listed in this file are Byte Blaster servers that are connected directly to a satellite.

The **Weather Wire Backup** check box allows you to use Weather Wire as a backup for EMWIN. Checking this box will cause the program to automatically start WxWW2000 when EMWIN data is not available. This requires subscription and license for Weather Wire. See the Weather Wire help for details.

When the program switches from Internet Ingest to WxWW2000, it will create a notification message in each ingest directory. The product identifier for this message is ADMWXM. If you want to be alerted when the program switches between ingest sources, alarm the product ADMWXM, with no state or county selected. The notification message contains the current ingest method and computer name.

Should the Internet Ingest engine stop receiving data for 49 seconds and no backup source is selected, a data loss notification message is created in each ingest directory. The product identifier for this message is ADMWXM. If you want to be alerted when the program loses data, alarm the product ADMWXM, with no state or county selected.

A fixed TCP/IP server address can be used. Enter the fixed TCP/IP address in the **Enter Fixed Address** field. Click on **Use Fixed Address**, to only connect to that specific server.

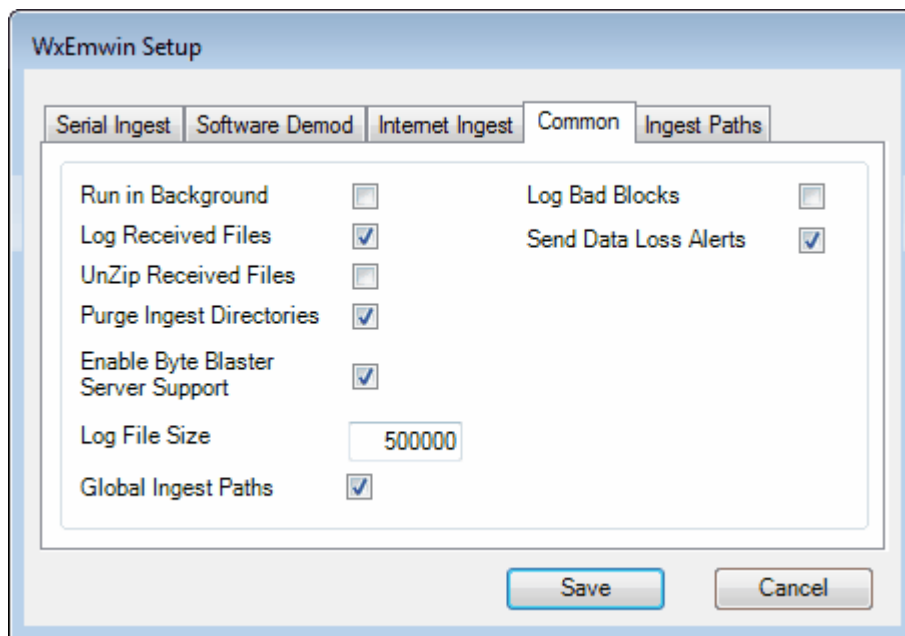
The **Timeout seconds on loss of data** is set by default to 15 seconds. The timeout can range from 10 to 600 seconds. Setting this option to zero will disable the data loss timeout.

The **Enable Version 2** option, when checked, will enable support for version 2 EMWIN packets. This option is enabled by default and is the recommended setting.

**Note:** *This program communicates with WxBBSrvr using UDP port 9510 on the local loop back address.*

## 6.6.4 Common Tab

The Common Tab is used to define options common or shared by all ingest programs.



The **Run in Background** check box allows you to specify whether you want the ingest programs to run in the background. When this box is checked, the ingest programs will not show in the system tray. Once this option is enabled, you will not see the ingest programs running. In order to see the ingest screen, you will need to use the Show Ingest menu option in Weather Message Server.

**Note:** Changing this option does not take effect until the next time the ingest programs are started.

The **Log Received Files** option causes the program to record the name of each weather file received. The names are recorded in WsFiles.txt.

The **UnZip Received Files** option, when checked, will cause the program to unzip any compressed files. This option is normally left unchecked as the Weather Message programs automatically unzip compressed files. In some applications it may be desirable to unzip the files before they are copied to the ingest directory(s).

The **Purge Ingest Directories** option, when checked, will cause the program to automatically purge the ingest directories after 24 hours.

The **Enable Byte Blaster Server Support** option, when checked, will cause the program to output data for use by WxBBSrvr. If you intend on running the Byte Blaster server software, this option must be enabled.

The **Log File Size** field allows you to specify this size of your ingest log files. The default is 50,000 bytes.

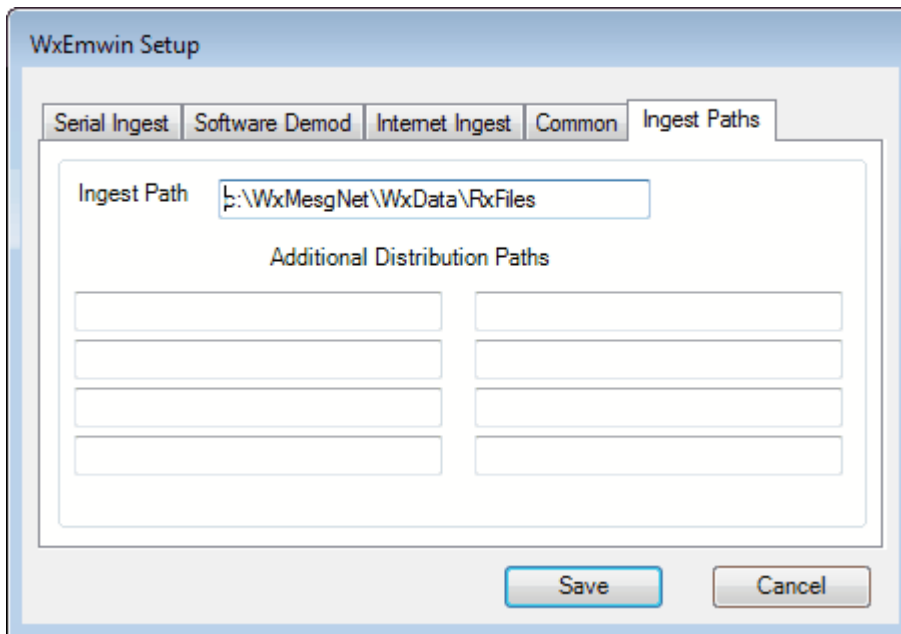
The **Global Ingest Paths** option controls whether WxEmwin uses global ingest paths. Global ingest paths are shared between all of the ingest programs. Unchecking this box will allow you to define ingest paths that are different from the global ingest paths.

The **Log Bad Blocks** option, when checked, will cause the program to log bad block information in the associated ingest engine's log file.

The **Send Data Loss Alerts** option, when checked, will cause the program to generate data loss and com port switch messages. To receive these notifications, an alarm for the product ADMWXM must be setup in Weather Message Setup.

### 6.6.5 Ingest Paths Tab

The Ingest Paths Tab is used to define the directories that will store the received weather products for processing.



The **Ingest Path** is defined in the Weather Message Server setup screen and would not normally be entered here.

**Note:** The Ingest Path can be changed if you want to deposit the received messages in a directory other than the one established for Weather Message Server.

The **Additional Distribution Paths** can be used to place a copy of the received weather text in different directories for processing by other programs. For example, if you use Weather Message to receive your weather data, you can put a copy of the received messages in a second or third directory for processing by RealEMWIN or the Weather Message Retransmission program.

**Note:** Changing the Ingest and Additional Distribution Paths on this screen will automatically change them for WxPort and WxWW2000.



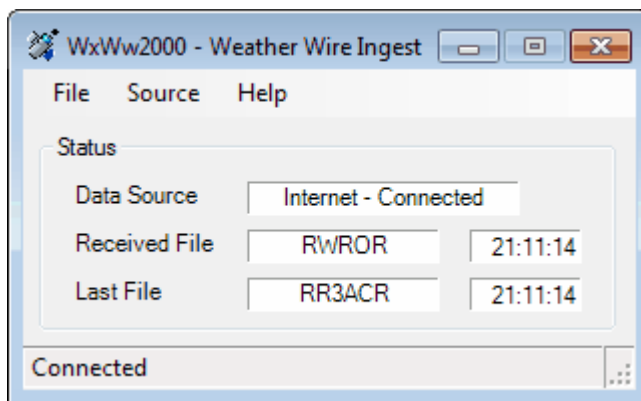
**Part**

**VII**

## 7 WxWw2000 - Weather Wire Ingest

### 7.1 Overview

WxWW2000 is used by Weather Message for Internet or serial port Weather Wire data feeds. The ingest program can be started automatically by the Weather Message Server or manually.



The main screen shows the status of incoming messages.

The **Data Source** field shows type connection type; Internet or Serial Port.


The **Received File** and **Last File** fields display the product identifier of the current and last files received along with the their respective received times.

**Note:** Before WxWw2000 will connect to an Internet server you must enter your user name and password in the setup screen. For more information about Weather Wire and registering, see [What is Weather Wire](http://oi.weatherwire.net). To obtain a user name and password go to this web address <https://oi.weatherwire.net>.

**Note:** If you are using the Internet ingest option, the program will alternate the program icon in the system tray to let you know that it is connected.

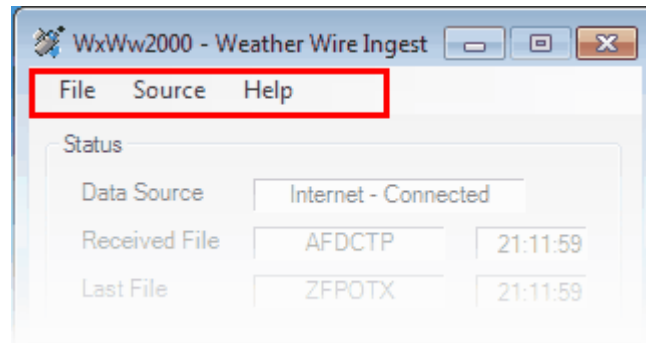
**Note:** If WxWw2000 is stopped with the window minimized, the next time it is started, it will start minimized.

#### System Tray

When WxWw2000 is minimized, you can restore the main screen by right clicking on the system tray icon , then select open.

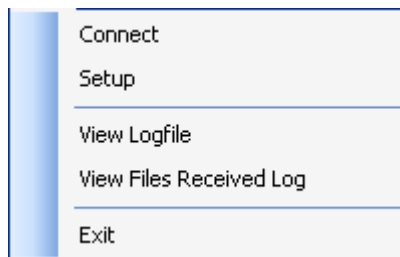
Copyright © 2011 Weather Message Software

## 7.2 Menu Options



The menu buttons on this screen perform these functions:

The **File** menu allows you to setup this program, show details, view logfiles, and exit the program.



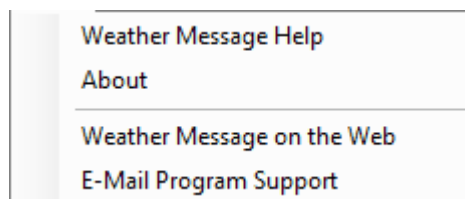
- The **Connect** option starts a connection to the Internet servers.
- The **Setup** option opens the [Setup window](#)<sup>106</sup>.
- The **View Logfile** displays the ingest log file in notepad.
- The **View Files Received Log** displays the received files log in notepad.
- The **Exit** option shuts down WxIngest.

**Note:** *In order to view the Files Received Log, the Log Received Files option must be enabled.*

The **Source** menu allows you to toggle between the Internet servers and serial port connection.

The **Register** menu allows you to [register](#)<sup>52</sup> WxWW2000. This button does not appear if the software is registered. Note: If the software is not registered after 60 days, it will stop functioning.

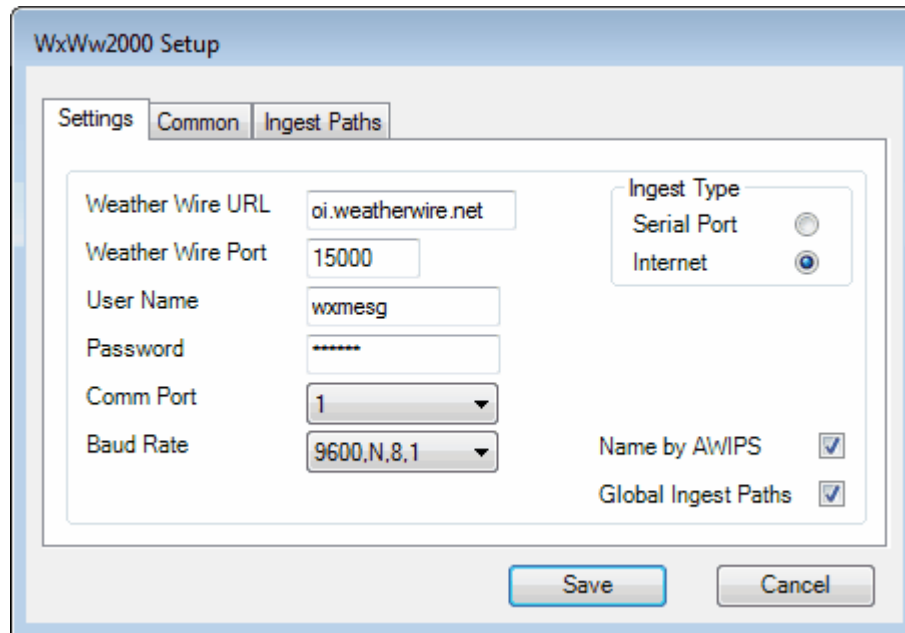
The **Help** menu allows you to see this manual, and display information about the program.



## 7.3 Setup

### 7.3.1 Settings Tab

The Settings Tab is used to define the Internet settings, user name, password, communications port and other general operations.



Select the **Ingest Type**; **Serial Port** or **Internet**.

For Internet ingesting, you must specify the **Weather Wire URL**, **Weather Wire Port**, **User Name** and **Password**. The program will provide defaults for the URL and port. You will need to enter the User Name and Password that you supplied to DynaCorp when you signed up for this service. To register for a user name and password go to this web address <https://oi.weatherwire.net>.

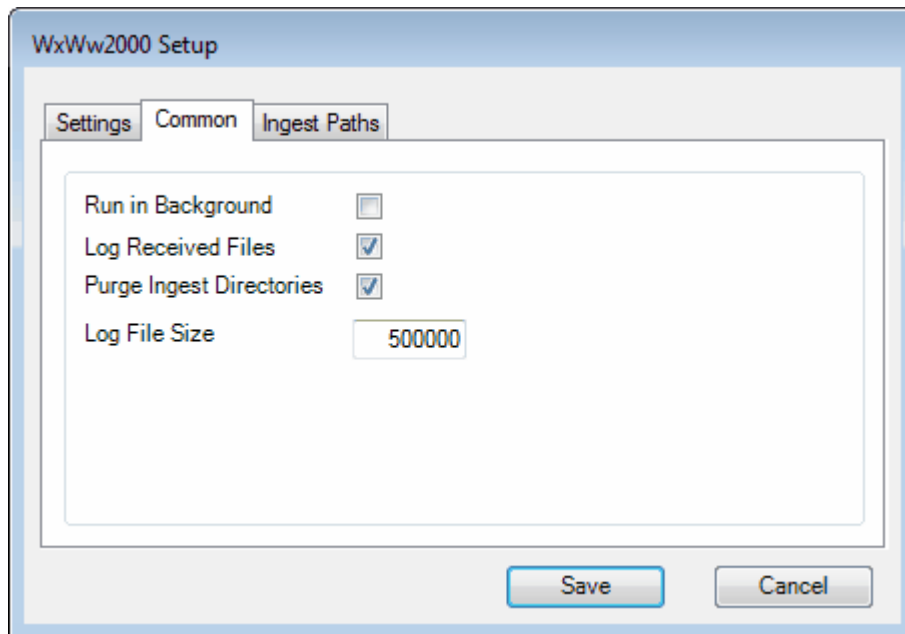
For Serial Port ingesting, select the appropriate **Comm Port** and **Baud Rate**.

The **Name by AWIPS** option, when checked, causes the program to name the received files using the AWIPS identifier found in the message, followed by the originating station's state abbreviation. When it is not checked, the received files are named using the first 3 characters of the AWIPS identifier, followed by the originating station's 3 character abbreviation, followed by the originating station's state abbreviation.

The **Global Ingest Paths** option controls whether WxWw2000 uses global ingest paths. Global ingest paths are shared between all of the ingest programs. Unchecking this box will allow you to define ingest paths that are different from the global ingest paths.

### 7.3.2 Common Tab

The Common Tab is used to define options common or shared by all ingest programs.



The **Run in Background** check box allows you to specify whether you want the ingest programs to run in the background. When this box is checked, the ingest programs will not show in the system tray. Once this option is enabled, you will not see the ingest programs running. In order to see the ingest screen, you will need to use the Show Ingest menu option in Weather Message Server.

**Note:** Changing this option does not take effect until the next time the ingest programs are started.

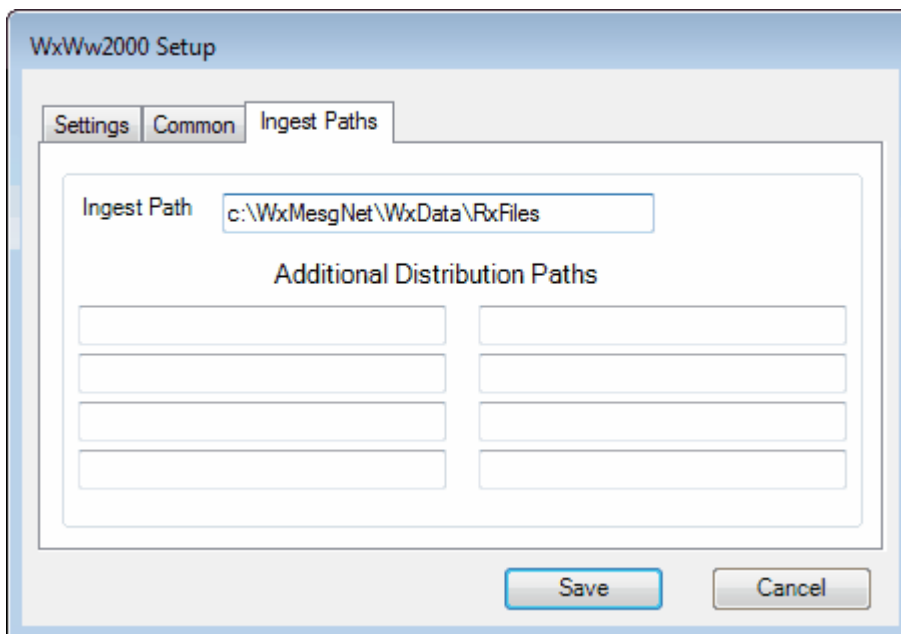
The **Log Received Files** option causes the program to record the name of each weather file received. The names are recorded in IBFiles.txt.

The **Purge Ingest Directories** option, when checked, will cause the program to automatically purge the ingest directories after 24 hours.

The **Log File Size** field allows you to specify this size of your ingest log file, IBLog.txt. The default is 50,000 bytes.

### 7.3.3 Ingest Paths Tab

The Ingest Paths Tab is used to define the directories that will store the received weather products for processing.



The **Ingest Path** is defined in the Weather Message Server setup screen and would not normally be entered here.

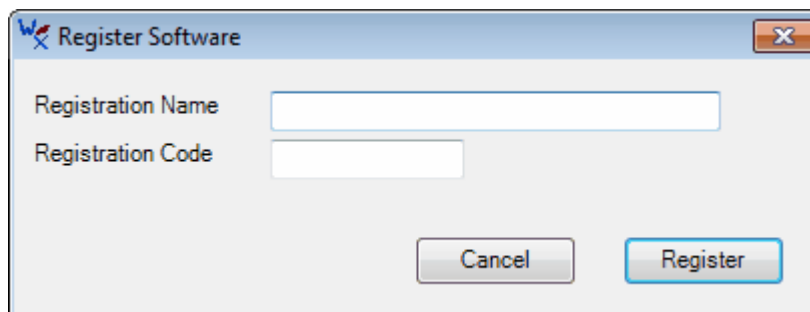
**Note:** The Ingest Path can be changed if you want to deposit the received messages in a directory other than the one established for Weather Message Server.

The **Additional Distribution Paths** can be used to place a copy of the received weather text in different directories for processing by other programs. For example, if you use Weather Message to receive your weather data, you can put a copy of the received messages in a second or third directory for processing by RealEMWIN or the Weather Message Retransmission program.

**Note:** Changing the Ingest and Additional Distribution Paths on this screen will automatically change them for WxByte, WxIngest, and WxPort.

## 7.4 Register Software

The Register menu option allows you to register your software.



When you purchase WxWw2000, you will be supplied with a **Registration Name** and **Registration Code**. Enter these exactly as they are printed. These fields are case sensitive.

After the software is registered, we recommend that you stop and restart the software.

To purchase the software go to <http://www.wxmesg.com/purchpay.htm>.





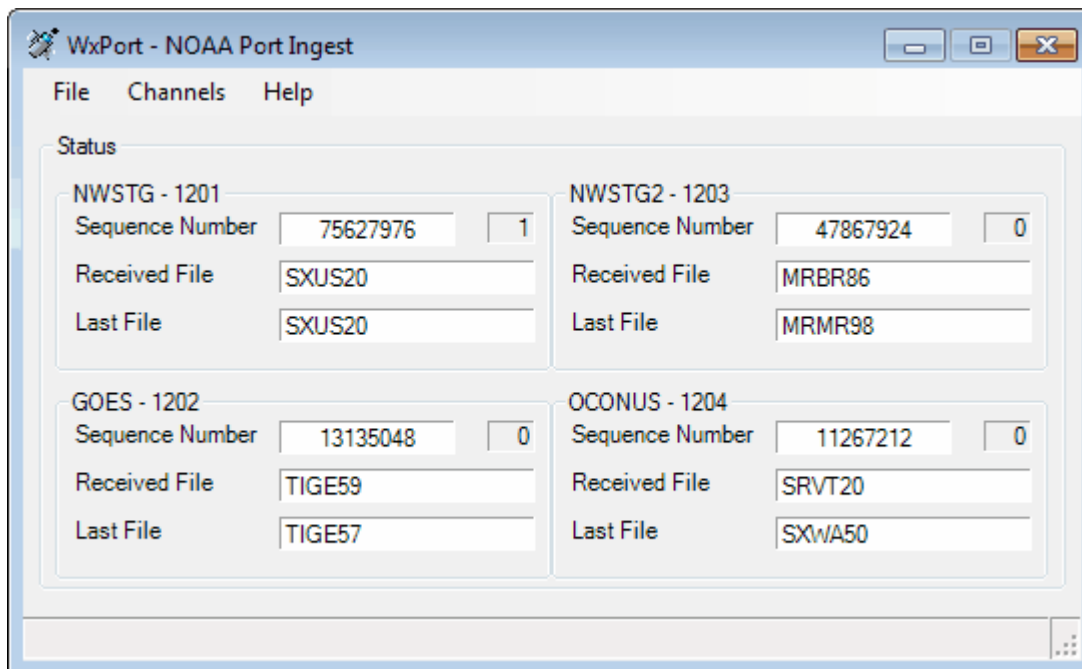
**Part**



## 8 WxPort - NOAAPort Ingest

### 8.1 Overview

WxPort is used by Weather Message to receive NOAAPort data. WxPort can process all four multicast channels from the NOAAPort data stream. The ingest program can be started automatically by the Weather Message Server or manually.




The main screen shows the status of incoming messages for each channel.

The **Sequence** field displays the last sequence number received.

The **Received File** and **Last File** fields displays the current and last file received.

**Note:** If WxPort is stopped with the window minimized, the next time it is started, it will start minimized.

#### System Tray

When WxPort is minimized, you can restore the main screen by right clicking on the system tray icon , then select open.

#### NoaaPort Channels

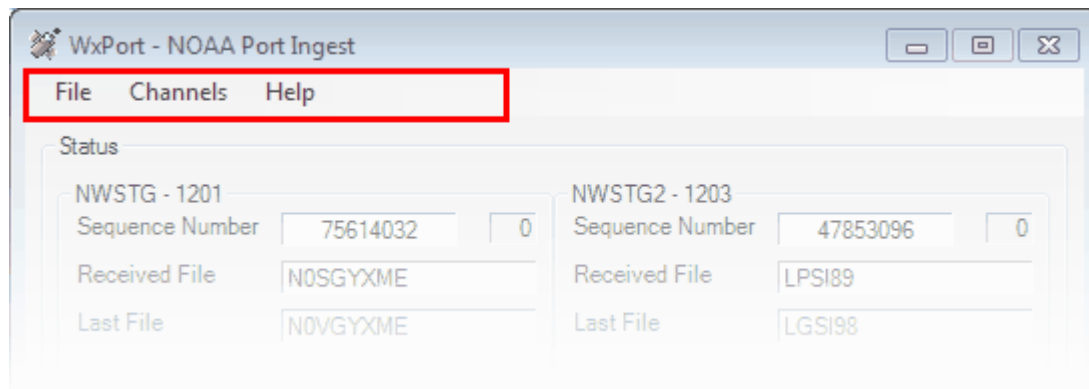
WxPort implements the following NoaaPort channels:

Channel	Address	Port
NWSTG	224.0.1.1	1201
GOES	224.0.1.2	1202
NWSTG2	224.0.1.3	1203

OCONUS      224.0.1.4      1204

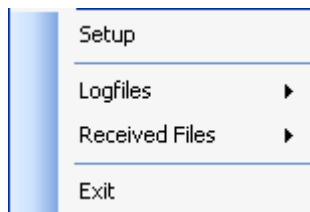
Copyright © 2011 Weather Message Software

## 8.2 Menu Options



The menu buttons on this screen perform these functions:

The **File** menu allows you to setup this program, view logfiles, and exit the program.



- The **Setup** option opens the [Setup window](#)<sup>106</sup>.
- The **Logfiles** option displays a list of logfiles to review. A logfile is maintained for the application and each NOAAPort channel.
- The **Received Files** option displays a list of received files to review. A received files list is maintained for each NOAAPort channel.
- The **Exit** option shuts down WxPort.

**Note:** In order to view the Files Received Log, the Log Received Files option must be enabled.

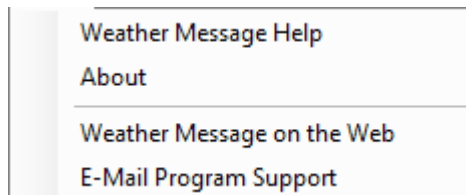
The **Register** menu allows you to [register](#)<sup>52</sup> the WxPort software. This button does not appear if the software is registered. Note: If the software is not registered after 60 days, it will stop functioning.

The **Channels** menu allows you to enable or disable a NOAAPort channel.

<input checked="" type="checkbox"/>	NWSTG - 1201
<input checked="" type="checkbox"/>	GOES - 1202
<input checked="" type="checkbox"/>	NWSTG2 - 1203
<input checked="" type="checkbox"/>	OCONUS - 1204

Check a channel to activate that channel. Uncheck a channel to disable that channel.

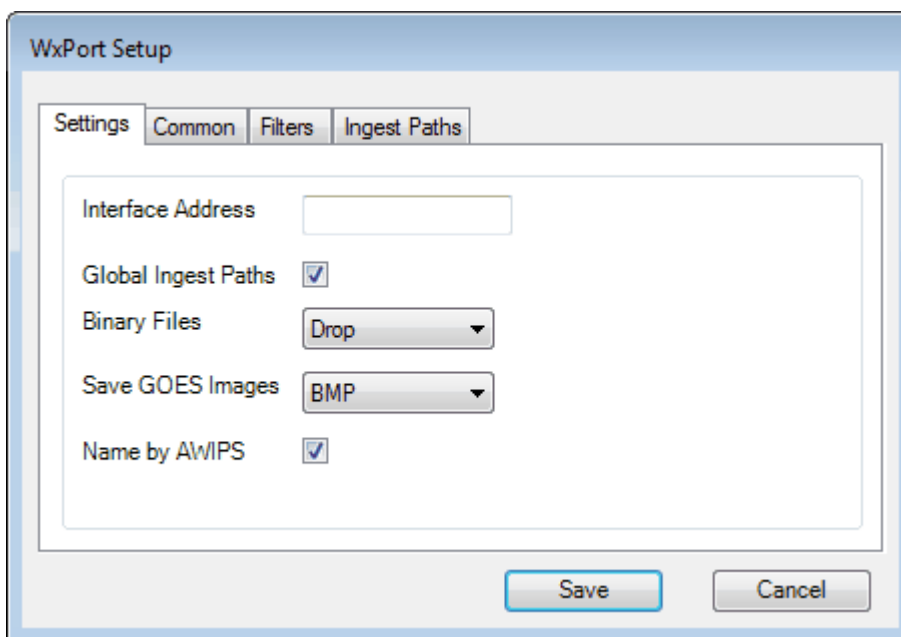
The **Help** menu allows you to see this manual, and display information about the program.



## 8.3 Setup

### 8.3.1 Settings Tab

The Settings Tab is used to define the communication port, backup options and other general operations.



The **Interface Address** is the TCP/IP address of the network device that will be providing the multicast packets. This field can left blank to default to the local network interface card.

The **Global Ingest Paths** option controls whether WxPort uses global ingest paths. Global ingest paths are shared between all of the ingest programs. Unchecking this box will allow you to define ingest paths that are different from the global ingest paths.

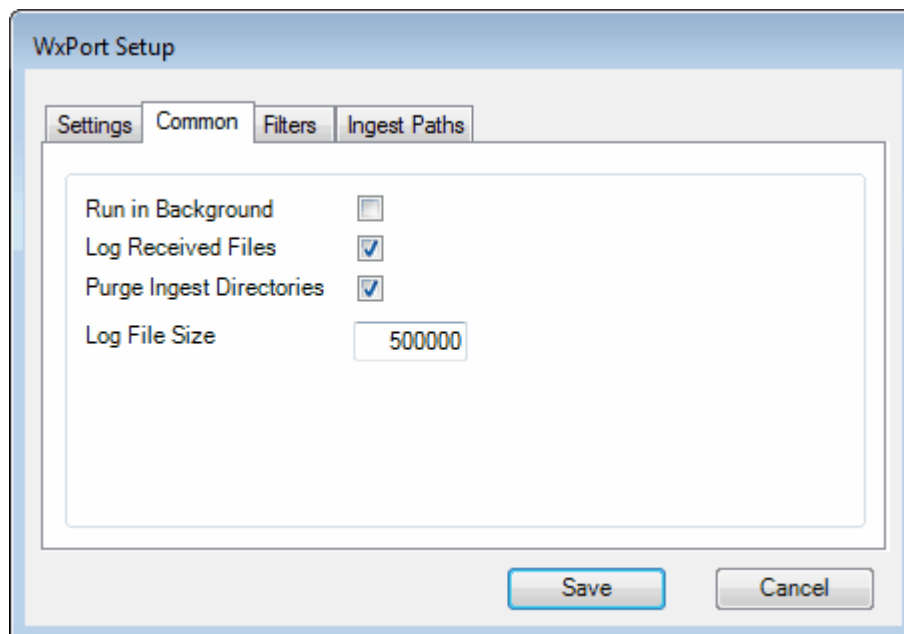
The **Binary Files** option allows you to specify how WxPort processes messages that contain binary data. They can be saved with the extension txt, bin or dropped.

The **Save GOES Images** option indicates how you want the GOES images saved. The options are No, BMP, JPG, PNG and TIF.

The **Name by AWIPS** option, when checked, causes the program to name the received files using the AWIPS identifier found in the message, followed by the originating station's state abbreviation. When it is not checked, the received files are named using the first 3 characters of the AWIPS identifier, followed by the originating station's 3 character abbreviation, followed by the originating station's state abbreviation.

### 8.3.2 Common Tab

The Common Tab is used to define options common or shared by all ingest programs.



The **Run in Background** check box allows you to specify whether you want the ingest programs to run in the background. When this box is checked, the ingest programs will not show in the system tray. Once this option is enabled, you will not see the ingest programs running. In order to see the ingest screen, you will need to use the Show Ingest menu option in Weather Message Server.

**Note:** Changing this option does not take effect until the next time the ingest programs are started.

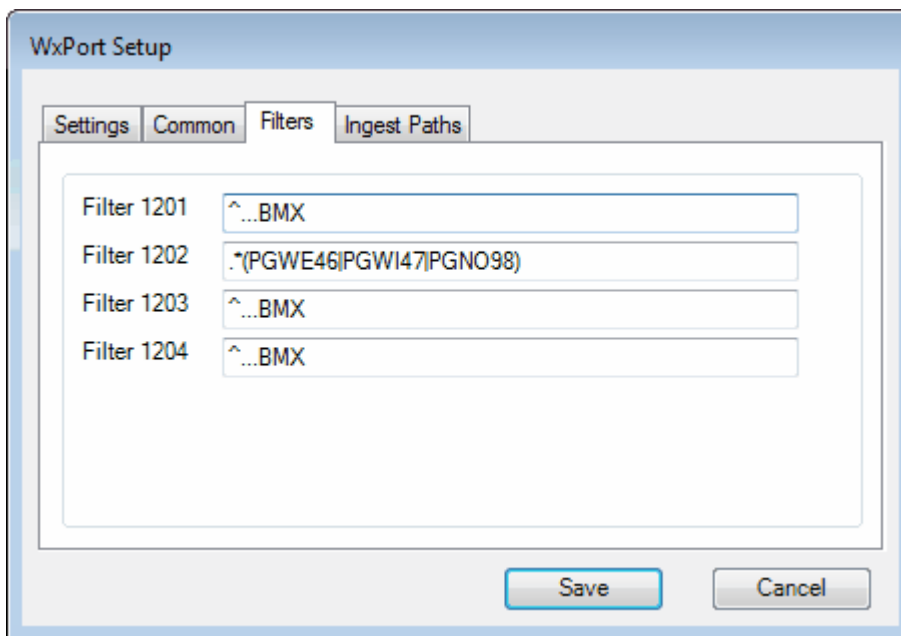
The **Log Received Files** option causes the program to record the name of each weather file received. The names are recorded in IBFiles.txt.

The **Purge Ingest Directories** option, when checked, will cause the program to automatically purge the ingest directories after 24 hours.

The **Log File Size** field allows you to specify this size of your ingest log file, IBLog.txt. The default is 50,000 bytes.

### 8.3.3 Filters Tab

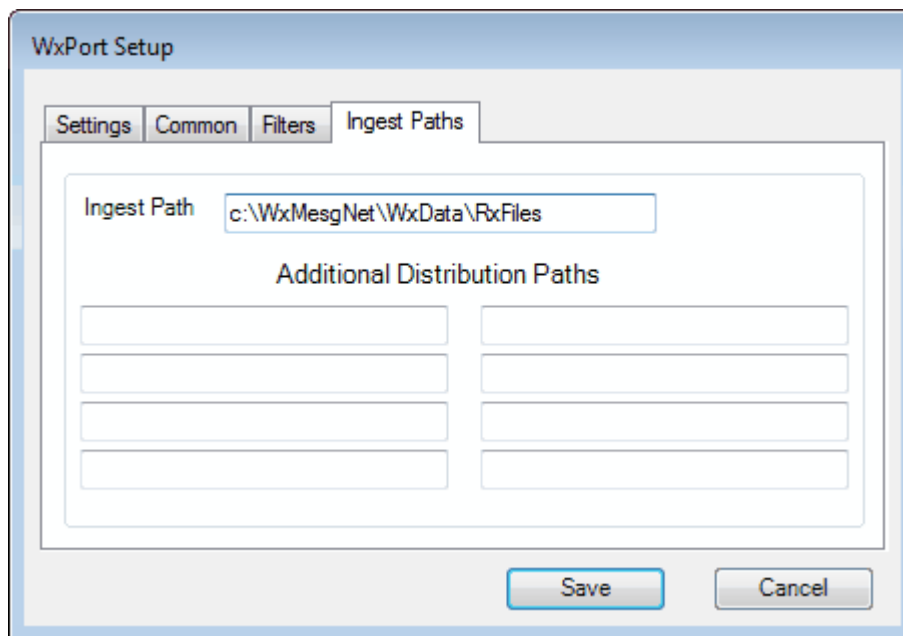
The Filters Tab is used to establish product filters for each NoaaPort channel.



The filter option can be used to filter each channel. The filter is a [regular expression](#). If a filter is specified, the program will use the AWIPS identifier or WMO identifier for comparison. Only products that match the regular expression are stored for processing. For more information on regular expressions, visit [Regular-Expressions.info](http://Regular-Expressions.info). You can test regular expressions at this [RegExLib.com](http://RegExLib.com).

### 8.3.4 Ingest Paths Tab

The Ingest Paths Tab is used to define the directories that will store the received weather products for processing.



The **Ingest Path** is defined in the Weather Message Server setup screen and would not normally be entered here.

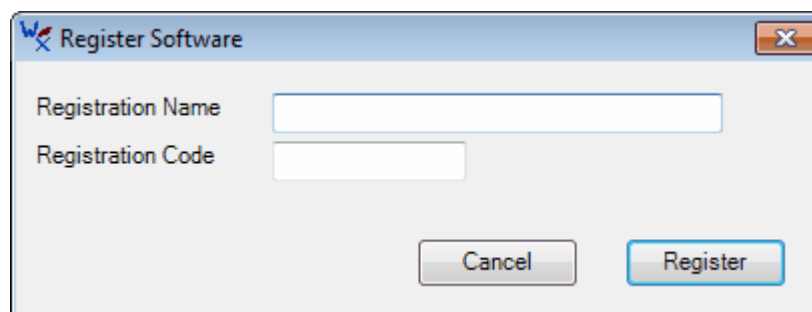
**Note:** The Ingest Path can be changed if you want to deposit the received messages in a directory other than the one established for Weather Message Server.

The **Additional Distribution Paths** can be used to place a copy of the received weather text in different directories for processing by other programs. For example, if you use Weather Message to receive your weather data, you can put a copy of the received messages in a second or third directory for processing by RealEMWIN or the Weather Message Retransmission program.

**Note:** Changing the Ingest and Additional Distribution Paths on this screen will automatically change them for WxByte, WxIngest, and WxWW2000.

## 8.4 Register Software

The Register menu option allows you to register your software.



When you purchase WxPort, you will be supplied with a **Registration Name** and **Registration Code**. Enter these exactly as they are printed. These fields are case sensitive.

After the software is registered, we recommend that you stop and restart the software.

To purchase the software go to <http://www.wxmesg.com/purchpay.htm>.



**Part**

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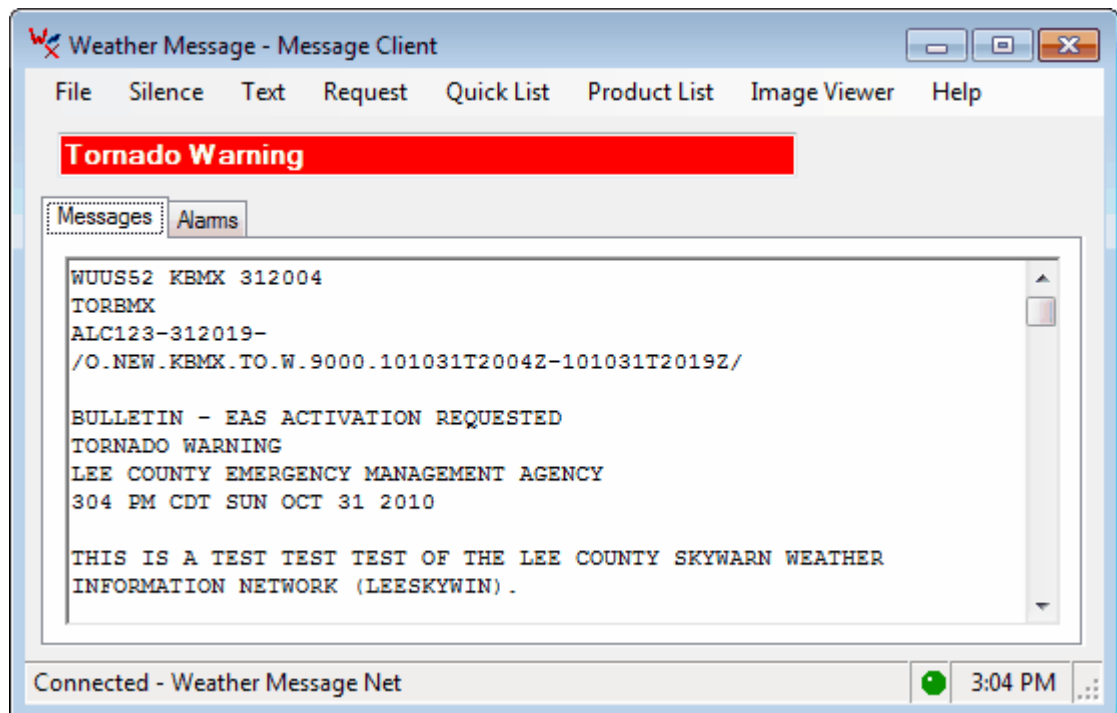
**IX**

## 9 Message Client

### 9.1 Overview

The Weather Message Message Client, WxMcli, is used to receive processed text and graphic products from Weather Message Server. The Message Client can be installed on any computer attached to a TCP/IP network. Based on your alarms and settings, the Message Client can popup a window, play different sounds, and read the alarm using text-to-speech.

The Message Client should be automatically started when your computer is started. The Message Client runs from the system tray.




**Hint:** If the Password for Setup/Exit option has been enabled, this program cannot be terminated with the X button, without a password. This feature insures that the user does not accidentally stop weather alerts.

**Hint:** If the system tray icon is outlined with a red circle or a red led appears in the status bar, the program is not communicating with the Weather Message Server.

**Note:** The Silence button to the right of message description only appears when a one-minute or continuous sound plays. It disappears when the sound finishes or Silence is clicked.

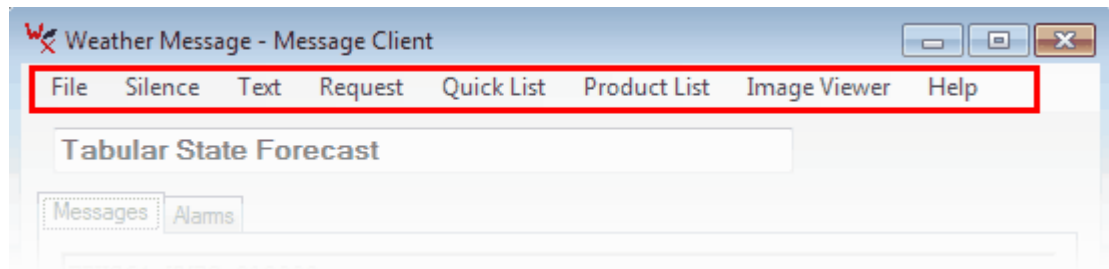
**Note:** If WxMcli is stopped with the window minimized, the next time it is started, it will start minimized.

#### System Tray

When WxMcli is minimized, you can restore the main screen by right clicking on the system tray icon , then select open.

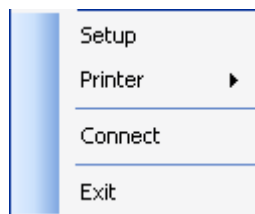
Copyright © 2011 Weather Message Software

## 9.2 Menu Options



The menu buttons on this screen perform these functions:

The **File** menu allows you to setup this program, show details, view logfiles, and exit the program.

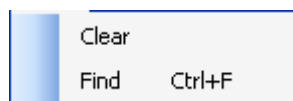


- The **Setup** option opens the [Setup Window](#)<sup>[128]</sup>.
- The **Printer** option selects the default printer and font size.
- The **Connect** option forces the application to attempt a connection to the server.
- The **Exit** option shuts down the Message Client.

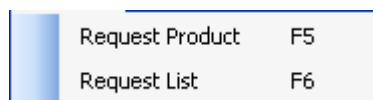
**Note:** If you enable the Password for Setup/Exit, you will have to enter the a password to access the setup screen or exit the program.

The **Silence** menu option allows you to stop a sound that is playing.

The **Text** menu allows you to clear the main window and search for a word or phrase.

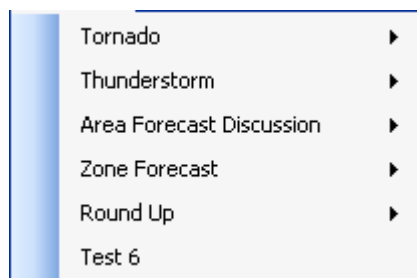


The **Request** menu allows you to request a specific product or a list of products.



- See [Request Product](#)<sup>[126]</sup>.
- See [Request Product List](#)<sup>[128]</sup>.

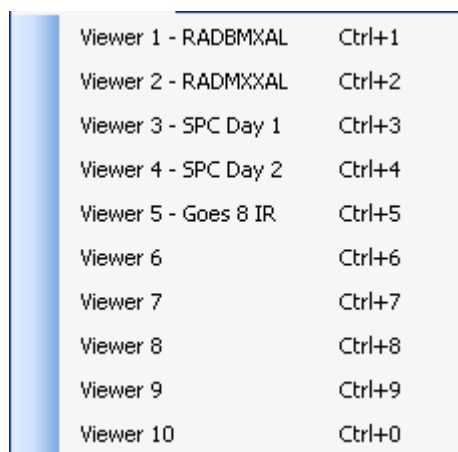
The **Quick List** menu allows you to quickly request predefined products.



- See [Quick List](#)<sup>[134]</sup> setup tab.

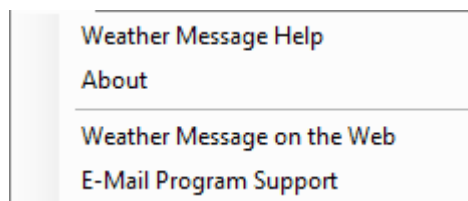
The **Product List** menu option opens the floating product list.

The **Image Viewer** menu allows you to select from 1 to 10 image viewers. The menu shows the last image viewed with each viewer.

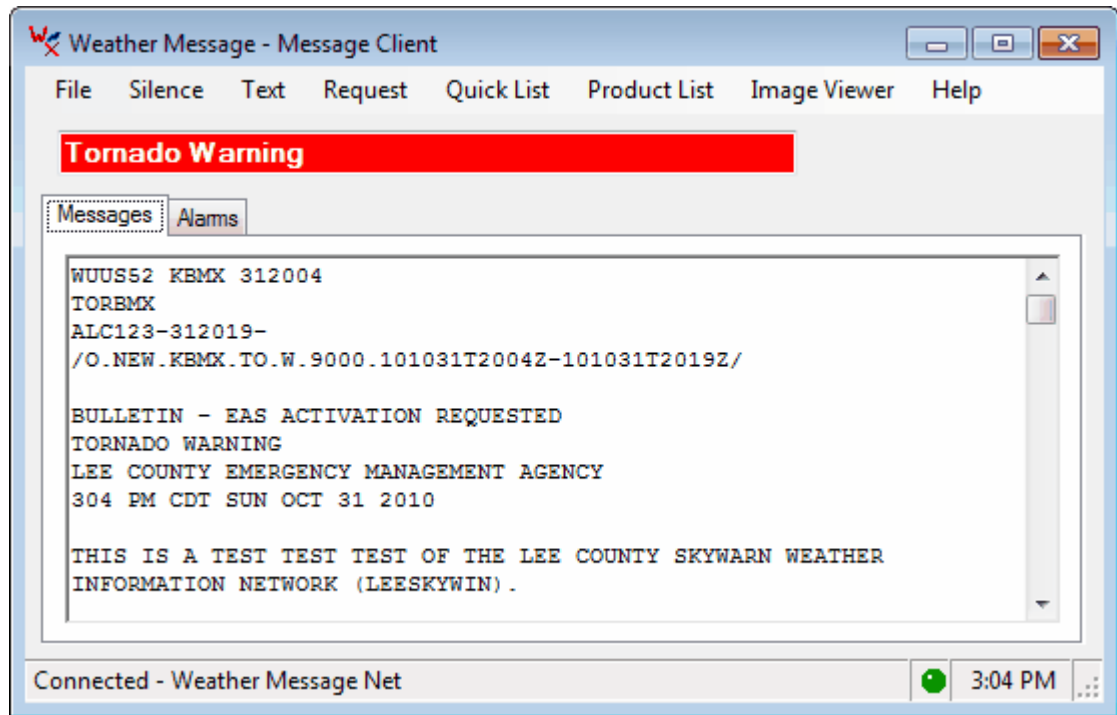


- See [Image Viewer](#)<sup>[138]</sup>.

The **Help** menu allows you to see this manual, and display information about the program.

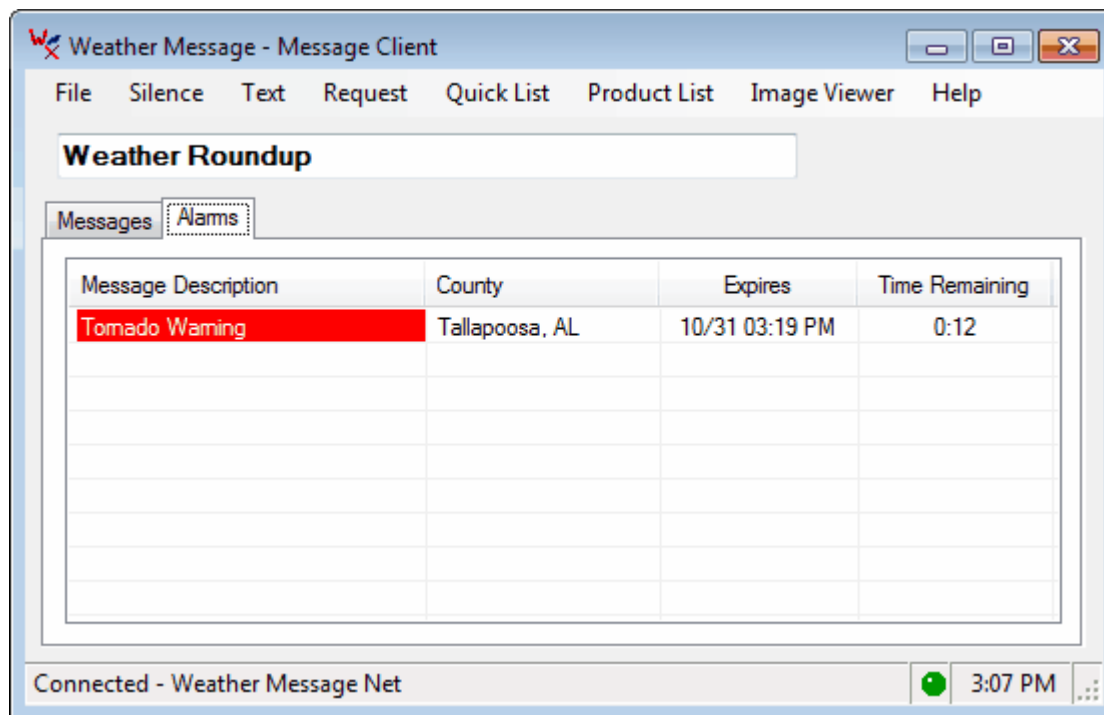


## 9.3 Main Window



The Messages Tab displays a scrolling text box of received weather products. The last message received is at the top. The size of the scrolling buffer can be change in [Setup](#)<sup>[129]</sup>. To view an incoming message in a separate window, click on the message and a new window will open.

The status bar at the bottom of the window display connection information. Normally you will see a green led, which indicates you are connected to Weather Message Server. If the program is not connected, you will see a red led and the system tray icon will show a red circle.



The Alarms Tab contains a list of active alarms. It displays the message description, counties, and expiration information. When an alarm is received, the system tray icon changes to the color red, until all alarms have expired. When alarms expire, the time remaining field changes to "expired". Expired items remain in this list for 15 minutes.

Click on a row in the list to read the message that caused the alarm.

**Hint:** Clicking on a row will automatically launch the message viewing window. It also copies the displayed text to the windows clipboard.

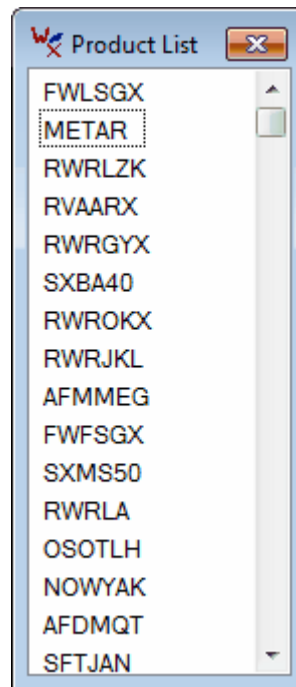
## 9.4 Product List

The Message Client features a floating received products window. You can minimize the main window and keep this small window open to monitor received products. You can click on any of the received products to see the text or image associated with the product name.

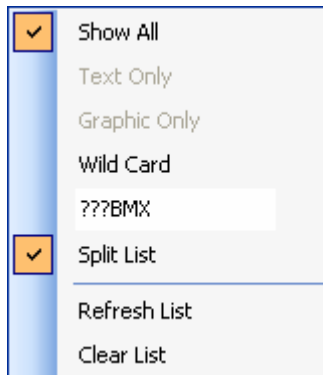
**Hint:** Clicking on a text product will automatically launch the message viewing window. It also copies the displayed text to the windows clipboard.

To see a list of products received with the same product identifier, hold down the shift key before clicking on the received product.

**Note:** For products to appear in this list, an alarm must be established in Weather Message Server.



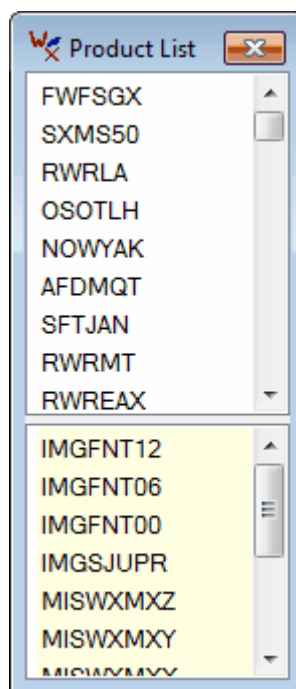
The default product list has several options. To see a list of options, right click to see this menu.



The default option is to show all products in a single list. If you only want to see text products in your list, click the **Text Only** option. To only want to see graphic products, click the **Graphic Only** option.

The **Wild Card** option allows you filter the list using a wildcard. Enter a wildcard expression in the menu text box, then click on the **Wild Card** option.

The **Split List** option changes the standard product list into two lists. The top list contains text products and the bottom list the graphic products.



The **Refresh List** option sends a request to the server to refresh the text product received during the last two hours. The graphic products are refreshed from the clients local cache.

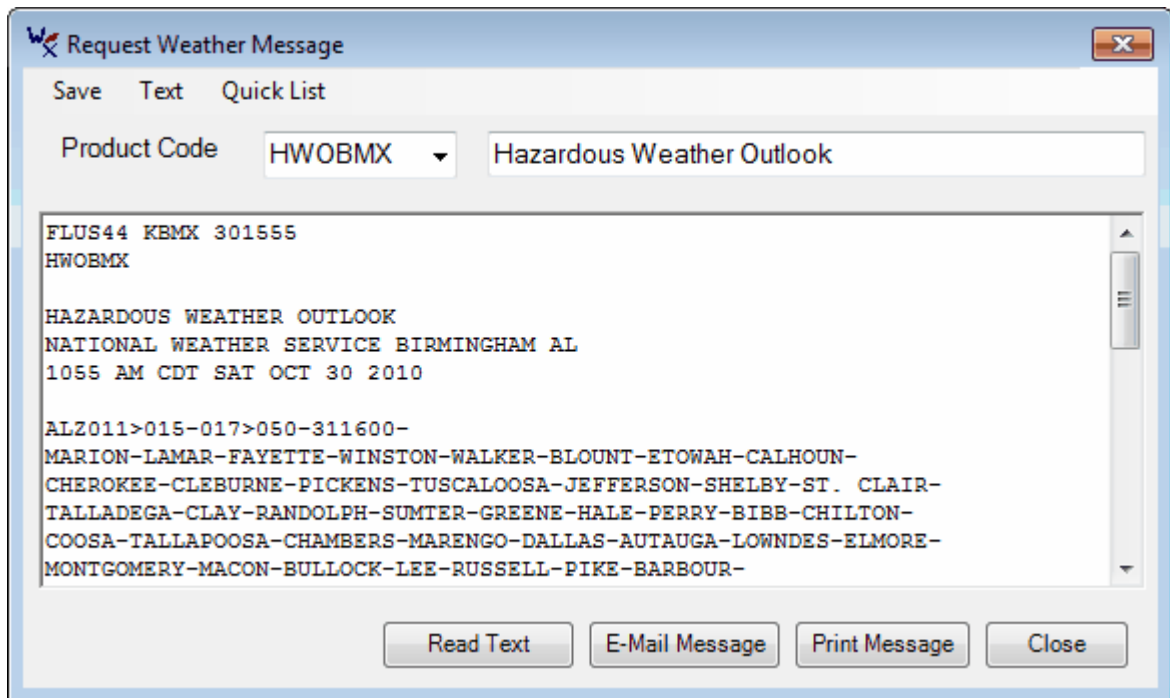
The **Clear List** option clears the received products list.

**Note:** *When you shutdown Message Client, the application will store the items in the product list. The next time you start Message Client, the product list will be populated with the items it contained the last time it was shutdown.*

## 9.5 Request Product

The Request Product window allows you to request a product by identifier.





The product codes are composed of a 3-character weather product code and either a 2-character state or forecast office code. See [Weather Forecast Offices](#) for a list of the forecast office codes. See [Text Product Abbreviations](#) for a list of weather product codes. For example a special weather statement for Birmingham, Alabama is coded SPSBMX. This code can be entered in the **Product Code** field to get the last special weather statement issued.

**Hint:** Requesting a product will automatically copy the product's text to the windows clipboard.

The **Product Code** field also contains a list of the last 20 products received. To view and/or select an item from this list, click on the down arrow in the Product Code field.

The **Read Text** button will read the displayed message using Windows text-to-speech processor. When the text-to-speech processor starts, the button will change to **Cancel Reading**. Clicking **Cancel Reading** will stop the text-to-speech processor. See [Text to Speech](#)<sup>[135]</sup> for more details.

The **E-Mail Message** button opens your email application and inserts the message text in the body of the message.

The **Print Message** button prints the message text to your default printer.

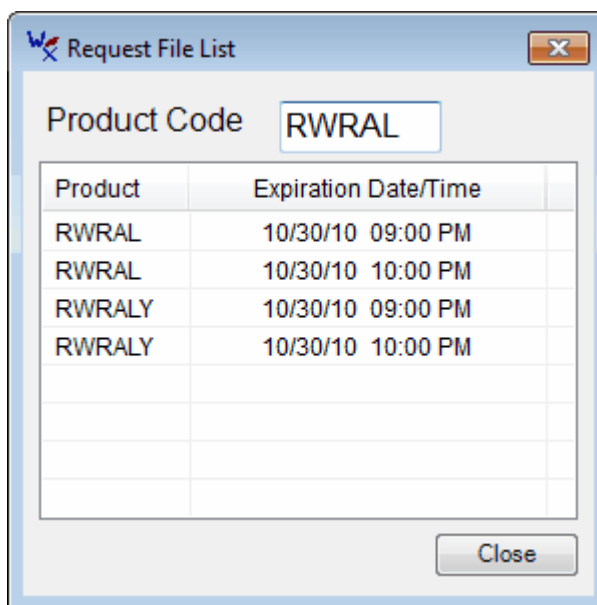
The **Close** button closes this window.

Right clicking in the text window displays the following menu options that allow you to copy, paste, print and speak selected text.

Undo	Ctrl+Z
Cut	Ctrl+X
Copy	Ctrl+C
Paste	Ctrl+V
Delete	Del
Print	Ctrl+P
Speak	Ctrl+S

## 9.6 Request Product List

The Request File List window allows you to request a list of products by identifier.



The product codes are composed of a 3-character weather product code and either a 2-character state or forecast office code. See [Weather Forecast Offices](#) for a list of the forecast office codes. See [Text Product Abbreviations](#) for a list of weather product codes. For example a special weather statement for Birmingham, Alabama is coded SPSBMX. This code can be entered in the request field to get a list of the special weather statements for Birmingham currently stored in Weather Message.

To view one of the listed messages, click on the message identifier in the product column. Clicking on the expiration date column will sort the list in ascending or descending order.

## 9.7 Setup

### 9.7.1 Server Tab

The Server Tab is used to define the communication settings for your Weather Message Server.

The screenshot shows a window titled "Weather Message Client Setup" with a close button in the top right corner. Below the title bar is a tabbed interface with five tabs: "Server", "Settings 1", "Settings 2", "Alarms", "Product Colors", and "Quick List". The "Settings 1" tab is currently selected. Inside this tab, there is a section titled "Weather Message Server". Below this title are five input fields: "Host TCP/IP Address" (empty), "Host TCP/IP Port" (containing "9501"), "Backup Address" (empty), "Backup Port" (containing "9501"), and "Client Identifier" (a dropdown menu showing "1"). At the bottom right of the dialog are two buttons: "Save" and "Cancel".

The **Host TCP/IP Address** is the address of the Weather Message Server. Enter the address of your primary server in this field.

**Note:** When the Host TCP/IP Address field is left blank, the Message Client will try to discover the address and port of the Weather Message Server. If your server is on the same local network as the client, it will automatically obtain the address and port. If the client is running on a different network, you will need to enter the address and port of the server.

The **Host TCP/IP Port** is the port defined by Weather Message Server for connections. The default is 9501.

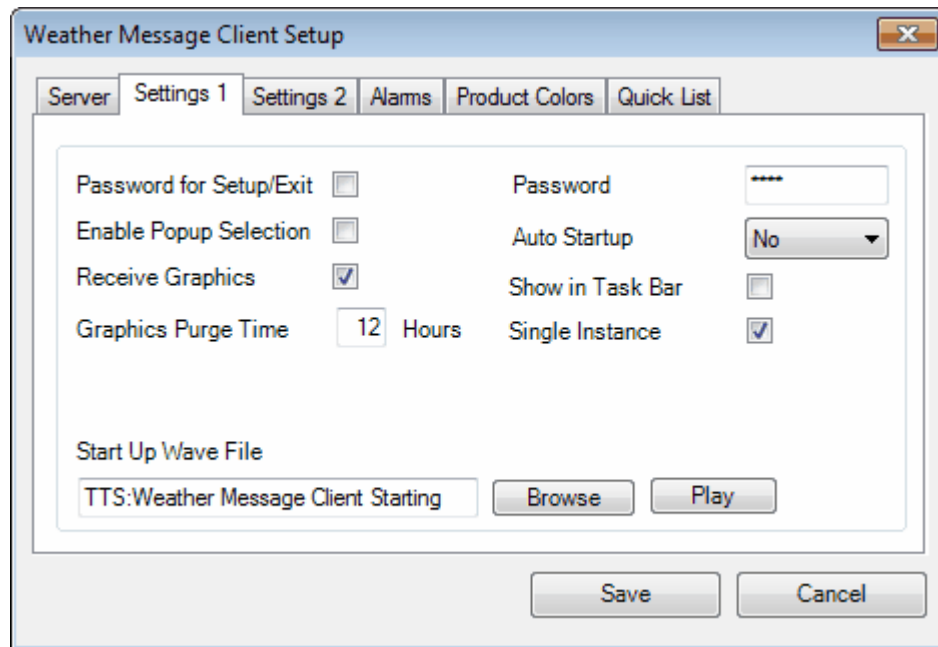
The **Backup Address** is the TCP/IP address of your backup Weather Message Server. Do not enter an address in this field if you do not have a backup Weather Message Server. This address is used when the program cannot contact your primary Weather Message Server.

The **Backup Port** is the port defined for use by the backup Weather Message Server. The default is 9501.

The **Client Identifier** field allows you to assign each Message Client a different identification number. This identifier can be used to send a specific alarm to a specific client or group of clients.

## 9.7.2 Settings Tab 1

The Settings 1 Tab is used to set operational information for the Message Client.



The **Password for Setup/Exit** option allows you to require a password to access the Setup menu or exit the program.

The **Enable Popup Selection**, when checked, will give the user the capability to enable or disable the applications popup operation. The Enable/Disable option will appear on the system tray menu.

The **Receive Graphics** field should be checked, if you want to receive weather graphics.

**Note:** *Weather Message Server would also have to be setup to send graphic files.*

The **Graphics Purge Time** field defines the amount of time, in hours, to retain graphic images. After an image exceeds this time, it is deleted.

The **Start Up Wave File** allows you to specify a wave file to play or read a text-to-speech message when the program is started. Use the **Browse** button to locate a wave file. To hear the wave file, click **Play**. If you do not want a wave file to play at startup, enter **None** in this field. For a text-to-speech message enter TTS: followed by the message to speak. For example:  
*TTS:Weather Message Starting*

The **Password** field allows you to set the password that will be used for the Password for Setup/Exit option.

The **Auto Startup** option allows you to specify whether the Message Client is automatically started when Windows starts. The options are No; Yes, for the current user; and Everyone, for any user.

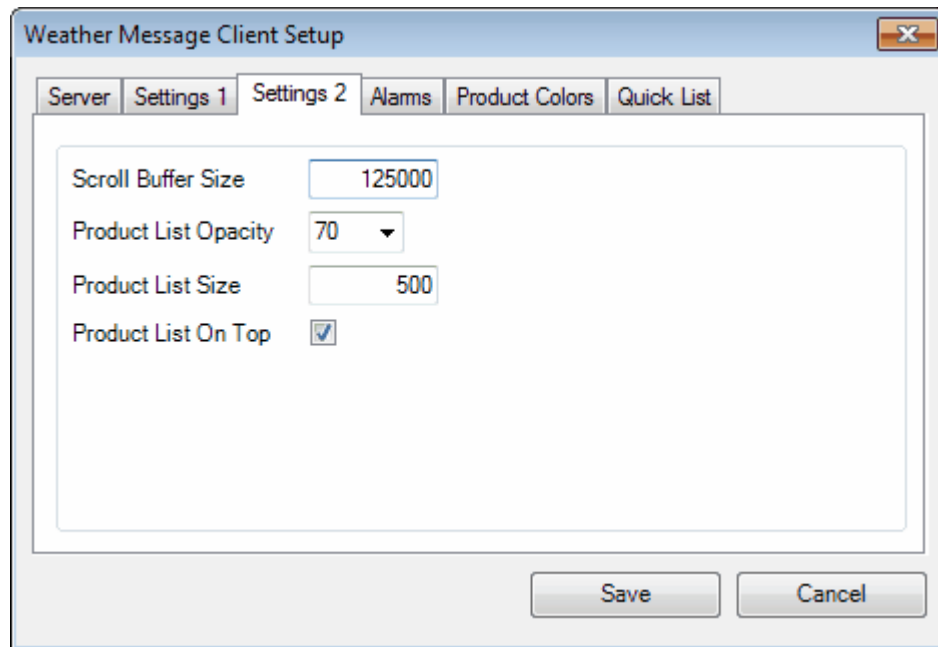
**Note:** *The options available for **Auto Startup** are based on your user permissions. Administrator and Power users will have all of the options. Other users may only have the Yes option.*

The **Show in Task Bar** option, when checked, will move the program from the system tray to the task bar.

The **Single Instance** option, when checked, will only allow one copy of the Message Client to start.

### 9.7.3 Settings Tab 2

The Settings 2 Tab is used to set operational information for the Message Client.



The **Scroll Buffer Size** defines the number of characters to keep in the main text window.

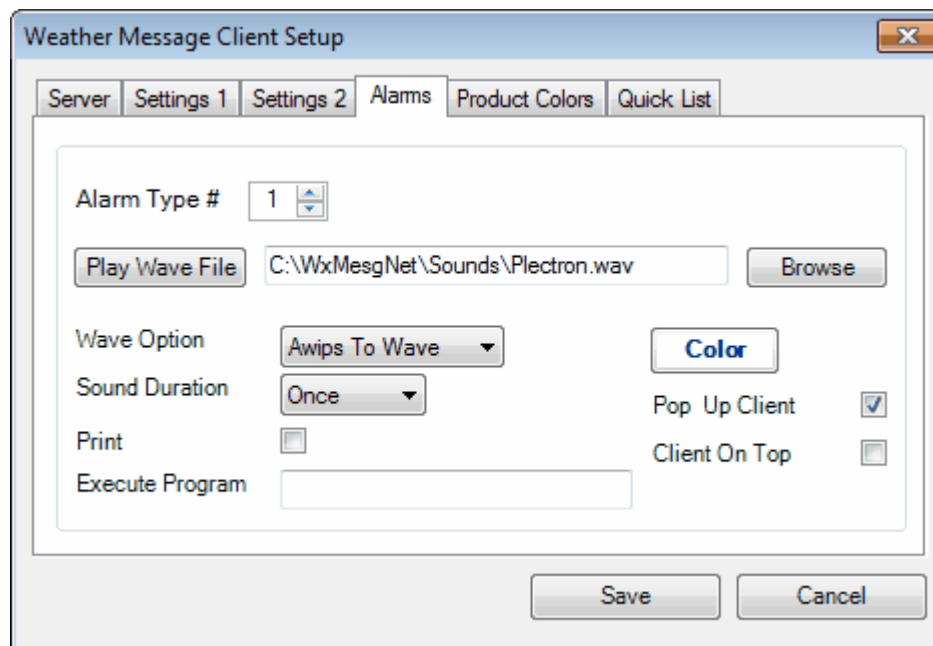
The **Product List Opacity** allows you to setting the opacity or transparency of the product list. 100 represents a normal window. The lower the value the more transparent the product list becomes. This allows you to see through the product list when it is positioned on top of other windows.

The **Product List Size** allows you to determine the number of products that are contained in the product list.

The **Product List On Top** field causes the product list, when shown, to appear on top of all other windows.

### 9.7.4 Alarms Tab

The Alarms Tab is used to set sounds, colors, print and popup options for 40 alarm types.



The Weather Message Server Setup program allows you to associate an **Alarm Type** for each alarm that is sent to the Message Client. This **Alarm Type** causes the Message Client to play a wave file and pop-up a minimized screen, based on your settings. In addition, it uses the color associated with the alarm type to display the message description on the status line and in the Product List window.

Message Client supports up to 40 different alarm types. To select a specific alarm type, click on the up or down buttons adjacent to the Type # field. Click on the **Browse** button to select a wave file. Each wave file can be played, **Once**, for **1 minute**, or **Continuous**. To hear the sound associated with the alarm, click the **Play Wave File** button. Alarms can be silenced, by clicking on the Silence button. The number of the alarm to be played is determined when the Alarm is established in Weather Message Server Setup.

The **Wave Option** controls how the message client plays sounds for matching alarms. For standard wave files select **Play Wave**; to play sounds based on product identifier select **AWIPS to Wave**; to announce the product using text-to-speech select **Read Short**; and to read the received message using text-to-speech select the **Read Text** option.

**Note:** The text to speech options work on Windows XP and later operating systems.

The **Product to Wave** option is used when you want a specific sound to be played based on the product identifier. When using this option, you will create a wave file that has the same name as the product identifier. This wave file should be saved in the "Sounds" directory located in the WxMesgNet directory.

When this option is enabled, the program will look for a wave file in the "Sounds" directory that is named like the product being received. It will first look for the complete 6 character product identifier and play that file. If the 6 character product identifier is not found, it will look for a file with the first 3 characters of the product identifier and play that file. If neither are found, it will play the default wave file associated with this alarm.

Here are some examples of using the Product to Wave option. The following files are stored in the "Sounds" directory; "TORBHM.wav", "TOR.wav". With the Product to Wave enabled for Alarm Type 1, the program will look at each received product associated with Alarm Type 1. If

the incoming message contains the product identifier "TORBHM", the program will play the file "TORBHM.wav". If it receives "TORHUN", it will play the file "TOR.wav" since it cannot locate a file labeled "TORHUN.wav".

The **Read Short** option will announce the received product using text-to-speech. The software will attempt to create a short message describing the received product. The short message will generally include the product type, counties effected and the expiration time. See [Text to Speech](#) <sup>[135]</sup> for more details.

The **Read Text** option will read the text of the received message using text-to-speech.

The **Print** option, if checked, will print out the received weather product to your default printer.

The **Execute Program** option allows you to start a third-party program when an alarm occurs. Enter the full path and program name for the third-party program. The Message Client can create a temporary file with the text so that it can be passed to the external program as a command line argument. To do this, put one space after the program name and enter the characters "\$1". For example, to start Notepad each time an alarm is triggered, enter "Notepad.exe \$1" in the Execute Program field.

**Hint:** *If the path to the executable contains a space, you should enclose the path and program name in quotes. For example: "c:\program files\myprogram.exe" \$1*

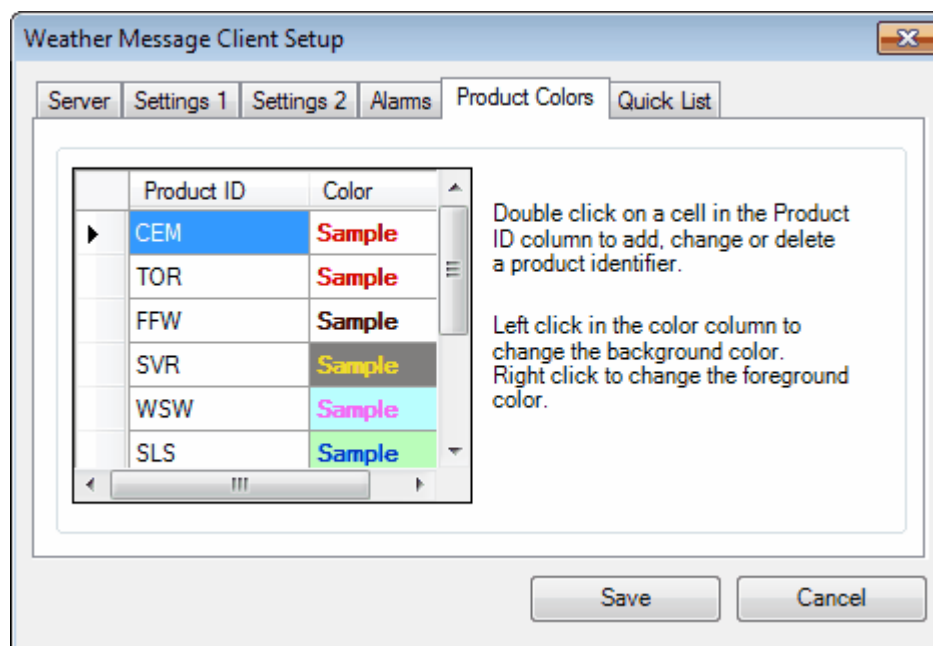
The **Color** button, allows you to select a foreground and background color for the weather product description. Left click to change the background color. Right click to change the foreground color.

The **Pop Up Client** option specifies whether Message Client pops up a minimized window when this alarm arrives.

The **Client On Top** setting can be used to make the Message Client window the window that appears on top of all other windows. If you use this option, an alarm will cause Message Client to appear on top of all other running programs.

## 9.7.5 Product Colors Tab

The Product Colors Tab is used to .



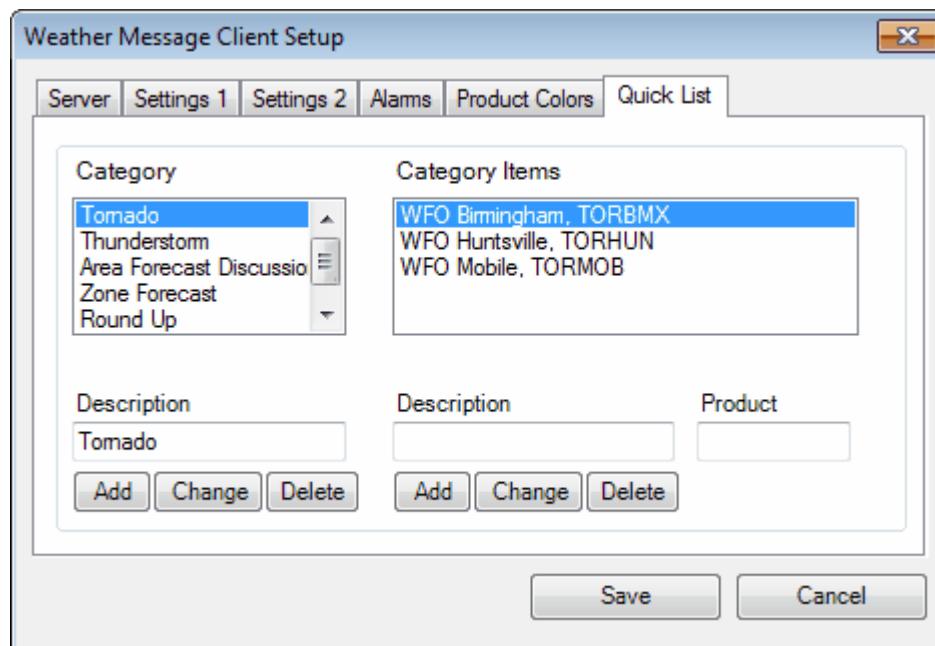
The Product ID column contains the first three letters of the AWIPS identifier to be colored. To add a new product identifier, scroll down to a blank cell and click in the cell. Enter the product identifier and press enter. Then right click in color column to change the foreground (text) color or left click to change the background color.

The colors associated with the alarms, established under the Alarms tab, will override these default colors.

### 9.7.6 Quick List Tab

The Quick List Tab is used to .





To add a category, enter the category description and click Add. To change a category, click on the category, make any changes and click on Change. To delete a category, click on the category and press the keyboard delete key or the Delete button.

To add a category item, first select the category. Enter the category item description and product description then click Add. To change a category item, first select the category, then the category item. Make any changes and click on Change. To delete a category item, first select the category, then the category item and press the keyboard delete key or click the Delete button.

**Hint:** If you suffix the product name with "\*", the program will display a list of products, instead of the last product received. The default option of the quick list is similar to the Request Product option. When the product name contains an "\*", it operates similar to the Request List option.

## 9.8 Text to Speech

The Message Client now has limited support for text-to-speech using Microsoft's text-to-speech processor on Windows XP and later operating systems. The Sam voice that is installed with Microsoft XP is very poor. Windows Vista's Anna voice is more natural.

Microsoft released two additional voices for Windows XP that are better than the default voice. You can download them from this link <http://www.text-speech.com/voices/Sp5TTIntXP.msi>. After they are installed, you will find Mike and Mary available in the speech control panel. These two are much better than the default SAM voice.

The voice used by the Message Client is the default one selected in the speech control panel. Using the speech control panel, you can change the voice and set the speaking speed.

There are several commercial TTS (text to speech) engine providers. Cepstral has good voices. You can demo them at <http://www.cepstral.com/demos/> Their voices are around \$30.00. Nextup

has demos of the AT&T voices at <http://www.nextup.com/attnv.html> The AT&T voices cost \$35.00.

**Part**

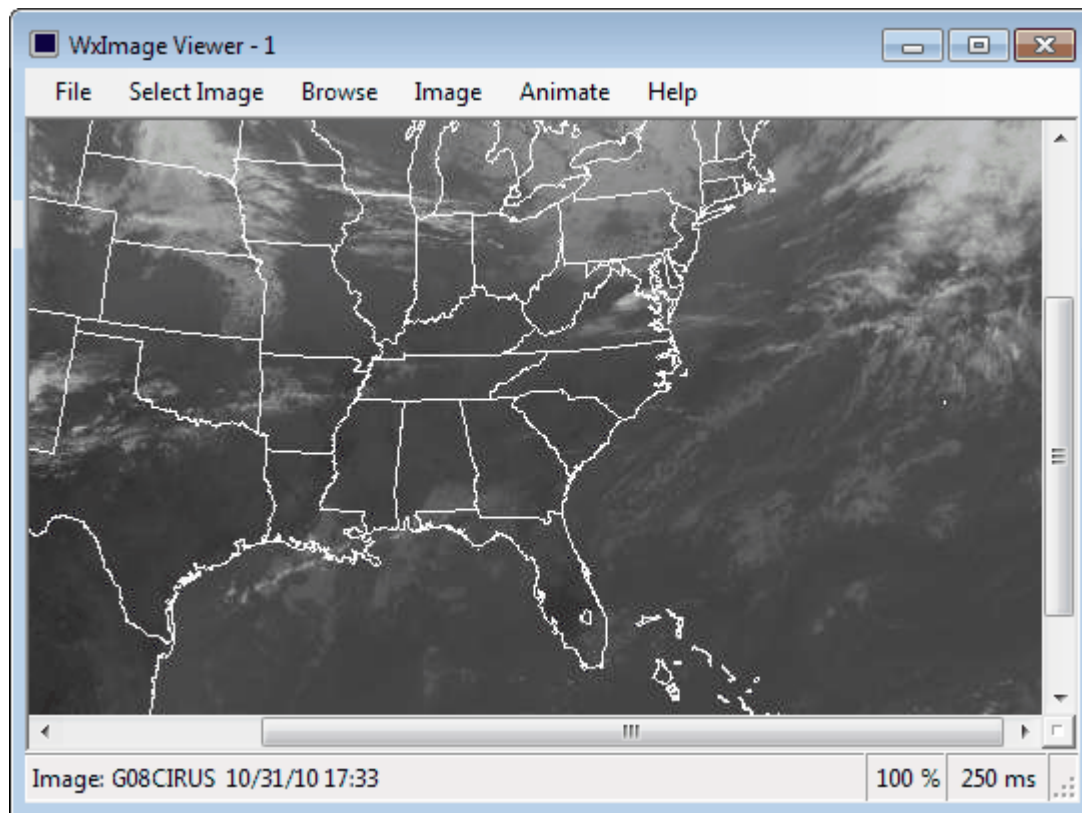
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## 10 Image Viewer

### 10.1 Overview

The Image Viewer allows you to view received weather graphics and locally processed radar images. The Image Viewer is started by clicking on the Image Viewer menu option in Message Client and selecting one of the 10 viewers.

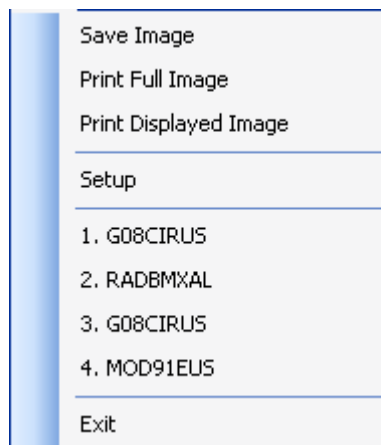


Each Image Viewer instance (1 to 10) remembers the last image you viewed, along with the size of the viewer window and the last position of the scroll bars. When you access that viewer again, it will automatically display the last image viewed.

### 10.2 Menu Options



The **File** menu allows you to save the displayed image, print the image, setup this program, retrieve previously viewed images, and exit the program.



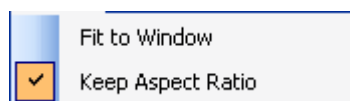
- The **Save Image** option is used to save the currently displayed image. Images can be saved in GIF, JPG, PNG, TIF and BMP format.
- The **Print Full Image** option will print the entire image to your default printer.
- The **Print Displayed Image** option will print the image visible in the Image Viewer window to your default printer.
- The **Setup** option opens the [Setup Window](#)<sup>[142]</sup>.
- Items 1 through 4 act as a recent image viewed list. Select a previously viewed image to see it again.
- The **Exit** option shuts down the Message Client.

**Note:** If you enable the Password for Setup/Exit, you will have to enter the a password to access the setup screen or exit the program.

The **Select Image** menu launches the [Select Image](#)<sup>[141]</sup> window.

The **Browse** menu launches the [Image Browser](#)<sup>[142]</sup>. It is used to see a thumbnail of the images recently received.

The **Image** menu allows you to alter the sizing and resizing behavior of the displayed image.

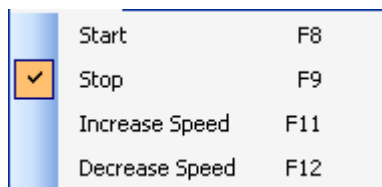


- The **Fit to Window** option, when checked, will cause the displayed image to fit the size of

the image viewer.

- The **Keep Aspect Ratio**, when checked, will cause the viewer to retain the aspect ratio of the displayed imaging. Un-checking this option can cause the image to be distorted.

The **Animate** menu will start an animation of images. The button only appears if more than one image is available for animation.

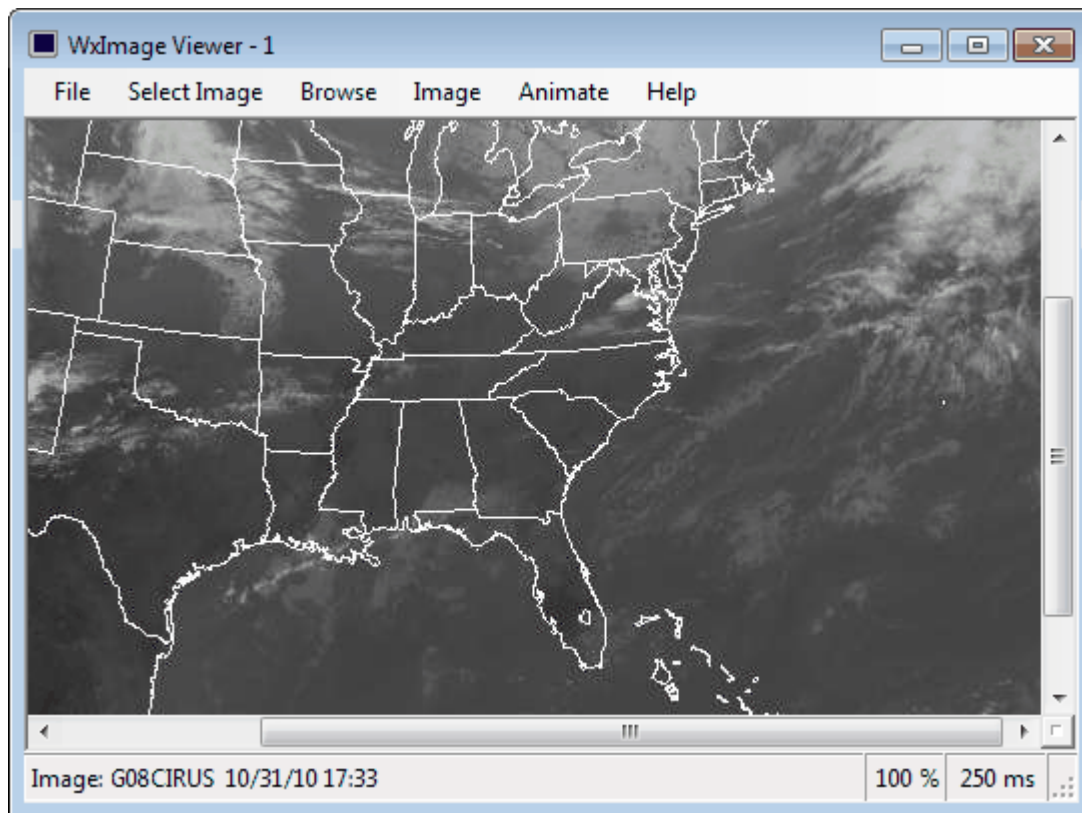


- The **Start** option or F8 function key starts the animation.
- The **Stop** option or F9 function key stops the animation.
- The **Increase Speed** option or F11 function key increases the animation speed.
- The **Decrease Speed** option or F12 function key decreases the animation speed.

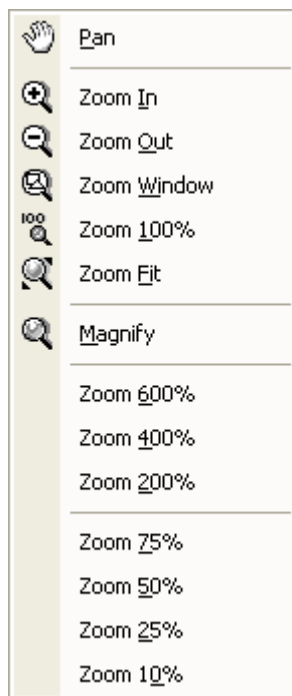
The **Help** menu allows you to see this manual.

## 10.3 Image Options

The displayed image can automatically be resize by selecting on of the [Image](#)<sup>87</sup> menu options.



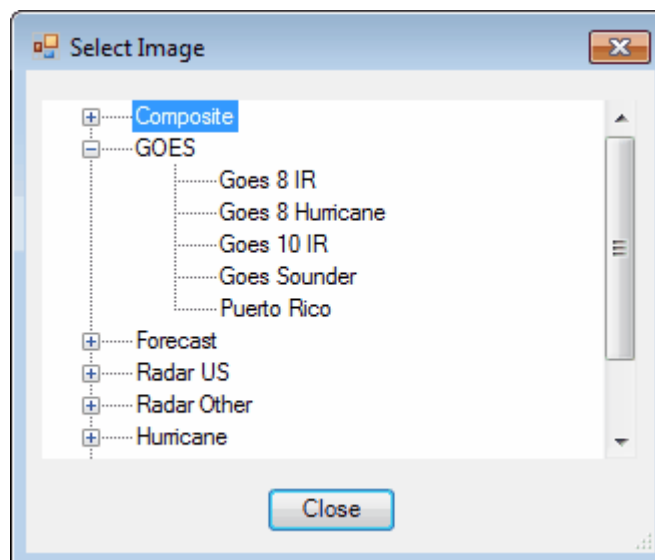
There are also a number of zoom options available by right clicking on the image. Right click on the image to see this menu.



The default view is Zoom 100%.

## 10.4 Selecting Images

Images are selected by either clicking on a graphics product in the Product List, selecting a recently viewed image from the File menu, browsing for an image using the Image Browser or using the Select Image window.

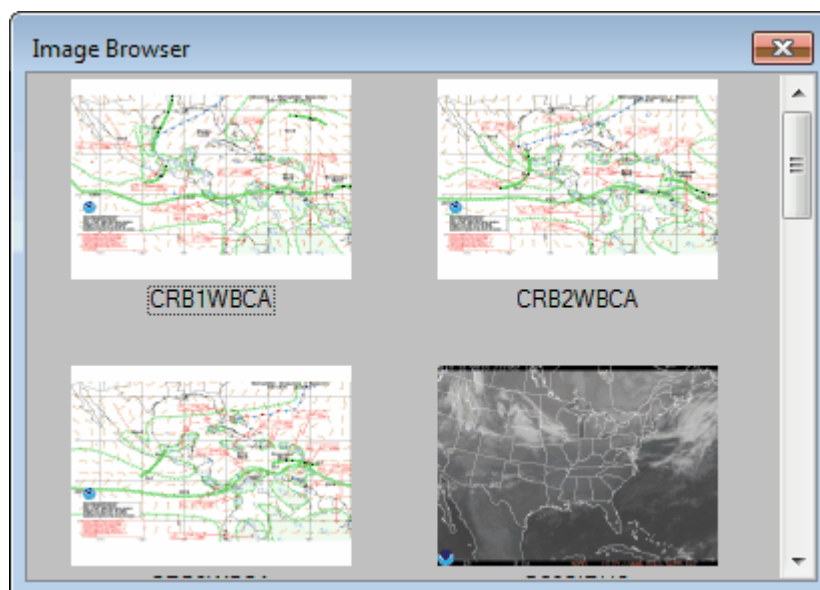


Images are broken down into six categories. Click on one of the categories to see a list of images available. When an image is selected, the program will display the image, if it is available. If the Auto Animate option is enabled, the image will automatically begin animation.

The Miscellaneous category contains a slide show option. This can be used with the animate option to show all images.

## 10.5 Image Browser

The Image Browser allows you to browser received images.



Click on a image to load it into the Image Viewer.

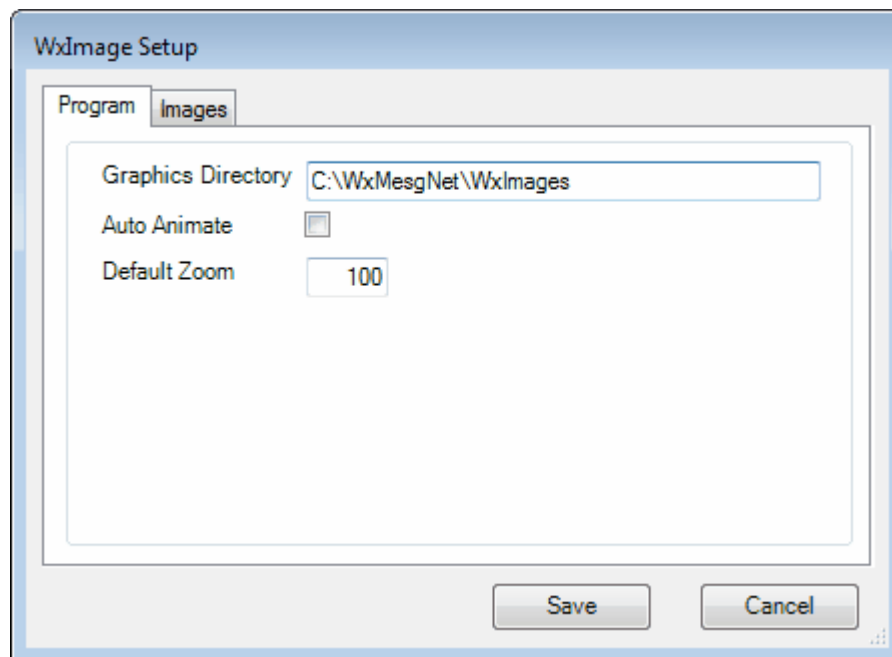
**Note:** *If you have received a large number of images, it make take several seconds for this screen to populate.*

## 10.6 Setup

### 10.6.1 Program Tab

The Program Tab is used to set the graphics directory and other program defaults.





The **Graphics Directory** is automatically setup by the system. This directory should not have to be changed under normal situations.

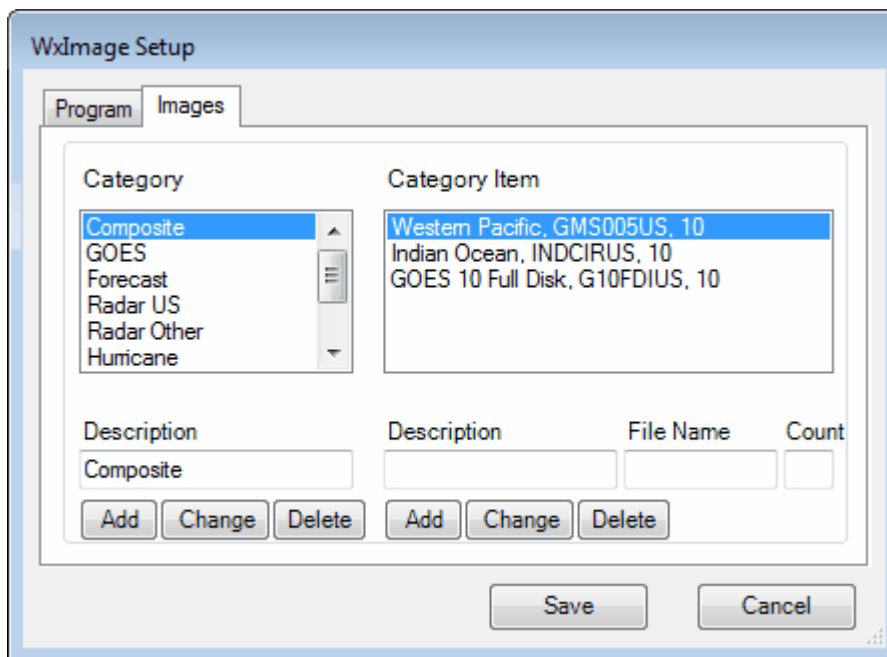
The **Auto Animate** option, when checked, will make the program automatically start image animation when an image is selected.

The **Default Zoom** field allows you to specify the zoom factor that is used when the image viewer is initially loaded.

**Note:** *If you are running the Message Client on the same computer as Weather Message Server, the graphic products will be stored in two different directories. One directory is used for the Server and another for the Message Client. You can eliminate the double storage on the server by disabling the "Receive Graphics" option on the message client. Then change the graphic directory path on the Image Viewer to the Servers graphic directory. This should not be an issue for most users, unless disk space is limited.*

## 10.6.2 Images Tab

The Images Tab is used to



To add a category, enter the category description and click Add. To change a category, click on the category, make any changes and click on Change. To delete a category, click on the category and press the keyboard delete key or click on the Delete button.

To add a category item, first select the category. Enter the category item description, file name and count (images to animate), then click Add. To change a category item, first select the category, then the category item. Make any changes and click on Change. To delete a category item, first select the category, then the category item and press the keyboard delete key or click on the Delete button.

**Note:** The program will not allow you to enter a duplicate file name.

**Part**

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**XI**

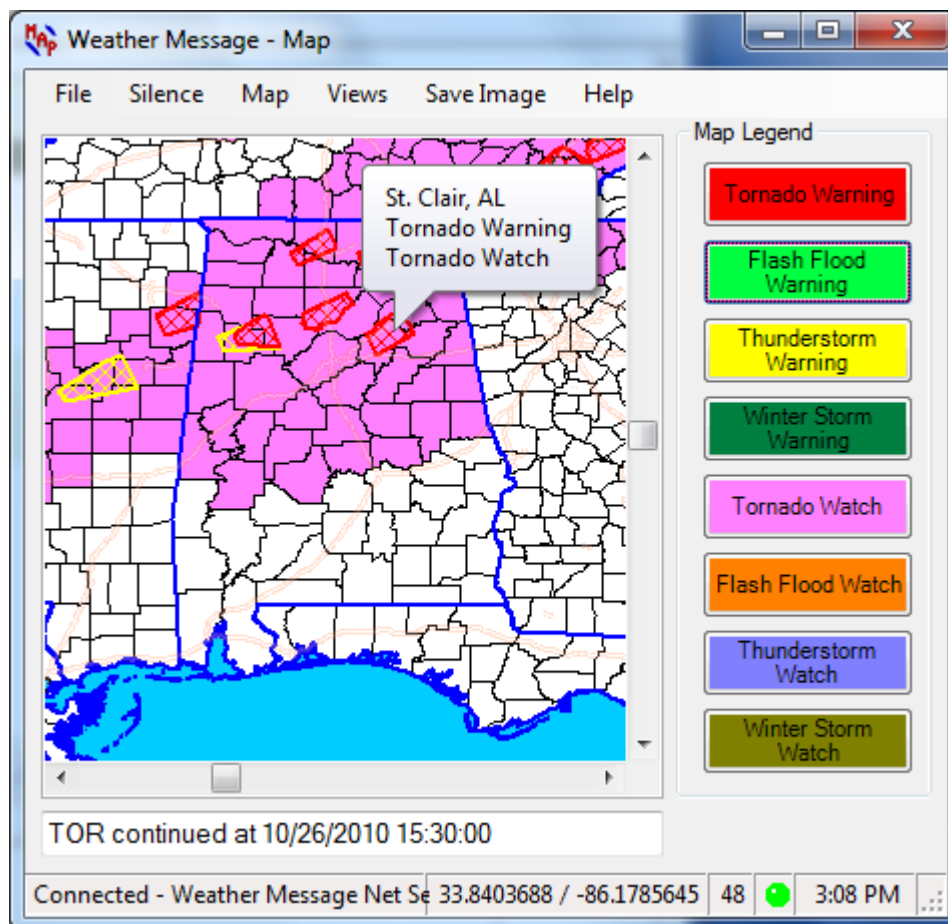
## 11 WxMap Client

### 11.1 Overview

The Weather Message Mapping application, WxMap, is used to visually plot received weather products from Weather Message Server on a graphical map. WxMap uses GIS technology to allow you to view any part of the United States map and its possessions. WxMap can be installed on any computer attached to a TCP/IP network. Based on your alarms and settings, WxMap can pop up a window, play different sounds, and read the alarm using text-to-speech.

WxMap should be automatically started when your computer is started. WxMap runs from the system tray.

The map included with the default installation does not show interstate roads, forecast zones or marine zones. To add these optional map layers, [download](#) and install the optional map layers from your CD or the Weather Message downloads page.




**Hint:** If the Password for Setup/Exit option has been enabled, this program cannot be terminated with the X button, without a password. This feature insures that the user does not accidentally stop weather alerts.

**Hint:** If the system tray icon is outlined with a red circle or a red led appears in the [status](#)

[bar<sup>\[123\]</sup>](#), the program is not communicating with the Weather Message Server.

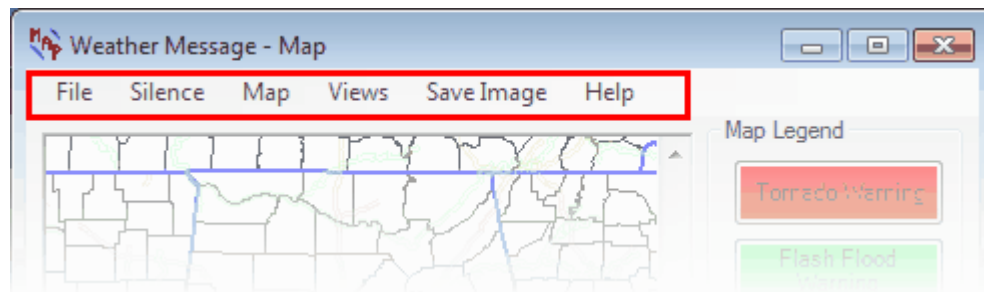
**Note:** If WxMap is stopped with the window minimized, the next time it is started, it will start minimized.

## System Tray

When WxMap is minimized, you can restore the main screen by right clicking on the system tray icon , then select open.

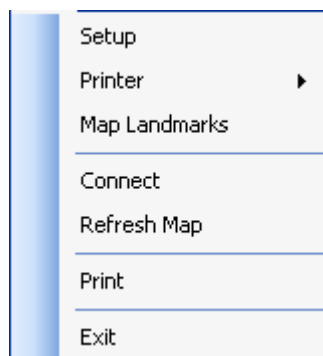
Copyright © 2011 Weather Message Software

## 11.2 Menu Options



The menu buttons on this screen perform these functions:

The **File** menu allows you to setup this program, show details, view logfiles, and exit the program.



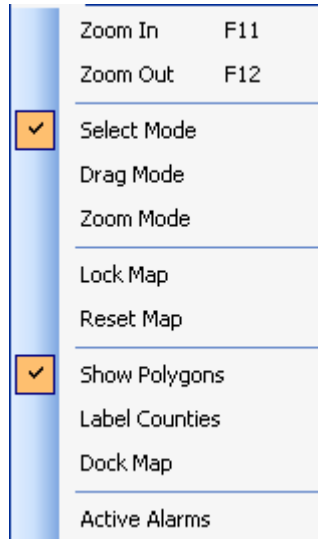
- The **Setup** option opens the [Setup Window<sup>\[128\]</sup>](#).
- The **Printer** option selects the default printer and font size.
- The **Map Landmarks** option opens the Landmarks Window.
- The **Connect** option forces the application to attempt a connection to the server.
- The **Refresh Map** option clears the map of any active alarms and sends a refresh request to Weather Message Server.

- The **Print** option prints an image of the map window.
- The **Exit** option shuts down the Message Client.

**Note:** If you enable the Password for Setup/Exit, you will have to enter the a password to access the setup screen or exit the program.

The **Silence** menu option allows you to stop a sound that is playing.

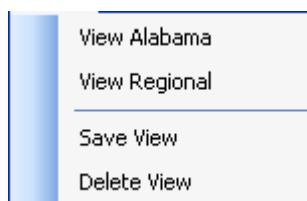
The **Map** menu allows you to make adjustments to the displayed map and see the active alarms.



- The **Zoom In** option or F11 function key zooms in the map.
- The **Zoom Out** option or F12 function key zooms out the map.
- The **Label Counties** option, when checked will label each county with their name. The program attempts to fit the county name inside the county boundary. If this is not possible, the county name is not displayed. Zooming in and out will effect whether a county name is displayed.
- The **Select Mode** is the default mode. This mode allows you to click on counties to see active weather products.
- The **Drag Mode** changes the cursor to a hand and allows you to drag the map.
- The **Zoom Mode** changes the cursor to a hand with a pointing finger. This allows you to draw a box around an area and zoom in the drawn area.
- The **Lock Map** option, when checked, locks the map. When locked, the map cannot be zoomed, or moved.
- The **Reset Map** option, resizes the map showing all of the United States.
- The **Show Polygons** option, when checked will display [polygons](#) for messages that include the effected area.
- The **Label Counties** option, when checked will display names for the counties. See the [Map Base Tab](#)<sup>[163]</sup> for additional settings for labels.
- The **Active Alarms** option displays the [Active Alarms](#)<sup>[155]</sup> window.

**Note:** If you are in the drag or zoom mode, you will not be able to click on a county to see the county's information.

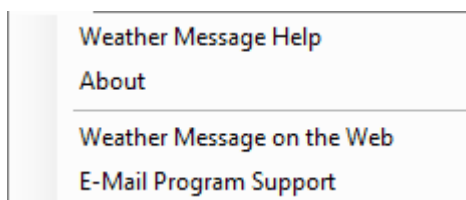
The Views menu allows you to quickly change and save the map view to one of ten user defined areas.



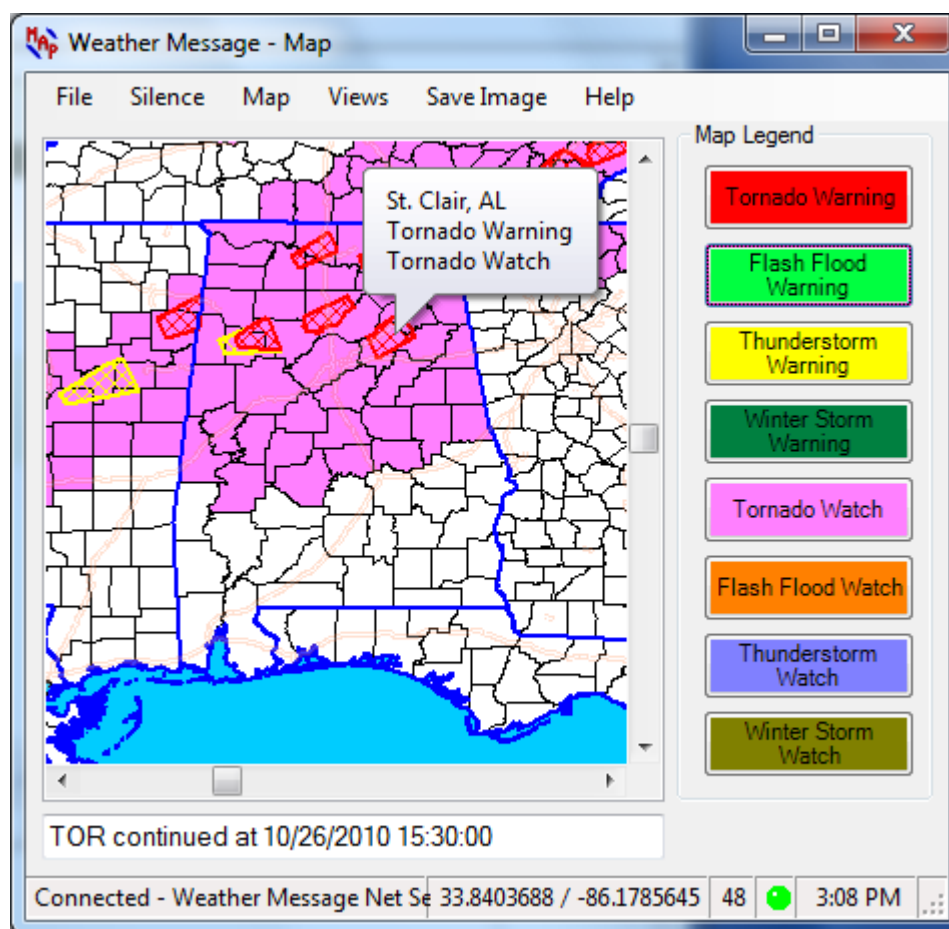
- See [Views](#)<sup>[155]</sup>.

The **Save Image** option saves the current map image to ..\WxMesgNet\MapImage.jpg.

The **Help** menu allows you to see this manual, and display information about the program.



## 11.3 Main Window



You can click in the map legend, on any of the weather type buttons, to see a list of active warnings or watches for that weather type. You can also identify a county's name and current alarms by moving the mouse pointer over the county and pausing. After a short pause, the county name and state will appear, along with a list of active alarms.

Left Click once on a county and a window will be displayed showing the [actual weather text](#)<sup>[152]</sup> that caused the alarm. If more than one alarm is active, you will see each message associated with the active alarms.

**Note:** Received warnings and watches color the map based on the map legend priority. The first item in the legend, Tornado Warning, has the highest priority. To change the priority, see the Setup section.

**Note:** In order for weather products to be displayed on the map, they must be setup in Weather Message server. WxMap recognizes these products: TOR, FFW, SVR, WSW, WOU and FFA. Other products can be sent to WxMap and associated with a color, see the setup section for more information.

To assist you with identifying counties that have been recently placed under a watch or warning, the application will draw a highlighted line around the county. This line will remain for 5 minutes. When there are many counties under watches or warnings, you will be able to easily see which



ones were just placed under a watch or warning.

The application will also draw a dark blue line around counties that have alarms which are about to expire. Five minutes before the alarm is to expire, the program will outline the county. This will assist you with identifying counties that have alarms about to expire.

### Status Line



The status line displays the operational status of the program and map information. The first status area displays the name of the Weather Message server that is providing data.

The status area, when present, displays the latitude and longitude of the mouse pointer, when moved through the map. The latitude and longitude status can be enabled and disabled in [Setup](#)<sup>[106]</sup>.

The latitude/longitude status is followed by the map zoom factor. The number that appears in this status box is the relative zoom level of the map. Zooming in increases this number. Zooming out decreases this number.

A green LED indicates that the program is connected to a Weather Message Server. A yellow LED indicates that the program is attempting to connect to a server. A red LED indicates that the program is not connected to a server.

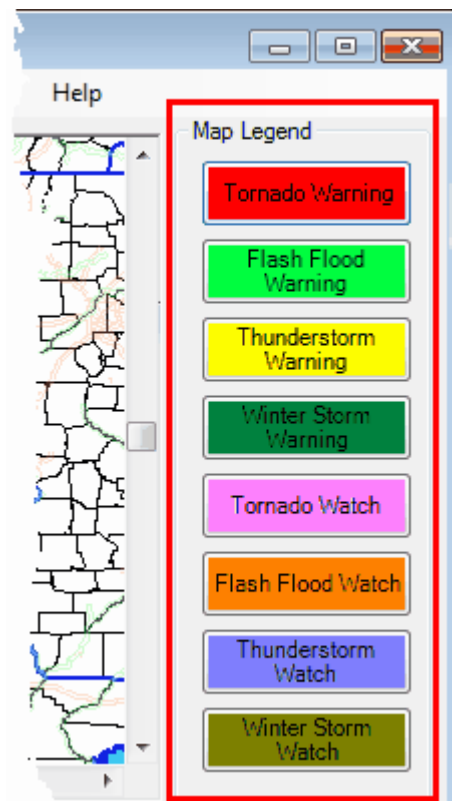
The current time is displayed in the last status box.

### Special Keys

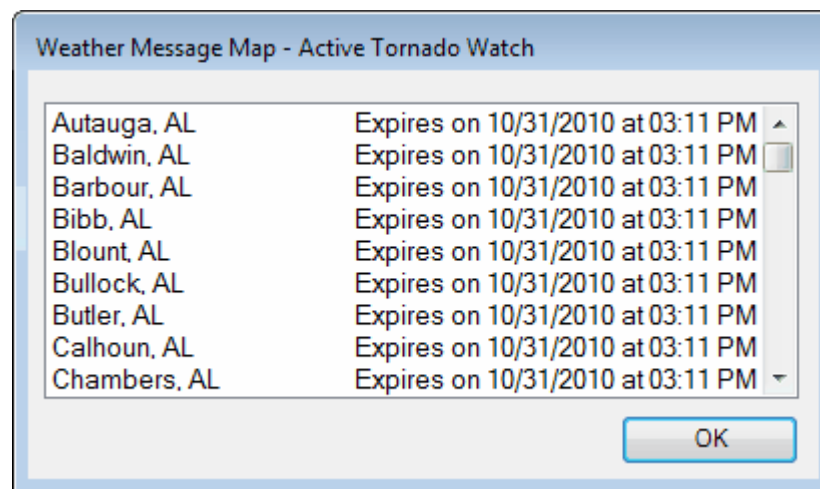
Pressing control-s while the main window has focus causes the program to save the map image using the information setup for [saving images](#)<sup>[165]</sup>.

## 11.4 Map Legend

The Map Legend buttons allow you to quickly get a list of counties included in a specific weather type.



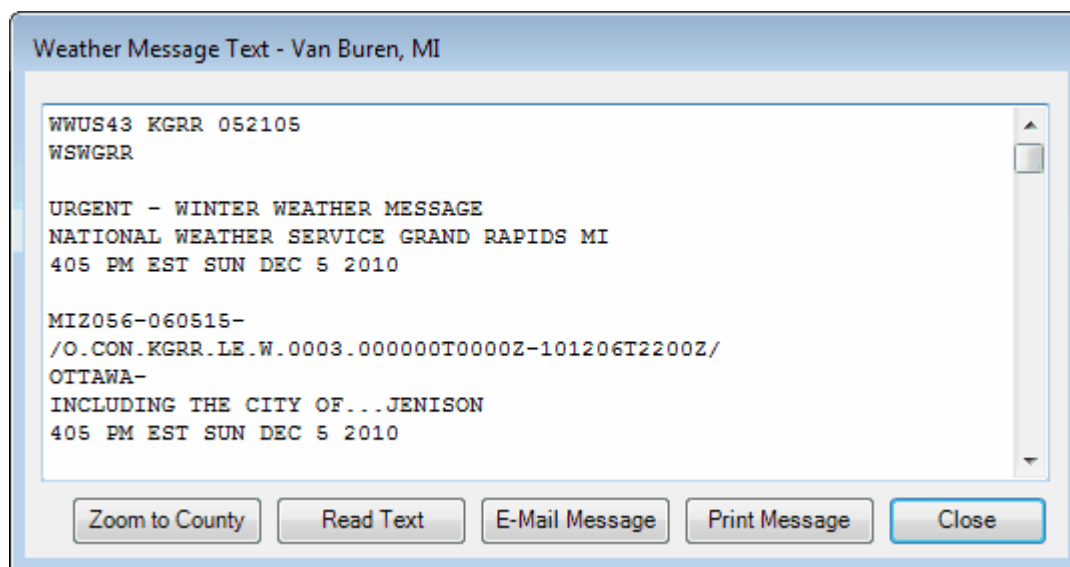
Click on one of the weather type buttons to see the active counties.



This window displays the county name and state, along with the expiration date and time. Click on a county name to read the weather text associated with the county.

## 11.5 County Information

Left clicking on a county displays a window showing the messages associated with the current alarms.



**Hint:** The text displayed is automatically copied to the windows clipboard.

The **Zoom to County** button will reposition the map to show the county associated with the text. The button's text will change to **Restore Zoom**. Clicking the **Restore Zoom** button will restore the original map view.

The **Read Text** button will read the displayed message using Windows text-to-speech processor. When the text-to-speech processor starts, the button will change to **Cancel Reading**. Clicking **Cancel Reading** will stop the text-to-speech processor. See [Text to Speech](#)<sup>[135]</sup> for more details.

The **E-Mail Message** button opens your email application and inserts the message text in the body of the message.

The **Print Message** button prints the message text to your default printer.

The **Close** button closes this window.

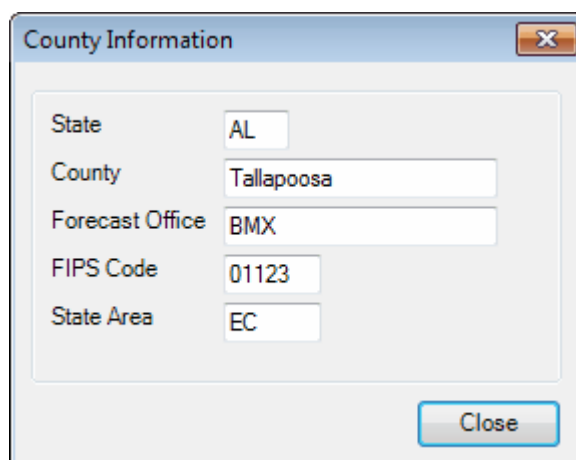
Right clicking in the text window displays the following menu options that allow you to copy, paste, print and speak selected text.

Undo	Ctrl+Z
Cut	Ctrl+X
Copy	Ctrl+C
Paste	Ctrl+V
Delete	Del
Print	Ctrl+P
Speak	Ctrl+S

Right Clicking on a county displays this menu.

Show County Information  
Show Notes  
Label County Toggle On/Off

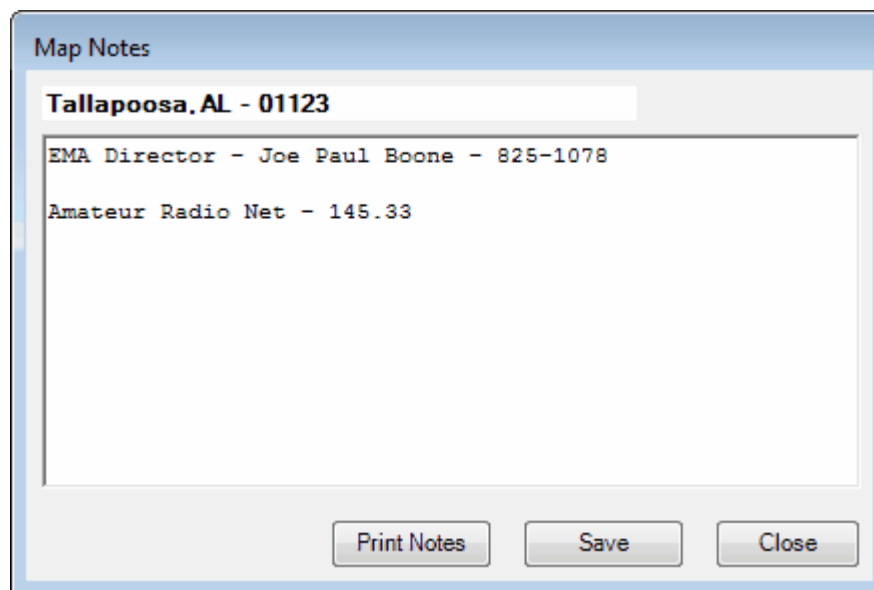
Select **Show County Information** to display National Weather Service information about the county.



A dialog box titled "County Information" with a close button (X) in the top right corner. It contains five text input fields: "State" with "AL", "County" with "Tallapoosa", "Forecast Office" with "BMX", "FIPS Code" with "01123", and "State Area" with "EC". A "Close" button is located at the bottom right.

**Hint:** This screen can help you identify the Forecast Office assigned to your county.

The **Show Notes** option opens a window that allow you to record information about that county.



A dialog box titled "Map Notes" with a close button (X) in the top right corner. It features a text area with the title "Tallapoosa, AL - 01123" and the following text: "EMA Director - Joe Paul Boone - 825-1078" and "Amateur Radio Net - 145.33". At the bottom, there are three buttons: "Print Notes", "Save", and "Close".

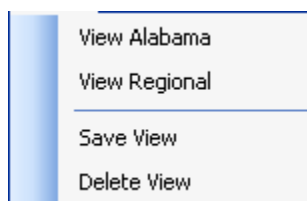
The **Print Notes** button prints the displayed notes to your default printer. Click **Save** to save any changes and **Close** to close this window.

**Note:** The notes for each county are stored in the `..WxMesgNet\MapNotes` directory. They are stored as rich text (RTF) files and can be edited with any RTF editor. Fonts and colors can be included when using an external editor.

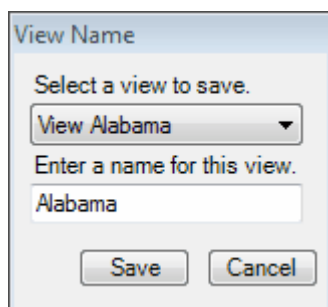
The **Label County Toggle On/Off**, when On for a county, causes the county's name to be displayed on the map.

## 11.6 Views

The Views Menu option allows you to preset different map views. This capability allows you to establish ten different views to quickly reposition the map to the defined areas.

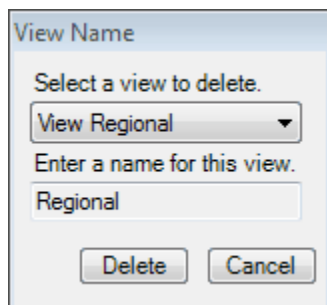


To preset one of the four views, position the map for the area to be included in the view. Click on the Save View menu option. You will be prompted to select one of the ten view and to enter a name for this view.



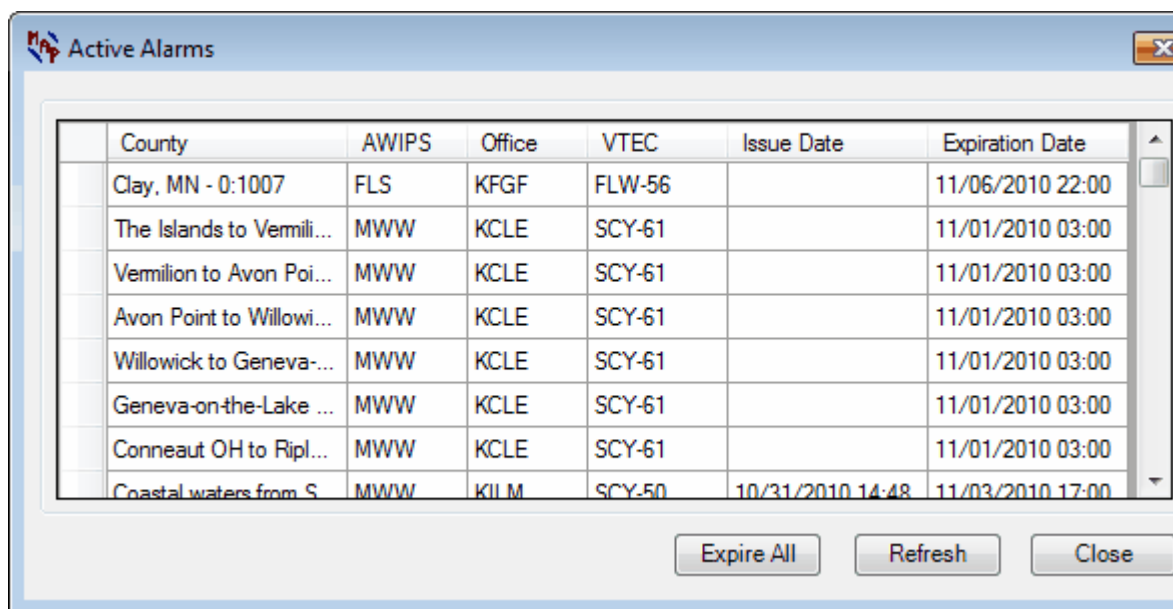
The name you entered will now be displayed in the View menu.

To delete a view, click on the Delete View menu option. You will be prompted to select a view to delete.



## 11.7 Active Alarms

The Active Alarms Menu option allows you to view the current alarms.



County	AWIPS	Office	VTEC	Issue Date	Expiration Date
Clay, MN - 0:1007	FLS	KFGF	FLW-56		11/06/2010 22:00
The Islands to Vermilion	MWW	KCLE	SCY-61		11/01/2010 03:00
Vermilion to Avon Point	MWW	KCLE	SCY-61		11/01/2010 03:00
Avon Point to Willowick	MWW	KCLE	SCY-61		11/01/2010 03:00
Willowick to Geneva-on-the-Lake	MWW	KCLE	SCY-61		11/01/2010 03:00
Geneva-on-the-Lake to Ripley	MWW	KCLE	SCY-61		11/01/2010 03:00
Conneaut OH to Ripley	MWW	KCLE	SCY-61		11/01/2010 03:00
Coastal waters from S	MWW	KIL M	SCY-50	10/31/2010 14:48	11/03/2010 17:00

The alarm grid display information about each active alarm. The columns and rows can be expanded to show hidden information. The columns and rows can be extended by clicking a row or column line and dragging the line. You can also sort the information by clicking on the column identifier.

Right click an entry to expire a product or click the **Expire All** button to expire all active alarms.

The **Refresh** button will refresh the alarm grid.

**Note:** The alarm grid will automatically refresh every 30 seconds.

## 11.8 Setup

### 11.8.1 Server Tab

The Server Tab is used to define the communication settings for your Weather Message Server.

The screenshot shows a Windows-style dialog box titled "Weather Message Map - Setup". At the top, there are two buttons: "Save Map Options" and "Save Legend Options". Below these are several tabs: "Server", "Settings", "Alarms", "Product Colors", "Other Colors", "Map Base", and "Map Layers". The "Settings" tab is currently selected. Inside the "Settings" tab, there is a section titled "Weather Message Server". This section contains five fields: "Host TCP/IP Address" (a text box), "Host TCP/IP Port" (a text box containing "9501"), "Backup Address" (a text box), "Backup Port" (a text box containing "9501"), and "Client Identifier" (a dropdown menu showing "1"). At the bottom right of the dialog box are two buttons: "Save" and "Cancel".

The **Host TCP/IP Address** is the address of the Weather Message Server. Enter the address of your primary server in this field.

**Note:** When the Host TCP/IP Address field is left blank, WxMap will try to discover the address and port of the Weather Message Server. If your server is on the same local network as the client, it will automatically obtain the address and port. If the client is running on a different network, you will need to enter the address and port of the server.

The **Host TCP/IP Port** is the port defined by Weather Message Server for connections. The default is 9501.

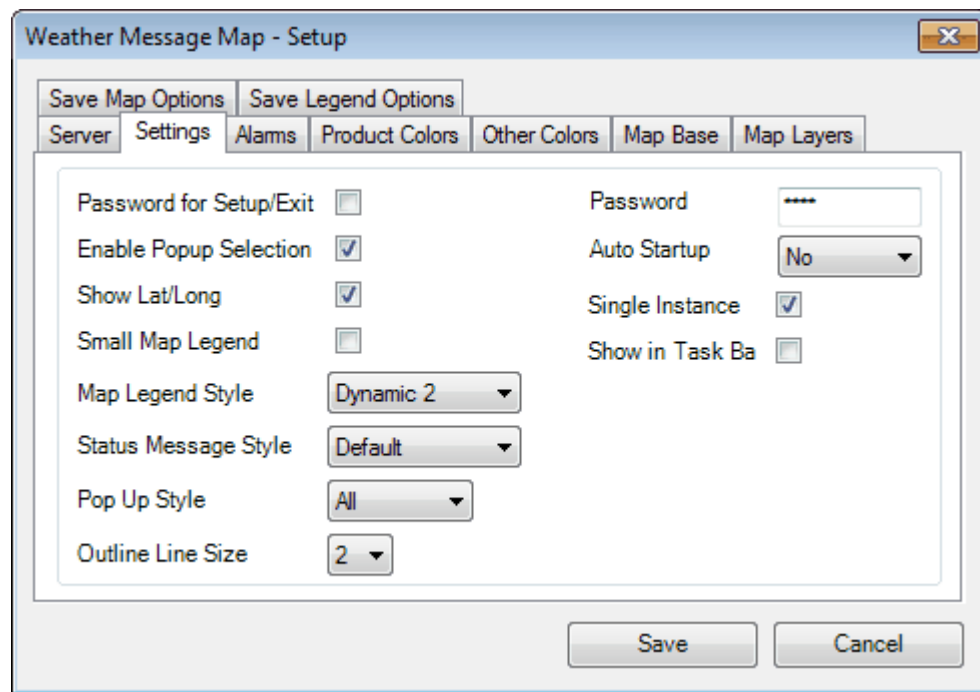
The **Backup Address** is the TCP/IP address of your backup Weather Message Server. Do not enter an address in this field if you do not have a backup Weather Message Server. This address is used when the program cannot contact your primary Weather Message Server.

The **Backup Port** is the port defined for use by the backup Weather Message Server. The default is 9501.

The **Client Identifier** field allows you to assign each Message or Map Client a different identification number. This identifier can be used to send a specific alarm to a specific client or group of clients.

## 11.8.2 Settings Tab

The Settings Tab is used to set operational information for WxMap.



The **Password for Setup/Exit** option allows you to require a password to access the Setup menu or exit the program.

The **Enable Popup Selection**, when checked, will give the user the capability to enable or disable the applications popup operation. The Enable/Disable option will appear on the system tray menu.

The **Show Lat/Long**, when checked, displays the latitude and longitude for the mouse cursor in the status bar.

The **Small Map Legend**, when checked, will reduce the size of the buttons that appear in the map legend.

The **Map Legend Style** determines the style of the map legend. Static displays all products in the legend that have the Include In Legend option checked. Dynamic 1 only displays active products in the legend that have the Include In Legend option checked. Dynamic 2 displays all active products in the legend.

The **Status Message Style** allows you to select the color scheme used for the status message box. The status message shows new alarms as they are received. You can select whether to show these messages in the color of the type of alarm that is being received. Messages not related to arriving alarms are displayed with a white background and black text. The Status Message Style can be set to Default – background is white, text is black; Map Color – background is text color, text is map color; or Text Color – background is map color, text is text color.

The **Pop Up Style** allows you to determine how WxMap window reacts to arriving alarms. The settings are All, All On Top, Alarms and Never. The All setting causes WxMap to popup the main window if it is minimized. The All On Top setting causes WxMap to popup the main window if it is minimized and makes the WxMap window the window that appears on top of all other open windows. If you use this option, any alarm will cause WxMap to appear on top of all other running programs and be the active program. The Alarms setting uses the popup and on top



option on the Alarm tab to determine when the main window should be displayed. The Never setting causes WxMap to not popup a minimized window when an alarm arrives.

The **Outline Line Size** field specifies the size of the line used to outline counties that have newly issued products or expiring products.

The **Password** field allows you to set the password that will be used for the Password for Setup/Exit option.

The **Auto Startup** option allows you to specify whether WxMap is automatically started when Windows starts. The options are No; Yes, for the current user; and Everyone, for any user.

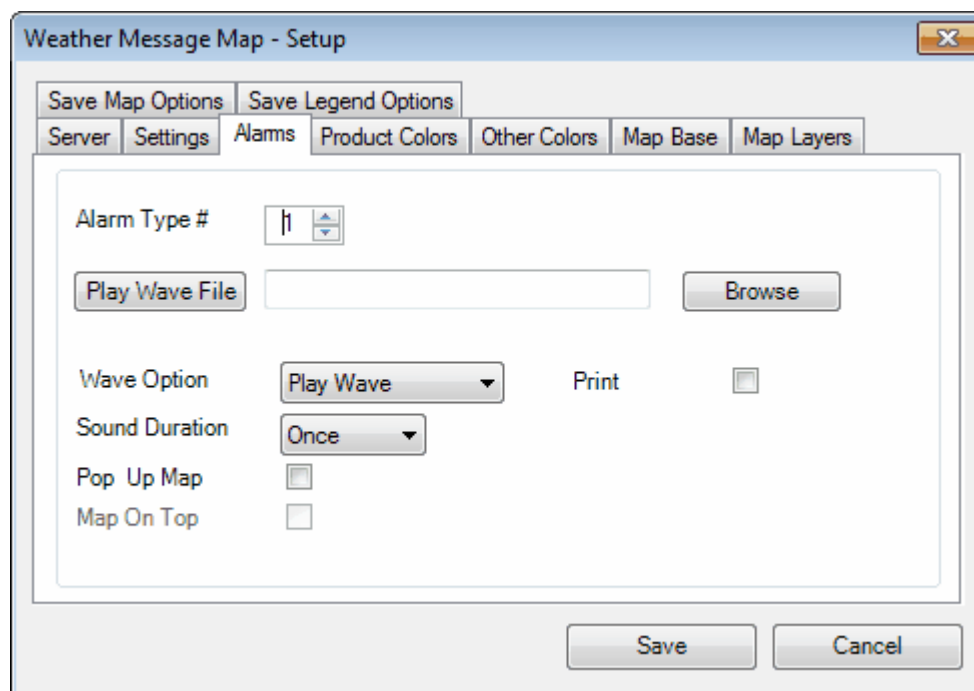
**Note:** The options available for **Auto Startup** are based on your user permissions. Administrator and Power users will have all of the options. Other users may only have the Yes option.

The **Single Instance** option, when checked, will only allow one copy of the Map to start.

The **Show in Task Bar** option, when checked, will move the program from the system tray to the task bar.

### 11.8.3 Alarms Tab

The Alarms Tab is used to set sounds, colors, print and popup options for 40 alarm types.



The Weather Message Server Setup program allows you to associate an **Alarm Type** for each alarm that is sent to the Message Client. This **Alarm Type** causes WxMap to play a wave file and pop-up a minimized screen, based on your settings.

**Note:** The Message Client and WxMap use the same alarm type.

WxMap supports up to 40 different alarm types. To select a specific alarm type, click on the up or down buttons adjacent to the Type # field. Click on the **Browse** button to select a wave file. Each wave file can be played, **Once**, for **1 minute**, or **Continuous**. To hear the sound associated with the alarm, click the **Play Wave File** button. Alarms can be silenced, by clicking on the Silence button. The number of the alarm to be played is determined when the Alarm is established in Weather Message Server Setup.

The **Wave Option** controls how WxMap plays sounds for matching alarms. For standard wave files select **Play Wave**; to play sounds based on product identifier select **AWIPS to Wave**; to announce the product using text-to-speech select **Read Short**; and to read the received message using text-to-speech select the **Read Text** option.

**Note:** *The text to speech options work on Windows XP and later operating systems.*

The **Product to Wave** option is used when you want a specific sound to be played based on the product identifier. When using this option, you will create a wave file that has the same name as the product identifier. This wave file should be saved in the "Sounds" directory located in the WxMesgNet directory.

When this option is enabled, the program will look for a wave file in the "Sounds" directory that is named like the product being received. It will first look for the complete 6 character product identifier and play that file. If the 6 character product identifier is not found, it will look for a file with the first 3 characters of the product identifier and play that file. If neither are found, it will play the default wave file associated with this alarm.

Here are some examples of using the Product to Wave option. The following files are stored in the "Sounds" directory; "TORBHM.wav", "TOR.wav". With the Product to Wave enabled for Alarm Type 1, the program will look at each received product associated with Alarm Type 1. If the incoming message contains the product identifier "TORBHM", the program will play the file "TORBHM.wav". If it receives "TORHUN", it will play the file "TOR.wav" since it cannot locate a file labeled "TORHUN.wav".

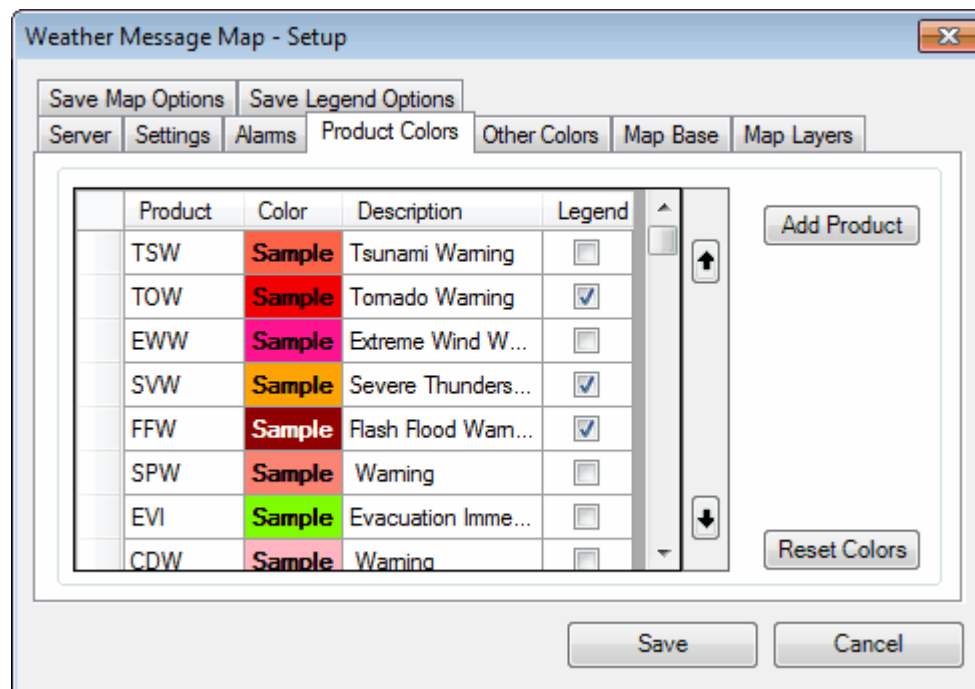
The **Read Short** option will announce the received product using text-to-speech. The software will attempt to create a short message describing the received product. The short message will generally include the product type, counties effected and the expiration time. See [Text to Speech](#)<sup>[135]</sup> for more details.

The **Read Text** option will read the text of the received message using text-to-speech.

The **Pop Up Map** option specifies whether WxMap pops up a minimized window when this alarm arrives. The **Map On Top** setting can be used to make the WxMap window the window that appears on top of all other windows. If you use this option, an alarm will cause WxMap to appear on top of all other running programs.

## 11.8.4 Product Colors Tab

The Product Colors Tab is used to establish colors for products listed in the map and map legend.



The Product column contains a two letter VTEC phenomena followed by a one-letter significance or the first three letters of the AWIPS identifier to be colored. To add a new VTEC code or product identifier, click the **Add Product** button (see [Product Setup](#)<sup>[161]</sup>) or scroll down to a blank cell and click in the cell.

If manually entering a product, enter the product identifier and press enter. Then right click in the color column to change the foreground (text) color or left click to change the background color. Check the box in the Legend column to have this product displayed in the map legend.

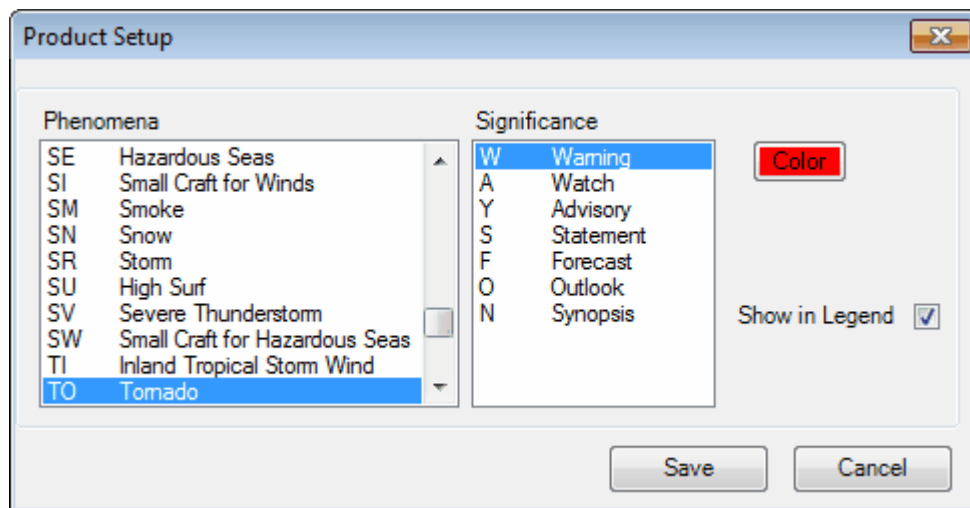
The order of products in this list controls the priority. Items at the top of the list have a higher priority than products at the bottom of the list. To change the order, select a product and use the up and down arrows to the right of the legend column or grid scroll bars.

To change or delete a product select the row and right click. Select the Change or Delete option. You can also manually change the items by selecting the row and typing directly in the grid.

The **Reset Colors** button will delete all of the existing product colors and load default colors based on the NWS web based warning map.

#### 11.8.4.1 Product Setup

The Product Setup window allows you to easily add or change a product.



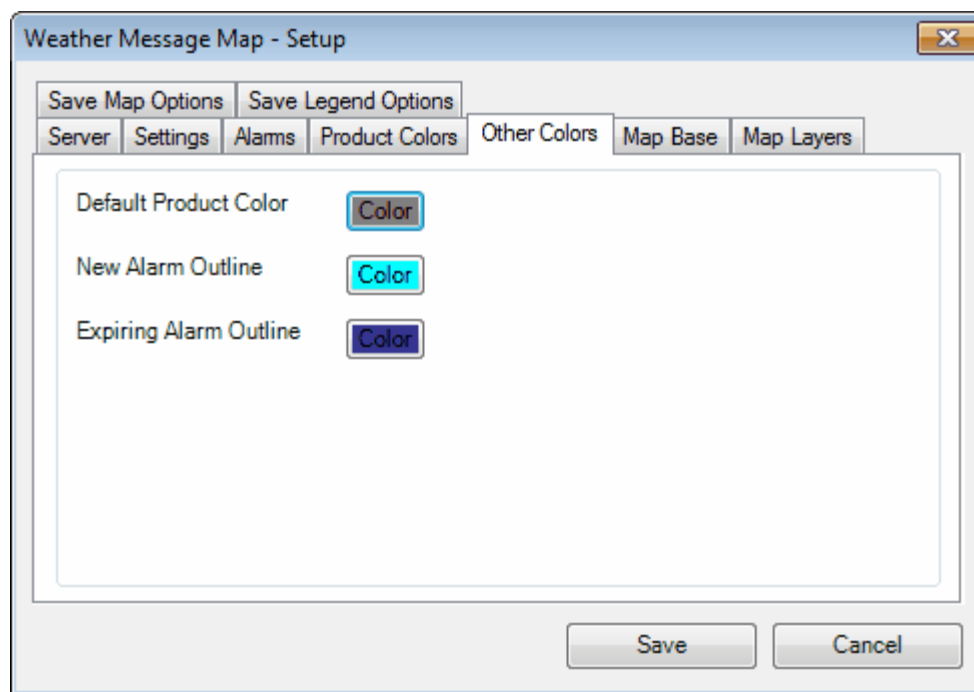
Select the **Phenomena** and **Significance** associated with the product.

To change a background color, left click on the **Color** button. To change the text color, right click on the **Color** button.

Check the **Show in Legend** box to display this product in the map legend.

### 11.8.5 Other Colors Tab

The Other Colors Tab is used to set miscellaneous colors.



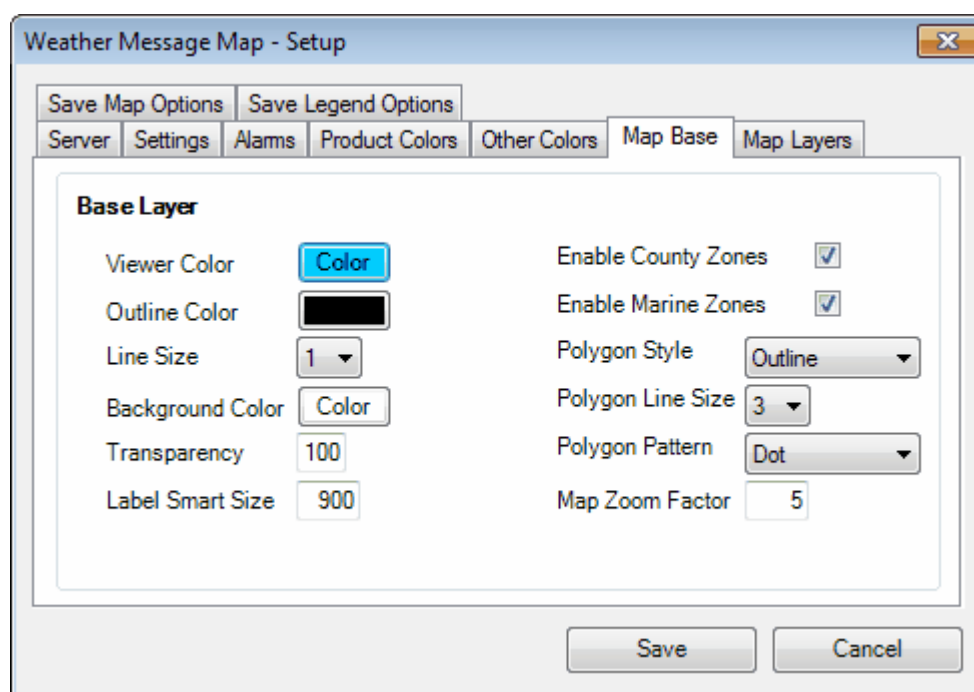
Products sent to WxMap, with no associated color, will be colored in the Default Product Color. To change the background color of the default product, left click on the Color button. To change the text color, right click on the Color button.

The New Alarm Outline color specifies the border color for new products. Click on the Color button to change this color.

The Expiring Alarm Outline color specifies the border color for expiring products. Click on the Color button to change this color.

### 11.8.6 Map Base Tab

The Map Base Tab is used to set colors and options for the base map.



The **Viewer Color** button allows you to change the color of the areas outside of the map. This is normally the color of the oceans.

The **Outline Color** button allows you to change the outline color of the counties.

The **Line Size** field specifies the size of the line used to draw the county outline.

The **Background Color** button allows you to change the background of the counties.

The **Transparency** field allows you to control how the layer is painted over the viewer. One hundred ("100") is a completely transparent background, while zero ("0") is no transparent background.

The **Label Smart Size** value is used with the Label Counties option. This value sets the minimum size of a county before the county name label is displayed.

Check the **Enable County Zones** option to enable the county zone layer. This layer is optional, see the [optional map layer note](#)<sup>[163]</sup>.

Check the **Enable Marine Zones** option to enable the marine zone layer. This layer is optional, see the [optional map layer note](#)<sup>[163]</sup>.

The **Polygon Style** selects the style used to draw polygon lines. The options are Pattern, Area and Outline. The Pattern option draws an outline using a pattern based on the color of the alarm. The Area option draws an outline around the polygon and paints it the color of the alarm. The Outline option draws a single outline based on the color of the alarm. The Outline option does not paint the county.

The **Polygon Line Size** field specifies the size of the line used to draw the polygon outline.

The **Polygon Pattern** selects the pattern that is used to fill a polygon set to style Outline. The options are blank, Dot, Cross, Diagonal Cross, Left slanting Diagonal, Right slanting Diagonal, Horizontal, Vertical, and Fill. The Dot pattern draws small dots that same color of the alarm. The Cross, Diagonal Cross, Left Diagonal, Right Diagonal, Horizontal and Vertical patterns draw fill lines based on the pattern selected. The Fill option completely fills the interior of the polygon.

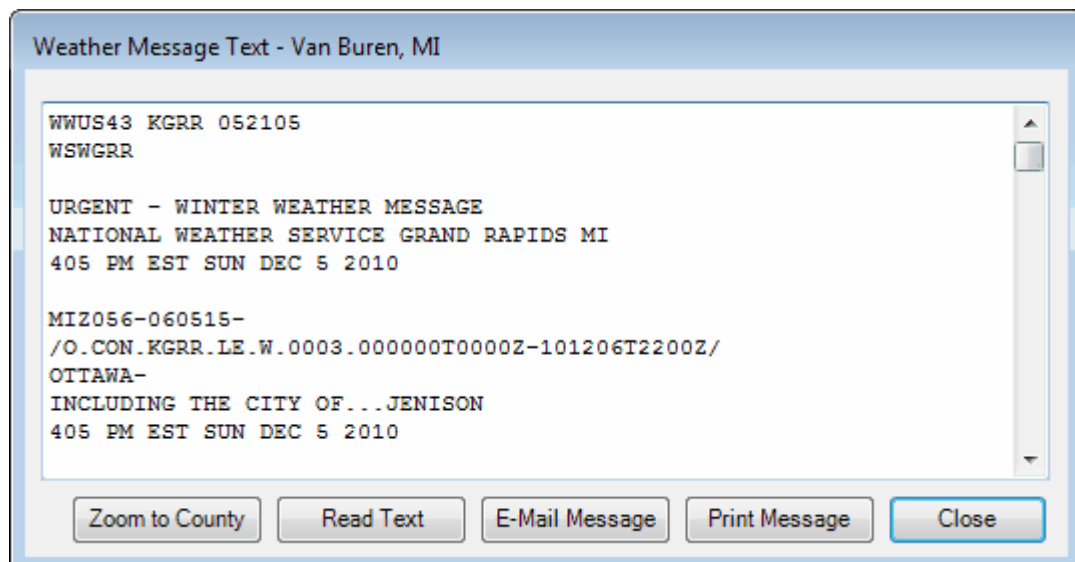
**Hint:** If you change the Polygon Style, Polygon Line Size, or Polygon Pattern, any existing polygons are not redrawn. To redraw existing polygons, refresh the map.

The **Map Zoom Factor** sets the step rate in which the map zooms in an out. Default value is (5) five. The larger the number the faster the map will zoom in and out. The current zoom level is displayed in the [Status Line](#)<sup>[123]</sup>.

**Optional Map Layer Note:** The map included with the default installation does not include the map layers for interstate roads, forecast zones or marine zones. To add these optional map layers, [download](#) and install the optional map layers from your CD or the Weather Message downloads page.

### 11.8.7 Map Layers Tab

The Map Layers Tab is used to setup additional map layers.



The default installation includes the state map layer. This layer is used to outline the states. The Weather Message website has an optional map layer [download](#) that contains interstate forecast zones, marine zones, roads and rivers.

**Hint:** User provided shape layers would be setup here.

The **File Name** field contains the name of the map layer.

The **Line Size** field specifies the size of the lines in the layer.

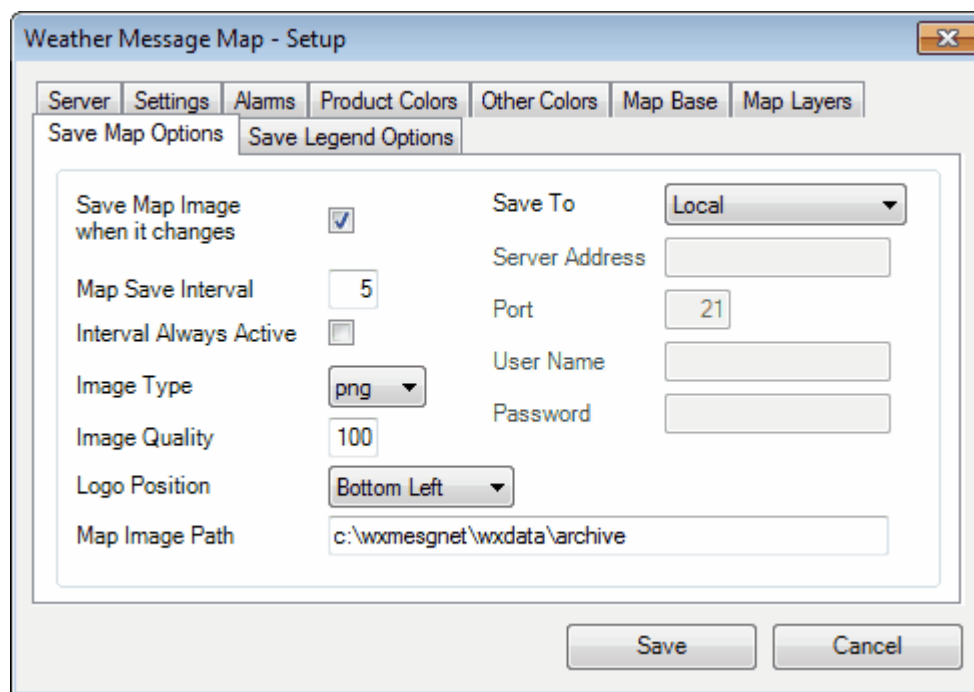
The **Line Color** button allows you to select the color for the layer lines.

The **Transparency** field allows you to control how the layer is painted over the county map layer. One hundred ("100") is a completely transparent background, while zero ("0") is no transparent background.

**Hint:** The optional map layers must be located in the `..\WxMesgNet\Maps` directory.

### 11.8.8 Save Map Options Tab

The Save Map Options Tab is used to set options for saving the map image to a local directory or website.



The **Save Map Image** option will instruct the program to save an image of the map each time it changes. This option can be used with the **Map Save Interval** to continuously save the map image when there are active watch/warnings.

The **Map Save Interval** field sets the amount of time in minutes that the program will automatically save the map image when the **Save Map Image** option or **Interval Always Active** option is enabled. If the interval is set to zero, the image will only be saved when the map changes if the **Save Map Image** option is enabled.

The **Interval Always Active** instructs the program to save the map image, at the specified interval, even if there are no active watch/warnings. When this option is unchecked, the program will only save the map image if the **Save Map Image** option is enabled.

The **Image Type** field allows you to select the format of the saved image. Select JPG, PNG, BMP or TIF.

The **Image Quality** field allows you to specify the quality of the saved image. For JPG images, zero ("0") represents the lowest quality, while one hundred ("100") represents the highest quality. For PNG images, zero ("0") represents no compression, while one hundred ("100") represents full compression. You can enter a number in the range of zero to one hundred.

The **Logo Position** option allows you to add a user defined logo to the saved map image. The combo box allows you to enable logo insertion by selecting the position for the logo on the map image. The logo should be saved in c:\Program Files\WxMesgNet directory with the file name WxMapLogo.png.

The **Map Image Path**, for a locally saved image, is the local directory where the map image should be stored. The program will automatically add the name, "MapImage.xxx", when it saves the image. For FTP and HTTP, the Map Image Path should be the full path including the name of the map image.

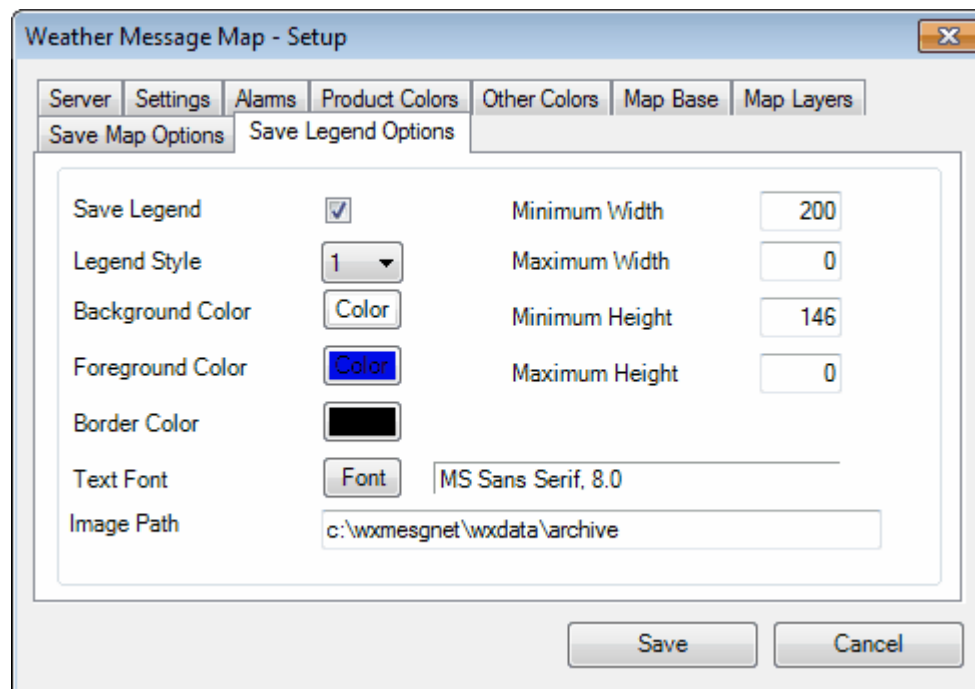
Select the **Save To** type, Local, FTP, FTPS, SFTP with Password, SFTP with Certificate or HTTP. If one of the FTP options or HTTP is selected, the program will allow you to enter information about your FTP or HTTP server. Enter the FTP **Server address**, **Port** number, **User Name** and **Password**. These settings will be used to log into your server.

**Note:** When using the SFTP with Certificate option, you should enter your private key password in the password field. Your private certificate must be saved in c:\Program Files\WxMesgNet\SSHKeys directory. The file should be named as follows: server name plus underscore character plus user name with the extension .pem. For example wxmesg.com\_danny.pem.

### 11.8.9 Save Legend Options Tab

The Save Legend Options Tab is used to set options for saving the map legend to a directory or website.





The Save Legend Options can be used in conjunction with [Save Map Options](#)<sup>[165]</sup> to save the map legend to a directory or website. The Save Map Options must be enabled before the Save Legend Options will be honored.

The **Save Legend** option, when checked, will instruct the program to save the map legend.

The **Legend Style** option selects the legend style. Option 1 draws solid legend markers. Option 2 draws outlined legend markers for polygon products.

The **Background Color** selection specifies the color for the map legend background.

The **Foreground Color** selection specifies the color for the text printed in the map legend.

The **Border Color** selection specifies the color for the border drawn around the individual legend items and the map legend.

The **Font** button allows you to select different fonts and font sizes for the legend text.

The **Map Image Path**, for a locally saved image, is the local directory where the map image should be stored. The application will automatically add the name, "MapLegend.xxx", when it saves the image. For FTP and HTTP, the Map Image Path should be the full path including the name of the map legend image.

The **Minimum Width** specifies the minimum width, in pixels, of the map legend. The **Maximum Width** specifies the maximum width, in pixels, of the map legend. A maximum width of 0 (zero) indicates no width limit.

The **Minimum Height** specifies the minimum height, in pixels, of the map legend. The **Maximum Height** specifies the maximum height, in pixels, of the map legend. A maximum height of 0 (zero) indicates no height limit.

## 11.9 Text to Speech

The Message Client now has limited support for text-to-speech using Microsoft's text-to-speech processor on Windows XP and later operating systems. The Sam voice that is installed with Microsoft XP is very poor. Windows Vista's Anna voice is more natural.

Microsoft released two additional voices for Windows XP that are better than the default voice. You can download them from this link <http://www.text-speech.com/voices/Sp5TTIntXP.msi>. After they are installed, you will find Mike and Mary available in the speech control panel. These two are much better than the default SAM voice.

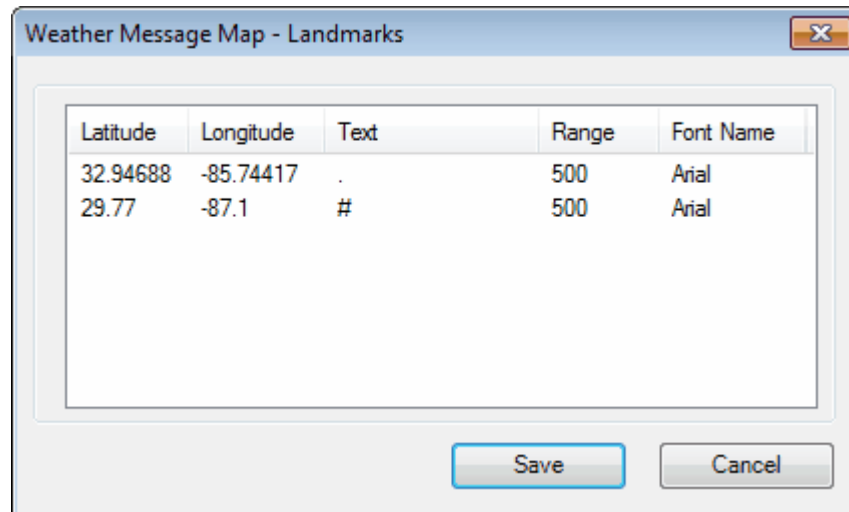
The voice used by the Message Client is the default one selected in the speech control panel. Using the speech control panel, you can change the voice and set the speaking speed.

There are several commercial TTS (text to speech) engine providers. Cepstral has good voices. You can demo them at <http://www.cepstral.com/demos/>. Their voices are around \$30.00. Nextup has demos of the AT&T voices at <http://www.nextup.com/attnv.html>. The AT&T voices cost \$35.00.

## 11.10 Map Landmarks

### 11.10.1 Overview

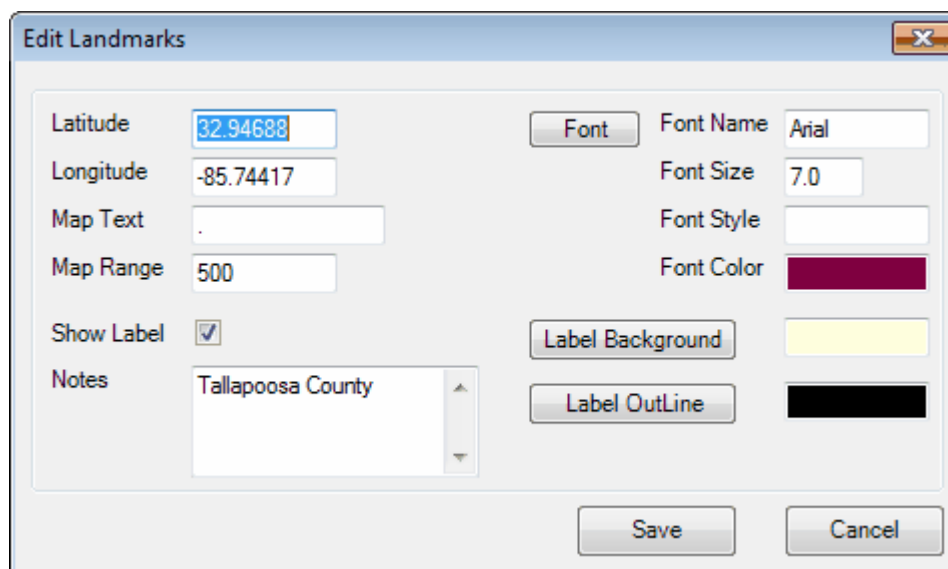
You can setup landmarks to be displayed on the map. These landmarks can be a simple point, a name, or the current date and time.



To add, change or delete a landmark, click on the line that you want to modify and right click, then select the appropriate function, Add, Edit or Delete.

When adding or editing a landmark, the [Edit Landmark](#) <sup>(169)</sup> window is displayed.

## 11.10.2 Landmark



Enter the **Latitude** and **Longitude** for the landmark. This coordinate will be the center position for the landmark. The **Map Text** field contains the text to be displayed on the map. This field supports two special codes. Enter a . (period) to display a point (appears as a small square) on the map, or a # (pound sign) to display the current date and time.

The **Map Range** field allows you to specify the range at which the landmark should be displayed. The program determines the number of miles the currently displayed map is in width. This is the map range. If the range you specify, for this landmark, is greater than or equal to the current map range, it will be shown.

The **Show Label** option indicates whether you want a box drawn around the text. Check this box to draw an outline.

The **Notes** field allows you to enter comments about this landmark. This field is not otherwise used by the software.

The font for the landmark can be selected by clicking on the **Font** button. Although each font field can be manually changed, the recommended method is to use the Font button to select the font. The color of the font can be selected by clicking on the color shown next to the **Font Color** label.

The **Label Background** and **Label Outline** buttons allow you to establish colors for these respective items.



**Part**

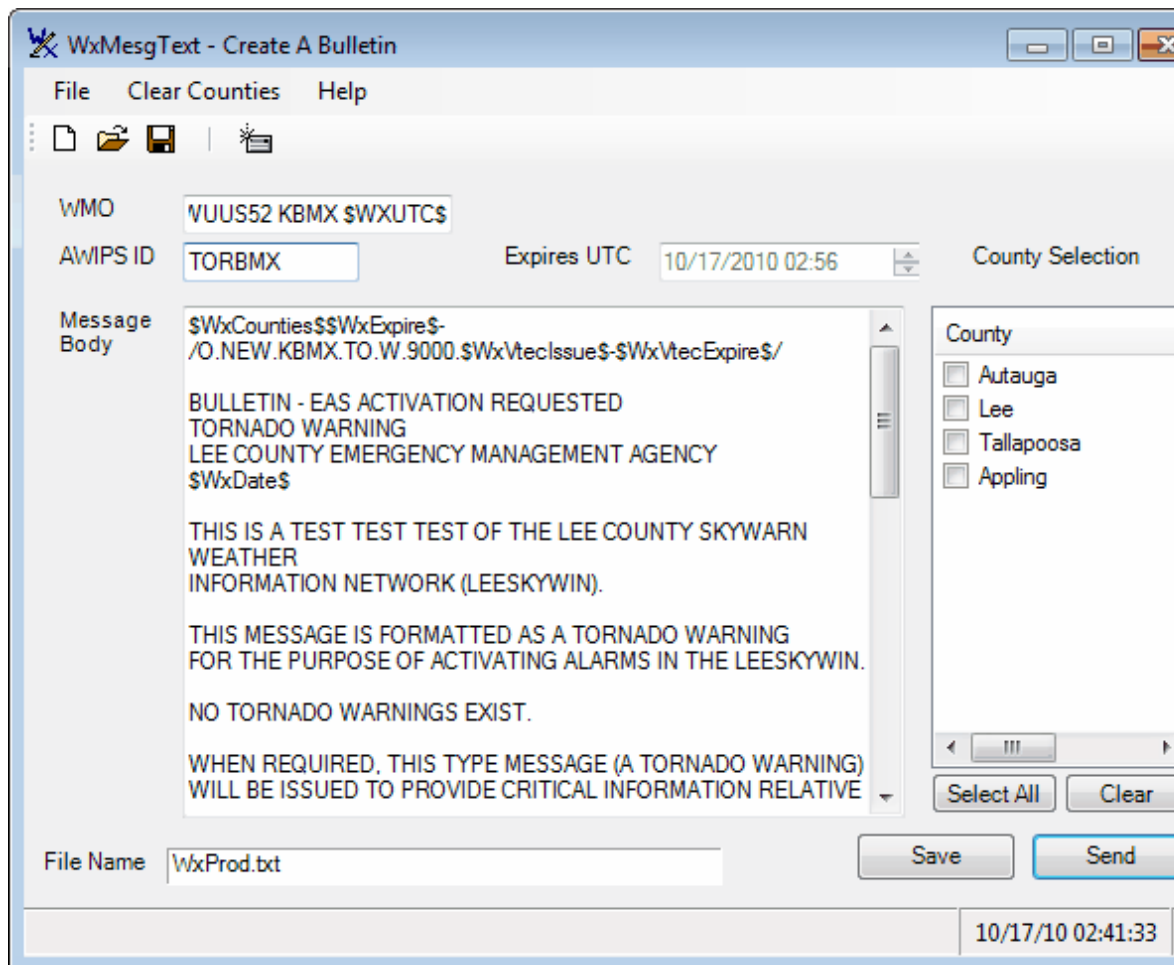
---

**XII**

## 12 WxMesgText

### 12.1 Overview

Weather Message - Message Creator is a support application that can be used to create test weather messages. These message can be used to test your alarms, or create local messages for other alerting purposes.

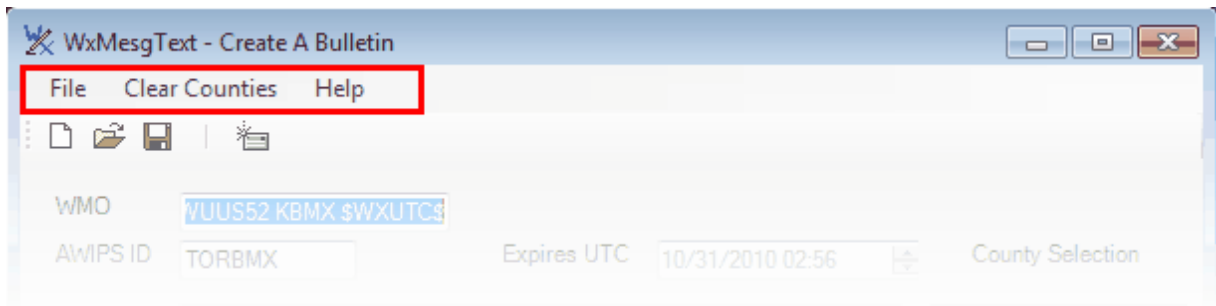


Message Creator has two modes of operation; Expert and Simple. The Expert mode allows you the most flexibility in creating a message. The Simple mode is more suited for first time users.

Message Creator can create messages in a specific directory, referred to as [ingest path](#)<sup>[106]</sup>, or send them directly to the [Weather Message Server](#)<sup>[128]</sup> using TCP/IP.

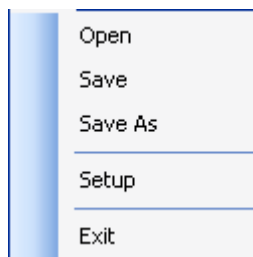
**Hint:** The ability to send a message to Weather Message Server using a TCP/IP connection allows the message client to be located across the internet or on another computer on the same network.

## 12.2 Menu Options



The menu buttons on this screen perform these functions:

The **File** menu allows you to setup this program, show details, view logfiles, and exit the program.

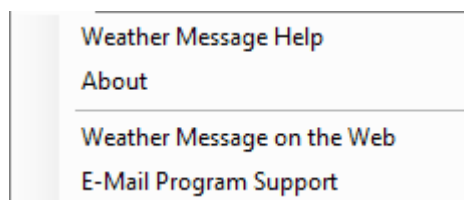


- The **Open** option opens a file dialog box for you to select a message template.
- The **Save** option saves the message that you open with the original file name.
- The **Save As** option saves the message that you entered and allows you to enter a file name.
- The Setup option opens the [Setup](#) (106) window.
- The **Exit** option shuts down the Message Creator.

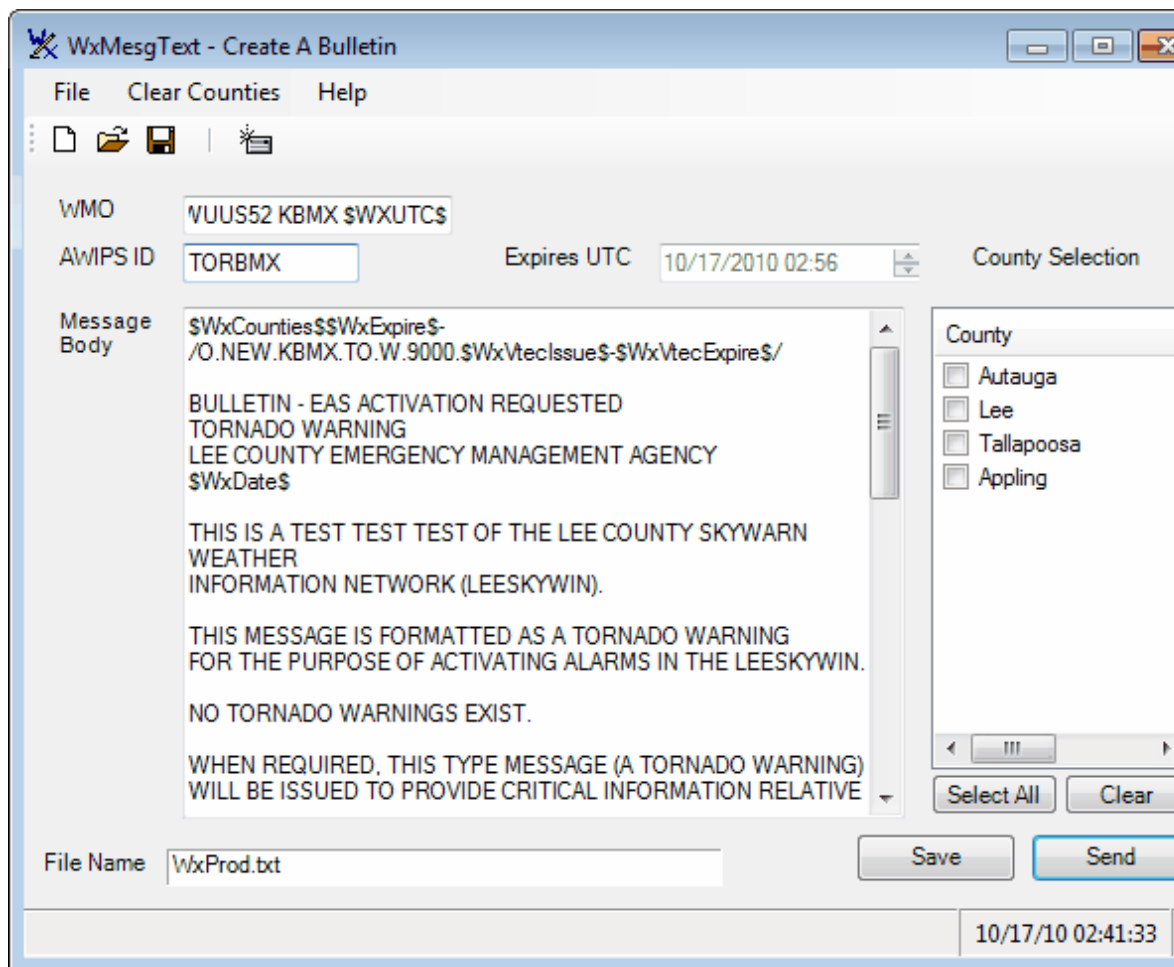
**Note:** The Open option defaults to the `..\WxMesgNet\WxData\WxLocal` directory. This is the suggested directory for storing message templates.

The **Clear Counties** menu, clears any counties selected in the County Selection box.

The **Help** menu allows you to see this manual, and display information about the program.



## 12.3 Expert Mode



In the Expert mode, the application attempts to load the default message template file WxProd.txt from the directory ..\WxMesgNet\WxData\WxLocal. This directory is used when Opening and Saving message templates.

The message must be formatted like a standard National Weather Service Message. You can view actual NWS products at <http://www.wxmesg.com/asp/recprod.asp>. The actual messages can be used as examples for formatting.

The following special codes can be used in the message:

\$WxUTC\$	Current UTC time, in the format ddhhmm
\$WxExpire\$	Expiration time, in the format ddhhmm
\$WxDate\$	Current local date and time.
\$WxVtecIssue\$	Issue time for the VTEC line.
\$WxVtecExpire\$	Expiration time for the VTEC line.
\$WxCounties\$	The counties selected for this message.

By using these codes, the program will automatically substitute the current UTC time, message expiration time and the current local date and time in the test message. This keeps you from having to manually enter those parameters. The expiration time is set to 15 minutes after the



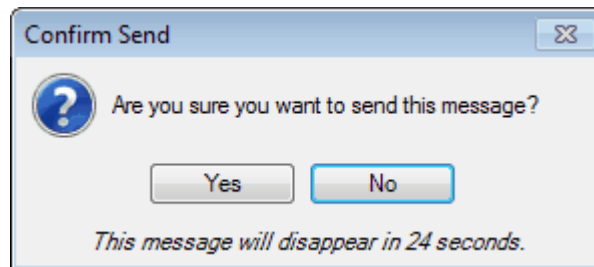
current time. Look at the screen shot above for the proper location of these variables.

You can change the AWIPS ID and other information to agree with the alarm that you want to test. To test an alarm, the AWIPS identifier and associated counties must match your alarm in Weather Message.

The **Select All** button will select all of the listed counties. The **Clear** button will clear the county selections.

After you have the test message formatted and worded properly, you can now save the message for future reference by clicking the **Save** button.

After entering the information for your message, click the **Send** button to send the message to Weather Message Server for processing. The following screen will be displayed to confirm sending this message.



The operator has 30 seconds to confirm the message. If it is not confirmed, the message will not be sent.

## 12.4 Simple Mode

WxMesgText - Create A Bulletin

File Clear Counties Help

Product Tomado Warning

VTEC Product Operational Phenomena Tomado

VTEC Action New Significance Warning

Event # 1 Expires UTC 10/17/2010 02:59

Headline THIS IS AN EXAMPLE HEADLINE

At Bullet

Body THIS IS ONLY A TEST MESSAGE. NO TORNADO WARNINGS EXIST.

County Selection

County

☐ Autauga

☐ Lee

☐ Tallapoosa

☐ Appling

Select All Clear

Send

File Name WxProd.txt

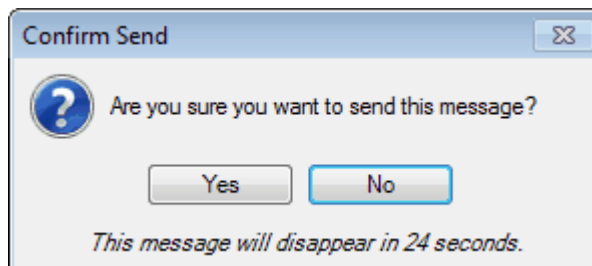
10/17/10 02:44:16

The Simple mode, as the name implies, is easier to use than the expert mode. The program builds the message based on the information that you select or enter on this screen.

**Note:** If the product selected does not support VTEC encoding, the VTEC related boxes will be disabled.

The **Select All** button will select all of the listed counties. The **Clear** button will clear the county selections.

After entering the information for your message, click the **Send** button to send the message to Weather Message Server for processing. The following screen will be displayed to confirm sending this message.



The operator has 30 seconds to confirm the message. If it is not confirmed, the message will not be sent.

## 12.5 Setup

Enter topic text here.

### 12.5.1 Settings Tab

The Settings Tab is used to set operational information for the Message Creator.

The screenshot shows a 'Setup' dialog box with three tabs: 'Settings', 'State / Counties', and 'Server'. The 'Settings' tab is selected. Inside the 'Settings' tab, there are several configuration fields: 'Expire Minutes' is set to 15; 'WFO' is set to KBMX; 'Expert Mode' is checked; 'Use Local Time' is unchecked; 'Agency Name' is 'National Weather Service'; 'States' is 'AL,GA' with a 'Comma Delimited' label; and 'Ingest Path' is 'c:\WxMesgnet\wxdata\vxfiles\'.

The **Expire Minutes** field allows you to specify the default number of minutes for the message expiration. These minutes are added to the current time to calculate the message expiration date/time.

Enter your WFO designator in the **WFO** field.

The **Expert Mode**, when checked, puts the application in [Expert](#) mode. When it is unchecked, the application operates in the [Simple](#) mode.

Check the **Use Local Time** box to use local time. When checked, the program will automatically convert local time to universal time in the created message.

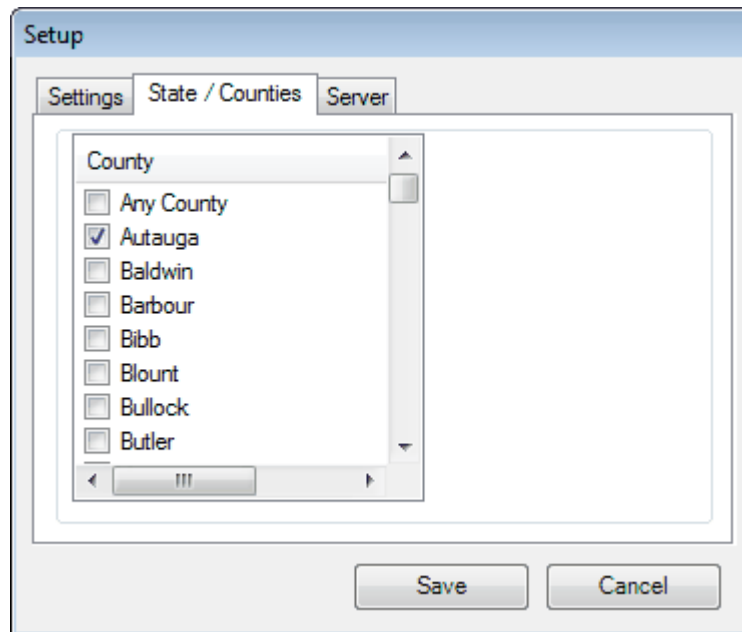
For simple messages, you can specify the **Agency Name** to use in the created message. The default is National Weather Service.

In order to select counties on the State / Counties Tab, you must enter one or more states in the **State** field. If you enter multiple states, they must be delimited by commas.

The **Ingest Path** should contain the path to the Weather Message Server received files directory. This field should be populated by default.

### 12.5.2 State / Counties Tab

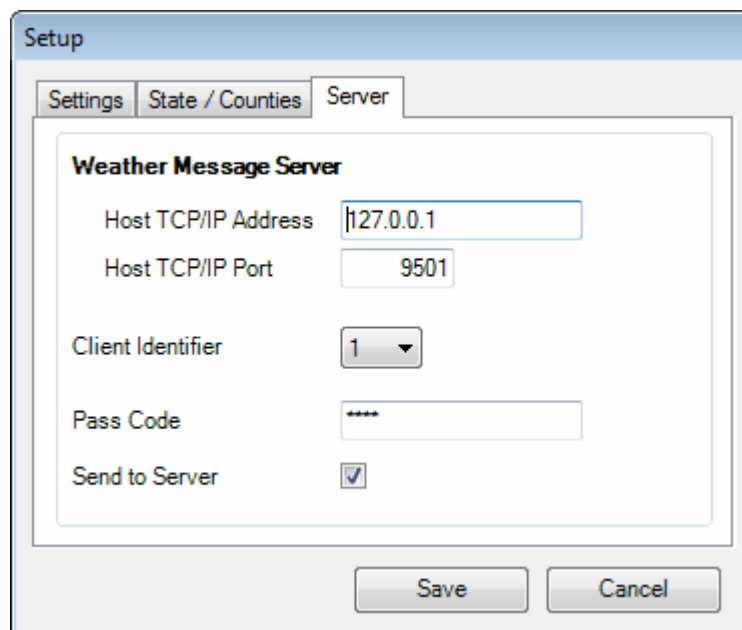
The Settings Tab is used to select the counties that appear in the County Selection list box.



Place a check mark next to each county that you want to appear in the County Selection list box.

### 12.5.3 Server Tab

The Server Tab is used to define the communication settings for your Weather Message Server.



The **Host TCP/IP Address** is the address of the Weather Message Server. Enter the address of your server in this field.

The **Host TCP/IP Port** is the port defined by Weather Message Server for connections. The default is 9501.

The **Client Identifier** field allows you to assign each Message Client, Map and Message Creator a different identification number. The default setting for all clients is one.

The **Pass Code** field contains the password or pass code used to validate the Message Creator. The Pass Code must agree with the one setup for Weather Message Server, otherwise, the message will be ignored.

The **Send to Server** option, when checked, will cause the Message Creator to send messages through a tcp/ip connection to the server. When the option is unchecked, the Message Creator will create messages in the ingest directory(ies).



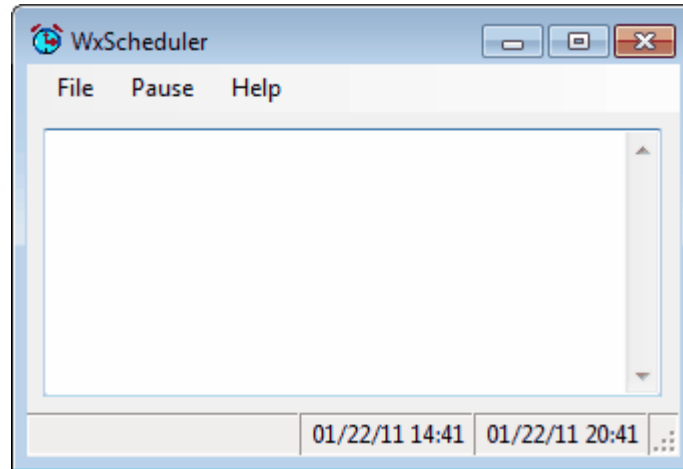
**Part**



## 13 WxScheduler

### 13.1 Overview

The Weather Message Scheduling application, WxScheduler, is used to schedule user-defined messages or retrieve internet products. WxScheduler can be run as a standalone application or as a [Windows service](#).



WxScheduler is generally used for two purposes: to schedule monthly tests of the software and/or download weather text or graphics from the Internet. By allowing text and graphics to be downloaded from the Internet, weather products not available from EMWIN or Weather Wire can still be obtained for local use and processing.


You can establish schedules to retrieve messages or graphics from local directories, or from the Internet using the FTP or HTTP protocol. The retrieved products are automatically copied to the ingest directory at the user defined time or interval.

The main processing window shows the current status of WxScheduler. When it is processing a message, you will see information about the message scroll in the text box.

To establish schedules see the [Schedule Tab](#)<sup>184</sup>.

**Note:** If WxScheduler is stopped with the window minimized, the next time it is started, it will start minimized.

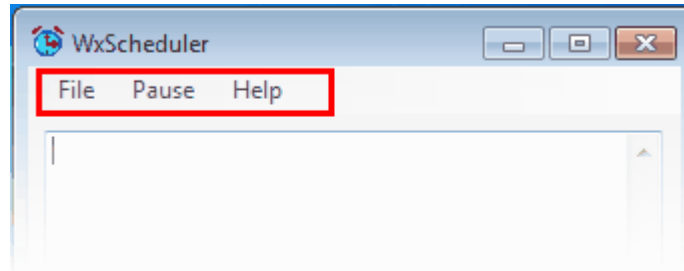
#### System Tray

When WxScheduler is minimized, you can restore the main screen by right clicking on the system tray icon , then select open.

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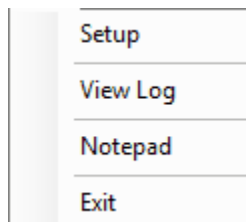


## 13.2 Menu Options



The menu buttons on this screen perform these functions:

The **File** menu allows you to setup this program, view logfiles, launch notepad and exit the program.

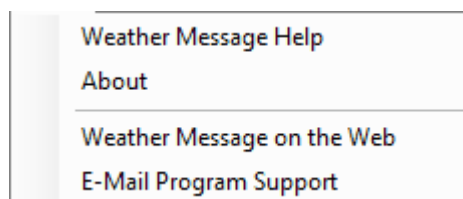


- The **Setup** option opens the [Setup Window](#)<sup>184</sup>.
- The **View Log** menu displays the log file in notepad.
- The **Notepad** menu opens notepad. This can be used to edit message templates.
- The **Exit** option shuts down WxScheduler.

The **Pause** option stops the scheduler. When stopped, the status bar flashes the word "Paused". The menu option changes to **Start**. Clicking **Start**, restarts the scheduler.

**Note:** When the scheduler is started after a pause, any items scheduled to occur at times prior to the restart will not be processed.

The **Help** menu allows you to see this manual, and display information about the program.



## 13.3 Creating Text Messages

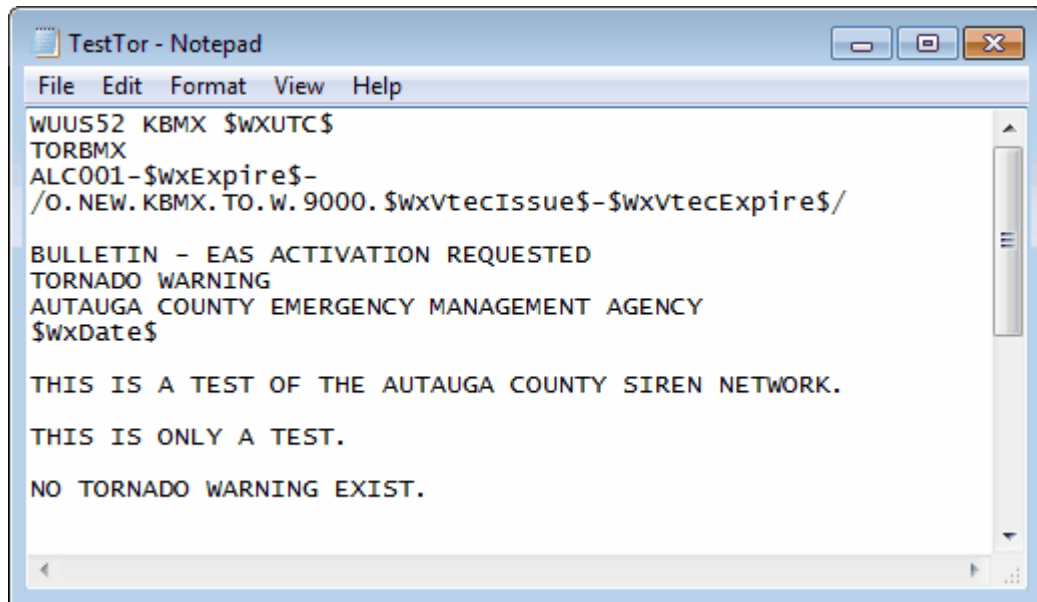
Before you can begin scheduling user-defined text messages, you must create the messages. First select or create a directory to store your messages. You can use C:\Program Files\WxMesgNet\WxData\WxLocal to store your user-defined messages. This directory is

automatically created for use by Message Text Creator and can be shared by WxScheduler. You can use the Notepad menu option to launch Notepad to create the message.

**Hint:** *WxMesgText and WxScheduler use the same text message format. Messages created can be used by both programs.*

### Sample Message

The following screen shows a sample message being created for a monthly system test.



The file name for the message must end with the extension ".txt". You will also notice that some special program codes are used in the message. These special codes tell WxScheduler where to put special text in the message.

The message must be formatted like a standard National Weather Service Message. You can view actual NWS products at <http://www.wxmesg.com/asp/recprod.asp>. The actual messages can be used as examples for formatting.

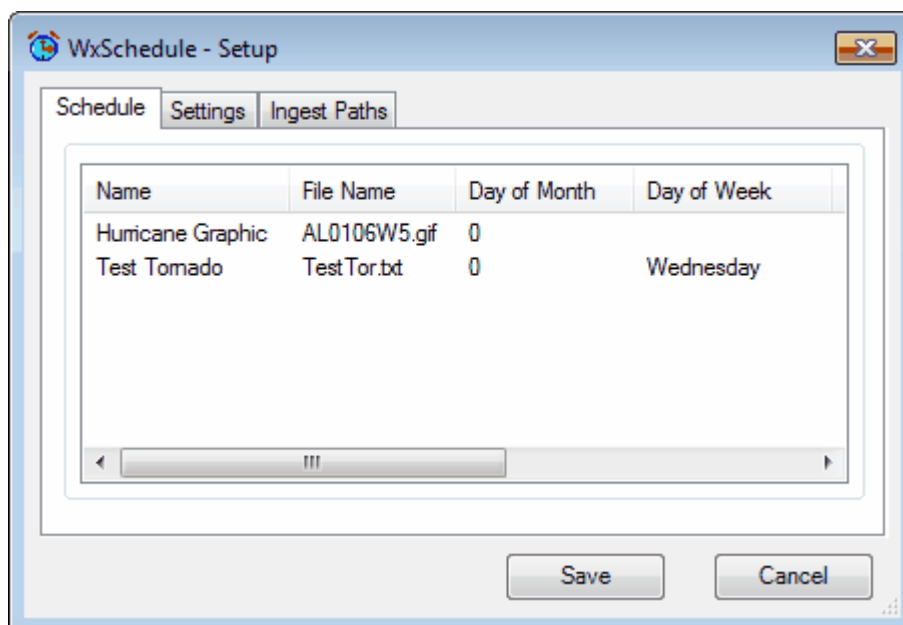
The following special codes can be used in the message:

\$WxUTC\$	Current UTC time, in the format ddhhmm
\$WxExpire\$	Expiration time, in the format ddhhmm
\$WxDate\$	Current local date and time.
\$WxVtecIssue\$	Issue time for the VTEC line.
\$WxVtecExpire\$	Expiration time for the VTEC line.

## 13.4 Setup

### 13.4.1 Schedule Tab

The Schedule Tab is used to establish schedules.



To add, change or delete a scheduled item, click on the line that you want to modify and right click, then select the appropriate function, Edit or Delete. When changing an entry, the [Edit Scheduled Item](#) window is displayed.

**Hint:** To send the message immediately, right click and select the Send Now option.

**Hint:** Items displayed with a yellow background are disabled and will not be processed.

#### 13.4.1.1 Edit Scheduled Item

The Edit Scheduled Item window allows you to enter the specifics about the item being scheduled.

The screenshot shows a Windows-style dialog box titled "Edit Scheduled Item". It has four tabs: "Item", "Schedule", "Script", and "Notes". The "Item" tab is active. The dialog contains the following fields and controls:

- Schedule Name:** A text box containing "Test Tomado".
- Server Type:** Three radio buttons: "Local" (selected), "HTTP", and "FTP".
- Server Address:** A text box.
- Port:** A small numeric input box containing "0".
- User Name:** A text box.
- Password:** A text box.
- File Name:** A text box containing "C:\WxMesgNet\WxData\WxLocal\Tes". To its right is a "Browse" button.
- Ingest File Name:** A text box containing "TORBMXAL.bt".
- Drop Duplicates:** A checkbox that is unchecked.
- Disabled:** A checkbox that is unchecked.
- Send Now:** A checkbox that is unchecked.
- Buttons:** "Save" and "Cancel" buttons are at the bottom right.

Enter a **Schedule Name** for this scheduled item. Select the **Server Type** for this scheduled item: Local, HTTP or FTP. In the above example, the message will be obtained locally.

The **Server Address**, **Port**, **User Name** and **Password** fields are used when you select the server type HTTP or FTP. When using HTTP or FTP, enter the appropriate Server Address, Port, User Name and Password.

Enter the path and name of the file in the **File Name** field. For local files, you can use the **Browse** button to locate the file. For HTTP or FTP files, enter the location of the file.

In the **Ingest File Name** field, enter the name of the file as it should appear when it is copied to the ingest directory. The base name of the file should not exceed eight characters. The total file name length, including the extension, should be no longer than 12 characters.

The **Drop Duplicates** check box, when checked, will create a CRC32 checksum for each processed file. If the next file processed, for a scheduled item, is a duplicate, the program will not process the file. This option is useful if you are using WxScheduler to retrieve graphics from web sites. In most cases, you do not know when a web site file will change. This option will allow you to retrieve a file on a schedule and only process the file when it has changed.

The **Disabled** field is used to temporarily disable a scheduled item. When this option is checked, the scheduled item will not be processed.

**Hint:** *The Disabled option is useful when you want to send a message on demand. You can setup the message with a schedule and then disable the message. When you want to send the message, you can right click on the schedule grid and select Send Now.*

The **Send Now** field is used to send this scheduled item immediately. Placing a check mark in this field and saving the item will cause the scheduler to immediately send this item.

**Note:** You must exit back to the main screen before it will be sent. The scheduler does not work while you are editing items.

## Schedule

The Schedule tab allows you to enter the processing schedule for this item.

Now enter the scheduling information for this message. The **Day of Month**, **Day of Week**, **Week of Month** and **Month** fields can be left blank to indicate "Any". In the above example, for a weekly test, the Day of Month, Week of Month and Month fields are left blank. The Day of Week is specified.

**Hint:** Make sure that the combinations of Day of Month, Day of Week, Week of Month and Month will occur. If you select the first day of the month and the second week of the month, the criteria for this alarm will never occur.

**Hint:** Specifying both Week of Month and Day of Week will instruct the program to check for the Xth Day of Week in a month. If you want to schedule an item for the first Wednesday of every month, enter 1 for the Week of Month and select Wednesday for the Day of Week.

Before entering a time, select the **At This Time**, **Every Time** or **Between Time** to indicate if this item should be processed at a specific time, time interval or an interval between two times. Then enter the **Time** or **Time Interval** for this item. The Time must be in 24-hour notation and in the format HH:MM.

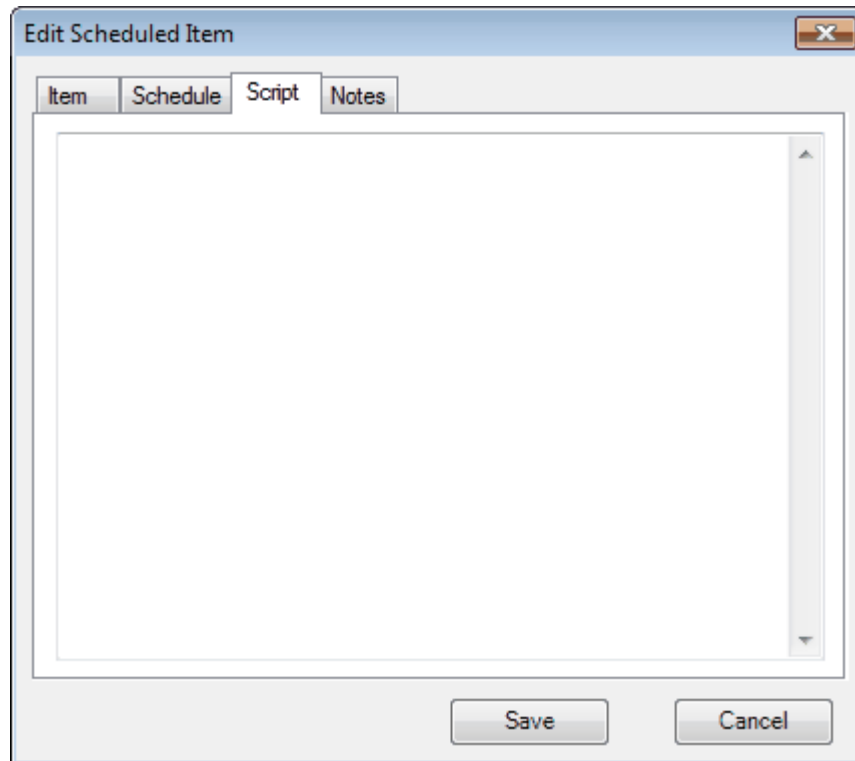
The **Duration** field is used to establish an expiration time for text messages that contain UGC lines. It is used to populate the \$WxExpire\$ variable. Enter the length of time for this message. The Duration field must be in the format HH:MM.

When the **Between Time** option is selected, enter the **Time Begin** and **Time End**. The

scheduled item will be evaluated when the current time falls between the begin and ending time.

## Script

The Script tab allows you to enter visual basic code to manipulate the received data before it is copied to the ingest path.



The script used by WxScheduler is based on the programming syntax for Visual Basic .Net 2005. The script is implemented as a function. The function definition is `Private Sub OnDataReceived(ByVal ReceivedData as String, ByRef ScriptStore as Object) as String`.

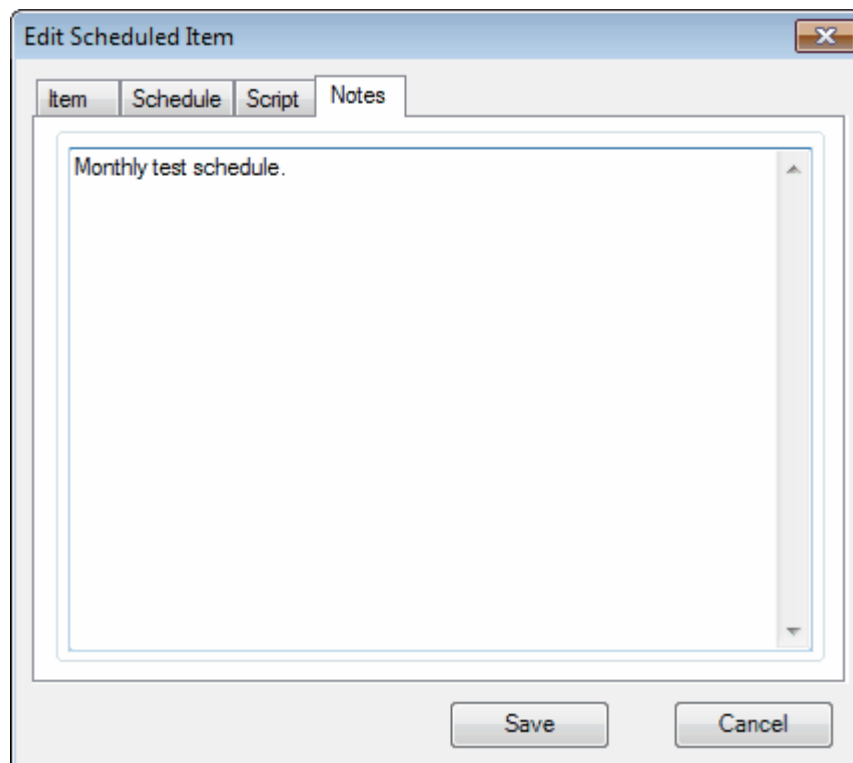
User scripts can access the received data using the variable "ReceivedData". It is the responsibility of the user script to return the data using the "Return" command or if no processing is desired return `String.Empty`. This function also passes the global variable `ScriptStore`. This global variable can make data available to all of your scripts.

WxScheduler will attempt to download the file requested on the Item tab. It will pass the received data to the user script in the variable "ReceivedData". In the event that no file could be downloaded, `ReceivedData` will contain `String.Empty`.

When this item is saved, WxScheduler will attempt to compile the script. If an error occurs, you will be prompted with the error message and allowed to correct the script.

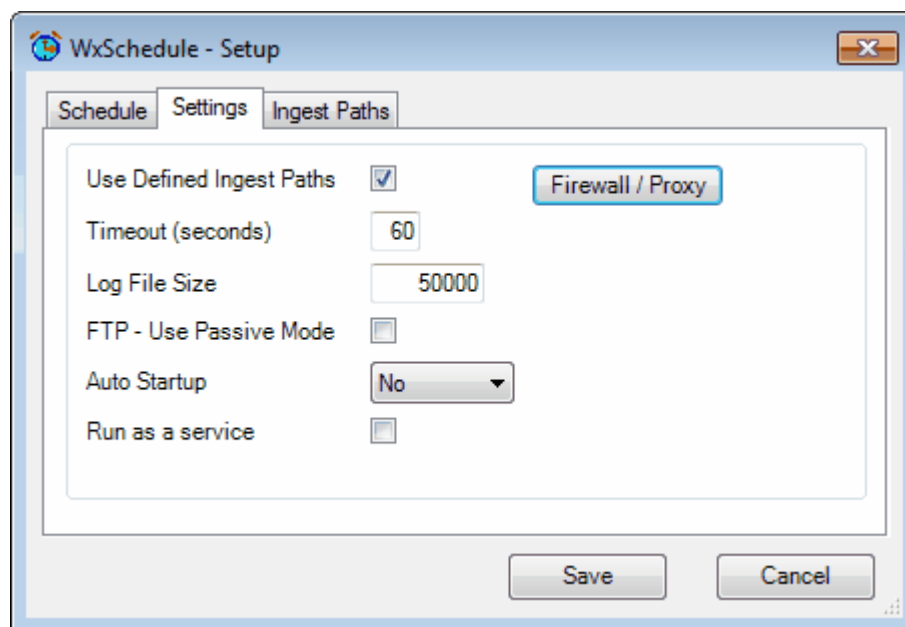
## Notes

The Notes tab allows you to information about this scheduled item.



### 13.4.2 Settings Tab

The Settings Tab is used to establish general program option.



The **Use Defined Ingest Paths** check box, when checked, will cause the program to use the

ingest paths defined in the ingest programs. If you want to define your own ingest paths for the scheduler, uncheck this box.

The **Timeout** field allows you to specify the maximum amount of time the program will wait for the HTTP or FTP servers to respond.

The **Log File Size** field allows you to specify this size of your log file, SchedLog.txt. The default is 50,000 bytes.

The **FTP – Use Passive Mode** option, when checked, will cause the ftp program to use the passive mode. This option may be needed for firewalls that restrict incoming connections.

The **Auto Startup** option allows you to specify whether WxSched is automatically started when Windows starts. The options are No; Yes, for the current user; and Everyone, for any user.

**Note:** The options available for **Auto Startup** are based on your user permissions. Administrator and Power users will have all of the options. Other users may only have the Yes option.

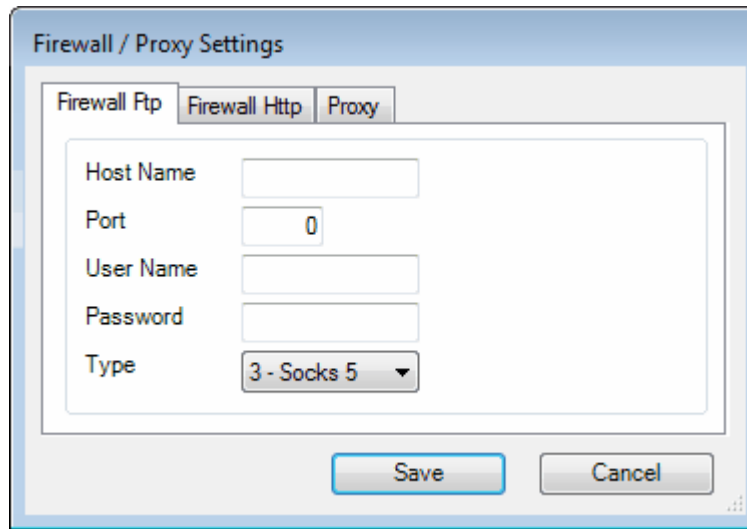
The **Run as a service** option, when checked, will setup WxSched to run as a [Windows service](#). When this option is selected, WxSched will be automatically started as a service when the WxSched application is exited. When WxSched is started again, the service will be stopped so that you can change the programs settings.

**Note:** WxSched will continue to process your schedule regardless of whether it is running as a service or an application.

The **Firewall / Proxy** button allows you to configure Firewall and Proxy settings for your computer. See [Firewall / Proxy](#)<sup>[38]</sup>.

#### 13.4.2.1 Firewall / Proxy

The Firewall / Proxy window allows you to configure firewall / proxy information for your computer.



The screenshot shows a window titled "Firewall / Proxy Settings". It has three tabs: "Firewall Ftp", "Firewall Http", and "Proxy". The "Firewall Ftp" tab is active. Inside the tab, there are five input fields: "Host Name" (empty), "Port" (containing "0"), "User Name" (empty), "Password" (empty), and "Type" (a dropdown menu showing "3 - Socks 5"). At the bottom right of the window are two buttons: "Save" and "Cancel".

For a FTP firewall, enter the domain name or TCP/IP address of the firewall in the **Host Name**



field.

Enter the **Port** number for the firewall.

If required, enter a **User Name** and **Password**. This should be a user name and password setup in the firewall.

Select the **Type** of firewall. Valid entries are 1-Tunnel, 2-Socks version 4, or 3-Socks version 5.

The screenshot shows the 'Firewall / Proxy Settings' dialog box with the 'Firewall Ftp' tab selected. The dialog contains the following fields and controls:

- Host Name**: A text input field.
- Port**: A text input field containing the value '0'.
- User Name**: A text input field.
- Password**: A text input field.
- Type**: A dropdown menu currently showing '3 - Socks 5'.
- Buttons**: 'Save' and 'Cancel' buttons at the bottom right.

For a HTTP firewall, enter the domain name or TCP/IP address of the firewall in the **Host Name** field.

Enter the **Port** number for the firewall.

If required, enter a **User Name** and **Password**. This should be a user name and password setup in the firewall.

Select the **Type** of firewall. Valid entries are 1-Tunnel, 2-Socks version 4, or 3-Socks version 5.

The screenshot shows the 'Firewall / Proxy Settings' dialog box with the 'Firewall Http' tab selected. The dialog contains the following fields and controls:

- Host Name**: A text input field.
- Port**: A text input field containing the value '0'.
- User Name**: A text input field.
- Password**: A text input field.
- HTTP Version 1.0**: A checkbox.
- Detect Proxy**: A button located below the password field.
- Buttons**: 'Save' and 'Cancel' buttons at the bottom right.

For a Proxy access, enter the domain name or TCP/IP address of the proxy in the **Host Name** field.

Enter the **Port** number for the firewall.

If required, enter a **User Name** and **Password**. This should be a user name and password setup for the proxy.

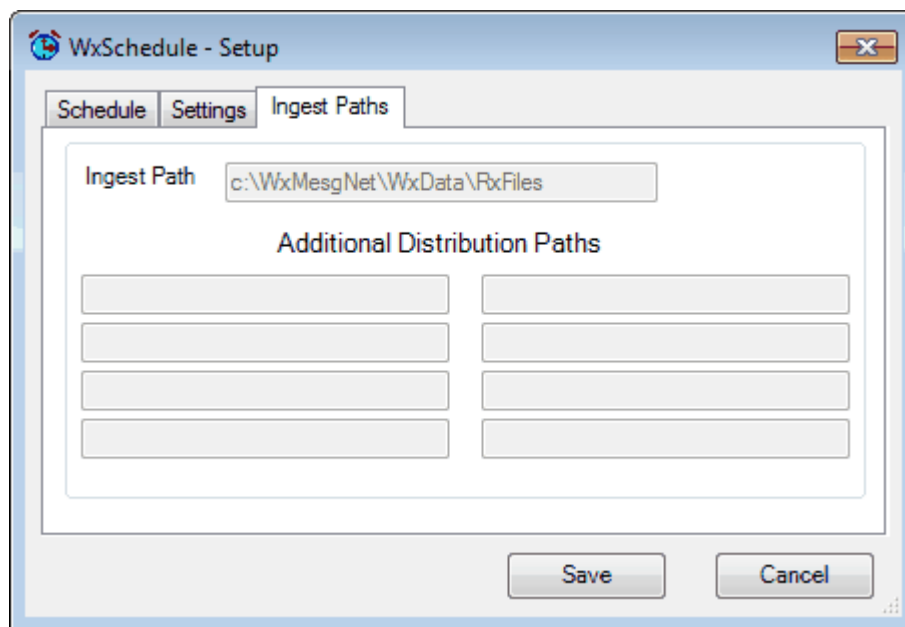
If **HTTP version 1.0** is required for the proxy server, check this box.

The **Detect Proxy** button will automatically detect the proxy settings for your computer and populate the host name and port fields.

**Note:** *The Firewall / Proxy settings are common to all Weather Message applications. Changing these settings will automatically change them for the other applications.*

### 13.4.3 Ingest Paths Tab

The Ingest Paths Tab is used to define the directories that will store the received weather products for processing.



The **Ingest Path** is defined in the Weather Message Server setup screen and would not normally be entered here.

The **Additional Distribution Paths** can be used to place a copy of the received weather text in different directories for processing by other programs. For example, if you use Weather Message to receive your weather data, you can put a copy of the received messages in a second or third directory for processing by RealEMWIN or the Weather Message Retransmission program.

**Note:** *If the Use Defined Ingest Paths setting is checked, you will not be able to change the paths listed.*

## 13.5 Examples

### 13.5.1 Hurricane Graphic

The following screen shows how to receive a tracking graphic from the National Hurricane Center.

The top screenshot shows the 'Item' tab of the WxScheduler configuration window. It contains the following fields and controls:

- Server Type: Radio buttons for Local, HTTP (selected), and FTP.
- Server Address: Text box containing 'www.nhc.noaa.gov'.
- Port: Text box containing '80'.
- User Name: Empty text box.
- Password: Empty text box.
- File Name: Text box containing 'storm\_graphics/AT01/AL0106w5.gif' and a 'Browse' button.
- Ingest File Name: Text box containing 'AT0106w5.gif'.
- Drop Duplicates: Checkmark.
- Disabled: Checkmark.
- Send Now: Unchecked checkbox.

The bottom screenshot shows the 'Schedule' tab of the WxScheduler configuration window. It contains the following fields and controls:

- Day of Month: Dropdown menu.
- Week of Month: Dropdown menu.
- Day of Week: Dropdown menu.
- Month: Dropdown menu.
- Time Interval: Text box containing '00:15'.
- At This Time: Unchecked checkbox.
- Every Time: Checked checkbox.
- Message Duration: Text box containing '00:15'.

This graphic is received using the Internet every 15 minutes, using HTTP.

### 13.5.2 Script Example

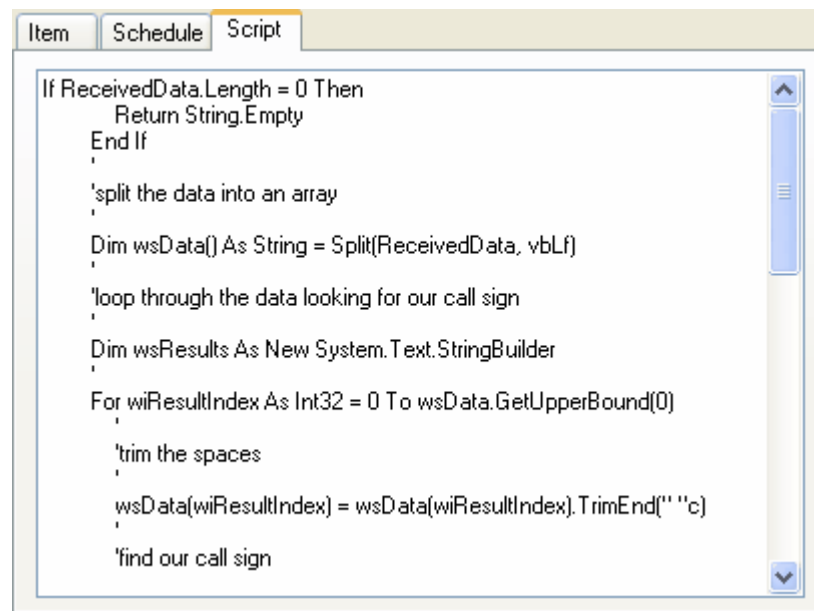
The following screen shots demonstrate a script used to process a text file. WxScheduler download Lamp data and the script extracts the information for KSBN.

The screenshot shows the 'Script' tab of a configuration window. It contains the following fields and options:

- Server Type:** Radio buttons for Local, HTTP (selected), and FTP.
- Server Address:** Text box containing 'weather.noaa.gov'.
- Port:** Text box containing '80'.
- User Name:** Empty text box.
- Password:** Empty text box.
- File Name:** Text box containing 'pub/data/raw/fo/fous11.kwno.lav.usa.' with a 'Browse' button to its right.
- Ingest File Name:** Text box containing 'LAMP.TXT'.
- Drop Duplicates:** Checkbox (unchecked).
- Disabled:** Checkbox (unchecked).
- Send Now:** Checkbox (unchecked).

The screenshot shows the 'Schedule' tab of the same configuration window. It contains the following fields and options:

- Day of Month:** Dropdown menu.
- Week of Month:** Dropdown menu.
- Day of Week:** Dropdown menu.
- Month:** Dropdown menu.
- Time Interval:** Text box containing '00:05'.
- At This Time:** Checkbox (unchecked).
- Every Time:** Checkbox (checked).
- Message Duration:** Text box containing '00:00'.



The full text of the script is shown below

```
If ReceivedData.Length = 0 Then
    Return String.Empty
End If
'split the data into an array
Dim wsData() As String = Split(ReceivedData, vbCrLf)
'loop through the data looking for our call sign
Dim wsResults As New System.Text.StringBuilder
For wiResultIndex As Int32 = 0 To wsData.GetUpperBound(0)
    'trim the spaces
    wsData(wiResultIndex) = wsData(wiResultIndex).TrimEnd(" ")
    'find our call sign
    If wsData(wiResultIndex).IndexOf("KSBN") <> -1 Then
        'remove that invalid character
        wsData(wiResultIndex) = wsData(wiResultIndex).Replace(ChrW(30), String.Empty)
        'copy the data to our results
        For wiCopyIndex As Int32 = wiResultIndex To wsData.GetUpperBound(0)
            'copy until we find a blank line
            If wsData(wiCopyIndex).Length = 0 OrElse wsData(wiCopyIndex).Substring(0, 1) = "
```

```
" Then
    Exit For
End If
wsResults.Append(wsData(wiCopyIndex) & vbCrLf)
Next
Exit For
End If
Next
'
'if we have data add a header
'
If wsResults.Length > 0 Then
    wsResults.Insert(0, wsData(0) & vbCrLf & vbCrLf)
End If

Return wsResults.ToString
```

Explanation of this script is beyond the scope of this manual. If you want to write scripts, we suggest that you review programming manuals written for Visual Basic .Net 2005, 2008, and 2010.

**Part**

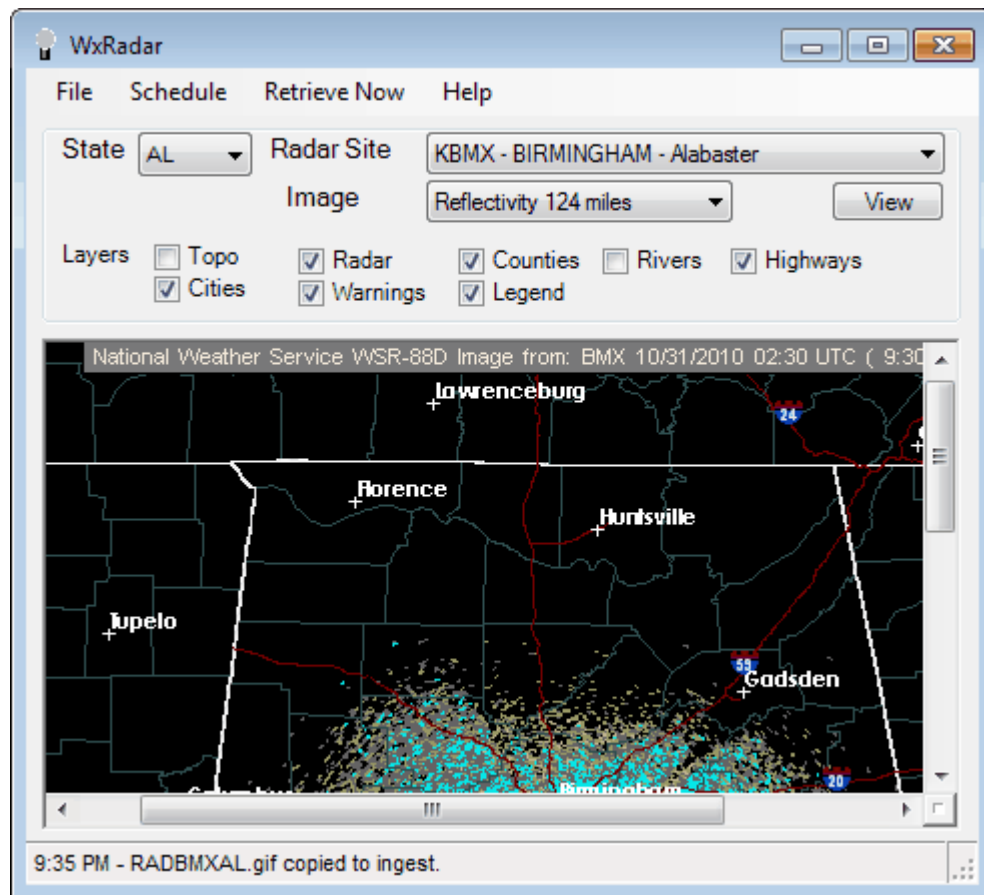


## 14 WxRadar

### 14.1 Overview

WxRadar is a support application that can be used to automatically retrieve radar images. It can retrieve a specific radar site for viewing on the screen, or schedule single or multiple radar sites for ingesting by Weather Message or other programs. WxRadar requires Internet access.

If you plan to use WxRadar to retrieve images on a schedule, it should be placed in the startup box in Windows. This will insure that the program is automatically started each time the computer is booted.




When scheduling radar images, the images that are received will be copied to directories for other programs to process. You can use it in conjunction with Weather Message to FTP images to a website or WxReTran for EMWIN retransmission. See [Scheduling](#) <sup>[20]</sup>.

Images processed by Weather Message Server can be made available to the Weather Message Client Image Viewer. The Image Viewer can then be used to animate the received radar images.

**Note:** If WxRadar is stopped with the window minimized, the next time it is started, it will start minimized.

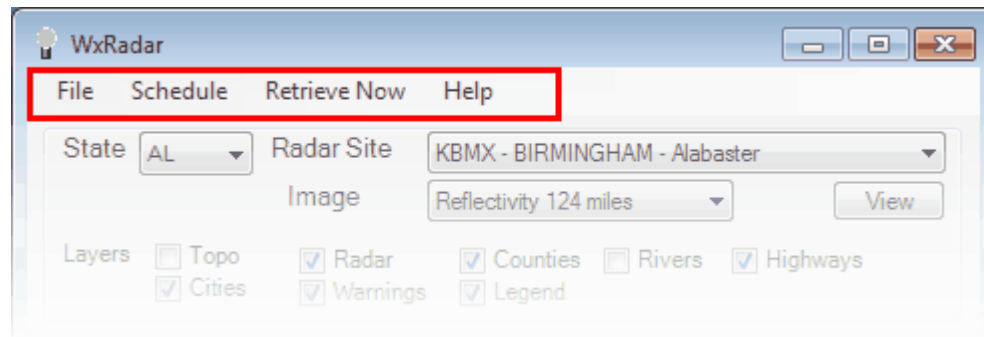
#### System Tray



When WxRadar is minimized, you can restore the main screen by right clicking on the system tray icon , then select open.

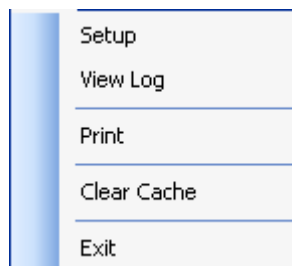
Copyright © 2011 Weather Message Software

## 14.2 Menu Options



The menu buttons on this screen perform these functions:

The **File** menu allows you to setup this program, view logfile, print the current radar image and exit the program.



- The **Setup** option opens the [Setup window](#)<sup>[106]</sup>.
- The **View Logfile** displays the radar log file in notepad.
- The **Print** option prints the current radar image on your default printer.
- The **Clear Cache** option clears the radar cache directory of all static image overlays.
- The **Exit** option shuts down WxRadar.

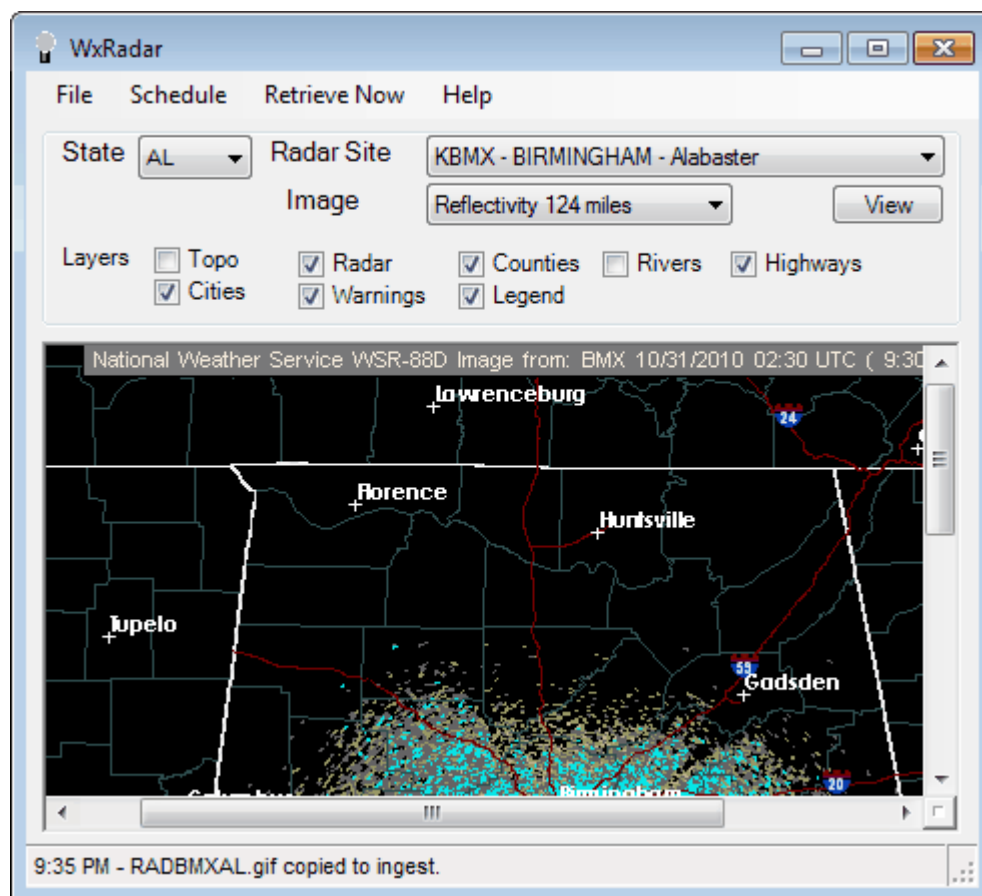
The **Schedule** menu allows you to establish a [schedule](#)<sup>[201]</sup> to retrieve radar images.

The **Retrieve Now** menu forces the application to start a retrieve cycle.

The **Help** menu allows you to see this manual, and display information about the program.

Weather Message Help  
About  
Weather Message on the Web  
E-Mail Program Support

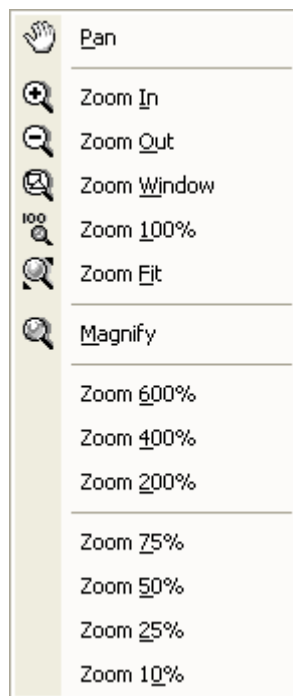
## 14.3 Main Window



The main window allows you to quickly retrieve a radar image. Select the **State**, **Radar Site**, **Image** type and **Layers**. Click the **View** button to retrieve the image selected.

**Hint:** To receive national radar products, select the state abbreviation NA.

The image can be resized to fit the display window or zoomed for closer inspection. To activate these features, right click on the image and select one of the displayed options.



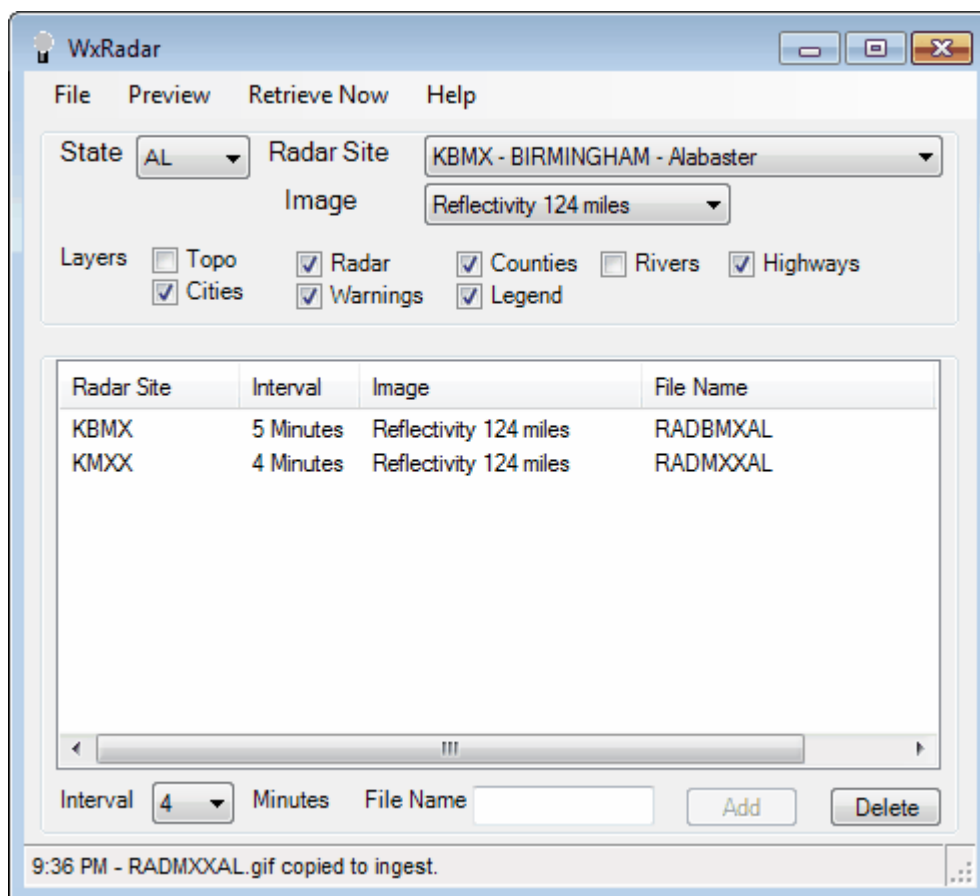
The default view is Zoom 100%.

To print the displayed image, click on the File menu and select Print. The image will be printed to your default printer.

**Note:** If WxRadar cannot download the requested radar image, a "Radar Unavailable" image will be displayed. The "Radar Unavailable" image can be customized by changing the "RadUnavl.gif" file.

## 14.4 Scheduling

To schedule radar images for automatic retrieval, click on the Schedule menu. The main window will change to allow you to setup schedules.



Select the **State**, **Radar Site**, **Image**, **Layers**, **File Name** for ingest and **Interval** to retrieve. Click on the **Add** button to schedule that radar site. To remove a site, click on the site in the list and click the **Delete** button.

**Hint:** To receive national radar products, select the state abbreviation NA.

**Note:** If you do not enter a file name, WxRadar will create the radar file name in the format, "RAD" plus the last three letters of the radar site plus the 2 digit state abbreviation plus ".gif". For example, the file name for KMXX would be RADMXXAL.gif.

The scheduled radar images will be retrieved based on the interval period specified. Valid intervals are 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 20, 25, 30, 35, 40, 45, 50, 55 and 60 minutes.

The results of each scheduled retrieve is logged to the file RadLog.txt. To view this log file, click on File and View Log. The log file will contain an entry for each time it attempts to retrieve a radar image. It will also contain any error conditions.

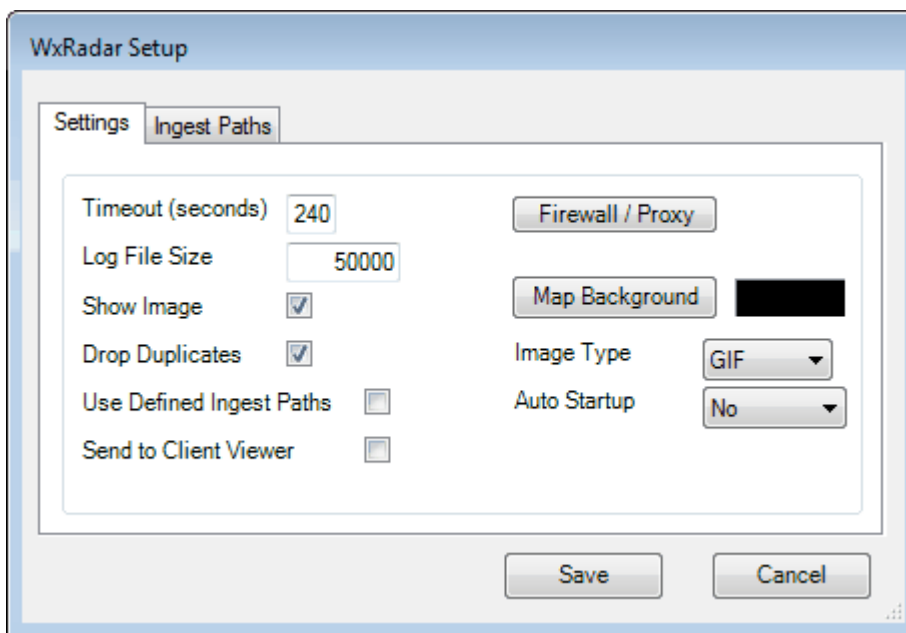
**Hint:** The scheduled images will be retrieved according to the schedule you establish. If you want to retrieve all images immediately, click on the Retrieve Now menu button.

When you are finished entering your schedule, click on the Preview menu. This returns you to the [Main Window](#) <sup>[123]</sup>.

## 14.5 Setup

### 14.5.1 Settings Tab

The Settings Tab is used to define general program operation.



The **Timeout** field allows you to specify the maximum amount of time the program will wait on the NOAA servers to respond.

The **Log File Size** field allows you to specify this size of your log file, RadLog.txt. The default is 50,000 bytes.

When the program retrieves images from the defined schedule, it does not display these images in the preview window. The **Show Image** check box, when checked, causes the program to show each image as it is received.

The **Drop Duplicates** check box, when checked, will create a CRC32 checksum on each received image. If the next image received is a duplicate, the program will not process the image.

The **Use Defined Ingest Paths** check box, when checked, will cause the program to use the ingest paths defined in the ingest programs, WxByte and WxIngest. If you want to define your own ingest paths for WxRadar, remove this check.

The **Send to Client Viewer** option, when checked, will cause the program to store a copy of the image for viewing by the image viewer built into the Message Client. This option can be used in special situations where radar images are not being processed by Weather Message Server. The user can configure WxRadar to process radar images and place them in the local WxImages directory for viewing in the Message Client.

The **Firewall / Proxy** button allows you to configure Firewall and Proxy settings for your computer. See [Firewall / Proxy](#)<sup>38</sup>.

The **Map Background** button allows you to set the color of the radar image background.

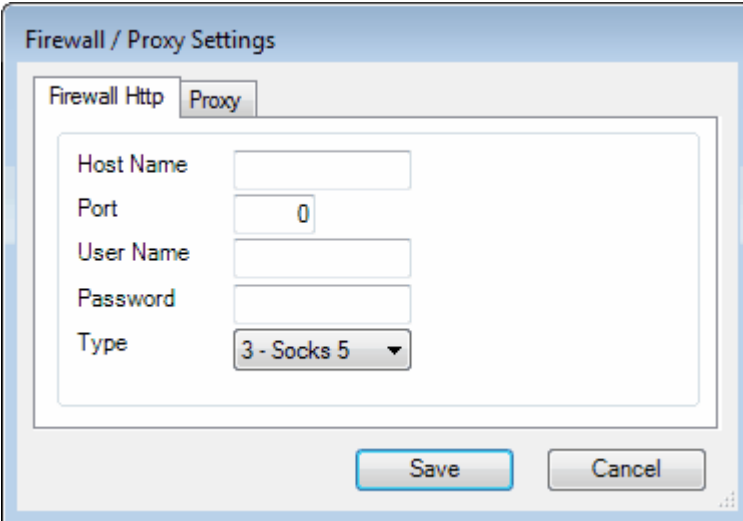
The **Image Type** list allows you to select an image format for the received image. Radar images are received by default in GIF format. You can select GIF, JPG, PNG, BMP, and TIF formats.

The **Auto Startup** option allows you to specify whether WxRadar is automatically started when Windows starts. The options are No; Yes, for the current user; and Everyone, for any user.

**Note:** The options available for **Auto Startup** are based on your user permissions. Administrator and Power users will have all of the options. Other users may only have the Yes option.

#### 14.5.1.1 Firewall / Proxy

The Firewall / Proxy window allows you to configure firewall / proxy information for your computer.

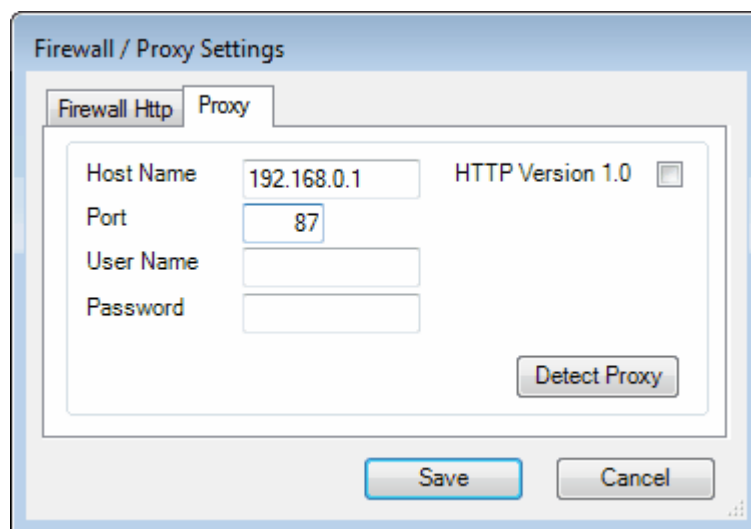


For a HTTP firewall, enter the domain name or TCP/IP address of the firewall in the **Host Name** field.

Enter the **Port** number for the firewall.

If required, enter a **User Name** and **Password**. This should be a user name and password setup in the firewall.

Select the **Type** of firewall. Valid entries are 1-Tunnel, 2-Socks version 4, or 3-Socks version 5.



For a Proxy access, enter the domain name or TCP/IP address of the proxy in the **Host Name** field.

Enter the **Port** number for the firewall.

If required, enter a **User Name** and **Password**. This should be a user name and password setup for the proxy.

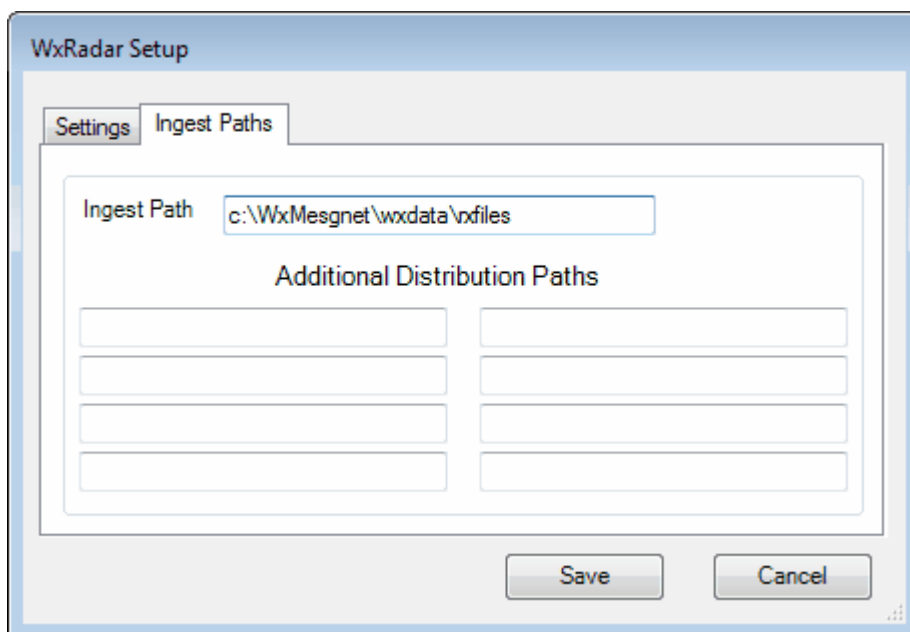
If **HTTP version 1.0** is required for the proxy server, check this box.

The **Detect Proxy** button will automatically detect the proxy settings for your computer and populate the host name and port fields.

**Note:** *The Firewall / Proxy settings are common to all Weather Message applications. Changing these settings will automatically change them for the other applications.*

### 14.5.2 Ingest Paths Tab

The Ingest Paths Tab is used to define the directories that will store the received weather products for processing.



The **Ingest Path** is defined in the Weather Message Server setup screen and would not normally be entered here.

The **Additional Distribution Paths** can be used to place a copy of the received weather text in different directories for processing by other programs. For example, if you use Weather Message to receive your weather data, you can put a copy of the received messages in a second or third directory for processing by RealEMWIN or the Weather Message Retransmission program.

**Note:** *If the Use Defined Ingest Paths setting is checked, you will not be able to change the paths listed.*



**Part**

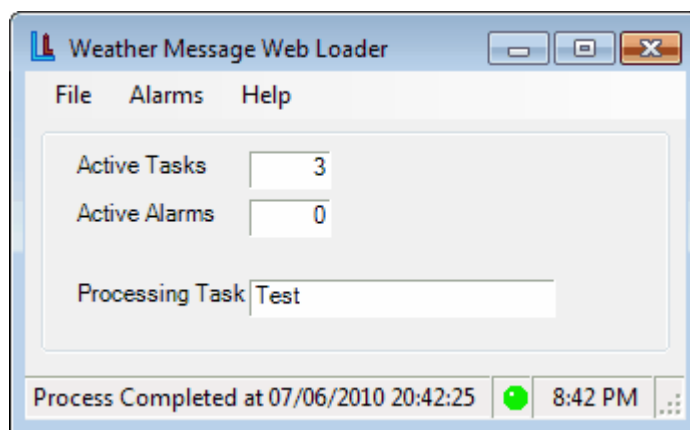
**XV**

## 15 WxLoader

### 15.1 Overview

WxLoader is a support application that can be used to manage weather content for websites, provide data for other third-party applications, or control [Pro-Lite LED Signs](#).

If you plan to use WxLoader, it should be placed in the startup box in Windows. This will insure that the program is automatically started each time the computer is booted.




Although Weather Message has provisions for uploading weather text and graphics, it does not monitor expiration dates/times for the uploaded products. WxLoader, working in conjunction with Weather Message Server, has the ability to upload text products and monitor the expiration date/times of these products. This allows WxLoader to remove expired products and/or replace the message with user defined text.

WxLoader connects to Weather Message server using TCP/IP and processes the same products sent to the map client.

**Hint:** *If the system tray icon is outlined with a red circle or a red led appears in the status bar, the program is not communicating with the Weather Message Server.*

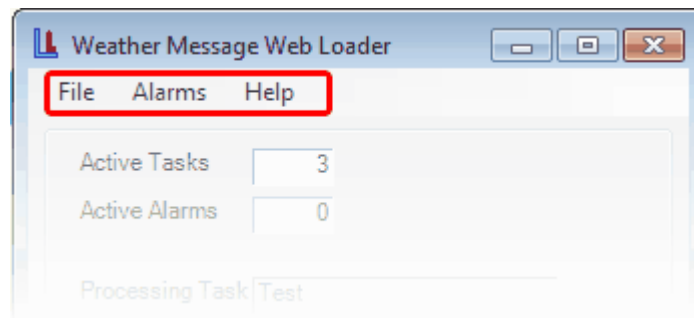
**Note:** *If WxLoader is stopped with the window minimized, the next time it is started, it will start minimized.*

#### System Tray

When WxLoader is minimized, you can restore the main screen by right clicking on the system tray icon , then select open.

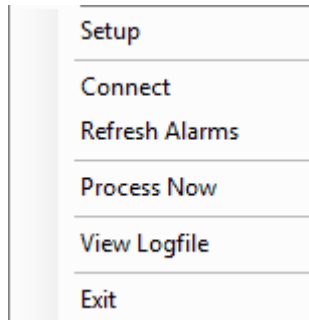
Copyright © 2011 Weather Message Software

## 15.2 Menu Options



The menu buttons on this screen perform these functions:

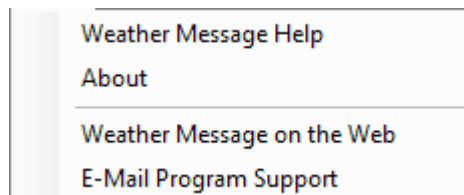
The **File** menu allows you to setup this program, start a processing cycle and exit the program.



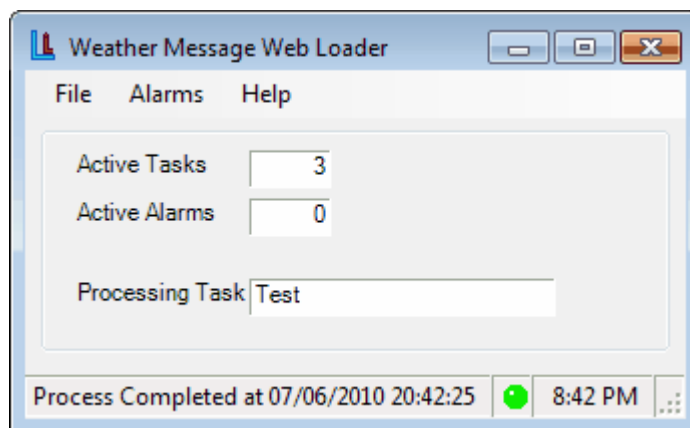
- The **Setup** option opens the [Setup window](#)<sup>[212]</sup>.
- The **Connect** option forces the application to attempt a connection to the server.
- The **Refresh Alarm** option clears any active alarms and sends a refresh request to Weather Message Server.
- The **Process Now** forces the program to start a processing cycle.
- The **View Logfile** option displays the log file in notepad.
- The **Exit** option shuts down WxLoader.

The **Alarms** option displays the [Active Alarms](#)<sup>[155]</sup> window.

The **Help** menu allows you to see this manual, and display information about the program.



## 15.3 Main Window

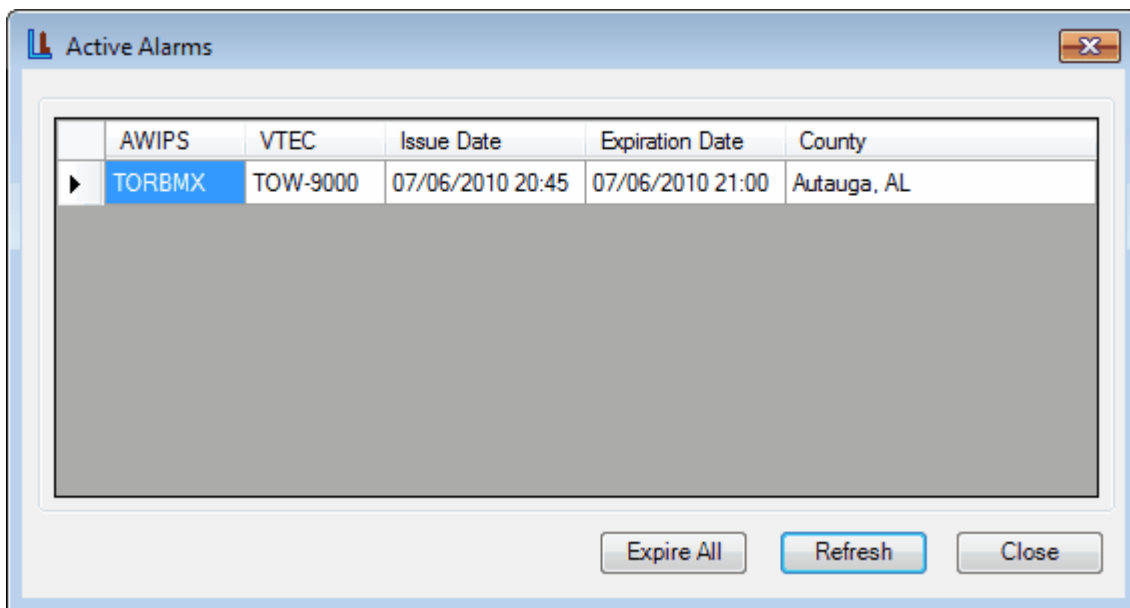


The main processing window shows the status of WxLoader. When it is processing tasks, you will see status messages in the status bar.

WxLoader works by processing products that have been [alarmed](#)<sup>[224]</sup> to the map client. This allows Weather Message Server to handle the alarms and message content while WxLoader handles uploads and message expirations.

## 15.4 Alarms

The Active Alarms Menu option allows you to view the current alarms.



The alarm grid display information about each active alarm. The columns and rows can be expanded to show hidden information. The columns and rows can be extended by clicking a row or column line and dragging the line. You can also sort the information by clicking on the column

identifier.

Right click an entry to expire a product or click the **Expire All** button to expire all active alarms.

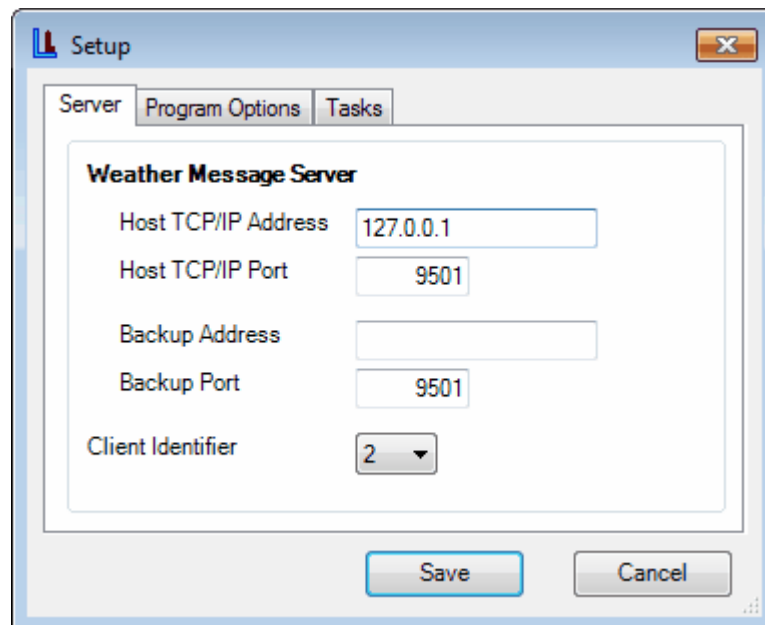
The **Refresh** button will refresh the alarm grid.

**Note:** *The alarm grid will automatically refresh every 30 seconds.*

## 15.5 Setup

### 15.5.1 Server Tab

The Server Tab is used to define the communication settings for your Weather Message Server.



The screenshot shows a 'Setup' dialog box with a title bar containing a standard Windows icon and a close button. Inside the dialog, there are three tabs: 'Server', 'Program Options', and 'Tasks'. The 'Server' tab is selected. Below the tabs is a section titled 'Weather Message Server'. This section contains five input fields: 'Host TCP/IP Address' with the value '127.0.0.1', 'Host TCP/IP Port' with the value '9501', 'Backup Address' which is empty, 'Backup Port' with the value '9501', and 'Client Identifier' which is a dropdown menu showing '2'. At the bottom of the dialog are two buttons: 'Save' and 'Cancel'.

The **Host TCP/IP Address** is the address of the Weather Message Server. Enter the address of your primary server in this field.

**Note:** *When the Host TCP/IP Address field is left blank, WxLoader will try to discover the address and port of the Weather Message Server. If your server is on the same local network as the client, it will automatically obtain the address and port. If the client is running on a different network, you will need to enter the address and port of the server.*

The **Host TCP/IP Port** is the port defined by Weather Message Server for connections. The default is 9501.

The **Backup Address** is the TCP/IP address of your backup Weather Message Server. Do not enter an address in this field if you do not have a backup Weather Message Server. This address is used when the program cannot contact your primary Weather Message Server.

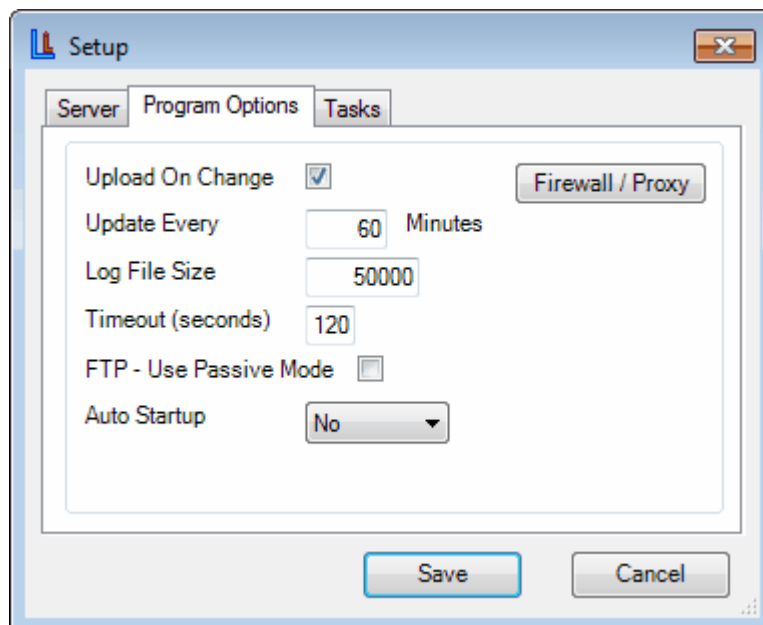
The **Backup Port** is the port defined for use by the backup Weather Message Server. The

default is 9501.

The **Client Identifier** field allows you to assign an identification number to WxLoader. This identifier can be used, when setting up your [alarms](#), to send a specific product to WxLoader.

## 15.5.2 Program Options Tab

The Settings Tab is used to set operational information for WxLoader.



The **Upload On Change** option indicates whether WxLoader should process tasks when a new file arrives or a product expires. Check this option if you want the program to process tasks when a new file arrives or a product expires. If this option is not checked, the process task cycle will occur based on the **Update Every Minutes** setting.

The **Update Every Minutes** option establishes the amount of time, in minutes, to process tasks. The task processing cycle time can be set from 0 to 60 minutes. If you set this field to zero minutes, you must check the **Upload On Change** option. Care should be used when setting this value. When the specified amount of time lapses, the program will process and upload each task.

**Note:** *Setting this value too low can cause the program to get behind when you have a slow internet connection.*

The **Log File Size** field allows you to specify this size of your log file, LoadLog.txt. The default is 50,000 bytes.

The **Timeout** field allows you to specify the maximum amount of time the program will wait on the HTTP or FTP servers to respond.

The **FTP – Use Passive Mode** option, when checked, will cause the ftp program to use the passive mode. This option may be needed for firewalls that restrict incoming connections.

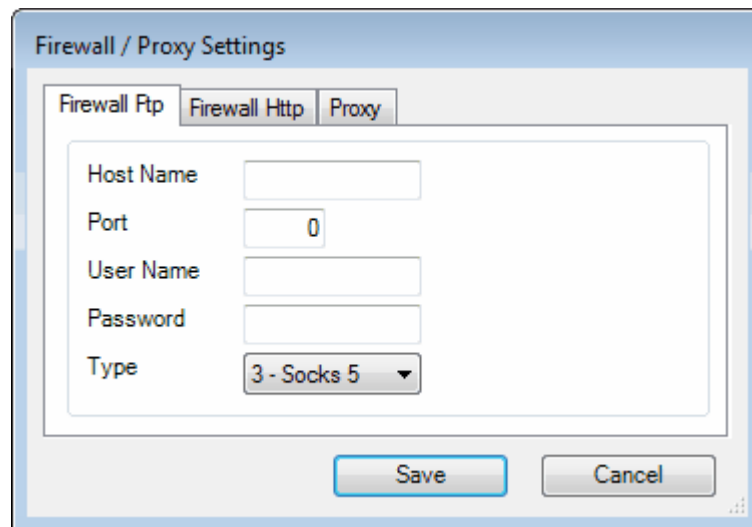
The **Auto Startup** option allows you to specify whether WxLoader is automatically started when Windows starts. The options are No; Yes, for the current user; and Everyone, for any user.

**Note:** The options available for **Auto Startup** are based on your user permissions. Administrator and Power users will have all of the options. Other users may only have the Yes option.

The **Firewall / Proxy** button allows you to configure Firewall and Proxy settings for your computer. See [Firewall / Proxy](#)<sup>38</sup>.

### 15.5.2.1 Firewall / Proxy

The Firewall / Proxy window allows you to configure firewall / proxy information for your computer.



The screenshot shows a 'Firewall / Proxy Settings' dialog box. It has three tabs: 'Firewall Ftp', 'Firewall Http', and 'Proxy'. The 'Firewall Ftp' tab is active. Inside the dialog, there are five input fields: 'Host Name' (empty), 'Port' (containing '0'), 'User Name' (empty), 'Password' (empty), and 'Type' (a dropdown menu showing '3 - Socks 5'). At the bottom right, there are 'Save' and 'Cancel' buttons.

For a FTP firewall, enter the domain name or TCP/IP address of the firewall in the **Host Name** field.

Enter the **Port** number for the firewall.

If required, enter a **User Name** and **Password**. This should be a user name and password setup in the firewall.

Select the **Type** of firewall. Valid entries are 1-Tunnel, 2-Socks version 4, or 3-Socks version 5.

The screenshot shows the 'Firewall / Proxy Settings' dialog box with the 'Firewall Http' tab selected. The dialog contains the following fields and controls:

- Host Name:** A text input field.
- Port:** A text input field containing the value '0'.
- User Name:** A text input field.
- Password:** A text input field.
- Type:** A dropdown menu currently showing '3 - Socks 5'.
- Buttons:** 'Save' and 'Cancel' buttons at the bottom right.

For a HTTP firewall, enter the domain name or TCP/IP address of the firewall in the **Host Name** field.

Enter the **Port** number for the firewall.

If required, enter a **User Name** and **Password**. This should be a user name and password setup in the firewall.

Select the **Type** of firewall. Valid entries are 1-Tunnel, 2-Socks version 4, or 3-Socks version 5.

The screenshot shows the 'Firewall / Proxy Settings' dialog box with the 'Proxy' tab selected. The dialog contains the following fields and controls:

- Host Name:** A text input field.
- Port:** A text input field containing the value '0'.
- User Name:** A text input field.
- Password:** A text input field.
- HTTP Version 1.0:** A checkbox that is currently unchecked.
- Detect Proxy:** A button located below the password field.
- Buttons:** 'Save' and 'Cancel' buttons at the bottom right.

For a Proxy access, enter the domain name or TCP/IP address of the proxy in the **Host Name** field.

Enter the **Port** number for the firewall.

If required, enter a **User Name** and **Password**. This should be a user name and password setup for the proxy.



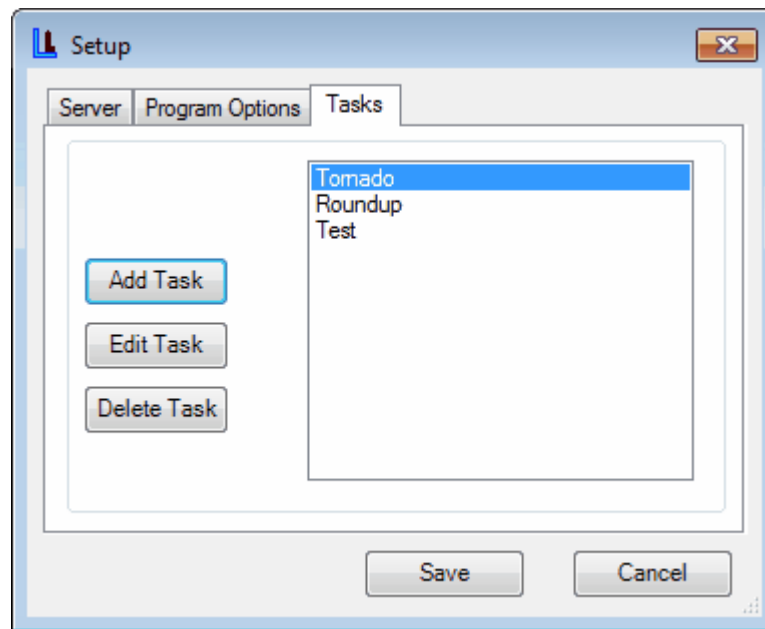
If **HTTP version 1.0** is required for the proxy server, check this box.

The **Detect Proxy** button will automatically detect the proxy settings for your computer and populate the host name and port fields.

**Note:** *The Firewall / Proxy settings are common to all Weather Message applications. Changing these settings will automatically change them for the other applications.*

### 15.5.3 Tasks Tab

The Tasks Tab is used to maintain WxLoader [tasks](#).



The **Add**, **Edit** and **Delete** Task buttons are used to create, change and remove tasks. You can also edit tasks by double clicking on the listed task.

#### 15.5.3.1 Editing a Task

##### 15.5.3.1.1 Task Tab

The Edit Task window is used to setup information for a new or selected task.

The **Task Name** field describes this task. Use short descriptive names to identify your tasks.

The **Style** option is used to specify the type of message to create. Select **Short** for a short message with the county names, **Short with State** for a short message with the county names suffixed with the state abbreviation, **Short by State** for a short message that includes the state name followed by the counties, **Full** for a full text message, or **Full - No Head** for the full text excluding the first 3 lines of the message.

Here is an example message created with the Short option.

```
A Tornado Warning has been issued for Tallapoosa county until 9:20 PM. A
Severe Thunderstorm Watch has been issued for Tallapoosa county until 9:20
PM.
```

Here is an example message created with the Short with State option.

```
A Tornado Warning has been issued for Tallapoosa-AL county until 9:20 PM. A
Severe Thunderstorm Watch has been issued for Tallapoosa-AL county until
9:20 PM.
```

Here is an example message created with the Short by State option.

```
A Tornado Warning has been issued for the following county in Alabama:
Tallapoosa county until 9:20 PM. A Severe Thunderstorm Watch has been
issued for the following county in Alabama: Tallapoosa county until 9:20 PM.
```

The **Issue Time Style** allows you to include the start time and day for a message that will begin in the future. The options are **None**, **Time** and **Time/Day**. The None option does not insert the issue time. The Time option insert the issue time if the issue time is in the future. The Time/Day option inserts the issue time and day of week if the issue time is in the future.

**Hint:** The Issue Time Style is not available if the Full style is selected.

**Hint:** *The Issue Time Style option is deactivated when the Combine Like Products options is checked.*

The **Expire Time Style** allows you to select different styles for the expiration time. The options are **Time**, **Time/Day** and **Time/Day Next**. The Time option inserts the expiration time. The Time/Day option inserts the expiration time and day of week. The Time/Day Next option inserts the expiration time and inserts the day of week if the current day and expiration day are different.

**Hint:** *The Expire Time Style is not available if the Full style is selected.*

The **Combine Like Products** option is used with the short format. It causes the program to combine like messages into one sentence.

The **Delete Inactive** option, when checked, will cause the program to remove the destination file when the message to upload is empty.

The **Expire Adjustment** field allows you to modify the expiration times of received products. For example you could specify -10 or +10 minutes. In some applications, you may want the message to remain active longer than the actual expiration time. In other applications, you may want the message to expire before the actual expiration time.

The **Expire After Minutes** option is used to expire products that do not contain an expiration date/time. Products that do not contain [UGC](#) lines do not have an expiration date/time. The amount of time specified for this option will be added to the product issue date/time to determine the expiration date/time. This value does not effect products that contain UGC lines.

**Hint:** *If you alarm products that do not contain UGC lines, you should enter a value in the Expire After Minutes field. Failing to do so will result in the message expiring immediately.*

#### 15.5.3.1.2 Destination Tab

The Destination window is used to set destination path and method for the task.

The screenshot shows the 'Edit Task' dialog box with the 'Destination' tab selected. The 'Destination File Name' field is populated with 'p:\wxmesgnet\wxdata\archive\sample.htm'. Under the 'Save To' section, the 'Local' radio button is selected. The other options are 'FTP', 'HTTP', and 'Pro-Lite Sign'. Below these are several input fields: 'Server Address' (empty), 'Port' (0), 'User Name' (empty), 'Password' (empty), 'Sign Serial Port' (0), and 'Sign Identifier' (00). At the bottom right are 'Save' and 'Cancel' buttons.

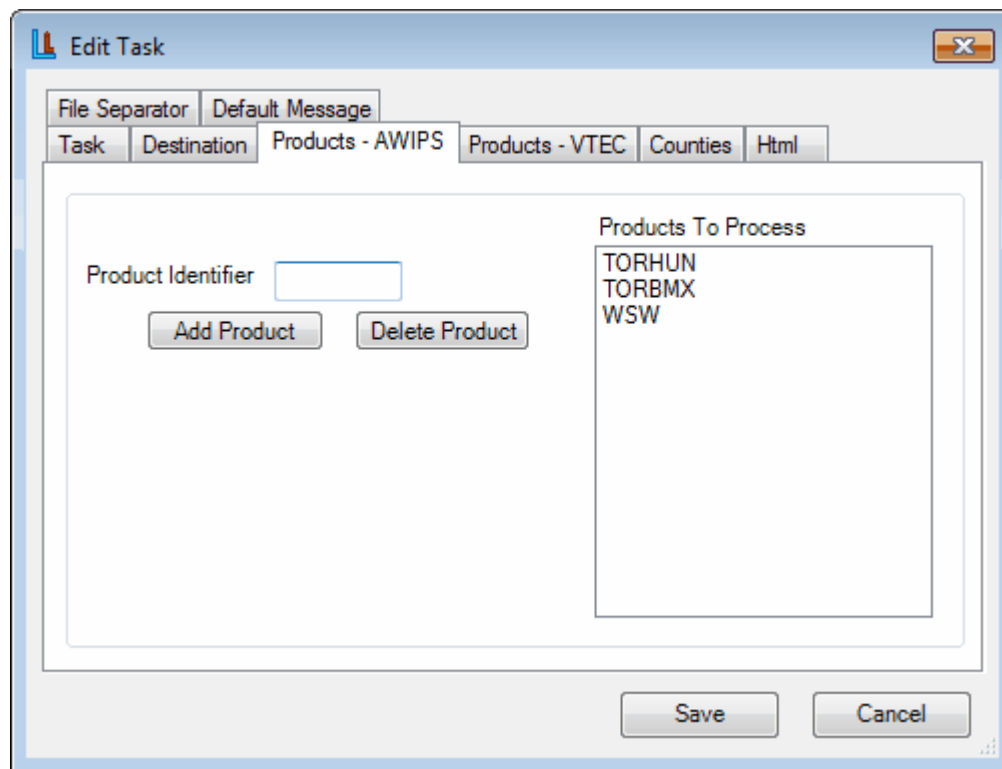
The **Destination File Name** is the path and file name that you want the created message to be named on your server or directory. This field is required.

Select the type of save, **Local**, **FTP**, **HTTP**, or **Pro-Lite Sign**. If FTP or HTTP is selected, the program will allow you to enter information about your ftp or HTTP server. Enter the FTP Server address, Port number, User Name and Password. These settings will be used to log into your server. For Pro-Lite Signs, select the **Sign Serial Port** and enter the **Sign Identifier**.

**Hint:** Setting the Sign Identifier to 00 will address all Pro-Lite signs connected to the serial port.

#### 15.5.3.1.3 Products - AWIPS Tab

The Products - AWIPS Tab allows you to specify the products that should be processed for this task based on the AWIPS identifier.



Enter an AWIPS identifier to process in the **Product Identifier** field. Click the **Add Product** button to add this product to the list.

**Note:** *This product must be alarmed to the map client.*

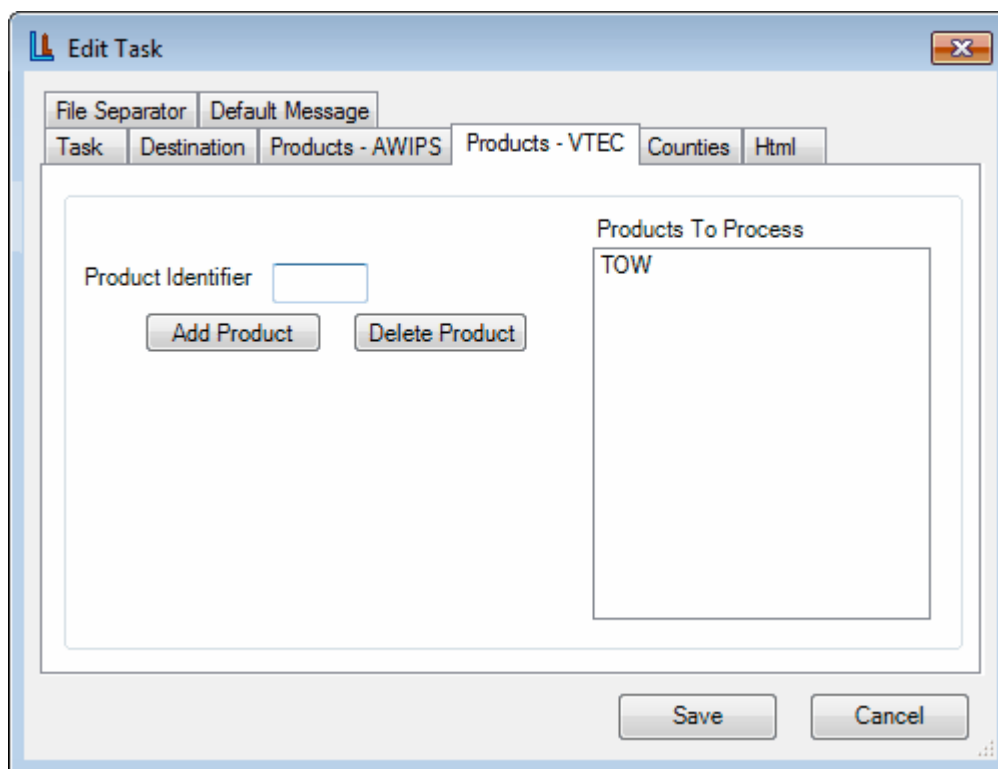
**Hint:** *Product identifiers can contain the wild card characters \* and ?.*

**Hint:** *AWIPS identifiers can include WFO abbreviations as shown above.*

To delete a product, highlight the product and click **Delete Product** or press the Delete key.

#### 15.5.3.1.4 Products - VTEC Tab

The Products - VTEC Tab allows you to specify the products that should be processed for this task based on the VTEC identifier.



Enter a VTEC phenomena and significance to process in the **Product Identifier** field. Click the **Add Product** button to add this product to the list.

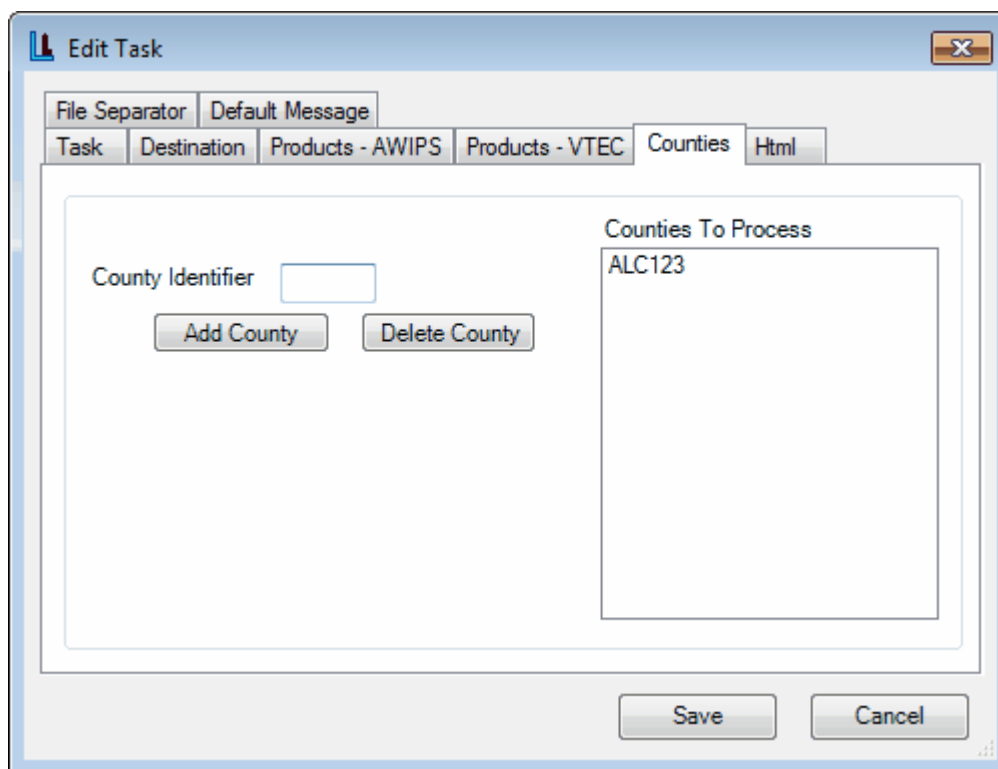
**Note:** *This product must be alarmed to the map client.*

**Hint:** *VTEC phenomena and significance codes do not allow WFO identifiers.*

To delete a product, highlight the product and click **Delete Product** or press the Delete key.

#### 15.5.3.1.5 Counties Tab

The Counties Tab allows you to specify the counties that should be processed for this task.



Most users will not enter any counties. WxLoader will process all counties that are associated with the received message. In some situations, you may want to restrict the counties associated with a task. In these situations, you will enter the county designator(s) that you want processed.

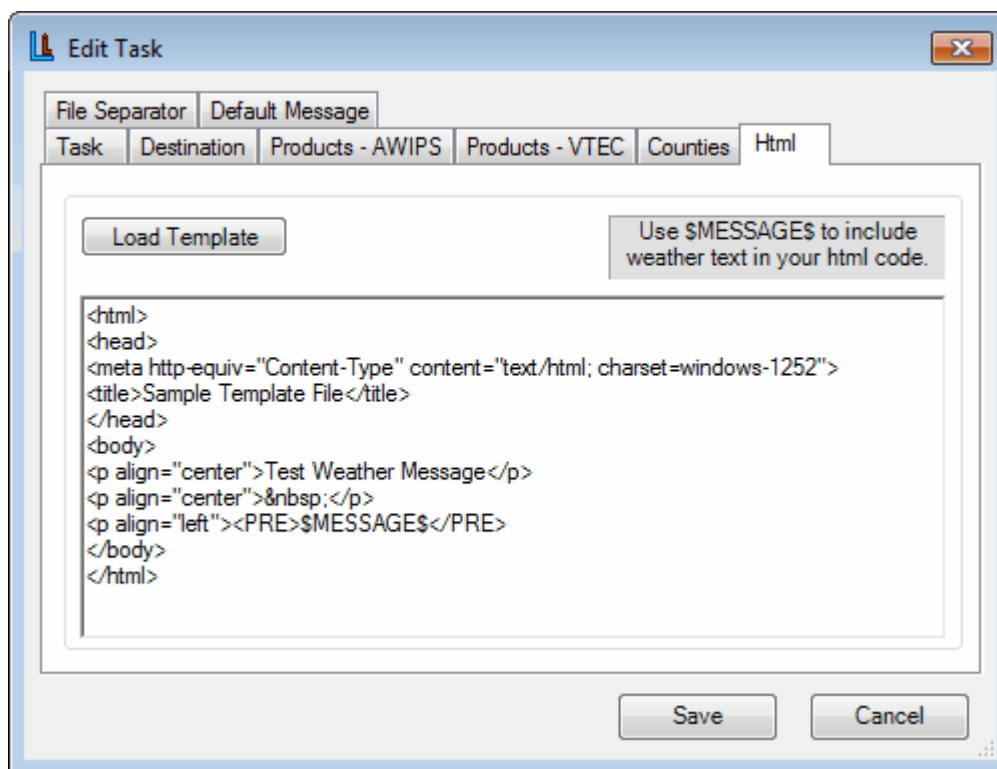
The county designator is in the format **XXYZZZ**. Where **XX** is the two letter state abbreviation, **Y** is **C** for a FIPS county code or **Z** for a zone county code, and **ZZZ** is the three digit county code.

Enter a county identifier in the **County Identifier** field. Click the **Add County** button to add this county to the list.

To delete a county, highlight the county and click **Delete County** or press the Delete key.

#### 15.5.3.1.6 HTML Tab

The HTML Tab allows you to enter HTML code to be included when processing this task. Normally, HTML code is used to encapsulate the message.



If you will be using HTML code, enter the HTML code in the text box. Remember to use the variable `$MESSAGE$` in this code as a place marker for your text. The **Load Template** button can be used to load a template file or a file containing html code. When loading templates, the program automatically looks for templates in `..\WxMesgNet\WxData\Template`.

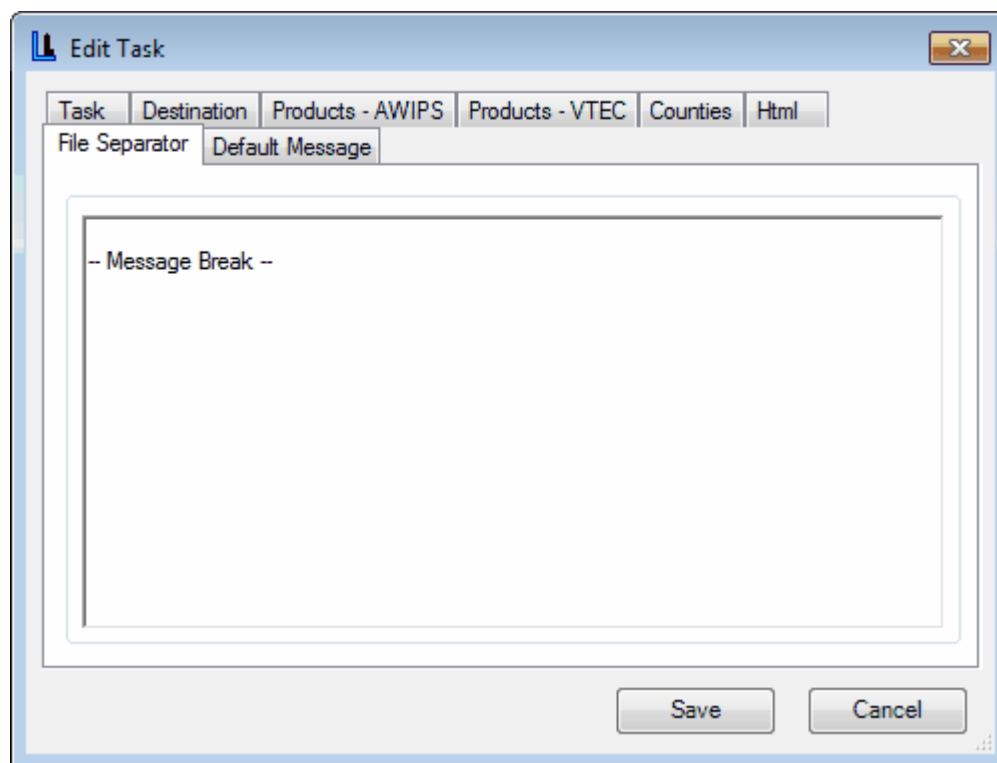
**Note:** If a html template is specified, the program will change any html reserved-characters in the weather text to their corresponding html abbreviation. This prevents html browsers from misinterpreting the weather text as html code.

**Note:** See [Publishing Data to a Web Page](#) for examples.

#### 15.5.3.1.7 File Separator Tab

The File Separator Tab allows you to enter text to be inserted between each product.

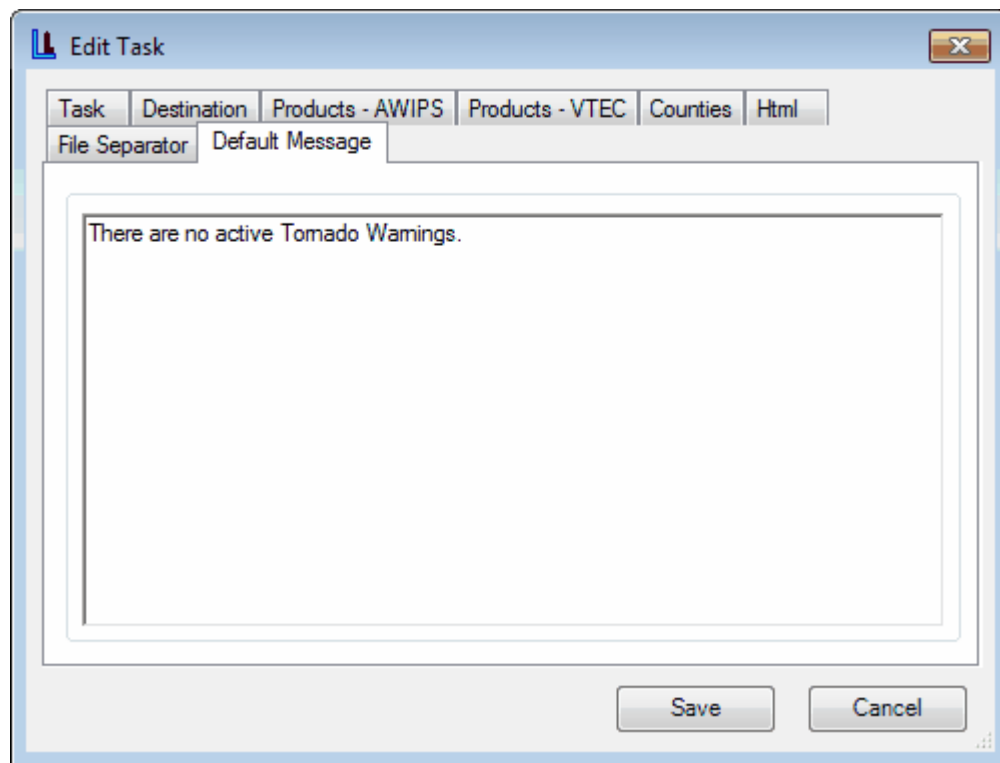




If you want text inserted between each product, enter it in the text box. This field is not required and can be left blank.

#### 15.5.3.1.8 Default Message Tab

The Default Message Tab allows you to specify text to be uploaded when there are no active messages for this task.



Enter the default message text in the text box. This field is not required and can be left blank.

## 15.6 Alarm Setup

In order for WxLoader to have products to process, the desired products must be alarmed in Weather Message Server. This is accomplished by setting up an alarm in Weather Message and sending the product to the map client.

**Edit Alarm # 23 - TORBMX**

List Products   List Forecast Offices   **List States**

**Alarm**   Client/ Map/ X10   Paging/Email/Fax   Archive/Html/Exe/Print   Notes

To Client: No   Alarm Type:   Alarm type is used to play sounds and/or control printing.

To Map: Yes

**X10 Settings**

House Code:   Unit 1: ☐   Unit 5: ☐   Unit 9: ☐   Unit 13: ☐

Command:   Unit 2: ☐   Unit 6: ☐   Unit 10: ☐   Unit 14: ☐

Duration: 0   Unit 3: ☐   Unit 7: ☐   Unit 11: ☐   Unit 15: ☐

Unit 4: ☐   Unit 8: ☐   Unit 12: ☐   Unit 16: ☐

Save   Cancel

If you only want to alarm a product to WxLoader, select the client identifier in the To Map box. This is the same client identifier selected on the [Server Tab](#)<sup>[128]</sup>.



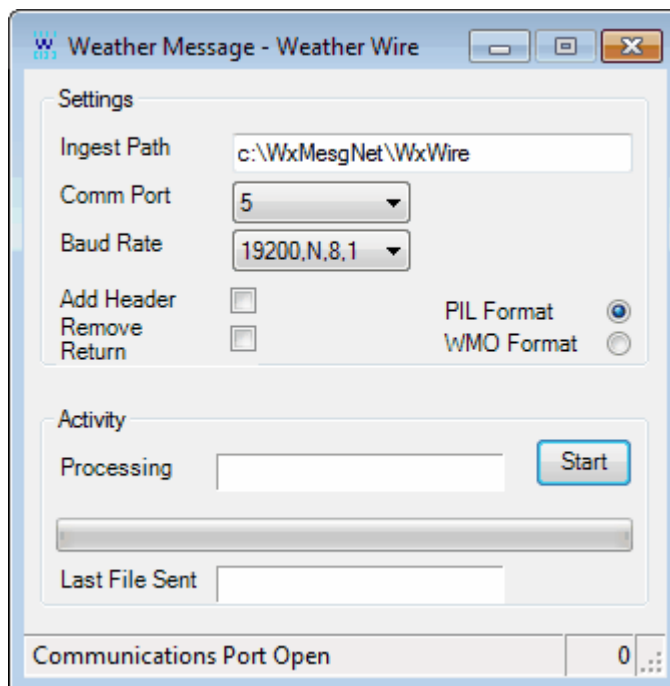
**Part**



## 16 WxWire - Weather Wire Utility

### 16.1 Overview

WxWire is a support application that can be used to send messages to a serial port in weather wire format.



The **Ingest Path** is the directory path where WxWire should pickup the files archived by Weather Message Server. This path is initially empty. You will need to decide on a common directory path that will be used by WxWire to receive files and Weather Message Server to store files. The suggested path, "C:\Program Files\WxMesgNet\WxWire", can be used for this purpose.

Set the **Comm Port** and **Baud Rate** as required by your external equipment or software.

The **Add Header** option, when selected, will add an expanded header to the first line of the message. This option expands the AWIPS identifier and makes it the first line in the message.

The **Remove Return** option, when selected, will remove the extra return character from processed messages.

Click on **PIL Format** to send messages in PIL format. Click on **WMO Format** to send messages in WMO format. This setting depends on the application that will be receiving the data.

The **Stop** button can be used to pause the file that is currently being sent. This button will toggle between Stop and Start.

**Note:** You must click the Stop button to make changes to the Settings.

**Part**



## 17 Supplement

### 17.1 Weather Forecast Office Abbreviations

AK	WFO Juneau	ACG
AK	RFC Alaska - Anchorage	ACR
AK	WFO Fairbanks	AEC
AK	WFO Anchorage	AER
AK	WFO Anchorage	AFC
AK	WFO Fairbanks	AFG
AK	WFO Juneau	AJK
AK	WFO Anchorage	ALU
AK	WFO Fairbanks	APD
AK	WFO Fairbanks	FAI
AK	WFO Juneau	JNU
AK	WFO Fairbanks	NSB
AK	WFO Anchorage	SWB
AK	WFO Anchorage	WCM
AK	WFO Fairbanks	WCZ
AL	WFO Birmingham	BHM
AL	WFO Birmingham	BMX
AL	WFO Mobile	EVX
AL	WFO Huntsville	HSV
AL	WFO Birmingham	HTX
AL	WFO Huntsville	HUN
AL	WFO Birmingham	MGM
AL	WFO Mobile	MOB
AL	WFO Huntsville	MSL
AL	WFO Mobile	PNS
AR	WFO Little Rock	LIT
AR	WFO Little Rock	LZK
AZ	WFO Tucson	EMX
AZ	WFO Flagstaff	FGZ
AZ	WFO Flagstaff	FLG
AZ	WFO Flagstaff	FSX
AZ	WFO Flagstaff	INW
AZ	WFO Phoenix	IWA
AZ	WFO Phoenix	PHX
AZ	WFO Phoenix	PSR
AZ	WFO Tucson	TUS
AZ	WFO Tucson	TWC
CA	WFO Sacramento	BBX
CA	WFO San Joaquin Valley - Hanford	BFL
CA	WFO Eureka	BHX
CA	WFO Eureka	EKA
CA	WFO San Joaquin Valley - Hanford	FAT
CA	WFO Los Angeles	FWF
CA	WFO San Joaquin Valley - Hanford	HNX
CA	WFO Los Angeles	LAX
CA	WFO Los Angeles	LOX
CA	WFO San Francisco Bay Area - Monterey	MRY
CA	WFO San Francisco Bay Area - Monterey	MTR
CA	WFO Sacramento	RBL
CA	WFO Sacramento	RDD



CA	California-Nevada RFC - Sacramento	RSA
CA	WFO Sacramento	SAC
CA	WFO San Diego	SAN
CA	WFO Sacramento	SCK
CA	WFO San Francisco Bay Area - Monterey	SFO
CA	WFO San Diego	SGX
CA	WFO Los Angeles	SMX
CA	WFO San Diego	SOX
CA	WFO Sacramento	STO
CA	WFO Los Angeles	UCR
CA	WFO Sacramento	USA
CA	WFO San Joaquin Valley - Hanford	USJ
CA	WFO Los Angeles	VTX
CO	WFO Pueblo	ALS
CO	WFO Denver	BOU
CO	WFO Denver	COS
CO	WFO Denver	DEN
CO	WFO Denver	FTG
CO	WFO Grand Junction	GJT
CO	WFO Grand Junction	GJX
CO	National Earthquake Center	NEC
CO	WFO Pueblo	PUB
CO	WFO Pueblo	PUX
DC	WFO Baltimore/Washington D.C.	BWI
DC	National Centers For Environmental Prediction	CAC
DC	National Centers For Environmental Prediction	CAN
DC	National Centers For Environmental Prediction	CRN
DC	National Centers For Environmental Prediction	EPD
DC	National Centers For Environmental Prediction	EPI
DC	National Centers For Environmental Prediction	ERD
DC	National Centers For Environmental Prediction	ERN
DC	National Centers For Environmental Prediction	HSD
DC	National Centers For Environmental Prediction	HUR
DC	WFO Baltimore/Washington D.C.	IAD
DC	National Centers For Environmental Prediction	INT
DC	National Centers For Environmental Prediction	LAT
DC	WFO Baltimore/Washington D.C.	LWX
DC	National Centers For Environmental Prediction	MRD
DC	National Centers For Environmental Prediction	NAM
DC	National Centers For Environmental Prediction	NMC
DC	National Centers For Environmental Prediction	PFD
DC	National Centers For Environmental Prediction	QLM
DC	National Centers For Environmental Prediction	SPD
DC	National Centers For Environmental Prediction	SUS
DC	National Centers For Environmental Prediction	WRN
DC	National Centers For Environmental Prediction	WSH
FL	WFO Key West	AMX
FL	WFO Miami	APF
FL	WFO Melbourne	DAB
FL	WFO Tallahassee	EOX
FL	WFO Key West	EYW
FL	WFO Miami	FLL
FL	WFO Tampa Bay Area - Ruskin	FMY
FL	WFO Jacksonville	GNV
FL	WFO Jacksonville	JAX
FL	WFO Key West	KEY
FL	WFO Melbourne	MCO

FL	WFO Miami	MFL
FL	WFO Miami	MIA
FL	WFO Melbourne	MLB
FL	National Hurricane Center	NHC
FL	WFO Miami	PBI
FL	WFO Tallahassee	TAE
FL	WFO Tampa Bay Area - Ruskin	TBW
FL	WFO Tallahassee	TLH
FL	WFO Tampa Bay Area - Ruskin	TPA
FL	WFO Jacksonville	VAX
FL	WFO Melbourne	VRB
GA	WFO Atlanta	AHN
GA	Southeast RFC - Atlanta	ALR
GA	WFO Atlanta	ATL
GA	Southeast RFC - Atlanta	ATR
GA	WFO Atlanta	CSG
GA	WFO Atlanta	FFC
GA	WFO Atlanta	JGX
GA	WFO Atlanta	MCN
GA	Southeast RFC - Atlanta	RDU
GU	WFO Guam	GUA
GU	WFO Guam	GUM
HI	WFO Honolulu	HFO
HI	WFO Honolulu	HNL
HI	WFO Honolulu	HWA
HI	WFO Honolulu	ITO
HI	WFO Honolulu	LIH
HI	WFO Honolulu	OGG
HI	WFO Honolulu	STU
HI	WFO Honolulu	WAK
IA	WFO Des Moines	ALO
IA	WFO Quad Cities	DBQ
IA	WFO Des Moines	DMX
IA	WFO Des Moines	DSM
IA	WFO Quad Cities	DVN
IA	WFO Quad Cities	MLI
ID	WFO Boise	BOI
ID	WFO Boise	CBX
ID	WFO Pocatello/Idaho Falls	PIH
ID	WFO Pocatello/Idaho Falls	SFX
ID	WFO Pocatello/Idaho Falls	SNT
IL	WFO Chicago	CHI
IL	WFO Central Illinois - Lincoln	ILX
IL	WFO Chicago	LOT
IL	WFO Central Illinois - Lincoln	PIA
IL	WFO Chicago	RFD
IL	WFO Central Illinois - Lincoln	SPI
IN	WFO Northern Indiana - North Webster	FWA
IN	WFO Indianapolis	IND
IN	WFO Northern Indiana - North Webster	IWX
IN	WFO Northern Indiana - North Webster	SBN
KS	WFO Dodge City	DDC
KS	WFO Goodland	GLD
KS	WFO Wichita	ICT
KS	WFO Topeka	TOP
KS	WFO Topeka	TWX
KY	WFO Louisville	BWG

KY	WFO Paducah	EVV
KY	WFO Paducah	HPX
KY	WFO Jackson	JKL
KY	WFO Louisville	LEX
KY	WFO Louisville	LMK
KY	WFO Louisville	LVX
KY	WFO Paducah	PAH
KY	WFO Louisville	SDF
LA	WFO New Orleans/Baton Rouge	BTR
LA	WFO Lake Charles	LCH
LA	WFO Lake Charles	LFT
LA	WFO New Orleans/Baton Rouge	LIX
LA	Lower Mississippi RFC - Slidell	LOM
LA	WFO New Orleans/Baton Rouge	NEW
LA	Lower Mississippi RFC - Slidell	ORN
LA	WFO Shreveport	SHV
LA	WFO New Orleans/Baton Rouge	SIL
MA	WFO Boston	BDL
MA	WFO Boston	BOS
MA	WFO Boston	BOX
MA	WFO Boston	EQI
MA	Northeast RFC - Taunton	HFD
MA	WFO Boston	ORH
MA	WFO Boston	PVD
MA	Northeast RFC - Taunton	TAR
MD	National Centers For Environmental Prediction	WBC
MD	Hydrometeorological Predication Center	WNH
MD	Ocean Prediction Center/Ocean Forecast	WNM
ME	WFO Caribou	BGR
ME	WFO Caribou	BGR
ME	WFO Caribou	CAR
ME	WFO Caribou	CBW
ME	WFO Portland	CON
ME	WFO Portland	GYX
ME	WFO Caribou	HUL
ME	WFO Portland	PWM
MI	WFO North Central Lower Michigan - Gaylord	APN
MI	WFO North Central Lower Michigan - Gaylord	APX
MI	WFO Detroit	DTW
MI	WFO Detroit	DTX
MI	WFO Detroit	FNT
MI	WFO Grand Rapids	GRR
MI	WFO Detroit	MKG
MI	WFO Marquette	MQT
MI	WFO North Central Lower Michigan - Gaylord	NWR
MI	Sault Ste Marie	SSM
MN	WFO Duluth	DLH
MN	WFO Minneapolis	EAU
MN	WFO Duluth	INL
MN	WFO Minneapolis	MPX
MN	WFO Minneapolis	MSP
MN	North Central RFC - Chanhassen	MSR
MN	WFO Minneapolis	STC
MO	WFO St. Louis	COU
MO	WFO Kansas City/Pleasant Hill	EAX
MO	Missouri Basin RFC - Pleasant Hill	KRF
MO	WFO St. Louis	LSX

MO	WFO Kansas City/Pleasant Hill	MCI
MO	WFO Springfield	SGF
MO	WFO St. Louis	STL
MS	WFO Jackson	GWX
MS	WFO Jackson	JAN
MS	WFO Jackson	MEI
MT	WFO Billings	BIL
MT	WFO Billings	BLX
MT	WFO Missoula	BTM
MT	WFO Billings	BYZ
MT	WFO Missoula	FCA
MT	WFO Glasgow	GGW
MT	WFO Great Falls	GTF
MT	WFO Great Falls	HLN
MT	WFO Missoula	MSO
MT	WFO Glasgow	RRM
MT	WFO Billings	SHR
MT	WFO Great Falls	TFX
NB	WFO Hastings	GID
NB	WFO Hastings	GRI
NB	WFO Omaha	OAX
NB	WFO Omaha	OFK
NB	WFO Omaha	OMA
NB	WFO Hastings	UEX
NC	WFO Wilmington	FLO
NC	WFO Raleigh/Durham	GSO
NC	WFO Morehead City	HAT
NC	WFO Wilmington	ILM
NC	WFO Morehead City	MHX
NC	WFO Wilmington	MYR
NC	WFO Raleigh/Durham	RAH
NC	WFO Raleigh/Durham	RAX
ND	WFO Bismarck	BIS
ND	WFO Eastern North Dakota - Grand Forks	FAR
ND	WFO Eastern North Dakota - Grand Forks	FGF
ND	WFO Bismarck	ISN
ND	WFO Bismarck	MBX
NE	WFO North Platte	LBF
NE	WFO North Platte	LNK
NE	WFO North Platte	VTN
NM	WFO Albuquerque	ABQ
NM	WFO Albuquerque	CAO
NM	WFO Albuquerque	FDX
NV	WFO Elko	EKO
NV	WFO Elko	ELY
NV	WFO Las Vegas	LAS
NV	WFO Elko	LKN
NV	WFO Elko	LRX
NV	WFO Reno	REV
NV	WFO Reno	RNO
NV	WFO Las Vegas	VEF
NV	WFO Elko	WMC
NY	WFO Albany	ALB
NY	WFO Albany	ALY
NY	WFO Binghamton	AVP
NY	WFO New York City - Upton	BDR
NY	WFO Binghamton	BGM

NY	WFO Buffalo	BUF
NY	WFO Albany	ENX
NY	WFO New York City - Upton	EWR
NY	WFO New York City - Upton	ISP
NY	WFO New York City - Upton	JFK
NY	WFO New York City - Upton	LGA
NY	WFO New York City - Upton	NYC
NY	WFO New York City - Upton	OKX
NY	WFO Buffalo	ROC
NY	WFO Binghamton	SYR
OH	WFO Cleveland	CAK
OH	WFO Cleveland	CLE
OH	WFO Cincinnati	CMH
OH	WFO Cincinnati	CVG
OH	WFO Cincinnati	DAY
OH	WFO Cleveland	ERI
OH	WFO Cincinnati	ILN
OH	Ohio RFC - Wilmington	KTY
OH	WFO Cleveland	LIO
OH	WFO Cleveland	MFD
OH	Ohio RFC - Wilmington	OHL
OH	Ohio RFC - Wilmington	OHW
OH	Ohio RFC - Wilmington	TIR
OH	WFO Cleveland	TOL
OH	WFO Cleveland	YNG
OK	WFO Oklahoma City	FDR
OK	WFO Tulsa	FSM
OK	Storm Prediction Center Norman	MKC
OK	WFO Oklahoma City	OKC
OK	WFO Oklahoma City	OUN
OK	WFO Tulsa	SRX
OK	WFO Tulsa	TSA
OK	Arkansas-Red Basin RFC - Tulsa	TUA
OK	WFO Tulsa	TUL
OK	Arkansas-Red Basin RFC - Tulsa	TUR
OK	NWS Storm Prediction Center Norman	WNS
OR	WFO Portland	AST
OR	WFO Portland	BNO
OR	WFO Portland	EUG
OR	WFO Medford	MAX
OR	WFO Medford	MEF
OR	WFO Medford	MFR
OR	Astoria CG	NMW
OR	WFO Pendleton	PDT
OR	WFO Portland	PDX
OR	WFO Portland	PQR
OR	Northwest RFC - Portland	PTR
OR	WFO Portland	RTX
OR	WFO Medford	SIY
OR	WFO Portland	SLE
OR	WFO Pendleton	YKM
PA	WFO Philadelphia	ABE
PA	WFO Philadelphia	ACY
PA	WFO Central Pennsylvania - State College	CCX
PA	WFO Central Pennsylvania - State College	CTP
PA	WFO Philadelphia	DIX
PA	WFO Philadelphia	DOX

PA	WFO Philadelphia	GED
PA	WFO Central Pennsylvania - State College	HAR
PA	WFO Philadelphia	ILG
PA	WFO Central Pennsylvania - State College	IPT
PA	Middle Atlantic RFC - State College	JAA
PA	WFO Philadelphia	MPO
PA	WFO Pittsburgh	PBZ
PA	WFO Philadelphia	PHI
PA	WFO Philadelphia	PHL
PA	WFO Pittsburgh	PIT
PA	WFO Philadelphia	RDG
PA	Middle Atlantic RFC - State College	RHA
PA	WFO Philadelphia	TTN
PR	WFO San Juan	SJU
SC	WFO Columbia	AGS
SC	WFO Greenville/Spartanburg	AVL
SC	WFO Columbia	CAE
SC	WFO Charleston	CHS
SC	WFO Greenville/Spartanburg	CLT
SC	WFO Charleston	CLX
SC	WFO Greenville/Spartanburg	GSP
SC	WFO Charleston	NBC
SC	WFO Charleston	SAV
SD	WFO Aberdeen	ABR
SD	WFO Aberdeen	BRW
SD	WFO Sioux Falls	FSD
SD	WFO Sioux Falls	HON
SD	WFO Rapid City	RAP
SD	WFO Sioux Falls	SUX
SD	WFO Rapid City	UNR
TN	WFO Nashville	BNA
TN	WFO Knoxville/Tri-Cities	CHA
TN	WFO Memphis	MEG
TN	WFO Memphis	MEM
TN	WFO Knoxville/Tri-Cities	MRX
TN	WFO Memphis	NQA
TN	WFO Nashville	OHX
TN	WFO Knoxville/Tri-Cities	TYS
TX	WFO San Angelo	ABI
TX	WFO Dallas/Fort Worth	ACT
TX	WFO Amarillo	AMA
TX	WFO Austin/San Antonio	ATT
TX	WFO Austin/San Antonio	AUS
TX	WFO Brownsville	BRO
TX	WFO Houston/Galveston	CLL
TX	WFO Corpus Christi	CRP
TX	Dallas	DAL
TX	WFO Dallas/Fort Worth	DFW
TX	WFO Austin/San Antonio	DRT
TX	WFO Dallas/Fort Worth	DYX
TX	WFO El Paso	ELP
TX	WFO El Paso	EPZ
TX	WFO Austin/San Antonio	EWX
TX	WFO Dallas/Fort Worth	FTW
TX	WFO Dallas/Fort Worth	FWD
TX	West Gulf RFC - Fort Worth	FWR
TX	WFO Dallas/Fort Worth	FWS

TX	WFO Houston/Galveston	GLS
TX	WFO Dallas/Fort Worth	GRK
TX	WFO Houston/Galveston	HGX
TX	WFO Houston/Galveston	HOU
TX	WFO Lubbock	LBB
TX	WFO Lubbock	LUB
TX	WFO Midland/Odessa	MAF
TX	WFO Austin/San Antonio	SAT
TX	WFO San Angelo	SJT
TX	WFO Dallas/Fort Worth	SPS
UT	WFO Salt Lake City	MCT
UT	WFO Salt Lake City	MTX
UT	WFO Salt Lake City	SLC
UT	Colorado Basin RFC Salt Lake City	STR
VA	WFO Wakefield	AKQ
VA	WFO Charleston	CRW
VA	WFO Wakefield	ECG
VA	WFO Blacksburg	FCX
VA	WFO Blacksburg	LYH
VA	WFO Wakefield	ORF
VA	WFO Wakefield	RIC
VA	WFO Charleston	RLX
VA	WFO Blacksburg	RNK
VA	WFO Blacksburg	ROA
VA	WFO Wakefield	SBY
VA	Wallops Flight Facility	WAL
VT	WFO Burlington	BTX
VT	WFO Burlington	TYX
WA	WFO Spokane	GEG
WA	WFO Spokane	LWS
WA	WFO Seattle/Tacoma	OLM
WA	WFO Spokane	OTX
WA	WFO Seattle/Tacoma	SEA
WA	WFO Seattle/Tacoma	SEW
WA	WFO Seattle/Tacoma	SOR
WA	WFO Seattle/Tacoma	UIL
WA	WFO Seattle/Tacoma	ZSE
WI	WFO La Crosse	ARX
WI	WFO Green Bay	GRB
WI	WFO La Crosse	LSE
WI	WFO Milwaukee	MKE
WI	WFO Milwaukee	MKX
WI	WFO Milwaukee	MSN
WI	WFO La Crosse	RST
WY	WFO Cheyenne	BFF
WY	WFO Riverton	CPR
WY	WFO Riverton	CRS
WY	WFO Cheyenne	CYS
WY	WFO Riverton	LND
WY	WFO Riverton	RIW
XX	Network Control Facility	ANC
XX	Central Region Headquarters	BCQ
XX	Tropical Prediction Center	CCA
XX	Network Control Facility	DRK
XX	Network Control Facility	DRO
XX	Tropical Prediction Center	ECA
XX	Southern Region Headquarters	EHU

XX	Network Control Facility	ENS
XX	Western Region Headquarters	MSG
XX	World Weather Building	NFD
XX	Tropical Prediction Center	PAN
XX	Pacific Region Headquarters	PBP
XX	Storm Prediction Center	SPC
XX	Spanish Product	SPN
XX	Network Control Facility	SST
XX	Network Control Facility	THR
XX	Western Region Headquarters	VHW
XX	Alaska Region Headquarters	VRH
XX	Eastern Region Headquarters	VUY
XX	Tropical Prediction Center	WCA
XX	Network Control Facility	WNC
XX	World Weather Building	WNO
XX	Weather Message	WXM

## 17.2 Text Product Abbreviations

18A	FB	18 Hour Report
24A	FB	24 Hour Report
30L	FE	Monthly Weather Outlook
3HR	FO	3-hourly Space Weather Conditions and Forecast
ADA	NO	Alarm/Alert Administrative Message
ADM	NO	Alert Administrative Message
ADR	NO	Administrative Message
ADV	NW	Official Space Weather Advisory
ADW	NO	Administrative Message for NWWWS
ADX	NT	Administrative Alert Non-Receipt
AFD	FX	Area Forecast Discussion
AFM	FO	Area Forecast Matrices
AFP	FL	Area Forecast Product
AGF	FN	Agricultural Forecast
AGO	SH	Agricultural Observations
AHO	UR	Air Force High Density Obs
ALT	WO	Space Weather Message Alert
APG	AE	Air Stagnation Guidance Narrative
AQA	AE	Air Quality Message
AQI	AE	Air Quality Index Statement
ASA	AE	Air Stagnation Advisory
AVA	WO	Avalanche Watch
AVM	NO	Aviation Verification Matrix
AVW	WO	Avalanche Warning
AWG	WO	National Attack Warning
AWS	AW	Area Weather Summary
AWU	FL	Area Weather Update
AWW	WW	Aviation Weather Warning
BOY	SS	Buoy Reports
CAE	WO	Child Abduction Emergency
CCF	FP	Coded City Forecast
CDW	WO	Civil Danger Warning
CEM	WO	Civil Emergency Message
CF6	CX	Climate F-6 products
CFW	WH	Coastal Flood Warnings, Watches or Statements



CGR	SX	Coast Guard Surface Report
CHG	WT	Computer Hurricane Guidance
CLA	CX	Climate Report Annual
CLI	CD	Climate Report (Daily)
CLM	CX	Climatological Report (Long Term)
CLS	CX	Climate Report Seasonal
CMM	CS	Coded Climatological Monthly Means
COD	FX	Coded Analysis and Forecasts
CPF	FZ	Coded Port Forecast
CSC	FP	Canadian Selected Cities Forecast
CUR	FX	Current Space Weather Indices
CWA	WL	Center Weather Advisory
CWF	FZ	Coastal Waters Forecast
CWS	WO	Center Weather Statement
DAY	FX	Daily Space Weather Summary and Forecast
DGT	AX	Drought Information
DPA	SD	Radar Hourly Digital Precipitation
DSA	AC	Unnumbered Depression
DSM	CX	Asos Daily Summary
EFP	FE	3 TO 5 Day Extended Forecast
EOL	FE	Average 6 TO 10 Day Weather Outlook
EON	FE	Average 6 TO 10 Day Weather Outlook
EQI	SE	Earthquake Information Bulletin
EQR	SE	Earthquake Report
EQW	WO	Earthquake Warning
ESF	FG	Flood Potential Outlook
ESG	FG	Extended Streamflow Guidance
ESP	FG	Extended Streamflow Prediction
ESS	FG	Water Supply Outlook
EVI	WO	Evacuation Immediate
EWV	WF	Extreme Wind Warning
FA0	FA	Aviation Area Forecast (Pacific)
FA1	FA	Aviation Area Forecast (Northeast U.S.)
FA2	FA	Aviation Area Forecast (Southeast U.S.)
FA3	FA	Aviation Area Forecast (North Cent U.S.)
FA4	FA	Aviation Area Forecast (South Cent U.S.)
FA5	FA	Aviation Area Forecast (U.S. Rocky Mts.)
FA6	FA	Aviation Area Forecast (U.S. West Coast)
FA7	FA	Aviation Area Forecast (Juneau)
FA8	FA	Aviation Area Forecast (Anchorage)
FA9	FA	Aviation Area Forecast (Fairbanks)
FDI	FN	Fire Danger Indices
FFA	WG	Flash Flood Watch
FFG	FO	Flash Flood Guidance
FFH	FO	Headwater Guidance
FFS	WG	Flash Flood Statement
FFW	WG	Flash Flood Warning
FLN	FG	National Flood Summary
FLS	WG	Flood Statement
FLW	WG	Flood Warning
FMR	FE	Forecast Medium Range Guidance
FOF	FD	Upper Wind Fallout Forecast
FOH	FO	ETA FOUS Freezing and Relative Humidity
FRW	WO	Fire Warning
FSS	FG	Urban and Small Stream Flood Advisory
FTM	NO	WSR-88D Radar Outage Notification
FWA	NO	Fire Weather Administrative Message

FWC	FO	NGM Mos Guidance
FWD	FN	Fire Weather Outlook Discussion
FWE	FE	Extended Fire Weather Outlook
FWF	FN	Routine Fire WX Forecasts
FWL	FN	Land Management Forecasts
FWM	FN	Miscellaneous Fire Weather Product
FWN	SH	Fire Weather Notification
FWO	SH	Fire Weather Observation
FWS	FN	Suppression Forecast
FZL	UX	Freezing Level Data
GLF	FZ	Great Lakes Forecast
GLO	FZ	Great Lakes Storm Outlook
GLS	WW	Great Lakes Storm Summary
GSM	NX	General Status Message
HCM	NG	Hydrometeorological Coordination Message
HLS	WT	Hurricane Local Statement
HMD	AG	Hydrometeorological Discussion
HMW	WO	Hazardous Materials Warning
HRR	AS	Hourly Weather Roundup
HSF	FZ	High Seas Forecast
HWO	FL	Hazardous Weather Outlook
HYD	SX	Rainfall Reports
HYM	CS	Monthly Hydrometeorological Plain Language Product
ICE	FZ	Ice Forecast
IOB	SV	Ice Observation
KPA	NT	Keep Alive Message
LAE	WO	Local Area Emergency
LAW	SM	Great Lakes Weather Observation
LCO	SX	Local Cooperative Observation
LEW	WO	Law Enforcement Warning
LFP	FL	Local Forecast
LLS	UX	Low-Level Sounding
LSH	WH	Lakeshore Warning or Statement
LSR	NW	Local Storm Report
LTG	SF	Lightning Data
MAV	FO	GFS Based MOS Guidance
MET	FO	ETA Based MOS Guidance
MEX	FE	GFX Extended Based MOS Guidance
MIM	AG	Marine Interpretation Message
MIS	AX	Miscellaneous Local Product
MON	NT	Test Message
MTR	SA	METAR Formatted Surface Weather Observation
MWS	FZ	Marine Weather Statement
MWW	WH	Marine Weather Message
NOW	FP	Short Term Forecast
NPW	WW	Non-Precipitation Warnings, Watches, Advisories
NSH	FZ	Nearshore Marine Forecast / Surf Forecast
NUW	WO	Nuclear Power Plant Warning
OAV	NO	Other Aviation Products
OFF	FZ	Offshore Forecast
OMR	SX	Other Marine Products
OPU	FP	Other Public Products
OSO	SX	Other Surface Observations
PBF	FN	Prescribed Burn Forecast
PFM	FO	Point Forecast Matrices
PFW	FN	Point Fire Weather Forecast Matrices
PLS	SX	Plain Language Ship Report

PMD	FX	Prognostic Meteorological Discussion
PNS	NO	Public Information Statement
PSH	AC	Post Storm Hurricane Report
PWD	FO	Probabilistic Tropical Cyclone Wind Speed
PWO	WW	Public Severe Weather Alert
PWS	FO	Probabilistic Tropical Cyclone Wind Speed
QPF	FS	Quantitative Precipitation Forecast
QPS	FS	Quantitative Precipitation Statement
RCM	SD	WSR-88D Radar Coded Message
RDF	FO	Revised Digital Forecast
RDG	FO	Revised Digital Guidance
REC	SX	Recreational Report
RER	SX	Record Event Report
RFD	FN	Rangeland Fire Danger Forecast
RFR	FR	Route Forecast
RFW	WW	Red Flag Warning
RHW	WO	Radiological Hazard Warning
RR1	SR	Hydrology Meteorology Data Report Part 1
RR2	SR	Hydrology Meteorology Data Report Part 2
RRA	SR	Automated Hydrologic Observation STA Report
RRC	SR	SCS Manual Snow Course Data
RRM	SR	Miscellaneous Hydrologic Data
RRS	SR	Special Automated Hydromet Data Report
RTP	AS	Max/Min Temperature and Precipitation Table
RVA	SR	River Summary
RVD	FG	Daily River Forecast
RVF	FG	River Forecast
RVI	FI	River Ice Statement
RVM	SR	Miscellaneous River Product
RVR	FG	River Recreation Statement
RVS	FG	River Statement
RWR	AS	Weather Roundup
RWS	AW	Weather Summary
RZF	FP	Regional Zone Forecast
SAB	WW	Snow Avalanche Bulletin
SAF	FN	Speci Agri WX FCST/Advisory/Flying Farmer FCST Outlook
SAW	WW	Prelim Notice of Watch & Cancellation MSG
SCC	AC	Storm Summary
SCD	CX	Supplementary Climatological Data (ASOS)
SCS	FP	Selected Cities Summary
SDS	FU	Special Dispersion Statement
SEL	WW	Severe Local Storm Watch and Watch Cancellation MSG
SEV	WW	SPC Watch Point Information Message
SFD	FX	State Forecast Discussion
SFP	FP	State Forecast
SFT	FP	Tabular State Forecast
SHP	SM	Surface Ship Report at Synoptic Time
SIM	AT	Satellite Interpretation Message
SLS	WW	Severe Local Storm Watch and Areal Outline
SMF	FN	Smoke Management Weather Forecast
SMW	WH	Special marine Warning
SPE	TX	Satellite Precipitation Estimates
SPF	WT	Storm Strike Probability Bulletin
SPS	WW	Special Weather Statement
SPW	WO	Shelter in Place Warning
SRF	FZ	Surf Forecast
STA	NW	SPC Tornado and Severe Thunderstorm Reports

STD	AT	Satellite Tropical Disturbance Summary
STO	SX	Road Condition Reports
STP	AS	State Max/Min Temperature and Precipitation Table
SUM	WO	Space Weather Message Summary
SVR	WU	Severe Thunderstorm Warning
SVS	WW	Severe Weather Statement
SWO	AC	Severe Storm Outlook Narrative
SWR	AS	State Weather Roundup
SWS	AW	State Weather Summary
SYN	NZ	Regional Synopsis
TAF	FT	Terminal Aerodrome Forecast
TAV	FP	Travelers Forecast Table
TCA	FK	Tropical Cyclone Advisory
TCD	WT	Tropical Cyclone Discussion
TCE	WT	Tropical Cyclone Position Estimate
TCM	WT	Marine/Aviation Tropical Cyclone Advisory
TCP	WT	Public Tropical Cyclone Advisory
TCS	TX	Satellite Tropical Cyclone Summary
TCU	WT	Tropical Cyclone Update
TCV	WT	Tropical Cyclone Watch/Warning
TIB	WE	Tsunami Information Bulletin
TID	SO	Tide Report
TMA	SE	Tsunami Tide/Seismic Message Acknowledgment
TOE	WO	911 Telephone Outage Emergency
TOR	WF	Tornado Warning
TPT	SX	Temperature Precipitation Table
TSM	SE	Tsunami Tide/Seismic Message
TST	NT	Test Message
TSU	WE	Tsunami Watch/Warning
TVL	FP	Travelers Forecast
TWD	AC	Tropical Weather Discussion
TWO	AC	Tropical Weather Outlook and Summary
TWS	AC	Tropical Weather Summary
UVI	AE	Ultraviolet Index
VAA	FV	Volcanic Activity Advisory
VOW	WO	Volcano Warning
WAR	WO	Space Environment Warning
WAT	WO	Space Weather Message Watch
WCN	WW	Watch County Notification
WCR	AX	Weekly Weather and Crop Report
WDA	CX	Weekly Data for Agriculture
WEK	FX	27-day Space Weather Forecast
WOU	WO	Watch Outline Update
WRK	NZ	Local Work File
WSW	WW	Winter Weather Warnings, Watches, Advisories
WVM	NW	Warning Verification Message
WWA	NW	Watch Status Report
WWP	WW	Severe Thunderstorm Watch Probabilities
ZFP	FP	Zone Forecast Product

### 17.3 State / Marine Zone Abbreviations

AK	Alaska
AL	Alabama

AM	West Atlantic Ocean
AN	Northwest Atlantic Ocean
AR	Arkansas
AS	American Samoa
AZ	Arizona
CA	California
CO	Colorado
CT	Connecticut
DC	District of Columbia
DE	Delaware
FL	Florida
GA	Georgia
GM	Gulf of Mexico
GU	Guam
HI	Hawaii
IA	Iowa
ID	Idaho
IL	Illinois
IN	Indiana
KS	Kansas
KY	Kentucky
LA	Louisiana
LC	Lake St. Clair
LE	Lake Erie
LH	Lake Huron
LM	Lake Michigan
LO	Lake Ontario
LS	Lake Superior
MA	Massachusetts
MD	Maryland
ME	Maine
MI	Michigan
MN	Minnesota
MO	Missouri
MS	Mississippi
MT	Montana
NC	North Carolina
ND	North Dakota
NE	Nebraska
NH	New Hampshire
NJ	New Jersey
NM	New Mexico
NV	Nevada
NY	New York
OH	Ohio
OK	Oklahoma
OR	Oregon
PA	Pennsylvania
PH	Central Pacific Ocean
PK	N. Pacific Ocean
PM	W. Pacific Ocean
PS	S. Central Pacific Ocean
PZ	Eastern N. Pacific Ocean
PR	Puerto Rico
RI	Rhode Island
SC	South Carolina
SD	South Dakota

SL	St. Lawrence River
TN	Tennessee
TX	Texas
UT	Utah
VA	Virginia
VI	Virgin Islands
VT	Vermont
WA	Washington
WI	Wisconsin
WV	West Virginia
WY	Wyoming

## 17.4 Graphical Product Names

ATPATHUS	Atlantic Path
CMPWLDUS	Land/Sea Temperatures and Clouds
CRB1WBCA	Day 1 QPF & 850 HPA Winds
CRB2WBCA	Day 2 QPF & 850 HPA Winds
CRB3WBCA	Day 3 QPF & 850 HPA Winds
CSA001US	Caribbean Surface Analysis
CUBARADR	Cuba Radar
FFG001US	1-Hour Flash Flood Guidance
FFG003US	3-Hour Flash Flood Guidance
FFG006US	6-Hour Flash Flood Guidance
G08CIRUS	GOES 8 Satellite Image - All United States
G08HURUS	GOES 8 Satellite Image - Southern US / Caribbean
G10CIRUS	GOES 10 Satellite Image - Western United States
G10FDIUS	GOES 10 Satellite Image - Pacific Ocean
GMS005US	Satellite Image Earth View - Pacific Ocean
GPHJ88US	Significant River Flood Outlook
IMGFNT00	0000Z Surface Analysis
IMGFNT06	0600Z Surface Analysis
IMGFNT12	1200Z Surface Analysis
IMGFNT18	1800Z Surface Analysis
IMGSJUPR	Satellite Image - Caribbean Islands
IMGSNDUS	GOES Sounder
IMGSWPUS	Satellite Image - Southwestern Pacific
IMGWAAUS	United States Warnings, Watches and Advisories
INDCIRUS	Satellite Image Earth View - Indian Ocean
METFIREU	Satellite Image Earth View - Africa
MOD91EUS	6-Hour QPF 91e
MOD92FBW	12-Hour Forecast of Fronts/Pressure and Weather
MOD93SUS	6-Hour QPF 93e
MOD94SUS	Excessive Rainfall Potential Outlook
MOD96FBW	36-Hour Forecast of Fronts/Pressure and Weather
MODDY1US	Day 1 Convective Outlook
MODDY2US	Day 2 Convective Outlook
MODQP1US	24-Hour Day 1 QPF 94q
MODQP2US	24-Hour Day 2 QPF 98q
RADALLAK	Alaska
RADALLGU	Guam
RADALLHI	Hawaii
RADALLPR	Puerto Rico

RADALLUS	NEXRAD All US
RADGRTLK	Central Great Lakes
RADNTHES	Northeast
RADPACNW	Pacific Northwest
RADPACSW	Pacific Southwest
RADRCKNT	Northern Rockies
RADRCKST	Southern Rockies
RADREFUS	NEXRAD Reflectivity
RADSMSVY	Lower Mississippi Valley
RADSTHES	Southeast
RADSTHPL	Southern Plains
RADUMSVY	Upper Mississippi Valley
SESALLUS	Earth View -
TRKATLUS	Atlantic Tropical Cyclones
TRKNEPUS	Northeast Pacific Tropical Cyclones
TRKNINUS	North Indian Tropical Cyclones
TRKNWPUS	Northwest Pacific Tropical Cyclones
TRKSEPUS	Southeast Pacific Tropical Cyclones
TRKSINUS	South Indian Tropical Cyclones
TRKSWPUS	Southwest Pacific Tropical Cyclones
TRKWLDUS	Worldwide Tropical Cyclones

## 17.5 User Defined Products

Weather Message comes packaged with a list of weather products that are distributed on the Emergency Managers Weather Information Network (EMWIN). This list of products is contained in the file Product.dat in the WxMesgNet directory. From time-to-time, new products are added to the data stream. Software updates from Weather Message will automatically update this file with new products.

Some users have the need to change the name of products or create unique product identifiers for their specific applications. User defined products could be used for locally generated products or with the Weather Message [Message Creator](#) application. User defined products are supported by updating the file ProductUser.dat located in the WxMesgNet directory.

The ProductUser.dat file contains a list of user defined products or products that override the default products in Product.dat. For example, you could define the product identifier LWS as Local Weather Statement. You could also override the AQA, Air Quality Message, to change the description to simply Air Quality.

Changes and/or addition of products should be made by updating the ProductUser.dat file. This insures that future software updates will not overwrite your unique product identifiers or product changes.

**Note:** For products to alarm properly, the product identifier must exist in the Product.dat or ProductUser.dat file. Entering an alarm for a non-existent product identifier will cause the alarm to not work.

The ProductUser.dat file has the following layout.

```
3 character product id,
2 character wmo prefix,
1 digit has UGC line - values 0=no, 1=yes,
1 digit has VTEC line - values 0=no, 1=yes,
Bit mask for product specifics,
```

```

None = 0
Has Both CZ = 1
Has Latitude Longitude = 2
Has Time Mot Loc = 4
Has Wind Hail = 8
Description (The description should not contain a comma)

```

Here are example entries.

```

LWS,XX,0,0,0,Local Weather Statement
SIR,NO,0,0,0,Siren Activation Statement
SVR,WU,1,1,14,Severe Thunderstorm Warning

```

In the last example, the product identifier is **SVR**. The WMO identifier is **WU**. The product has a UGC line (1). The product has a VTEC line (1). For product specifics, it has **14**. Fourteen comes from the addition of Has Latitude Longitude (2), Has Time Mot Loc (4) and Has Wind Hail (8). The description of the product is **Severe Thunderstorm Warning**.

Each of the values for this product identifier are separated by a comma. Each product should appear on a individual line. There should not be any blank lines in the file.

To deactivate an entry, without deleting the line, prefix the line with a single quote ('). Lines that start with a single quote are considered comments.

Any products that appear in ProductUser.dat are automatically added to the internal Product.dat when the Weather Message applications start. Products defined in ProductUser.dat will override any product that already exists in Product.dat.

## 17.6 Paging / E-Mail Formats

Weather Message supports a number of paging and e-mail formats, ranging from the full message text to a short message for pagers/cell-phones. This section gives examples of the different formats.

The following paging / e-mail formats are available: Full, Full No Head, Selected, Selected No Head and Short. In addition, the message can be broken down into a number of packets for distribution to pagers / cell-phones. The system will allow you to specify the size of these packets and the number of packets to send.

For messages sent via e-mail, you can specify the type of subject line sent. You can send no subject line, the product identifier, or a text description of the product.

Regardless of the format selected, the system has a parse option that allows you to abbreviate or remove words from the paged / e-mailed message.

The following tornado warning will be used in the examples.

```

WFUS54 KBMX 192255
TORBHM
ALC113-192330-

BULLETIN - EAS ACTIVATION REQUESTED
TORNADO WARNING
NATIONAL WEATHER SERVICE BIRMINGHAM AL
455 PM CST WED MAR 19 2003

THE NATIONAL WEATHER SERVICE IN BIRMINGHAM HAS ISSUED A

```



```

* TORNADO WARNING FOR...
  RUSSELL COUNTY IN SOUTHEAST ALABAMA

* UNTIL 530 PM CST

* AT 455 PM CST...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED A
  TORNADO NEAR FORT MITCHELL...MOVING NORTHEAST AT 25 MPH. THIS STORM
  WILL AFFECT RURAL EASTERN RUSSELL COUNTY.

IF YOU ARE NEAR THE PATH OF THIS TORNADO...TAKE COVER IN AN INTERIOR
ROOM ON THE LOWEST FLOOR...OR A BASEMENT. ABANDON MOBILE HOMES AND
VEHICLES FOR MORE SUBSTANTIAL SHELTER.

CALL 1-800-856-0758 TO REPORT SEVERE WEATHER.

LAT...LON 3229 8514 3213 8504 3226 8492 3247 8499

$$

```

The Full option will send the message above exactly as printed.

The Full No Head option will be sent without the heading information. Here is an example.

```

THE NATIONAL WEATHER SERVICE IN BIRMINGHAM HAS ISSUED A

* TORNADO WARNING FOR...
  RUSSELL COUNTY IN SOUTHEAST ALABAMA

* UNTIL 530 PM CST

* AT 455 PM CST...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED A
  TORNADO NEAR FORT MITCHELL...MOVING NORTHEAST AT 25 MPH. THIS STORM
  WILL AFFECT RURAL EASTERN RUSSELL COUNTY.

IF YOU ARE NEAR THE PATH OF THIS TORNADO...TAKE COVER IN AN INTERIOR
ROOM ON THE LOWEST FLOOR...OR A BASEMENT. ABANDON MOBILE HOMES AND
VEHICLES FOR MORE SUBSTANTIAL SHELTER.

CALL 1-800-856-0758 TO REPORT SEVERE WEATHER.

LAT...LON 3229 8514 3213 8504 3226 8492 3247 8499

$$

```

The Short format allows you to select certain elements of the message to send. For example, if you set up your short message format as follows:

NWS \$WFO\$ has issued a \$MesgType\$ \$HeadLine\$\$IfCounty: for \$\$Counties\$\$IfCounty:  
County\$\$IfExpire: Until \$\$Expire\$ - \$BulletAT\$

Results in a message like this:

```

NWS BHM has issued a Tornado Warning for Russell County Until 05:30 PM - AT
455 PM CST...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED A TORNADO NEAR
FORT MITCHELL...MOVING NORTHEAST AT 25 MPH. THIS STORM WILL AFFECT RURAL
EASTERN RUSSELL COUNTY.

```

The Selected option only sends the text associated with the UGC group associated with the county that was alarmed. Some messages contain multiple groups. A good example is the zone forecast. It contains multiple groups

```

FPUS54 KBMX 052153
ZFPBHM

```

ZONE FORECAST PRODUCT  
NATIONAL WEATHER SERVICE BIRMINGHAM AL  
405 PM CST SAT APR 5 2003

ALZ011>015-017-060930-  
BLOUNT-FAYETTE-LAMAR-MARION-WALKER-WINSTON-  
INCLUDING THE CITIES OF...DOUBLE SPRINGS...FAYETTE...HAMILTON...  
JASPER...ONEONTA...VERNON  
405 PM CST SAT APR 5 2003

.TONIGHT...INCREASING CLOUDS. A SLIGHT CHANCE OF A SHOWER AFTER  
MIDNIGHT. LOWS IN THE LOWER 50S. NORTHEAST WINDS 5 TO 10 MPH.  
CHANCE OF RAIN 20 PERCENT.  
.SUNDAY...MOSTLY CLOUDY WITH SHOWERS AND THUNDERSTORMS LIKELY BY  
AFTERNOON. STORMS POSSIBLY SEVERE IN THE AFTERNOON. HIGHS IN  
THE LOWER 70S. EAST WINDS 10 TO 15 MPH...BECOMING SOUTHEAST IN THE  
AFTERNOON. CHANCE OF RAIN 70 PERCENT.  
.SUNDAY NIGHT...SHOWERS AND THUNDERSTORMS. STORMS POSSIBLY SEVERE.  
LOWS IN THE LOWER 60S. SOUTHEAST WINDS 10 TO 15 MPH. CHANCE OF RAIN  
80 PERCENT.  
.MONDAY...VARIABLE CLOUDINESS WITH A CHANCE OF THUNDERSTORMS. HIGHS  
IN THE UPPER 70S. CHANCE OF RAIN 30 PERCENT.  
.MONDAY NIGHT...PARTLY CLOUDY WITH A SLIGHT CHANCE OF SHOWERS.  
LOWS IN THE MID 50S. CHANCE OF RAIN 20 PERCENT.  
.TUESDAY...MOSTLY CLOUDY AND COOLER WITH A CHANCE OF SHOWERS. HIGHS  
60 TO 65. CHANCE OF RAIN 30 PERCENT.  
.WEDNESDAY AND THURSDAY...MOSTLY CLOUDY WITH A CHANCE OF SHOWERS  
EACH DAY. LOWS IN THE MID 40S. HIGHS 60 TO 65.  
.FRIDAY...PARTLY CLOUDY. LOWS IN THE MID 40S. HIGHS 65 TO 70.  
.SATURDAY...PARTLY CLOUDY. LOWS NEAR 50. HIGHS IN THE MID 70S.

\$\$

ALZ018>020-022>024-026-060930-  
CALHOUN-CHEROKEE-ETOWAH-JEFFERSON-PICKENS-ST CLAIR-TUSCALOOSA-  
INCLUDING THE CITIES OF...ANNISTON-JACKSONVILLE...  
BIRMINGHAM-HOOVER...CARROLLTON...CENTRE...GADSDEN...  
PELL CITY-ASHVILLE...TUSCALOOSA  
405 PM CST SAT APR 5 2003

.TONIGHT...VARIABLE CLOUDINESS WITH A SLIGHT CHANCE OF A  
SHOWER. LOWS IN THE MID 50S. LIGHT WINDS. CHANCE OF RAIN 20  
PERCENT.  
.SUNDAY...MOSTLY CLOUDY WITH SHOWERS AND THUNDERSTORMS LIKELY BY  
AFTERNOON. STORMS POSSIBLY SEVERE IN THE AFTERNOON. HIGHS 73 TO  
77. EAST WINDS 10 TO 15 MPH...BECOMING SOUTHEAST IN THE AFTERNOON.  
CHANCE OF RAIN 70 PERCENT.  
.SUNDAY NIGHT...SHOWERS AND THUNDERSTORMS. STORMS POSSIBLY SEVERE.  
LOWS IN THE MID 60S. SOUTHEAST WINDS 10 TO 15 MPH. CHANCE OF  
RAIN 80 PERCENT.  
.MONDAY...VARIABLE CLOUDINESS WITH A CHANCE OF THUNDERSTORMS. HIGHS  
IN THE UPPER 70S. CHANCE OF RAIN 30 PERCENT.  
.MONDAY NIGHT...PARTLY CLOUDY WITH A SLIGHT CHANCE OF SHOWERS.  
LOWS IN THE MID 50S. CHANCE OF RAIN 20 PERCENT.  
.TUESDAY...MOSTLY CLOUDY AND COOLER WITH A CHANCE OF SHOWERS. HIGHS  
IN THE MID 60S. CHANCE OF RAIN 30 PERCENT.  
.WEDNESDAY AND THURSDAY...MOSTLY CLOUDY WITH A CHANCE OF SHOWERS  
EACH DAY. LOWS IN THE MID 40S. HIGHS 60 TO 65.  
.FRIDAY...PARTLY CLOUDY. LOWS IN THE MID 40S. HIGHS 65 TO 70.  
.SATURDAY...PARTLY CLOUDY. LOWS NEAR 50. HIGHS IN THE MID 70S.

\$\$

You will notice that this message contains two groups. Each group starts with the code "ALZ".  
Using the Selected option and alarming for ALZ011, Blount County, you will receive the following

text:

BLOUNT-FAYETTE-LAMAR-MARION-WALKER-WINSTON-  
INCLUDING THE CITIES OF...DOUBLE SPRINGS...FAYETTE...HAMILTON...  
JASPER...ONEONTA...VERNON  
405 PM CST SAT APR 5 2003

.TONIGHT...INCREASING CLOUDS. A SLIGHT CHANCE OF A SHOWER AFTER  
MIDNIGHT. LOWS IN THE LOWER 50S. NORTHEAST WINDS 5 TO 10 MPH.  
CHANCE OF RAIN 20 PERCENT.  
.SUNDAY...MOSTLY CLOUDY WITH SHOWERS AND THUNDERSTORMS LIKELY BY  
AFTERNOON. STORMS POSSIBLY SEVERE IN THE AFTERNOON. HIGHS IN  
THE LOWER 70S. EAST WINDS 10 TO 15 MPH...BECOMING SOUTHEAST IN THE  
AFTERNOON. CHANCE OF RAIN 70 PERCENT.  
.SUNDAY NIGHT...SHOWERS AND THUNDERSTORMS. STORMS POSSIBLY SEVERE.  
LOWS IN THE LOWER 60S. SOUTHEAST WINDS 10 TO 15 MPH. CHANCE OF RAIN  
80 PERCENT.  
.MONDAY...VARIABLE CLOUDINESS WITH A CHANCE OF THUNDERSTORMS. HIGHS  
IN THE UPPER 70S. CHANCE OF RAIN 30 PERCENT.  
.MONDAY NIGHT...PARTLY CLOUDY WITH A SLIGHT CHANCE OF SHOWERS.  
LOWS IN THE MID 50S. CHANCE OF RAIN 20 PERCENT.  
.TUESDAY...MOSTLY CLOUDY AND COOLER WITH A CHANCE OF SHOWERS. HIGHS  
60 TO 65. CHANCE OF RAIN 30 PERCENT.  
.WEDNESDAY AND THURSDAY...MOSTLY CLOUDY WITH A CHANCE OF SHOWERS  
EACH DAY. LOWS IN THE MID 40S. HIGHS 60 TO 65.  
.FRIDAY...PARTLY CLOUDY. LOWS IN THE MID 40S. HIGHS 65 TO 70.  
.SATURDAY...PARTLY CLOUDY. LOWS NEAR 50. HIGHS IN THE MID 70S.

The Selected No Head will result in:

.TONIGHT...INCREASING CLOUDS. A SLIGHT CHANCE OF A SHOWER AFTER  
MIDNIGHT. LOWS IN THE LOWER 50S. NORTHEAST WINDS 5 TO 10 MPH.  
CHANCE OF RAIN 20 PERCENT.  
.SUNDAY...MOSTLY CLOUDY WITH SHOWERS AND THUNDERSTORMS LIKELY BY  
AFTERNOON. STORMS POSSIBLY SEVERE IN THE AFTERNOON. HIGHS IN  
THE LOWER 70S. EAST WINDS 10 TO 15 MPH...BECOMING SOUTHEAST IN THE  
AFTERNOON. CHANCE OF RAIN 70 PERCENT.  
.SUNDAY NIGHT...SHOWERS AND THUNDERSTORMS. STORMS POSSIBLY SEVERE.  
LOWS IN THE LOWER 60S. SOUTHEAST WINDS 10 TO 15 MPH. CHANCE OF RAIN  
80 PERCENT.  
.MONDAY...VARIABLE CLOUDINESS WITH A CHANCE OF THUNDERSTORMS. HIGHS  
IN THE UPPER 70S. CHANCE OF RAIN 30 PERCENT.  
.MONDAY NIGHT...PARTLY CLOUDY WITH A SLIGHT CHANCE OF SHOWERS.  
LOWS IN THE MID 50S. CHANCE OF RAIN 20 PERCENT.  
.TUESDAY...MOSTLY CLOUDY AND COOLER WITH A CHANCE OF SHOWERS. HIGHS  
60 TO 65. CHANCE OF RAIN 30 PERCENT.  
.WEDNESDAY AND THURSDAY...MOSTLY CLOUDY WITH A CHANCE OF SHOWERS  
EACH DAY. LOWS IN THE MID 40S. HIGHS 60 TO 65.  
.FRIDAY...PARTLY CLOUDY. LOWS IN THE MID 40S. HIGHS 65 TO 70.  
.SATURDAY...PARTLY CLOUDY. LOWS NEAR 50. HIGHS IN THE MID 70S.

With each of the above messages, the parse option can be used to remove and shorten some of the words in the weather text. Replacement words are entered in the WxWords.dat file. For example to replace "NATIONAL WEATHER SERVICE" with "NWS", you would enter "NATIONAL WEATHER SERVICE,NWS" in your WxWords file.

Using our short message format from above:

NWS BHM has issued a Tornado Warning for Russell County Until 05:30 PM - AT  
455 PM CST...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED A TORNADO NEAR  
FORT MITCHELL...MOVING NORTHEAST AT 25 MPH. THIS STORM WILL AFFECT RURAL  
EASTERN RUSSELL COUNTY.

This message could be changed to.

```
NWS BHM has issued a Tornado Warning for Russell County Until 05:30 PM - AT
455 PM ...NWS RADAR INDICATED A TORNADO NEAR FT MITCHELL...MOVING NE AT 25
MPH. STORM WILL AFFECT RURAL E RUSSELL COUNTY.
```

The parser is case sensitive, so consider this as you setup your WxWords. COUNTY will not match County.

Several Weather Message users have already created extensive WxWords.dat libraries. If you want a file that is pre-loaded with words, check the [Weather Message Miscellaneous Downloads](#) or send e-mail to the Weather Message Yahoo group.

## 17.7 Publishing Data to a Web Page

You can send files or html to a website by putting a ftp command in the Archive Path field on the alarm setup screen. Here are the steps to ftp weather messages.

1. Setup an alarm for the product to be sent to the website.
2. Select the type of archive, Selected or Full. (Full sends the complete weather message).
3. On this alarm, select the HTML Template option and enter your ftp server information.

To send a HTML file, you will need to create a template file and place it in the WxMesgNet\WxData\Template directory. In your html template, enter the code \$MESSAGE\$ where you want the weather text to be inserted. You will change the HTML Template option to include the name of your template file.

Here is some additional information on creating a web page with Weather Message.

### Server Side Includes

The sample weather page, on the Weather Message website was created by using server-side includes (SSI). If your web server supports this capability, it can help you make a nice page. Feel free to use the html code on the WxMesg sample page, <http://www.wxmesg.com/weather/currentweather.shtm>

Basically SSI allows you to copy (include) text files into a web page. Here is some of the html code used to show the state weather round up.

```
<textarea rows="5" name="SWRAL" cols="74"><!--#include file="swral"-->
</textarea>
```

The `<!--#include file="swral"-->` statement actually copies the swral file into the web page, when a user requests the page. By including the file when the user requests the web page, they will always get the latest messages.

### HTML Templates

A html template is a web page that will be used by Weather Message to insert the weather text. Weather Message takes your html template and searches for the code \$MESSAGE\$ and replaces that code with the weather text.

I use FrontPage to create a blank page, or one with some text/formatting and put the code \$MESSAGE\$ where I want the weather text to appear. This "template" is stored in the WxMesg directory. The ftp command will need to include the template name. Weather Message will take this template, insert the weather text and then ftp that html file to the server. You will need to have a main web page that has a link to this uploaded html file.

Note: If you use the html tags **<PRE>** **</PRE>** around the weather text, the text will be properly formatted.

Here is a sample template.

```
<html>
<head>
<meta http-equiv="Content-Language" content="en-us">
<meta http-equiv="Content-Type" content="text/html; charset=windows-1252">
<title>Weather Message Sample Template</title>
</head>
<body>
<p align="center">Weather Message Sample Template</p>
<p align="center">Weather Text Follows</p>
<p align="center">&nbsp;</p>
<p align="left"><PRE>$MESSAGE$</PRE></p>
</body>
</html>
```

When you use the template option, you only get one message per template. For this reason, most people will want to use server side includes. With server side includes, you are not limited.

**Note:** *The first line of the template should begin with <html>. When a template begins with <html>, Weather Message will replace any HTML reserved-characters, found in the weather text, with their appropriate HTML abbreviation. This prevents html browsers from misinterpreting the weather text as html code.*

## 17.8 Sending HTML Email

Weather Message allows you to send HTML encoded email. This is accomplished by setting up a Header and Trailer for the email group.

Enter the HTML code that should precede the weather text. Here is some sample code:

```
<html>
<head>
<META http-equiv=Content-Type content="text/html; charset=iso-8859-1">
<META content="MSHTML" name=GENERATOR>
</head>
<body bgColor=#ffffff>
<p align="center">Test Weather Message</p>
<p align="center">&nbsp;</p>
<p align="left"><PRE>
```

Next enter the HTML code that should follow the weather text. Here is some sample code:

```
</PRE>
</body>
</html>
```

HTML coding allows you to include links to other websites and format the message with different fonts and colors.

**Note:** The first line of the Header should begin with `<html>`. When a Header begins with `<html>`, Weather Message will replace any HTML reserved-characters, found in the weather text, with their appropriate HTML abbreviation. This prevents html browsers from misinterpreting the weather text as html code.

## 17.9 Sending Tweets using Twitter

Weather Message supports sending tweets to [Twitter™](#). This ability is possible by using the dedicated Twitter service option in the [paging](#) setup.

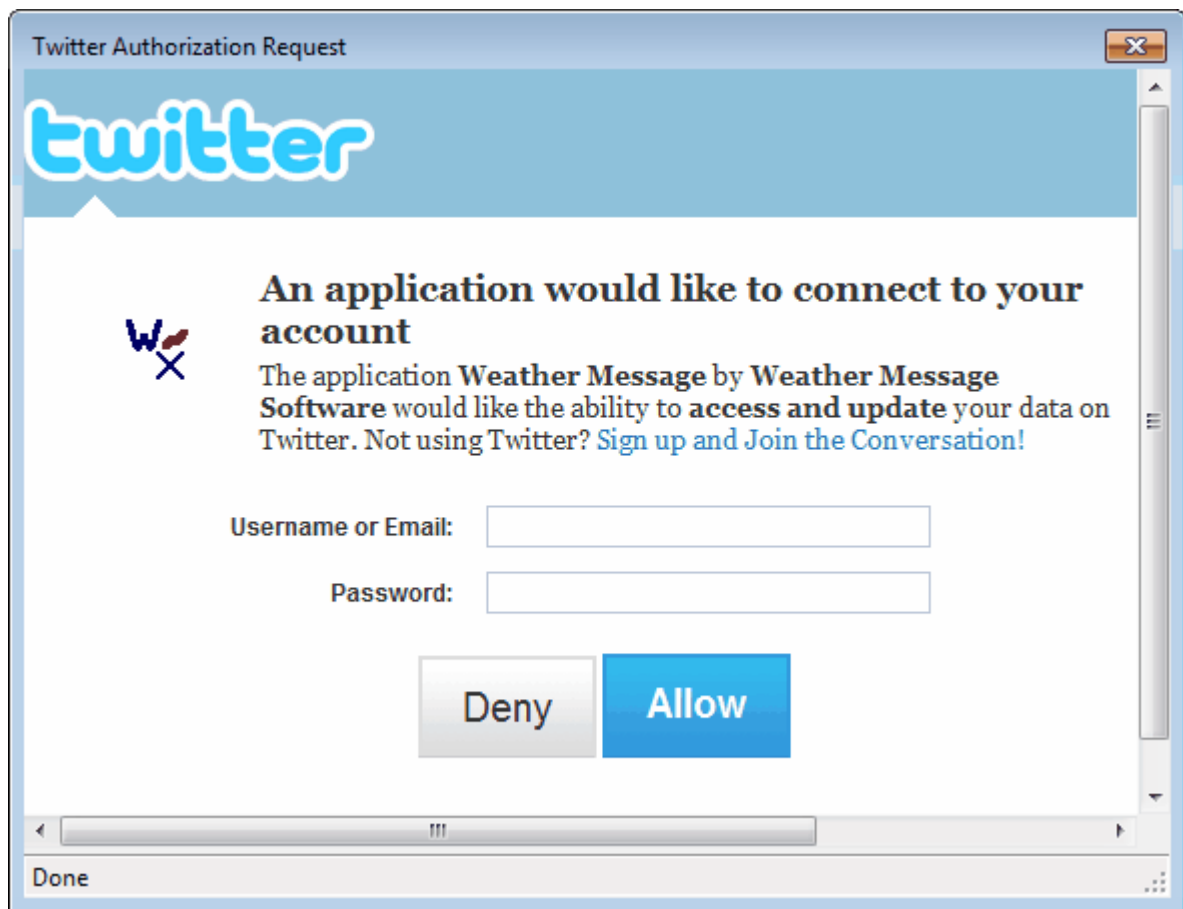
To setup Weather Message for Twitter, you need to setup a Twitter service provider, establish a Twitter paging group, and associate this group with your alarms. The following procedure outlines these steps.

### Create a Twitter Service Provider

Start Weather Message Server Setup, Click Support Setup then [Paging Groups](#). Click Paging Services, the [Paging Services](#) window will appear. Click the New Button and fill out the screen as shown below.

The screenshot shows the 'Paging Services Setup' dialog box. The 'Service' dropdown menu is set to 'Twitter'. Under 'Service Type', there are several radio button options: TAP, SNPP, PageGate, WCTP, HTTP Post, HTTP Get, TCP, Twitter (which is selected), and Facebook. Below these, there are input fields for 'User Name' (containing '20236215-HMfKq') and 'Password' (masked with asterisks). There is also a 'Maximum Page Size' field set to '140' and an 'Authorize' button. Further down, there are 'Failure Retries' (set to '1') and 'Retry Minutes' (set to '2') fields. At the bottom, there is a large text area for 'HTTP Post Variables'. At the very bottom of the dialog are four buttons: 'New Service', 'Delete', 'Save', and 'Exit'.

After selecting the Twitter Service Type, click the Authorize button. The following screen will appear.



Enter your Username or Email address, password and click Allow. The browser window will work for a few minutes then close. Twitter will send Weather Message an access token that will be used to post updates.

Click Save and then Exit.

### Create a Twitter Paging Group

On the Paging Setup window, right click in the grid and select Add. Fill out the screen as shown below.

**Edit Paging Group**

Group Name: SendToTwitter

Style: Short

Size: 140

Maximum: 1

Parse: ☐

Time Zone: Central

Service Name: Twitter

Create Group Pager Header/Trailer

Create Group Short Message

**Pin Entry Format**  
pin [space] name  
208 John Doe

Pager Pin List

Put each pager pin on a separate line.

Save Cancel

Enter a **Group Name** for your Twitter group. You can use any of the available styles, see [Paging / E-Mail Formats](#)<sup>[246]</sup> for a description of each style.

The **Size** field must be set to 140 characters. Twitter only allows 140 characters and will reject any posts that exceed that limit. The **Maximum** field can be set to zero to send multiple posts, should the message exceed 140 characters.

Set the **Time Zone** field to your time zone.

Set the **Service Name** to the Twitter Service.

The **Pager Pin List** should be empty. The Pin is not used by Twitter.

After entering the above information, click Save. Click Save again to save the paging groups.

### Associate an Alarm

On the [main window](#), select the alarm that you want sent to Twitter. On the Paging/Email/Faxing tab, select your Twitter group in the Paging list box.

Do this for each alarm that you want sent to Twitter.



## 17.10 Facebook Status Updates

Weather Message supports posting status updates on [facebook™](#). This ability is possible by using the dedicated Facebook service option in the [paging](#) setup.

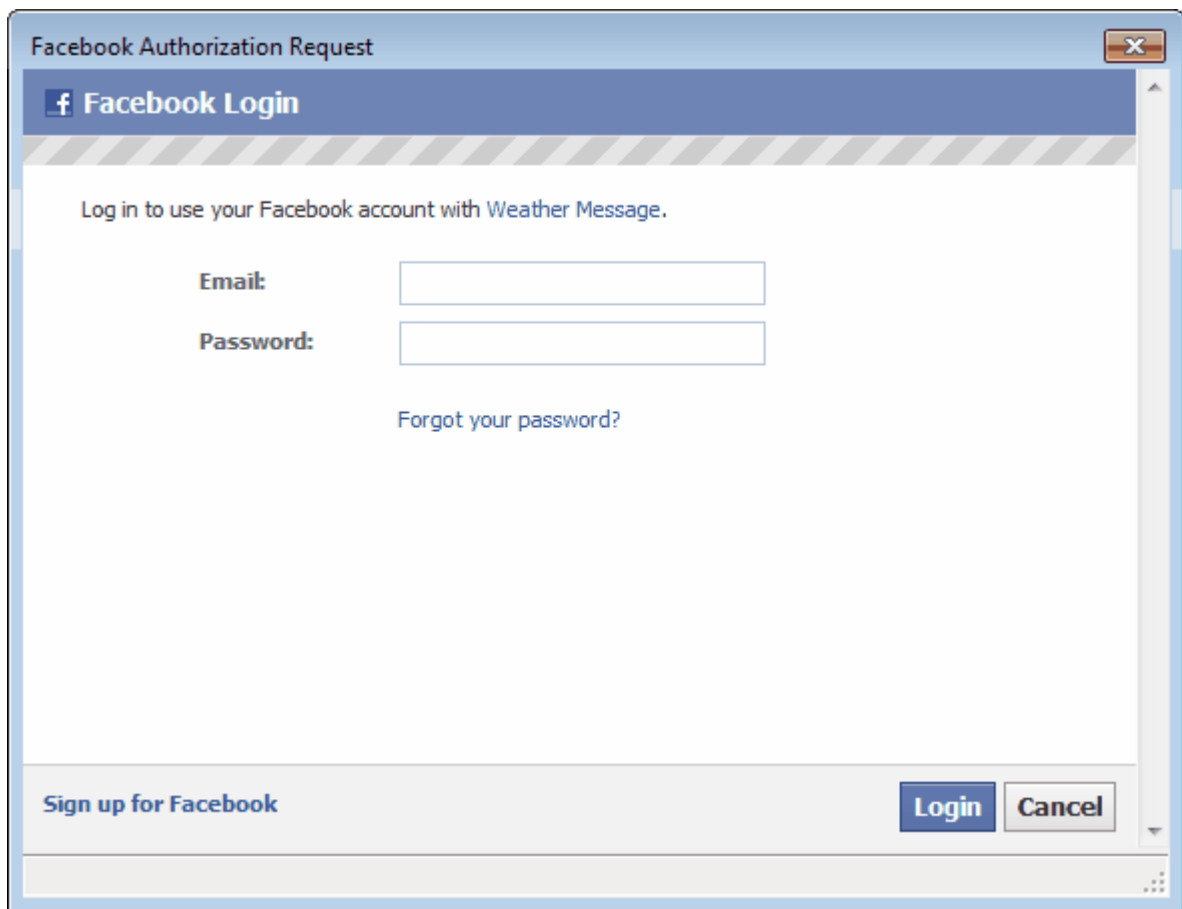
To setup Weather Message for Facebook, you need to setup a Facebook service provider, establish a Facebook paging group, and associate this group with your alarms. The following procedure outlines these steps.

### Create a Facebook Service Provider

Start Weather Message Server Setup, Click Support Setup then [Paging Groups](#). Click Paging Services, the [Paging Services](#) window will appear. Click the New Button and fill out the screen as shown below.

The screenshot shows the 'Paging Services Setup' window. At the top, the title is 'Paging Services Setup'. Below it, there's a 'Service' dropdown menu set to 'Facebook'. Under 'Service Type', there are three rows of radio buttons: 'TAP', 'SNPP', 'PageGate' in the first row; 'WCTP', 'HTTP Post', 'HTTP Get' in the second row; and 'TCP', 'Twitter', 'Facebook' in the third row. The 'Facebook' radio button is selected. Below this, there are input fields for 'User Name' (containing '11044550234490'), 'Maximum Page Size' (containing '420'), 'Failure Retries' (containing '0'), and 'Retry Minutes' (containing '2'). There is also a 'Password' field and an 'Authorize' button. At the bottom, there is a large text area for 'HTTP Post Variables'. At the very bottom, there are four buttons: 'New Service', 'Delete', 'Save', and 'Exit'.

After selecting the Facebook Service Type, click the Authorize button. The following screen will appear.



The screenshot shows a web browser window titled "Facebook Authorization Request". The page has a blue header with the Facebook logo and the text "Facebook Login". Below the header, there is a message: "Log in to use your Facebook account with Weather Message." Underneath this message, there are two input fields: "Email:" and "Password:". Below the password field, there is a link that says "Forgot your password?". At the bottom of the page, there is a "Sign up for Facebook" link on the left and two buttons, "Login" and "Cancel", on the right.

Enter your Email address, Password and click Login. Facebook will ask you if you want to authorize Weather Message. Acknowledge that you want to give Weather Message Access. Facebook will send Weather Message an access token that will be used to post updates.

Click Save and then Exit.

### Create a Facebook Paging Group

On the Paging Setup window, right click in the grid and select Add. Fill out the screen as shown below.

Enter a **Group Name** for your Facebook group. You can use any of the available styles, see [Paging / E-Mail Formats](#)<sup>[246]</sup> for a description of each style.

The **Size** field must be set to 420 characters. Facebook only allows 420 characters and will truncate any posts that exceed that limit. The **Maximum** field can be set to zero to send multiple posts, should the message exceed 420 characters.

Set the **Time Zone** field to your time zone.

Set the **Service Name** to the Facebook Service.

The **Pager Pin List** should be blank to post updates to your personal Facebook page. To post updates to another page that you administer, enter the name of the page or the page identifier.

**Hint:** To determine the Facebook page name, log into Facebook. Click on the Account option, then Manage Pages. The page names will be listed. Type the page name exactly as it appears. To use the page identifier (page number), navigate to your page. The pager identifier will be a 10 to 15 digit number that appears in the address bar's url. If you do not see the page number in the address bar, hover over the profile picture in the upper left part of the page. The page identifier will appear after id=.

Example page names:

Tallapoosa County Weather Alerts  
My Weather Alert Page

Example page identifiers:

<http://www.facebook.com/pages/Tallapoosa-County-Weather-Alerts/105764732816676?ref=sgm>  
<http://www.facebook.com/album.php?profile=1&id=105764732816676>

After entering the above information, click Save. Click Save again to save the paging groups.

### Associate an Alarm

On the [main window](#), select the alarm that you want sent to Facebook. On the Paging/Email/Faxing tab, select your Facebook group in the Paging list box.

Do this for each alarm that you want sent to Facebook.

## 17.11 What is EMWIN

EMWIN stands for the Emergency Managers Weather Information Network. It is a service provided free by the National Weather Service. EMWIN is a data stream broadcasted by the National Weather Service for use by emergency managers and others. This data stream contains current weather warnings, watches, images, advisories and forecasts issued by the National Weather Service.

The information present in the EMWIN data stream originates from local weather service offices and other sources. This information is collected at the National Weather Service office in Silver Spring, Maryland. From there, it is up-linked to the GOES weather satellites from a transmission site in Wallops Island, Virginia.

There are three methods to receive EMWIN data. You can obtain it directly from the GOES weather satellites with a satellite receiver. If the EMWIN signal is being broadcasted on a VHF or UHF frequency in your area, you can receive it using a low cost scanner and decoder. It is also available through an Internet connection. Each method requires different hardware and/or software combinations. A list of hardware vendors is available from the National Weather Service EMWIN Vendors web page.

Who can benefit from EMWIN?

- Emergency Management Directors
- Public Safety Officials
- Amateur Radio Operators
- Business Owners
- Media Outlets
- Weather Hobbyists
- Schools
- Hospitals
- 

Anyone who has a need for up-to-date weather information can benefit from EMWIN.

For additional information on EMWIN, visit the National Weather Service's EMWIN Information web page.

Weather Message uses this data stream to provide desktop alerts of impending weather situations.

## 17.12 What is Weather Wire

The National Oceanic and Atmospheric Administration Weather Wire Service, NWWS, is a satellite broadcast system that delivers critical National Weather Service information. CSC Systems & Solutions operates NWWS. This service is available using their proprietary C-band service or Internet connection. This system routinely delivers 99 percent of all messages within six seconds.

Established in October 2000, the system collects data from 141 U.S. Weather Centers and special centers around the country and broadcasts a continuous stream of alphanumeric information. Users may receive as much of the information as they want, for a low, fixed annual fee. Current customers include radio, television and cable stations; universities; state and federal emergency management services; and many other government agencies.

For more information on NWWS see DynCorp's website at <http://www.weatherwire.net> or NOAA's website at <http://www.nws.noaa.gov/nwws/>.

## 17.13 What is NOAAPort

The National Oceanic and Atmospheric Administration's NOAAPORT broadcast system provides a one-way broadcast of NOAA environmental data and information in near-real time to NOAA and external users. This broadcast service is implemented by communications utilizing C-band.

The NOAAPORT data stream is located on Satellite AMC-4, transponder 13C. It is broadcast using DBV formatting, allowing inexpensive equipment to be used to demodulate the data.

This transponder presently has 4 logical channels, NCEP/NWSTG, GOES, NCEP/NWSTG2, and Non-GOES Imagery/DCP Data. The NCEP/NWSTG, GOES, and NCEP/NWSTG2 channels have a data rate of 1.536 Mbps, while the Non-GOES Imagery/DCP Data channel has a data rate of 768 Kbps.

For more information on NOAAPort see NOAA's website at <http://www.nws.noaa.gov/noaaport/html/noaaport.shtml>. Weather Message's WxPort ingest engine processes one of the 4 data streams for use by Weather Message and other software applications.



**Part**



## 18 Software License

### **LICENSE AGREEMENT**

#### **I. LICENSE GRANT.**

Danny Lloyd, hereafter referred to as Author, grants you a non-exclusive license to use the software known as WxMesg, or Weather Message, hereafter referred to as Software.

#### **II. DISCLAIMER OF WARRANTY.**

Software is provided on an "AS IS" basis, without warranty of any kind, including without limitation the warranties of merchantability, fitness for a particular purpose and non-infringement. The entire risk as to the quality and performance of the Software is borne by you. Should the Software prove defective, you and not Author assume the entire cost of any service and repair. In addition, the security mechanisms implemented by Author software have inherent limitations, and you must determine that the Software sufficiently meets your requirements. This disclaimer of warranty constitutes an essential part of the agreement. SOME JURISDICTIONS DO NOT ALLOW EXCLUSIONS OF AN IMPLIED WARRANTY, SO THIS DISCLAIMER MAY NOT APPLY TO YOU AND YOU MAY HAVE OTHER LEGAL RIGHTS THAT VARY BY JURISDICTION.

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You may:

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- use the Weather Message Message Client and Map Client on any number of computers, up to the capacity of Weather Message Server.
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- modify, translate, reverse engineer, decompile, disassemble (except to the extent applicable laws specifically prohibit such restriction), or create derivative works based on the Software;
- rent, lease, grant a security interest in, or otherwise transfer rights to the Software; or
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LIABILITY FOR DEATH OR PERSONAL INJURY TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. FURTHERMORE, SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS LIMITATION AND EXCLUSION MAY NOT APPLY TO YOU.

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**VIII. MISCELLANEOUS.**

This Agreement represents the complete agreement concerning this license and may amended only by a writing executed by both parties. If any provision of this Agreement is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This Agreement shall be governed by the laws of the state of Alabama.