Weather Message

WxMesg

WX

Weather Alerting Software

Users Guide V2.10
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http://www.wxmesg.com

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1.   Software Overview

Weather Message is a full-featured weather alerting software package. It can be run stand-alone or as an add-in software package for Weathernode™ ©. Weather Message performs these functions; sends abbreviated or full text weather messages to pagers, e-mail addresses, fax machines; sends weather messages and weather graphics to computers connected to a network; archives weather products; retrieves radar images; provides a map for seeing a visual representation of weather alerts; and has the ability to activate electrical devices using X10 control. In addition, Weather Message can be used to send weather text, weather graphics and a warning/watch map to a website.

Weather Message operates as a server for connected clients. The message view, 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. See Appendix H for a description of EMWIN, Appendix I for a description of Weather Wire Service, or Appendix J for a description of NOAAPort. Weather Message can receive weather products from satellite, radio modem, Internet, or from Weathernode's ™ © data stream. The software takes the received weather products and processes them against alarms you setup in Weather Message.

Why would you want to 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. 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.

Note: Due to the nature of the EMWIN data stream, 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.

2. Software Installation

Weather Message can be purchased on CD or downloaded from the website. The CD will automatically load the installation program. Weather Message has four components, Weather Message Server, Weather Message Client, Weather Message Map, Weather Message Radar. Each of the sections below detail the items installed for each component.

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.

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

Note: The program only updates are incremental updates. If you presently have version 2.7 and want to upgrade to 2.9, you will need to install the 2.8 and 2.9 program only updates.

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 WxMesg directory.

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.

Weather Message Server

The server software, Weather Message, should be installed on the computer that will be receiving the EMWIN data. If you are using Weathernode, then Weather Message Server will be installed on that computer. When you start the installation program, it will go through the steps for installing the software. You will need to select Weather Message Server from the list of components.

The following files are installed in the WxMesg directory.

County_Z.dat	Contains a list of county names and their zone codes.
County_F.dat	Contains a list of county names and their FIPS codes.
Product.dat	Contains a list of product names and their associated codes.
Schedule.txt	Contains the schedule used by WxScheduler.
States.dat	Contains the state and marine zone abbreviations.
VtPhenom.txt	Contains the VTEC phenomena descriptions.
WxCType.dat	Contains a list of AWIPS products that use FIPS codes, instead of zone codes.
WxWords.dat	Contains a list of words used in weather messages and associated abbreviations. This file is used to reduce the size of messages sent via email.
WxAlarm.txt	Contains the alarms used by the system.
WxAlarm1.txt	Contains alternate alarms for the system.
WxAlarm2.txt	Contains alternate alarms for the system.
WxAlarm3.txt	Contains alternate alarms for the system.
WxEmail.txt	Contains the e-mail addresses that alarms are to be sent.
WxFaxGrp.txt	Contains the fax telephone numbers that alarms are to be sent.
WxPageUG.txt	Contains the paging user and groups that alarms are to be sent.
WxProd.txt	A sample weather product, used by WxMesgText.
WxSatus.txt	A list of byte blaster servers for use by other byte blaster servers.
WxSrvus.txt	A list of byte blaster servers.
WxpUsers.txt	Contains users setup for paging by WxPager.
WxpGroup.txt	Contains groups setup for paging by WxPager.
WxByte.exe	The WxByte executable file.
WxFax.exe	The WxFax executable file.
WxFtp.exe	The WxFtp executable file.

WxIngest.exe	The WxIngest executable file.
WxImgCom.exe	The image communication processor.
WxMesg.exe	The WxMesg Server executable file.
WxMesgSetup.exe	The WxMesgSetup executable file.
WxMesgText.exe	A program to create test weather messages.
WxPager.exe	The WxPager executable file.
WxPagerSetup.exe	The WxPager setup executable file.
WxPost.exe	The email processor.
WxPort.exe	The NOAAPort ingest executable file.
WxPurge.exe	Support program for Weather Message.
WxSched.exe	The WxScheduler executable file.
WxUtils.dll	Support program for Weather Message.
WxWire.exe	The Weather Wire executable file.
WxWW2000.exe	The Weather Wire ingest executable file.
WxX10.exe	The X10 processor.

The following files may appear in the WxMesg directory.

EmailLog.txt	Contains messages generated by WxPost. This log contains a list of emails sent and errors during program operation.
EmailLog.old	Contains the previous log file.
IBLog.txt	Contains messages generated by the ingest programs WxIngest and WxByte.
IBLog.old	Contains the previous log file.
IBFiles.txt	Contains the received file list.
IBFiles.old	Contains the previous received file list.
LogFile.txt	Contains messages generated by WxMesg. This log contains a list of alarmed messages, connected computers and errors during program operation.
LogFile.old	Contains the previous log file.
PagerLog.txt	Contains message generated by WxPager. This log contains a list of pages sent and errors during program operation.
PagerLog.old	Contains the previous pager log.
DebugEm.txt	Contains the communication dialog between WxPost and the SMTP server. It can be used to assist in determining trouble with your email provider.
DebugFt.txt	Contains the communication dialog between WxFTP and the FTP server. It can be used to assist in determining trouble with your ftp service provider.

DebugFx.txt	Contains the communication dialog between WxFax and the fax server. It can be used to assist in determining trouble with your fax service.
DebugPg.txt	Contains the communication dialog between WxPager and the paging terminal. It can be used to assist in determining trouble with your paging provider.
DebugX1.txt	Contains the communication dialog between WxX10 and the X10 controller. It can be used to assist in determining trouble with X10 communications.
WwLog.txt	Contains messages generated by the ingest program WxWw2000.
WwLog.old	Contains the previous log file.
WwFiles.txt	Contains the received file list for WxWw2000.
WwFiles.old	Contains the previous received file list.

The following directories are created in the WxMesg directory.

WxData	A directory to hold the processed messages.
WxData\RxTemp	A temporary storage directory for incoming files.
WxData\RxTrack	A directory to store message tracking files.
WxData\RxFiles	A directory that stores messages that have been received. This is referred to as your ingest directory.
WxData\WxText	A directory to store the processed text weather messages.
WxData\WxGraph	A directory to store the processed weather graphic files.
WxData\Template	A directory to store html templates.
WXData\WxLocal	A directory to store messages created with WxMesgText.
WxLogs	A directory to store daily log files.
WxTemp	A directory to store temporary files.

The server installation also includes programs to setup Weather Message Server, direct ingest of the EMWIN and Weather Wire data stream, a test message generator and a paging program.

After you have installed this software, it will appear in your Start Programs menu under the title "Weather Message".

Message Client (WxMcli)

The Message Client software, WxMcli, can be installed on any computer that is connected to a TCP/IP network. When you start the installation program, it will go through the steps for installing the software. You will need to select WxMcli from the list of components.

Note: The Message Client can be installed on the same computer as Weather Message Server.

The following files are installed in the WxMesg directory.
Sounds	Directory that contains wave files to play.
Sounds\Klaxon.wav	Alarm wave file.
WxMcli.exe	The WxMcli executable file.
WxImage.exe	The weather graphic viewer executable file.
WxImgSet.txt	The weather graphic viewer setup file.

After you have installed this software, it will appear in your Start Programs menu under the title "Weather Message".

Map Client (WxMap)

The Map Client software, WxMap, can be installed on any computer that is connected to a TCP/IP network. When you start the installation program, it will go through the steps for installing the software.   You will need to select WxMap from the list of components.

Note: The Map Client can be installed on the same computer as WxMesg.

The following files are installed in the WxMesg directory.
Sounds	Directory that contains wave files to play.
WxMap.exe	The WxMap executable file.
WxFtp.exe	The WxFtp executable file.
WxLand.exe	Contains landmarks to be show on the map.
Map\USMap.dbf	Map file.
Map\USMap.shp	Map file.
Map\USMap.shx	Map file.

After you have installed this software, it will appear in your Start Programs menu under the title "Weather Message".

Radar Image Retriever (WxRadar)

The radar retriever software, WxRadar, can be installed on any computer that is connected to a TCP/IP network. When you start the installation program, it will go through the steps for installing the software. You will need to select WxRadar from the list of components.

Note: WxRadar can be installed on the same computer as WxMesg.

The following files are installed in the WxMesg directory.

WxRadar.exe	The WxRadar executable file.
WxSites.dat	Contains the current radar sites.
RadLog.txt	Contains messages generated by WxRadar.
RadLog.old	Contains the previous log file.
RadUnavl.gif	Radar unavailable image file.
WxData/RadarCache	A directory where cached radar image components are stored.

After you have installed this software, it will appear in your Start Programs menu under the title "Weather Message".

3. **Setting up Weather Message Server**

After installing Weather Message, you are now ready to setup the software to process alarms. The first step is to run the setup program. This is done by clicking on Start, Programs, Weather Message, then Weather Message Server Setup. The following screen will be displayed.

The menu buttons on this screen perform these functions:

a. The *File* menu allows you to export and import the program registry values, print the alarm and group settings and exit the program.
   1. The *Export Settings* option will export all of the registry settings for the Weather Message programs. They are exported to WxRegSet.txt. This allows a user to easily backup the weather message directory and save all of their settings.
   2. The *Import Settings* option will import the registry settings contained in the WxRegSet.txt file.
   3. The *Print Settings* option will print the alarm and group setup information.
   4. The *Exit and Save* option saves any changed data and exits the program.
   5. The *Exit* option exists the program.
b. The *Support Setup* menu allows you to change many of the systems settings.
   1. The *Fax Groups* option allows you to setup fax groups and fax associated settings.
   2. The *E-Mail Groups* option allows you to setup email groups and fax associated settings.

3. The *Paging Groups* option allows you to setup fax groups and fax associated settings.
4. The *Collectives* option allows you to specify a path to store the SAHOURLY.txt file.
5. The *Data Alert* option allows you to specify when you should be alerted to loss of weather data.
6. The *Options* option allows you to specify general program operation settings.
7. The *Special Prefix* option allows you to establish prefixes that can be used to alarm more than one product per alarm.
8. The *Short Message* option allows you to modify the short message format used for email and paging.
9. The *WxWords* option allows you to edit the word replacement file.

c. The *Register* button allows you to register Weather Message. This button does not appear is the software is registered. Note: If the software is not registered after 30 days, it will stop functioning.

d. The *Help* button displays information about the program.

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.

For direct ingesting, enter the *Ingest Path* that contains the received weather text files. This path is used by the Internet ingest (WxByte), serial port ingest (WxIngest), weather wire ingest (WxWw2000) , and NOAAPort (WxPort) programs.

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 *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 *Alarm File #* field allows you to select from 1 to 4 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.

The *UnZip Files* option indicates whether Weather Message is to unzip received compressed files. If this option is checked, Weather Message

will unzip files with the extensions "zis" and "zip". This option is checked by default. **Note:** This option only works when Weather Message is direct ingesting.

Select the *Operating Mode*; click on *Command Line*, for *Weather Node* for Weathernode, or *Ingest Direct* for direct ingest by Weather Message. When you use the direct ingest option, you must enter the ingest directory path in the *Ingest Path* field. **Note: The files in the ingest directory are deleted after they have been processed. Failure to enter the correct ingest path name, can result in deleted files and/or programs.**

If you are direct ingesting, you can specify a direct ingest engine to load when the Weather Message Server is started. To load WxIngest, the EMWIN serial port ingest program, place a check mark beside *WxIngest*. To load WxByte, the EMWIN Internet ingest program, place a check mark beside *WxByte*, or select Weather Wire to load *WxWw2000*, the Weather Wire ingest program, or Select NOAAPort to load *WxPort*, the NOAAPort ingest program. **Note:** These options are only available if you have selected *Direct Ingest*.

Note: Weather Message supports dual ingesting from one EMWIN data source and either Weather Wire or NOAAPort. If you want to receive data from both EMWIN and Weather Wire or NOAAPort, select one EMWIN source and select Weather Wire or NOAAPort. Weather Message will filter duplicate messages so they will not be alarmed twice.

When the *Save* option is clicked, the Ingest, Data and Graphics paths will be validated. If they do not exist, you will be presented with a message box asking 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 *Sort by Product*, *Sort by State* and *Sort by County* buttons can be used to rearrange the order the alarms are displayed on the screen. You can also click on one of the column headers to sort the list based on that column.

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

Weather Message supports 1000 alarms, 500 e-mail groups, 500 fax groups and 500 pager groups.

Note: Changing any of the alarms will cause the setup program to send a message to Weather Message Server requesting it to reload the alarm file. You will see the message "Loaded New Alarm Table" on the Weather Message Server status screen. If any of the other supporting files, like WxWords.dat, are changed, you must restart Weather Message Server for those changes to take effect.

Editing Alarms

When Weather Message receives a weather product, it processes the product against the alarms entered. These appear in the alarm grid. To add, change or delete an alarm, click on the line that you want to modify and right click, then select the appropriate function, *Edit* or *Delete*. If adding or changing, the following screen will appear.

The edit alarm screen allows you to enter and change information about an alarm. The product code is an identifier assigned by the Weather Service. It is commonly referred to as an AWIPS identifier. Weather product codes / AWIPS identifiers are listed in Appendix B. Text message product codes are generally composed of a three-character message type, followed by a three-character weather forecast office code.

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. A second special prefix, WRO, can also be used. The WRO prefix is not defined and can be setup using the *Support Setup*, *Special Prefix* 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: 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.

Note: If a message does not contain a valid AWIPS identifier, the program will use the first six characters of the WMO header. This allows you to alarm products that do not have AWIPS 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, you will 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, NWWS 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 or marine zone, select the state or marine zone abbreviation from the drop down 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 message 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.

You can select any number of counties to be matched, for the selected state. 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: The reason for allowing multiple counties on one alarm is to cover adjacent counties with only one alarm. This assists with the creation of a short pager message. If no county is specified, the short message will not contain any county names.

Note: The selected counties will appear sorted in alphabetical order at the top of the list when you tab out of the county selection list.

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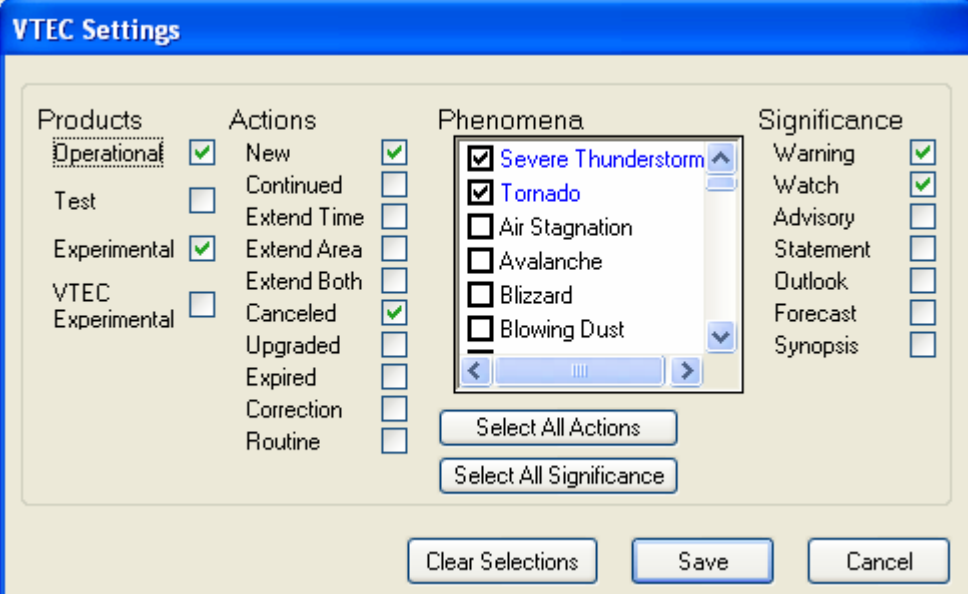
The *Exclude Text* field allows you to enter a word or phase that if found, would cause the message to not be alarmed. This feature can be used to prevent the alarming of test messages. For example entering the word "TEST" in this field would prevent any message containing the word "TEST" from being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

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.

VTEC – Valid Time Event Code

The *Set VTEC* button is used to setup specific VTEC events to be matched for this product.

In order to use 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.

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 VTEC option, the received message must contain the VTEC items you select, otherwise the message will not be alarmed.

Note: See Appendix K for additional information.

Alarm Action

The tab strip in the lower portion of the window allows you to setup the actions for the alarm.

The *Client/Map* tab is used to specific whether this message will be sent to the message or map client. The *Paging/Email/Fax* tab is used to specific which paging, email or fax groups will receive the message. The *Archive/Html/Exe* tab is used to specify whether this message will be archived, saved to a web server, or if an external program should be executed.

Client / Map

Message Client

The *To Client* field is used to indicate whether you want this alarm sent to the Message Clients 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 will allow you to send different alarms to individual Message Clients.

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 that is played 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. Indicate your choice in the *Alarm Type* field. The Message Client and Map Client can play no sound, or your choice of 20. 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.

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.

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.

Paging / Email / Fax

Paging

To send a weather message to a pager, you first have to establish your paging groups. Weather Message supports TAP, SNPP and WCTP paging. 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 Appendix E.

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 WxMesg directory, contains the descriptions of all weather products. This description appears in the short message and on the Message Client screen. You can change any of these product descriptions to fit your particular application / need.

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 begging 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 message 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.

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.

Archive / Html / Exe

Archive Messages

The *Archive* and *Archive Path* fields are used to save weather messages and weather graphics for use by third-party programs. To enable archiving of weather messages/graphics, set the *Archive* field to one of these options: *Full* Text, *Full* Text with *No Headings*, *Selected* text, *Selected* text with *No Headings, Short* message or *Raw*.

The *Selected* option will store only the text in the weather message associated with that alarm. For example, if you alarm a zone forecast product for one county, the *Select* option will save the message text associated with that one county.

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 Path* allows you to specify a directory, ftp address, or http address to store the archived weather message. If you are storing the message in a local directory, enter the complete path name. Do not include a file name. The program will automatically add the appropriate EMWIN file name.

The Archive Options control whether the resulting message is overwritten or made unique if it already exists. Selecting the Overwrite option will cause the program to overwrite any existing message. The No Overwrite option will cause the program to append a sequential number to the message to make the file name unique.

The archive path supports the following variables:
    MM for the current two digit month
    DD for the current two digit day
    YY for the current two digit year

These 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 program does not create directories. You will need to create the directory structure prior to setting up the alarm.

Archive – Local File
For example to save "RWRAL" to a local directory, you could enter the path **C:\WxData\RWR**. The program would then save any arriving RWRAL using the EMWIN file name, RWRBMXAL.txt, to the directory C:\WxData\RWR.

Hint: When saving to a local directory, the program normally overwrites duplicate file names. You can use the *No Overwrite* option to append a sequential number. In some applications, it is preferable to append the message expiration date/time. To enable this operation, enter the path and append to it "\#". For example, enter **C:\WxData\SWR\#**. When the "\#" is present, the program will add the expiration date/time to the file name.

The *Template* button can be used to send messages to a ftp server, http server or local directory with or without html code. See the following section on the Template screen.

Archive-Ftp
If you want to store the message on a web-server using ftp, the path should be entered as one of the following ftp formats:

ftp://username:password@www.server.name:port template#filename
or
ftp://username:password@www.server.name template#filename
or

ftp://username:password@www.server.name:port filename.
or
ftp://username:password@www.server.name filename.

Note: There is one space character in this format. A single space character must follow the server name. Failure to enter a space will abort the ftp. The filename can include a path prefix if required.

Hint: The program normally overwrites duplicate files. You can use the *No Overwrite* option to append a sequential number. In some applications, it is preferable to insert the message expiration date/time. To enable this operation, add the "%" percent sign after the file name. The program will then add the message expiration date to the file name. For example, if the file name is RWRAL.txt, changing it to RWRAL%.txt will cause the program to change the name to include the message expiration date and time.

The archive path for Ftp, Http, and Local with template supports these variables:
    $FileName$ for the EMWIN base file name
    $FileExt$ for the file extension

Note: The template option is not available for weather graphics.

Archive-Http
If you want to store the message on a web server using the http PUT command, the path should be entered as one of the following http formats:

http://username:password@www.server.name:port template#filename
or
http://username:password@www.server.name template#filename
or
http://username:password@www.server.name:port filename.
or
http://username:password@www.server.name filename.

Note: There is one space character in this format. A single space character must follow the server name. Failure to enter a space will abort the http. The filename can include a path prefix if required.

Hint: The program normally overwrites duplicate files. You can use the No Overwrite option to append a sequential number. In some applications, it is preferable to insert the message expiration date/time. To enable this operation, add the "%" percent sign after the file name.

The program will then add the message expiration date to the file name. For example, if the file name is RWRAL.txt, changing it to RWRAL%.txt will cause the program to change the name to include the message expiration date and time.

Note: The template option is not available for weather graphics.

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

Archive – Local with Template
If you are running Weather Message on your web server and want to store the message locally using a template, the path should be in the following format:

local: template#filename

If you specify a template, the program will automatically insert the weather message into this template, where it finds the string $MESSAGE$. This is useful if you are putting the weather message into a web page.

A template is normally an html document that contains the $MESSAGE$ tag where you want the weather text to appear. Since the weather text is preformatted, using the html tag <PRE> $MESSAGE$ </PRE> results in a properly formatted message.

Template Button
The *Template* button will launch the HTML Setup screen. It can be used to create html templates and set your server options.

HTML Setup

Settings

Template File Name	C:\WxMesg\WxData\Template\Templat [Browse]
Destination File Name	web/news.txt
Save To	○ Local ● FTP ○ HTTP
Server Address	www.wxmesg.com Port [21]
User Name	user1
Password	passcode

HTML Code

```
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=windows-1252">
<meta name="GENERATOR" content="Microsoft FrontPage 4.0">
<meta name="ProgId" content="FrontPage.Editor.Document">
<title>Sample Template File</title>
</head>
```

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 ..\WxMesg\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.

Select the type of save, *Local*, *FTP* or HTTP. 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.

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: Appendix F contains examples of html code used to publish weather text to a web page.

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.
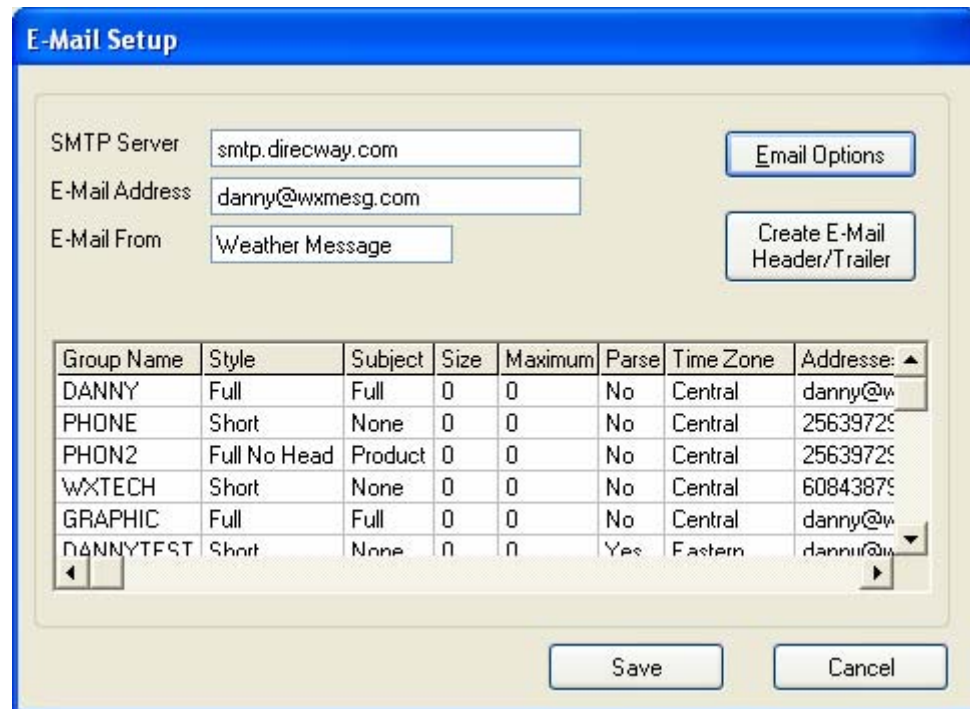
Note: The Exe Program field can also be used to call a specially constructed dll for external processing of messages. Contact Weather Message support for additional details.

Sample Alarm Setup

Product	State	County	Pager Group	E Mail	Client	Alarm Type	Map
WRN???	AL	ALC000	None	None	Yes	None	Yes
FFA???	AL	ALZ000	None	None	No	None	Yes
WSW???	AL	ALC000	None	None	Yes	None	Yes
WOU?	AL	ALC000	None	None	Yes	None	Yes
WRN???	MS	MSC000	None	None	No	None	Yes
WRN???	TN	TNC000	None	None	No	None	Yes
WRN???	GA	GAC000	None	None	No	None	Yes
FFA???	MS	MSZ000	None	None	No	None	Yes
FFA???	TN	TNZ000	None	None	No	None	Yes
FFA???	GA	GAZ000	None	None	No	None	Yes
HWOBMX	AL		Personal	DANNY	Yes	Sound1	No
WRNBMX	AL	ALC123	Group1	PHONE	Yes	Sound3	No
WOU?	AL	ALC123	Group1	PHONE	Yes	Sound2	No
WSWBMX	AL	ALZ037	Group1	PHONE	Yes	Sound2	No
WRNBMX	AL	ALC037	Personal	PHONE	Yes	Sound2	No

Email Groups

To setup email information, select *Email* from the *Support Setup* menu. You will see the following screen.

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.

The Email Options button is used to setup SMTP authentication, and backup e-mail servers.
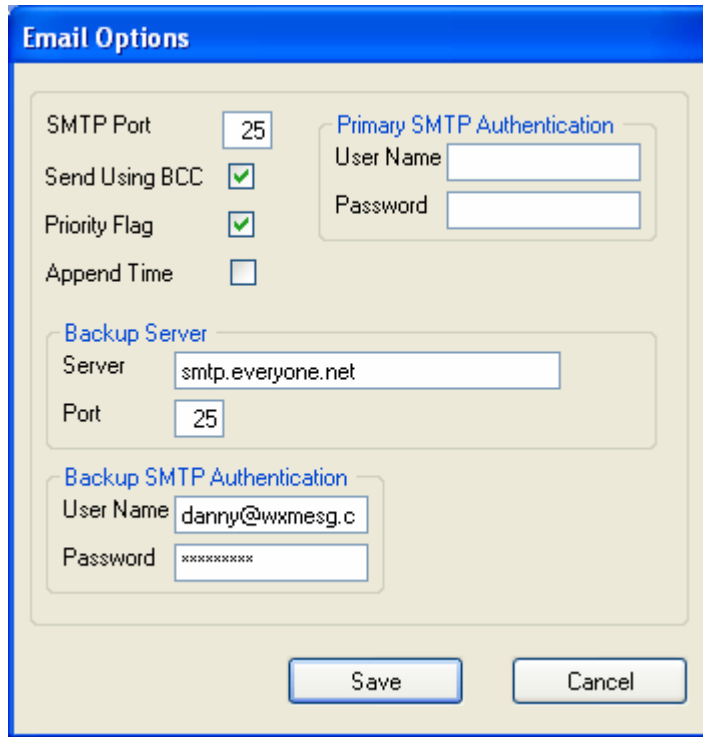
The *Create E-Mail Header/Trailer* button allows you to create text that will be added to the beginning and end of all "selected" and "full" email messages. When you click on this button, a screen will be displayed for you to enter the header and trailer. If you only want a header/trailer message for certain groups, see the Editing Email Groups section. See the Email, Fax and Paging Header/Trailer section for additional information.

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

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

Email Options

The Email Options screen is shown below.

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

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, you specify for a group, from appearing on each email.

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

Hint: Some spam filters think messages with priority flags are 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* and *Password* in the *Primary SMTP Authentication* fields.
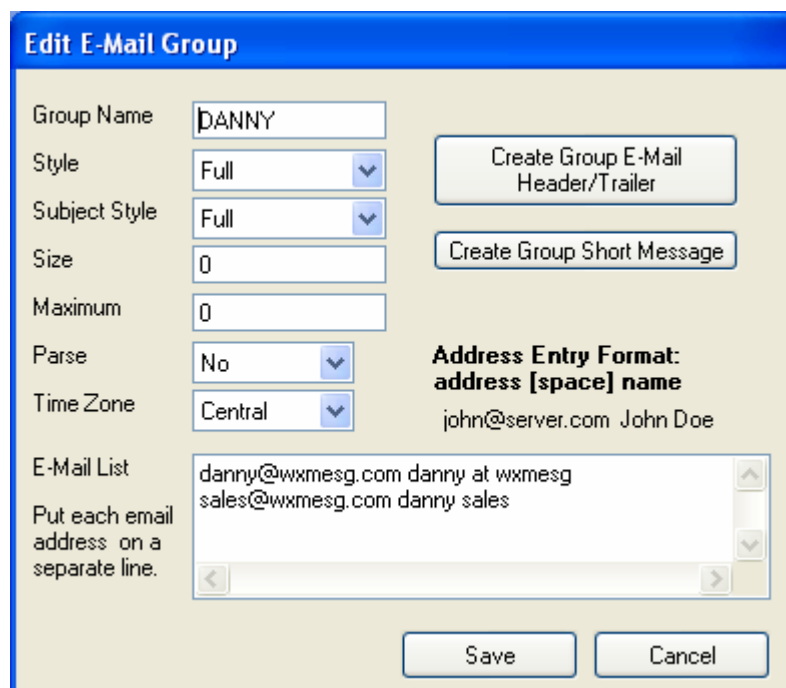
Hint: Use the *SMTP authentication* fields if they are required, otherwise leave them blank. If your ISP does not require authentication and you enter a user name and password, connection attempts to your email server will fail.

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.

Hint: If you only have one email server, you can enter the primary email server information in the backup server fields. This will cause the program to attempt to send the email message a second time should the email server fail on the first attempt.

Editing Email Groups

To add, change or delete a group, click on the line that you want to modify and right click, then select the appropriate function, *Edit* or *Delete*. If adding or changing, the following screen will appear.

Enter the name of the group to be setup in the *Group Name* field. Select the style of email message to send. The system can send the *Full Text*, *Full* Text with *No Headings*, *Selected* text, *Selected* text with *No Headings* or a *Short* message that can be used for a pager. The *Selected* option will send only the text in the weather message UGC group associated with the alarm.

The *No Headings* 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* option allows you to specify how the email 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 leaves the subject blank.

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 *Parse* option can be used to reduce the size of the email messages sent. Selecting "*Y*" tells the system to parse the messages, for this group, against the word substitution file.   This option will also remove all line feeds and carriage control characters.

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.

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 the Email, Fax and Paging Header/Trailer section for additional information.

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. For additional information on the short message format, see Changing The Short Message.

Fax Groups

To setup fax information, select *Fax Group* from the *Support Setup* menu. You will see the following screen.

Select the program that you will use to send faxes. Select Windows 2K/XP to use the integrated fax server in Windows 2000, 2003 and XP. To use WinFax Pro, by Symantec, select Win Fax Pro.

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. 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 Editing Fax Groups section. See the Email, Fax and Paging Header/Trailer section for additional information.

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.

Editing Fax Groups

To add, change or delete a group, click on the line that you want to modify and right click, then select the appropriate function, *Edit* or *Delete.* If adding or changing, the following screen will appear.

Enter the name of the group to be setup in the *Group Name* field. Select the style of email message to send. The system can send the *Full Text*, *Full* Text with *No Headings*, *Selected* text, or *Selected* text with *No Headings*. The *Selected* option will send only the text in the weather message UGC group associated with the alarm.

The *No Headings* 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* option 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 *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 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: 9P3290952.

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 the Email, Fax and Paging Header/Trailer section for additional information.

Paging Groups

To setup paging information, select *Paging* from the *Support Setup* menu. You will see the following screen.
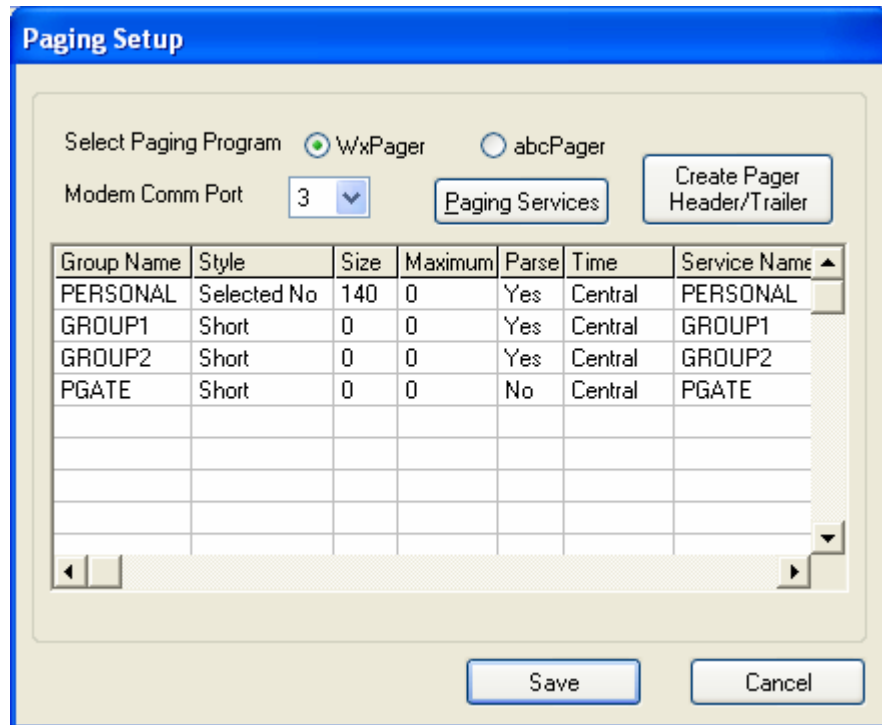
Weather Message can use its built in paging software, WxPager or abcPager© to send pages. If you will be using WxPager, enter the *Modem Comm Port* number. For additional information on WxPager and setup options, see the section on WxPager in this manual.

The *Paging Services* button is used to setup paging service providers. Paging services must be established before adding paging groups. See the following section for details.
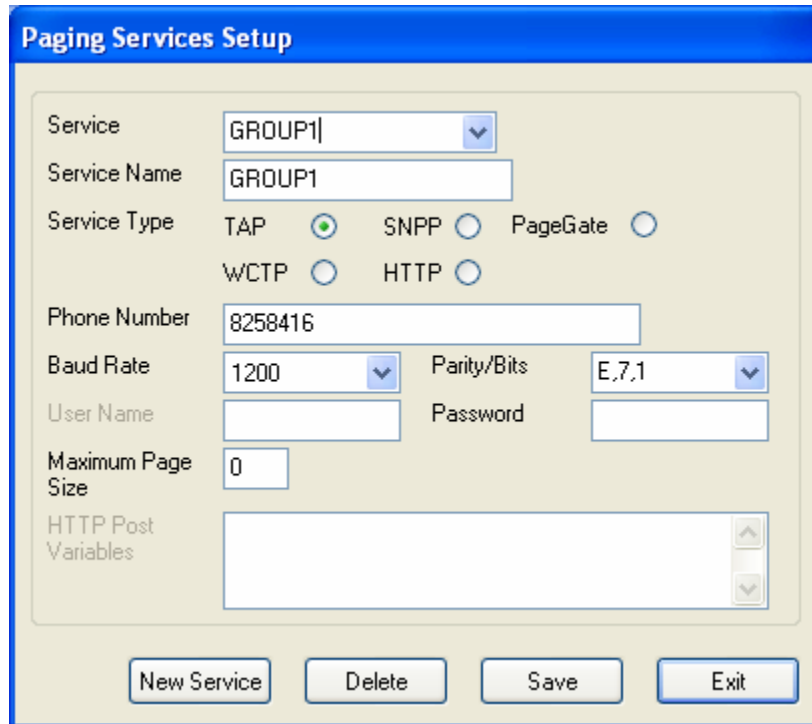
The *Create Pager Header/Trailer* button allows you to create text that will be added to the beginning and end of "selected" and "full" pager messages. When you click on this button, a screen will be displayed for you to enter the header/trailer. If you only want a header/trailer message for specific groups, see the Editing Paging Groups section. See the Email, Fax and Paging Header/Trailer section for additional information.

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.

Editing Paging Services

The following screen is used to add, change and delete paging service providers.

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.

Enter a name for the service in the *Service Name* field.

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* to interface with a web page, or PageGate if you want to interface with PageGate software.

Note: To use *SNPP, WCTP*, or *HTTP* you must select WxPager as the paging program.

Note: The PageGate option will cause the software to create messages named "Page#.asc" in the "c:\program files\wxmesg\wxdata\PageGate" directory. You should configure PageGate to scan this folder for messages.

For TAP paging, enter the service *Telephone Number*, *Baud Rate* and *Parity/Bits*. For SNPP, WCTP, or HTTP paging, enter the service *Address* and *SNPP Port, WCTP Port, or HTTP Port*.

Most paging devices have a limitation on the number of characters they can receive in one page. This limit is should be entered in the *Maximum Page Size* field. Entering 0 (zero) for *Size* will default to 80 characters. Ask your paging provider for this limit.

Hint: Some paging companies restrict the message size that can be sent to their pagers. It 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.

The *HTTP* option allows you to interface directly with a web server. This option requires 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 to the HTTP server. Enter the required information in the *HTTP Post Variables* field. They are entered in the format variable=value. Two replacement variables are available to insert the pager pin and message. Use the variable Pin to insert the pager pin 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
```

Editing Paging Groups

To add, change or delete a group, click on the line that you want to modify and right click, then select the appropriate function, *Edit* or *Delete*. If adding or changing, the following screen will appear.

Enter the name of the group to be setup in the *Group Name* field. Select
the style of pager message to send. The system can send the *Full* text,
Full text with *No Headings*, *Selected* text, *Selected* text with *No
Headings* or a *Short* message. The *Selected* option will send only the
text in the weather message UGC group associated with the alarm.

The *No Headings* 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 message. Entering 0 (zero) for *Size* will default to 80 characters.
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. It 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 the pager messages
sent. Selecting "*Y*" tells the system to parse the messages, for this

group, against the word substitution file. This option will also remove all line feeds and carriage control characters.

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 the Edit Paging Services section to add a new service.

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

Note: The pins for PageGate are entered in the PageGate software application. You should enter "Pgate" as the only pin number.

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/trailer. See the Email, Fax and Paging Header/Trailer section for additional information.

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. For additional information on the short message format, see Changing The Short Message.

Email, Fax and Paging Header/Trailers

You can specify text to be added to the beginning and end of each Email, Fax or Page. When you click on the Create Header/Trailer button on the Email, Fax or Paging setup screen, the following screen is displayed.
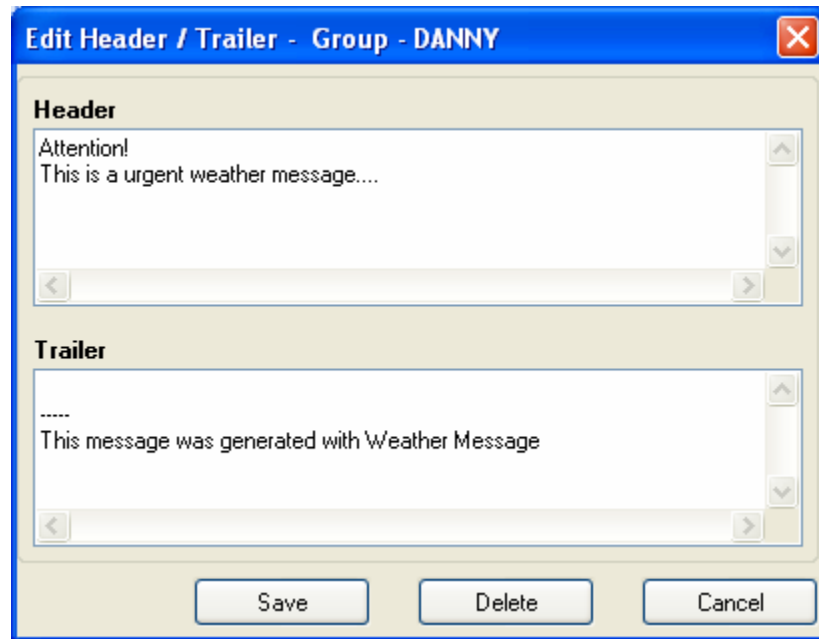
Enter the text desired in the *Header* and *Trailer* boxes. Click the *Save* button to save the Header/Trailer, click *Delete* to remove the Header/Trailer or click *Cancel* to cancel any changes.

Hint: You can send HTML formatted email messages by inserting the appropriate HTML code in the header and trailer boxes. See Appendix G for details.

Collectives
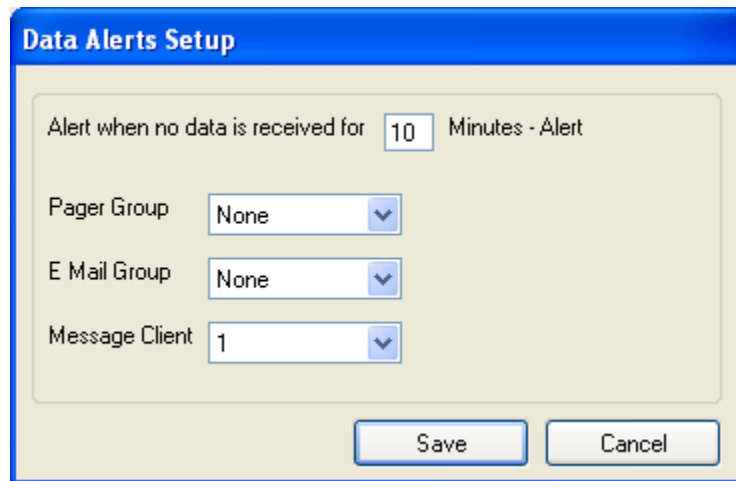
You can store the raw collective file SAHOURLY.txt in a directory for processing by other programs. To enable this option, select *Collectives* from the *Support Setup* menu. You will see the following screen.
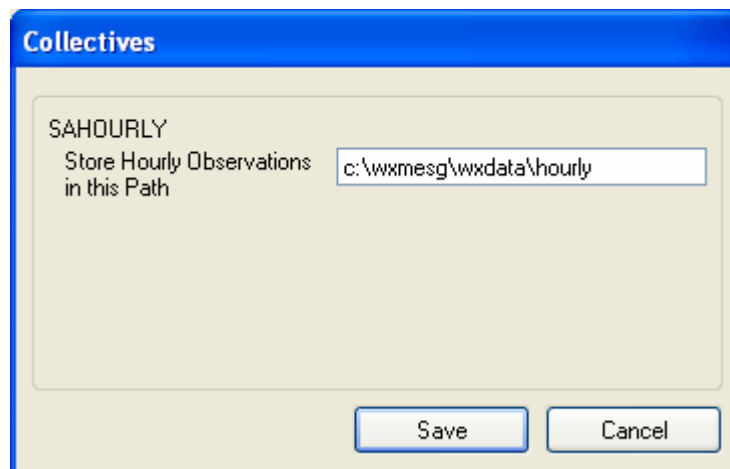
Enter the directory path to store the SAHOURLY.txt file.

Data Alerts

The program has the capability of notifying a group of people if it does not receive EMWIN data for a specific period of time. To enable this option, select *Data Alerts* from the *Support Setup* menu. You will see the following screen.

To activate data alerting, set the number of minutes that the program should wait, without receiving EMWIN data, before sending an alert. You can specify a pager group to receive the message, in addition to an email group. The program will send a brief message indicating it is no longer receiving EMWIN data; it also includes the name of the computer. When the EMWIN data resumes, you will get a second message indicating that it has resumed.

Note: A registry key value is available to modify the default computer name sent by the program. Contact Weather Message support for details.

Program Options

General program options are entered with this screen. To change these options, select *Options* from the *Support Setup* menu. You will see the following screen.

The *Show Errors* box, when checked, will cause the programs 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 *Setup/Shutdown Password*, if entered, will cause the Weather Message Server, WxByte, WxIngest 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. Entering a password will prevent the server and ingest programs from being accidentally shutdown.

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 *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 specific 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 specific the maximum amount of time the program will wait for responses from http servers.

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

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 ..\WxMesg\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 this option disables the log file size option.

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.

Special Prefixes

The program supports two special prefixes to assist you in alarming a group of messages. The prefix WRN defaults to the products FFW, SVR and TOR. The prefix WRO has no assigned default values. To change the products associated with these prefixes, select *Special Prefix* from the *Support Setup* menu. You will see the following screen.
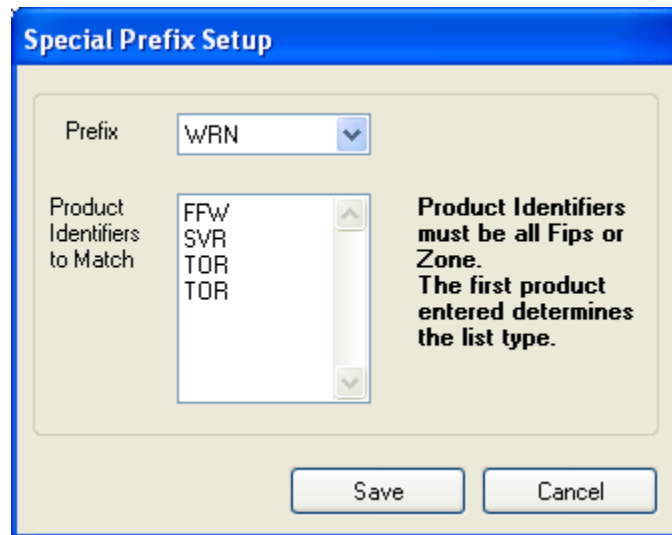
You can add or remove products from the two special prefixes. The only requirement is that each prefix contain either all fips or zone products.

Changing the Short Message

To change the short pager message, select *Short Message* from the *Support Setup* menu and select the *Short Message* tab. You will see the following screen.
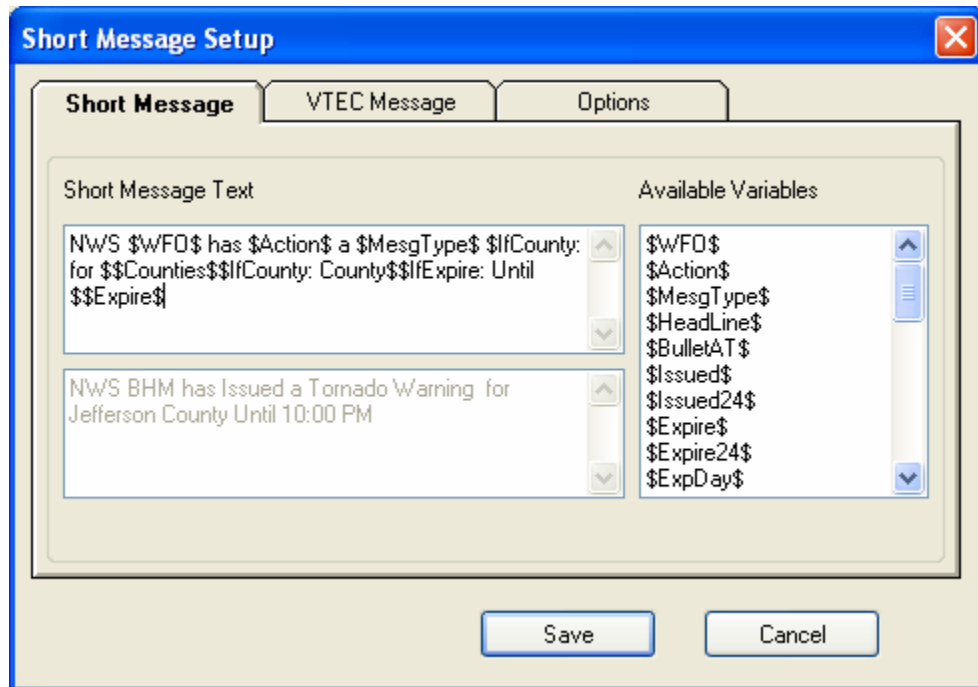
The format of the message is established by typing words and codes in the first text box. To the right of the first text box, you will see a list of codes that can be used in the message. The text box at the bottom of the window shows a sample of the decoded format.

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".
$Issued$	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.
$DayOne$	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".
$UserDef1$	Paragraphs that start with a user defined string.

The $IfCounty:word$ and $IfExpire:word$ 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, means to include the word "County", if county names are available.

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 $HeadLines$ 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". This code is useful with TOR (tornado) and SVR (severe thunderstorm) messages. It captures the location of the weather system 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 $UserDef1$ codes 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.

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

VTEC Message

The VTEC Message tab allows you to redefine the $MesgType$ variable based on the VTEC information in a message. The setup screen is shown below.

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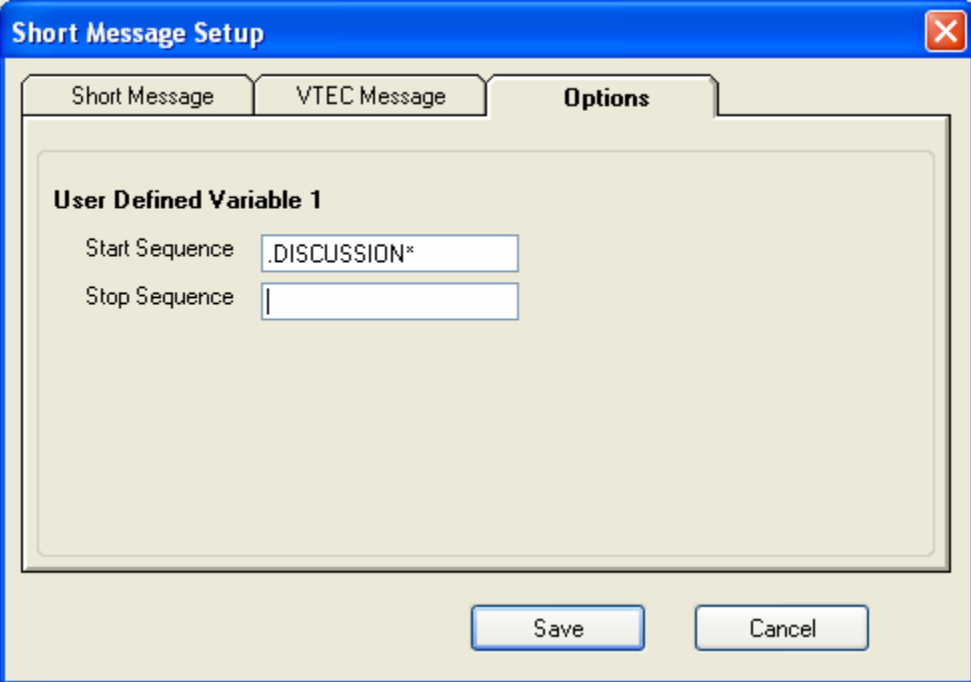
The following is a list of the codes available and their meaning:

$vProduct$	Product type – Operational, Experimental, etc.
$vAction$	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.

Options

The *Options* tab allows you to enter user definable text that will be used to populate the $UserDef1$ code.

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 what to find.

Word Substitution File

To change the words in the word substitution file, select WxWords from the Support Setup menu. This will open notepad, editing the file WxWords.dat. You will see a screen like the following.
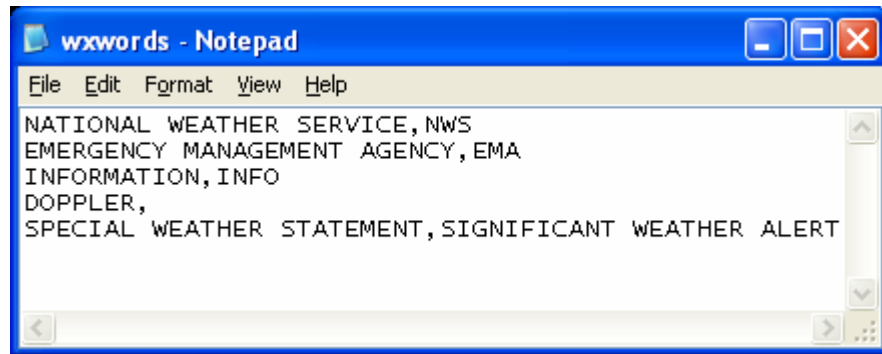
The file WxWords.dat, contains the word replacements. You can edit this file and enter the word(s) you want to replace. The format of this file is original word(s), replacement word. There must be a comma between the original word and replacement word.

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.

Note: Since the format of the WxWords file 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 ;,',' .

4. **Direct Ingest Setup – EMWIN – Serial Port**
Weather Message supports direct ingestion of weather messages from the EMWIN data stream. In this mode, the Weather Message Server processes each weather message without assistance from a third-party software package. This is accomplished by either a direct data feed, by satellite or radio modem, or Internet reception.

Settings

WxIngest is used by Weather Message for direct data feeds from satellite or radio modem. The ingest program can be started automatically by the Weather Message Server or manually. Once started, you will need to setup some of the program defaults, click on the *File* menu button, then *Setup*. You will see this screen.
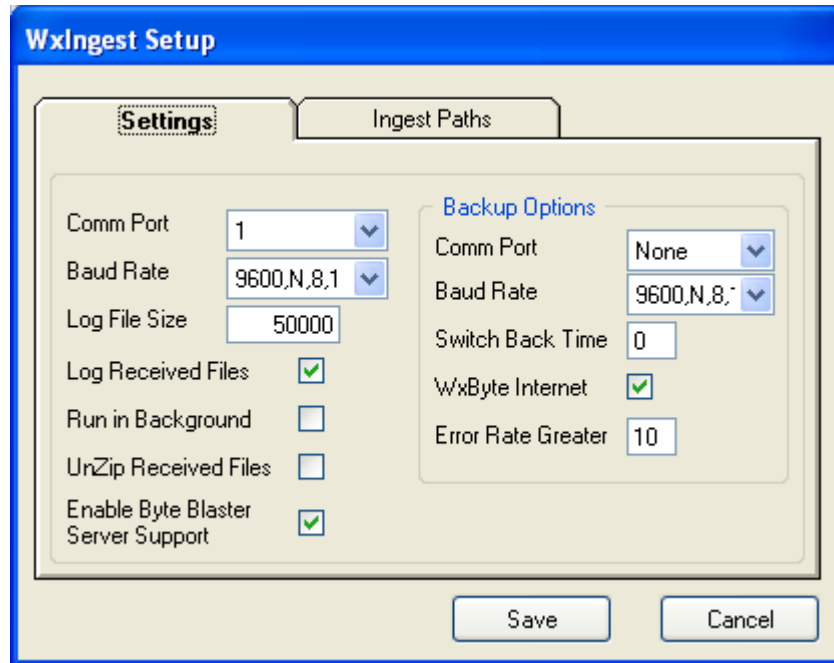
The *Settings* tab is used to define the communication port parameters and backup options. You will need to enter the com port parameters and backup options.

WxIngest supports a backup satellite system, retransmission receiver and/or backup by Internet, using WxByte. 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 WxByte (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.

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 WxByte.

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 WxByte, if that option is selected. If the backup port is not specified, it will switch from the main port directly to WxByte, if that option is selected.

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

When the program switches from serial ingest to WxByte, 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.

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

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

If you have enabled the *Run in Background* option, you can see the ingest screen by going to Weather Message Server, click on the *File* menu option and select *Show Ingest*.

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).

If you are running the Byte Blaster server, WxBBSrvr, you will need to check the *Enable Byte Blaster Server Support* box. This will cause the

ingest program to create data records for processing by the Byte Blaster server. **Note:** This program communicates with WxBBSrvr using UDP port 9510 on the local loop back address.

Ingest Paths

The *Ingest Paths* tab can be used to override the default Weather Message Server ingest path and define additional ingest (distribution) paths. The Ingest Paths screen appears as follows.

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 text, you can put a copy of the received messages in a 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.

Operation

The WxIngest processing screen appears as follows.
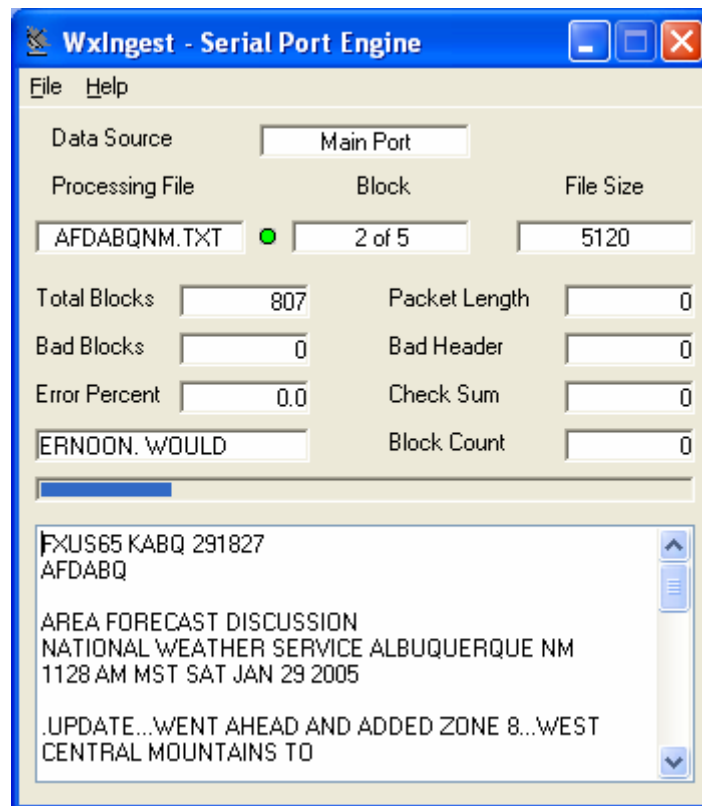
The *File* menu option allows you to *Setup* the program, *Reset* the error statistics, *View* the log file, *View Files Received Log* and *Exit* the program. A *Port* option will be present when you have a backup port specified. This option can be used to switch WxIngest to the backup port.

The main screen shows the status of incoming messages. The Data Source field indicates which source is being used to receive the EMWIN data. Should the program stop receiving data, it will display "Data Alert" to the right of the Data Source field in a red box.

The Processing File, Block and File Size fields show information on 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.

The total blocks field shows the total number of blocks received since 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 first 1024 characters of the message in the text box. This shows the text for the block just received, it does not show the complete message.

The ingest program will attempt to repair defective messages, if a duplicate message is received. **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: If WxIngest is stopped with the window minimized, the next time it is started, it will start minimized.

Note: While the program is using WxByte as a backup data source, the fields on the screen will 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\WxMesg 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

5. Direct Ingest Setup – EMWIN – Internet

WxByte is used by Weather Message for Internet reception of the EMWIN data stream. The ingest program can be started automatically by the Weather Message Server or manually.

It uses information from Internet weather servers to maintain a list of servers available. It attempts to connect to the first available server. Should a server stop functioning, WxByte will attempt to contact the next available server. Every 10 minutes, WxByte receives an updated list of servers.

WxByte uses TCP/IP port 1000 to communication with the servers. If you have a firewall, port 1000 must be open for WxByte to work. Recently the National Weather Service started testing servers on ports 21 and 22. These ports may also be required in the future.

The WxByte processing screen appears as follows.
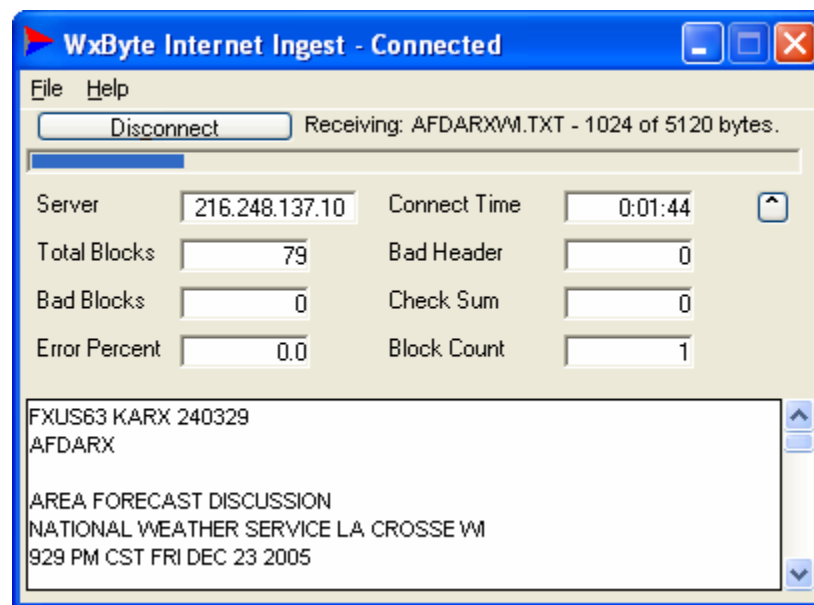
The *File* menu option allows you to *Setup* the program, *Show Details*, *View* the log file, *View Files Received Log* and *Exit* the program. To see the current server IP address and/or the list of servers, select *WxByte Status* from the *Help* menu.

The Server field shows the TCP/IP address of the server that is providing you with EMWIN data. The Connect Time is the amount of time that you have been connected to this server.

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 bad header and check sum fields. The block count field counts the number of messages that had any blocks missing. The error percent field shows the error percentage of the blocks received verses bad blocks.

The status information, included the decoded message display can be removed by clicking on the up button or resizing the screen. To show the status information and decoded message drag down on the bottom of the window.

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

Settings

The Setup menu allows you to specify several options.
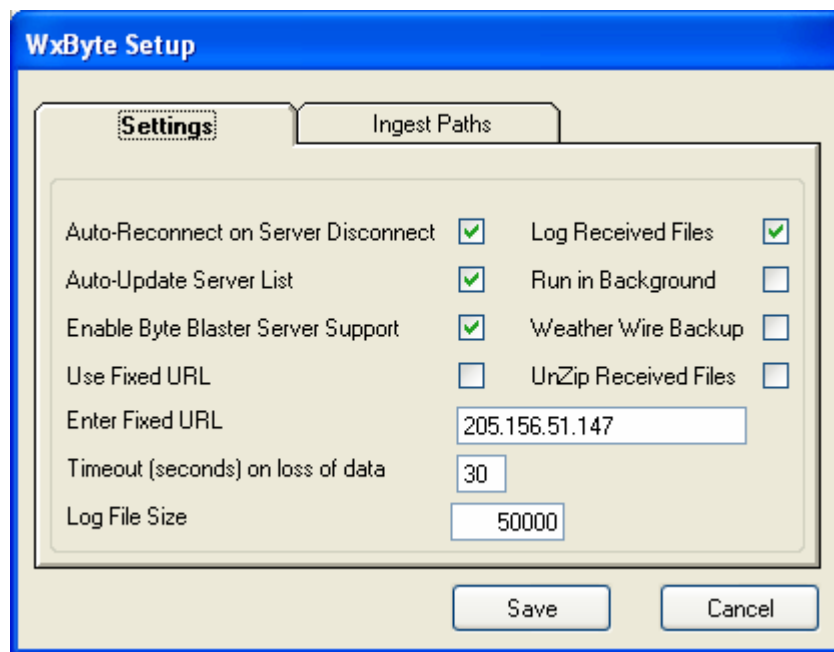
The *Auto-Reconnect on Server Disconnect* should be checked if you want WxByte to try to connect to another server if it becomes disconnected. The *Auto-Update Server List* should be checked if you want WxByte to automatically maintain a list of available servers. If WxByte does not maintain this list, you will need to manually update the WxSvrus.txt file to include the servers that you want it to try to establish a connection.

If you are running the Byte Blaster server, WxBBSrvr, you will need to check the *Enable Byte Blaster Server Support* box. This will cause the ingest program to create data records for processing by the Byte Blaster server. **Note:** This program communicates with WxBBSrvr using UDP port 9510 on the local loop back address.

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

The *Timeout* seconds on loss of data is set by default to 15 seconds. You can change this within the range of 15 to 600 seconds.

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

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

If you have enabled the *Run in Background* option, you can see the ingest screen by going to Weather Message Server, click on the *File* menu option and select *Show Ingest*.

The Weather Wire 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 registration for Weather Wire; see the Weather Wire section for details.

When the program switches from WxByte 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.

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).

Ingest Paths

The *Ingest Paths* tab can be used to override the default Weather Message Server ingest path and define additional ingest (distribution) paths. The Ingest Paths screen appears as follows.

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 text, you can put a copy of the received messages in a 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 WxIngest.

Note: The byteblaster protocol, used by the Internet weather servers, requires an email address to be sent for verification. Make sure that you enter an email address on the Weather Message Server Email setup screen. Otherwise, when the weather server you are connected to reaches 90% capacity your connection will be disconnected.

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\WxMesg directory.

6.   Direct Ingest Setup – Weather Wire

WxWw2000 is used by Weather Message to ingest the Weather Wire data stream. This program supports data ingest from a serial port or Internet connection. The ingest program can be started automatically by the Weather Message Server or manually. You will see this screen.
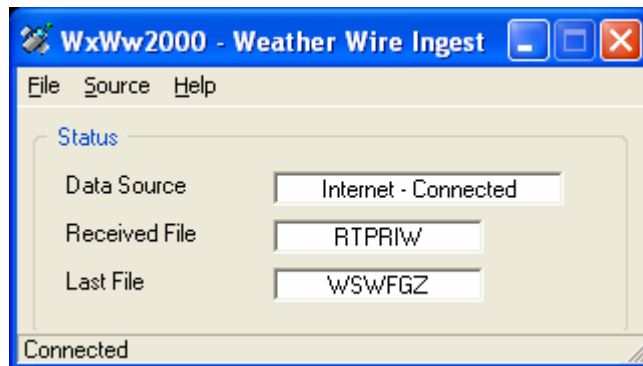
The *File* menu option allows you to *Connect* to an Internet server, *Setup* the program, *View* the log file, *View Files Received Log* and *Exit* the program. The *Source* option changes the ingest program from a serial port to Internet server.

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

Note: Before WxWw2000 will connect to an Internet server you must enter your user name and password in the setup screen. For information on obtaining a user name and password, see the Weather Wire information in <u>Appendix I</u>.

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.

Settings

The Setup menu allows you to specify several options. Click on the *File* menu button, then *Setup* to change these options.
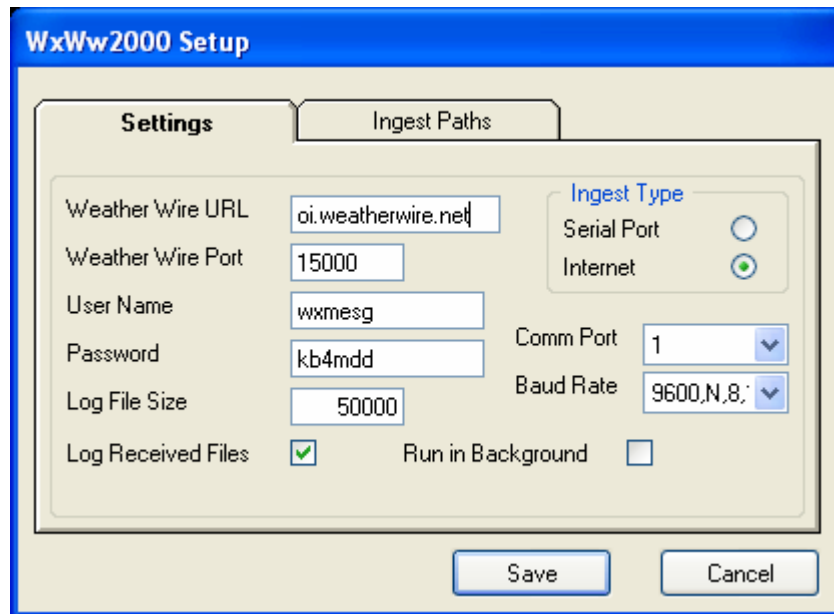
Select the type of Ingest that you want this program to perform. Select *Serial Port* or *Internet*.

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.

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

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

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

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

If you have enabled the *Run in Background* option, you can see the ingest screen by going to Weather Message Server, click on the *File* menu option and select *Show Ingest*.
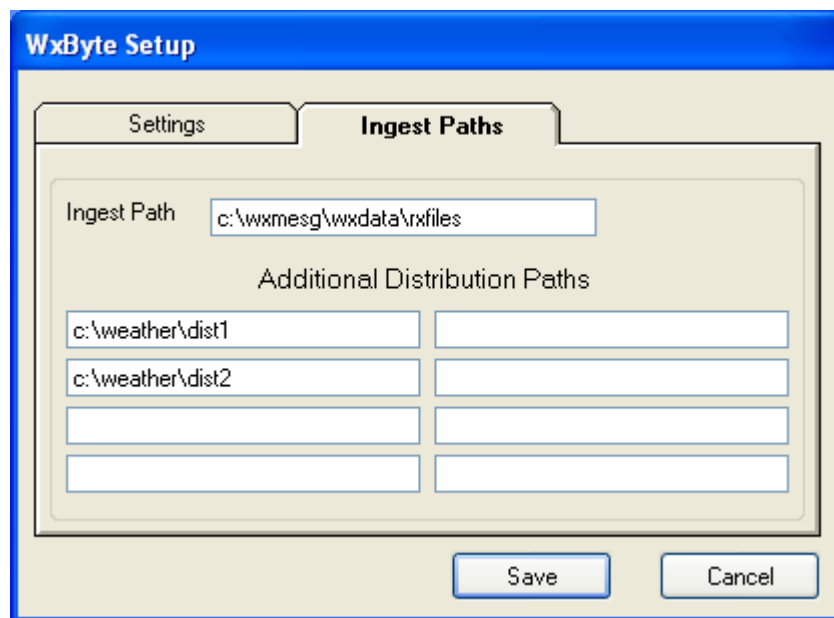
Ingest Paths

The *Ingest Paths* tab can be used to override the default Weather Message Server ingest path and define additional ingest (distribution) paths. The Ingest Paths screen appears as follows.

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 text, you can put a copy of the received messages in a 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 the other ingest programs.

7. **Direct Ingest Setup – NOAAPort**

WxPort is used by Weather Message to ingest the NOAAPort data stream. This program receives the data using TCP/IP multicast. The ingest program can be started automatically by the Weather Message Server or manually. You will see this screen.
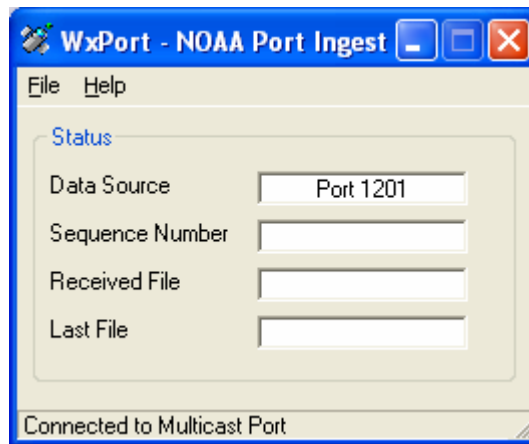
The *File* menu option allows you to *Setup* the program, *View* the log file, *View Files Received Log* and *Exit* the program.

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

Settings

The Setup menu allows you to specify several options. Click on the *File* menu button, then *Setup* to change these options.
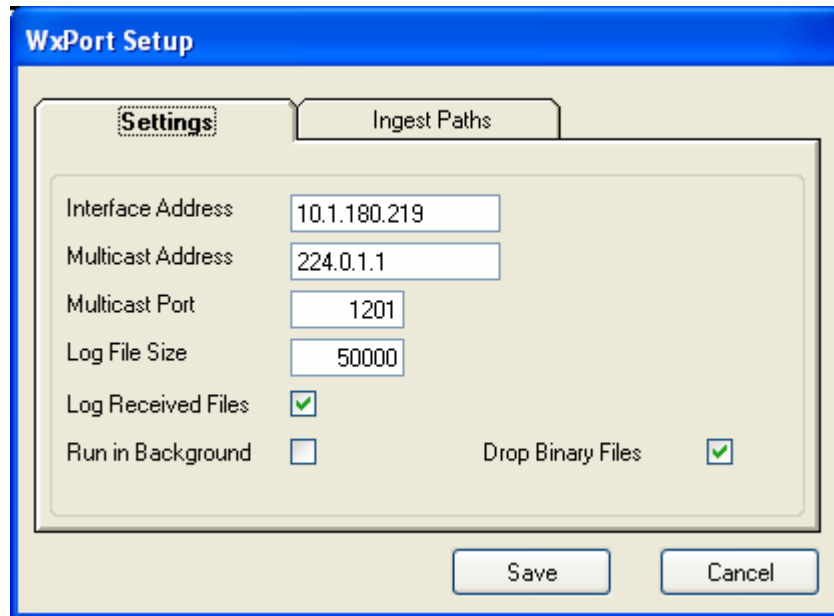
The *Interface Address* is the TCP/IP address of the network device that will be providing the multicast packets.

The *Multicast Address* is the address of the NOAAPort data channel that you want to decode. The *Multicast Port* must be specified along with this address. Here is the breakdown of the Multicast addresses and ports:

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

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

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

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

If you have enabled the *Run in Background* option, you can see the ingest screen by going to Weather Message Server, click on the *File* menu option and select *Show Ingest*.

The *Drop Binary Files* check box allows you to specify whether WxPort should process messages that contain binary data. If you do not want the messages with binary data, check this box and they will not be processed.

Ingest Paths

The *Ingest Paths* tab can be used to override the default Weather Message Server ingest path and define additional ingest (distribution) paths. The Ingest Paths screen appears as follows.

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 text, you can put a copy of the received messages in a 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 the other ingest programs.

8.   **Setup for use with RealEMWIN / Third-Party Programs**

Weather Message can be setup to provide data for use by RealEMWIN or other third-party programs.

Weather Message has the ability to create multiple ingest directories for external programs. This method allows RealEMWIN to use one of the Weather Message ingest directories for its data source.

To setup the Weather Message Ingest programs for multiple directory support, see the section on WxIngest or WxByte. The Paths tab in the ingest programs allows you to specify a directory for RealEMWIN to pick up the arriving files.

You will need to change your setup in RealEMWIN for network processing. Go into RealEMWIN setup and change it to Network Mode. In addition, you will need to change the ingest directory to the additional directory specified in WxIngest or WxByte.

9.   **Setup for use with WeatherNode**

After WeatherNode has been started, you can manually start Weather Message. You must have the Weather Node mode selected in the setup screen. When Weather Message Server is started, it will automatically connect to Weather Node and begin processing messages.

You can make Weather Message appear in the Weathernode, Module, Plugins List by editing the \weather\addons.txt file. The file should look like the following. Insert the correct path to WxMesg.exe.

```
addons - Notepad
File   Edit   Search   Help

Directory Of Plug-ins,plugins+plugins|\weather\plugins.exe
Alarm Monitor,ALARMMON+ALARMMON|\weather\alarmmon.exe alarmmon
AlarmSpeak .wav player,spkalarm+spkalarm|\weather\spkalarm.exe spkalarm
Auto-print Manager,PRINTMGR+Autoprint|\weather\printmgr.exe autoprint
FTP Engine,FTPENGN+FTPENGN|ftpengn.exe ftpengn
X10 Controller,x10ctrlr+x10ctrlr|\weather\x10ctrlr.exe x10ctrlr
ByteBlaster EMWIN Engine,byteengn+byteengn|byteengn.exe byteengn
WxMesg,WxMesg+WxMesg|\vbsource\wxmesg\WxMesg.exe
```

After editing this file, stop and restart Weathernode. When Weathernode starts, click on Modules, Plugins, then WxMesg. Once you initially start Weather Message using these steps, WeatherNode will automatically start Weather Message in the future.

Note: This feature will be removed in the next software release.

10. **Weather Message Server**

When you start the Weather Message Server, it will run from the system tray. If you direct ingest, using one of the Weather Message ingest programs, the selected ingest program will automatically be started and run from the system tray.

The following is a picture of the Weather Message Server Window.
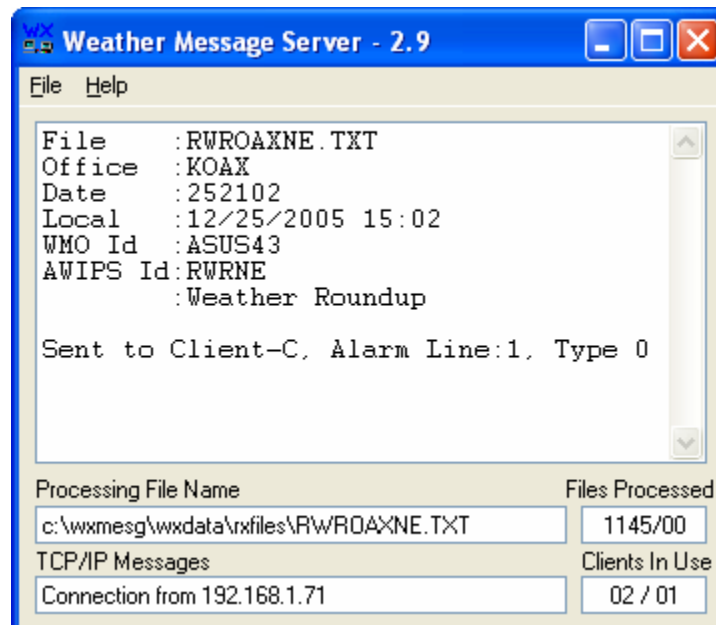
The *File* menu allows you to run the Weather Message *Setup* program, *View Connections*, *View* the log file, *View* the Email log file, *View* the Pager log file, *View* the Fax log file, Start the *FTP Ingest* process and *Show Ingest* engines running in the background. This screen is used to verify that the Weather Message Server is running and decoding messages. The main window shows the breakdown of the messages received and associated alarms.

The Files Processed box shows 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 TCP/IP Messages box shows status messages about clients that have connected or disconnected from the server. The Clients In Use box shows the current number of clients connected. The first number is for the Message clients and the second for Map clients.

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 and tif. Other extensions will be handled as a regular text file.

FTP Ingest

The *FTP Ingest* option can be used to download weather messages and image files sent prior to starting Weather Message. NOAA current offers these archived durations; fifteen minutes, one hour and three hours. Clicking on the *FTP Ingest* option will give you this screen.
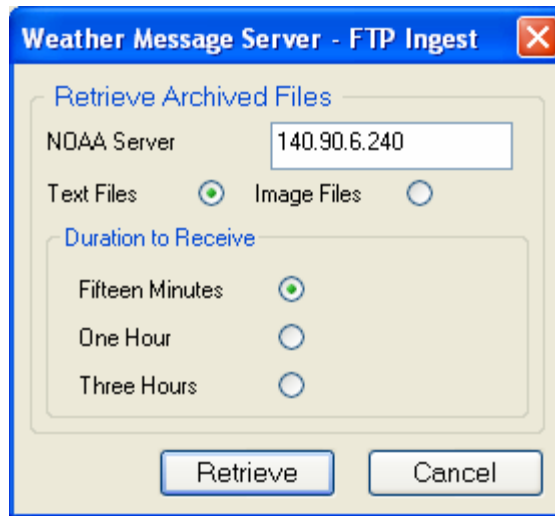
The NOAA Server address is locked and can only be changed by modifying a registry value. Select the file type and duration that you want to retrieve and click on the Retrieve button. The system will display a screen showing the progress of this action. Since the one and three hour files can be quite large, it may take some time for them to be retrieved and uncompressed. During this time, the system will continue to process messages that arrive by other ingest methods.

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.

Active Connections

The *View Connections* option can be used to see the clients connected to Weather Message Server.
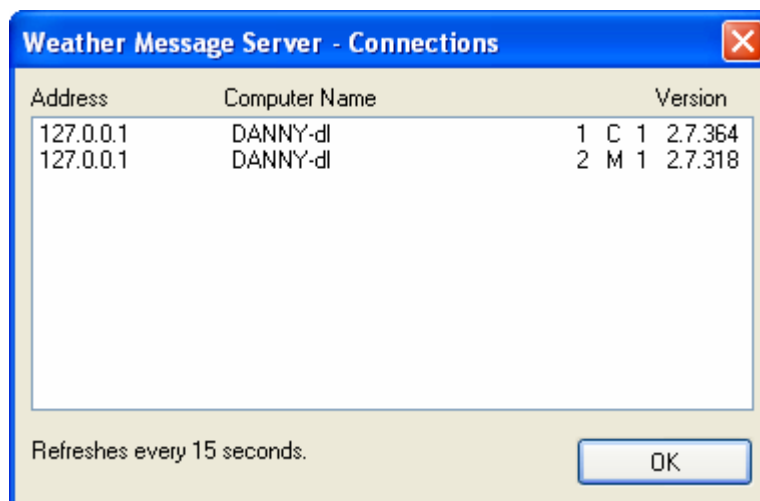
This screen shows the tcp/ip address of the client, the computer and user name, along with the client version number. A "C" to the left of the version number indicates a Message Client, while a "M" indicates a Map Client.

This screen will automatically refresh itself every 15 seconds.

Testing Weather Message

A weather text creator application has been included in Weather Message to test alarms. To start this program, click *Start*, *Programs*, *Weather Message*, *WxMesg Text Creator*.   See the section on WxMesgText Message Creator for specific program operation.

Note: Weather Message can be command line driven. This provides another method to test your alarms. For example to test the product "TORBHM", create a test file that contains the information for this product. Get into the WxMesg directory and type the command "WxMesg c:\testprod\torbhm.txt", or whatever directory or product name is appropriate. If Weather Message is not running, it will be started and the message will be processed.

Log File

Weather Message Server creates a log file, named LogFile.txt, to record alarms activated for pagers, emails, or clients. This file is located in the WxMesg directory. It also contains connection requests from clients and disconnect request from clients. You will also find any program problems encountered, when processing weather messages.

If you send messages to an email or paging group, a log file is created to audit these operations. Email activity is recorded in EmailLog.txt. Pager activity is recorded in PagerLog.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.

E-Mail, Paging, Ftp Monitor

Weather Message Server has the capability to display a monitor window to assist with troubleshooting email, paging, ftp and X10 operation. To enable the monitor window(s), first click on the Weather Message Server window to bring it into focus.

Press control-d to activate the email and paging monitor. Press control-f to activate the ftp monitor. Press control-x to activate the X10 monitor.

Note: Weather Message creates four debugging files, Debugem.txt for emailing, Debugfx.txt for faxing, Debugft.txt for Ftp and Debugx1.txt for X10. The debug files record the communication between Weather Message and the associated service provider. This communication will normally reveal the reason for message delivery failures

11.   WxMcli – Weather Message Client

The Weather Message client program, WxMcli, can be installed on any computer attached to a TCP/IP network. It will communicate with Weather Message Server to sound and show weather alarms. In addition, it receives and store weather graphics for viewing.

It is recommended that WxMcli be placed in the startup box on Windows. This will insure that the program is automatically started each time the computer is booted. WxMcli does not appear in the task bar, but runs from the system tray. To open the program, right click on the WX icon and select open.

The main window appears as follows.
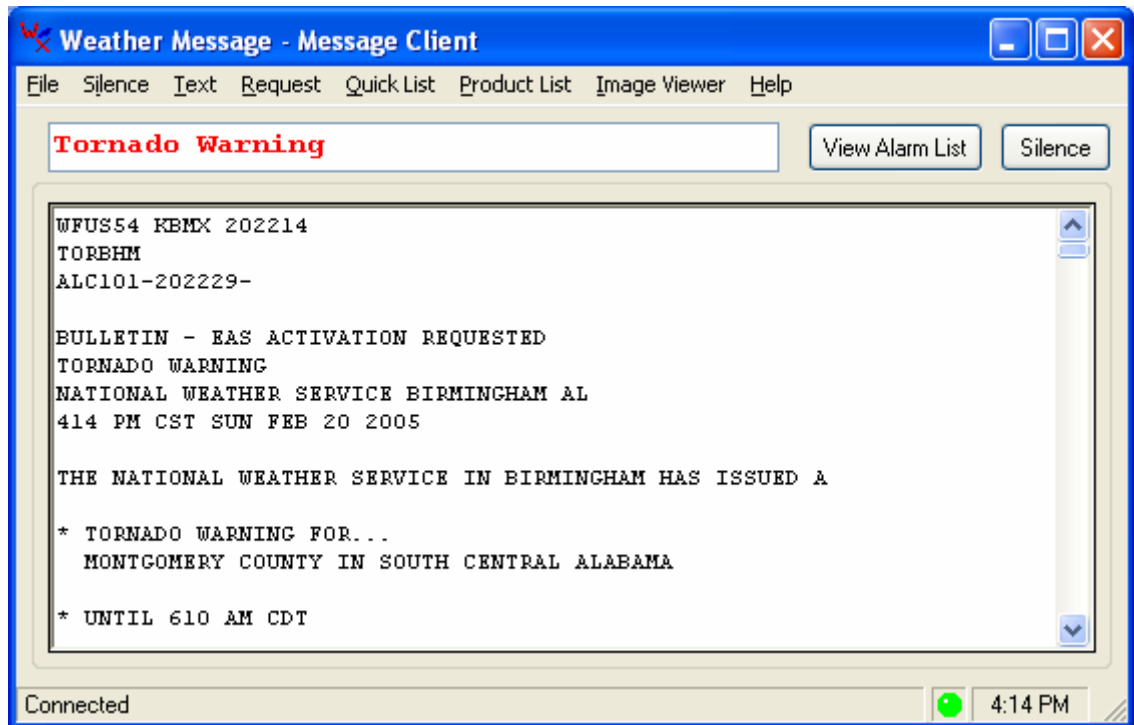
The menu buttons on this screen perform these functions.

a. The *File* menu option allows you to Setup the program, select a
default printer, Connect a server or Exit the program.
   1. The *Setup* button is used to establish program parameters.
      Note: If you enable the Password for Setup/Exit, you will have
      to enter the password "SNOW" to access the setup screen.
   2. The *Printer* button is used to select a default printer.
   3. The *Connect* button is used to establish a connection with the
      Weather Message Server. The system will automatically try to
      make a connection once every minute when it is not
      connected.
b. The *Silence* button is used to stop the alarm sound that is playing.
c. The *Text* button displays a menu with these options.
   1. Clear - used to clear the text window.
   2. Find – used to find text in the text window.
d. The *Request* button allows you to request a product or list of
products.
   1. The *Request Product* button is used to request a specific
      weather message.
   2. *The Request List* button is used to request a list of products.
e. The Quick List button allows you to quickly list predefined products.
See the setup menu for instructions regarding this option.

f. The *Product List* button opens a window with a list of recently received products.
g. The *Image Viewer* button launches the weather graphic image viewer.
h. The *Help* button displays information about the program.
i. The *View List* button can be used to view a list of active alarms.

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. The exit password is "SNOW". This password should not be given to your end users.

Hint: If the system tray icon is outlined with a red circle, the program is not communicating with the Weather Message Server.

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

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

Setup

After you have installed the program, you should click on the *Setup* button, then Settings. Enter the *TCP/IP Address* and *TCP/IP Port* of the Weather Message Server. The following is a picture of the setup screen.

The *Host TCP/IP Address* is the address of the Weather Message Server. Enter the address of your primary server in this field.   The default is 127.0.0.1 for the local computer.

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

Click on the *Settings* tab for additional program settings.
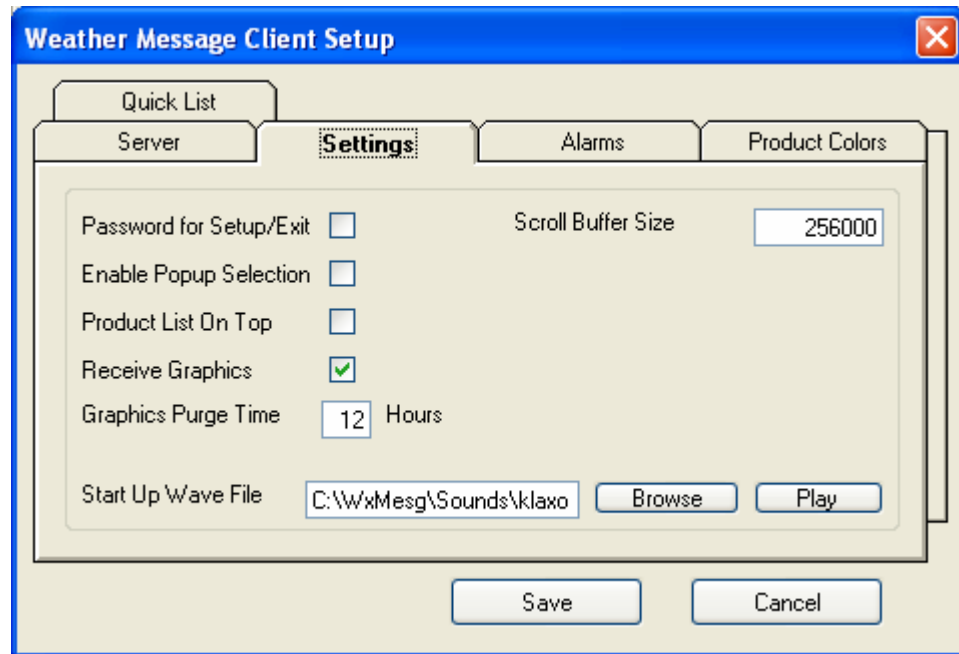
The *Password for Setup/Exit* option allows you to require a password to access the Setup menu or exit the program.

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

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

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 when the program is started. Use *the Browse* button to locate a wave file. If you do not want a wave file to play at startup, enter None in this field. To hear the wave file, click *Play.*

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

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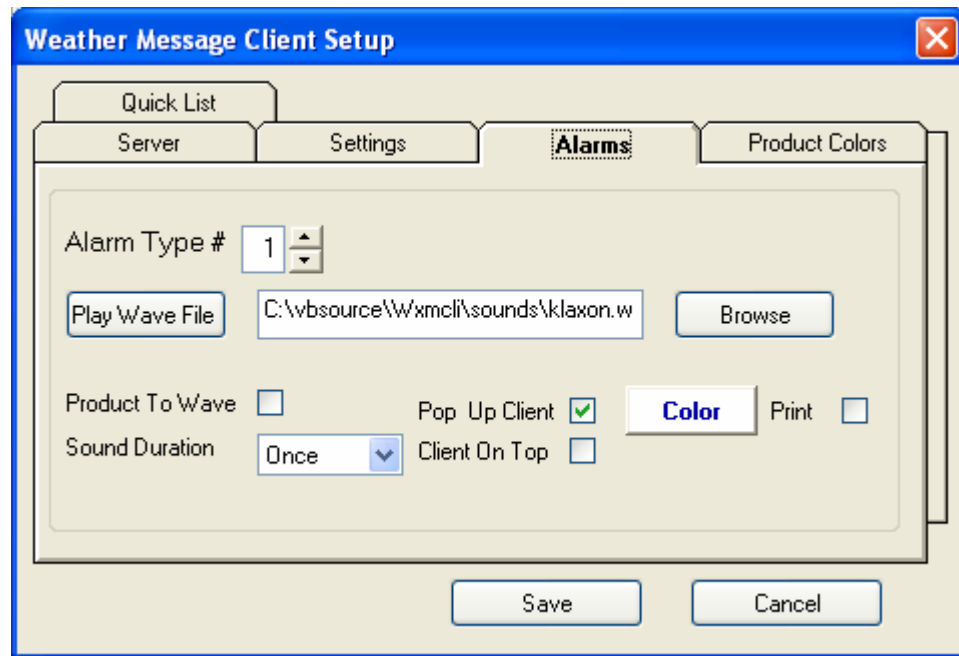
The Weather Message Server Setup program allows you to associate an Alarm Type for each alarm that is sent to the Message Client. This Alarm Type causes the Message Client to play a wave file and pop-up a minimized screen, based on your settings. In addition, it uses the color associated with the alarm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

Message Client supports up to 20 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. 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 *Product to Wave* field is used when you want a specific sound to be played based on the product identifier. When using this option, you will have to name the wave file the same as the product identifier. This wave file will also need to be saved in the "Sounds" directory located in the WxMesg 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 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 *Pop Up Client* field 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 and be the active program.

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

Click on the *Product Colors* tab to change the default colors used in the product list.
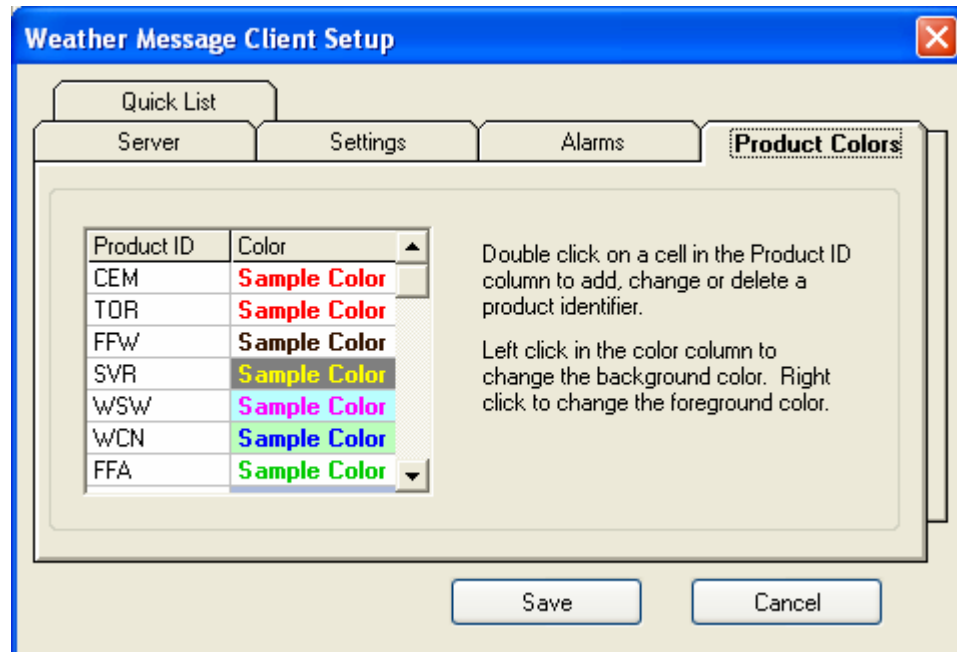
The *Product ID* column contains the first three letters of the AWIPS identifier to be colored. To add a new product identifier, scroll down to a blank cell and double click in the cell. Enter the product identifier and press enter. Then right click to change the foreground (text) color or left click to change the background color.

The colors associated with the alarms, established under the Alarms tab, will override these default colors.

Click on the *Quick List* tab to change and enter Quick List items.
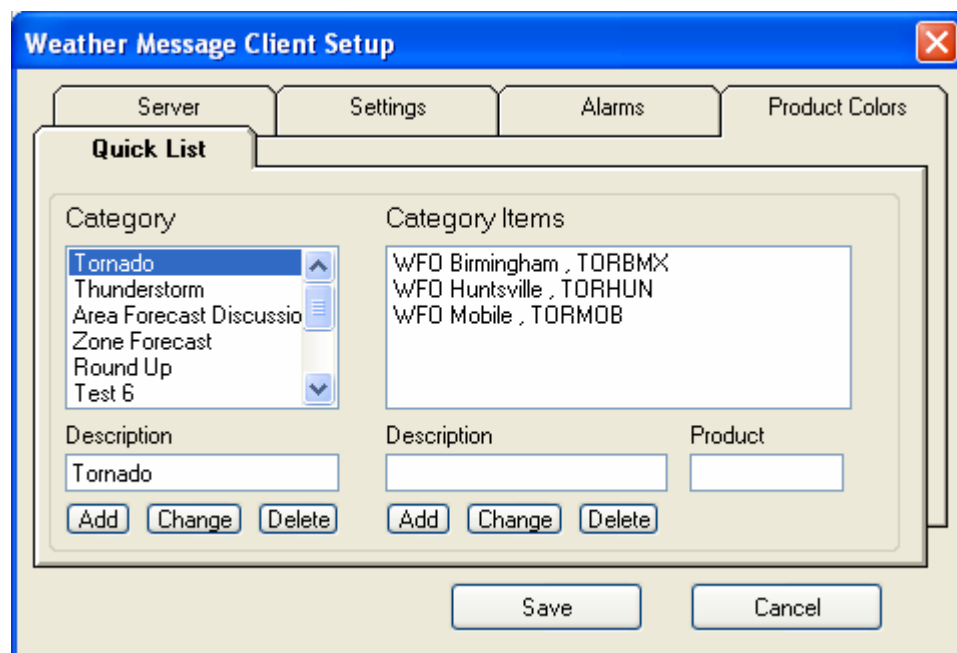
To add a category, enter the category description and click *Add*. To change a category, click on the category, make any changes and click on *Change*. To delete a category, click on the category and press the keyboard delete key or the *Delete* button.

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.

Note: The program supports 20 categories, with unlimited category items.

Active Alarms

The Message Client screen also contains a list of active alarms. When an alarm is received, the system tray icon changes to the color red, until all alarms have expired. To view the list of active alarms, click on the *View Alarm* List button. Here is a picture of an alarm list.
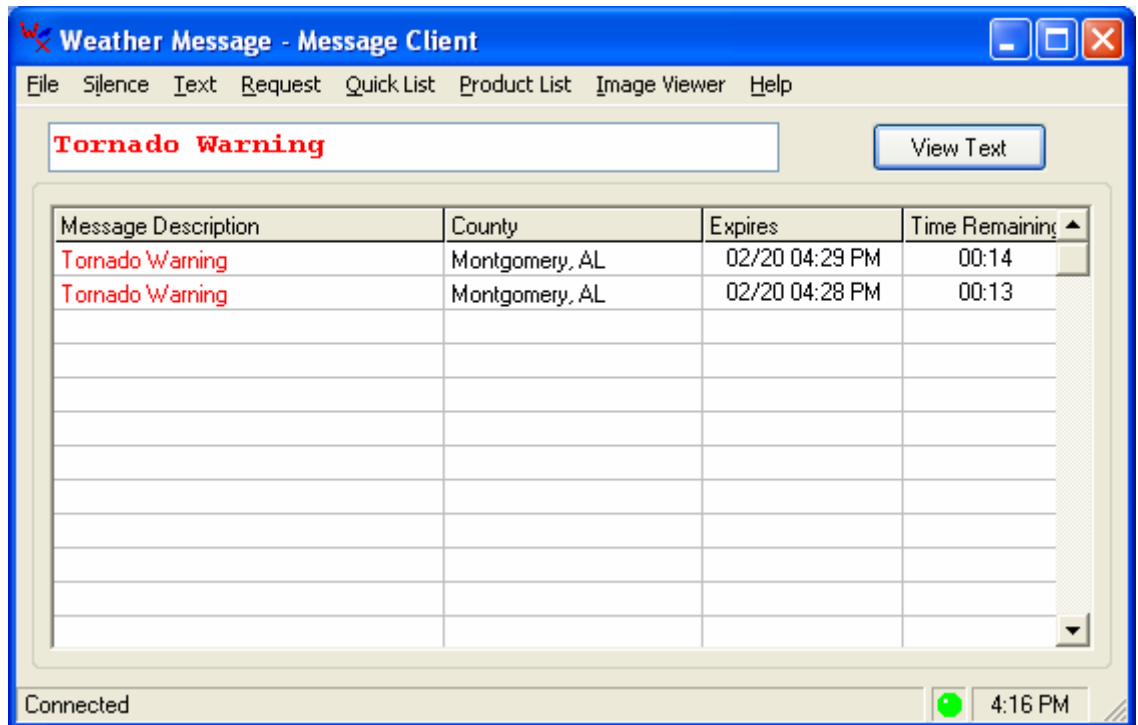
When alarms expire, the time remaining field changes to "expired". Expired items remain in this list for 15 minutes. Click on the View Text button to switch back to the text message screen

If you click once on a specific message type line, you will see the actual text message that caused this alarm.

Request a Message

You can also request a specific weather message. In the example below, a request has been made for the Alabama state weather roundup.
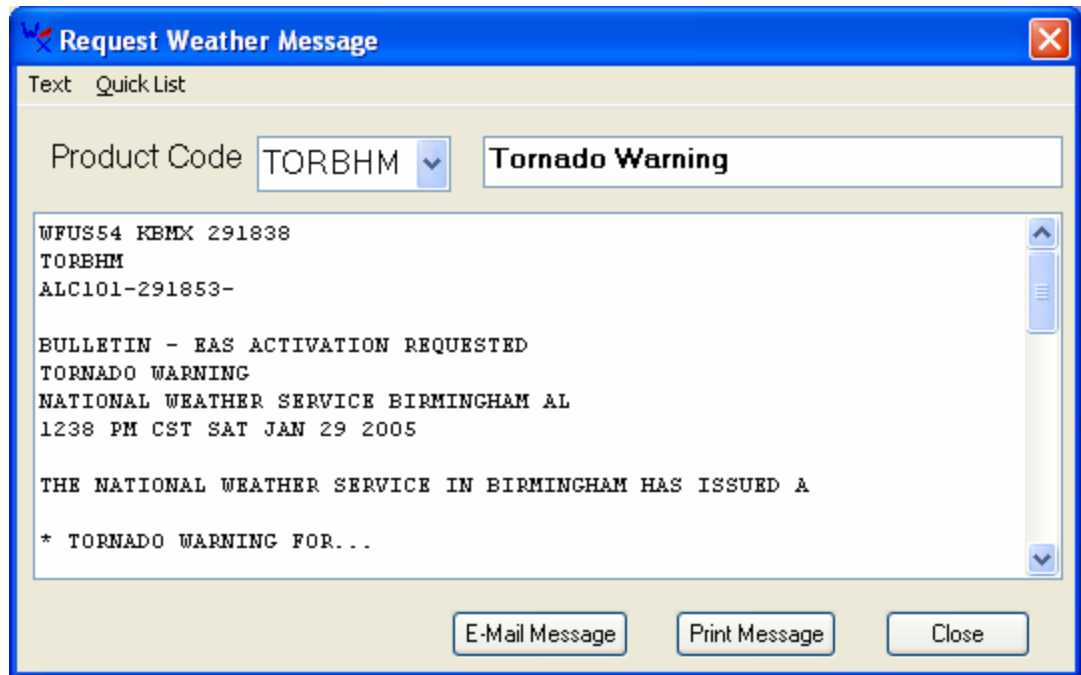
The product codes are composed of a 3-character weather product code and either a 2-character state or forecast office code. Appendix A contains a list of the forecast office codes. Appendix B contains a list of weather product codes.   For example a special weather statement for Birmingham, Alabama is coded SPSBHM. This code can be entered in the request field to get the last special weather statement issued.

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.

Request a List

You can request a list of weather messages currently stored in Weather Message. In the example below, a request has been made for the Alabama state weather roundup.
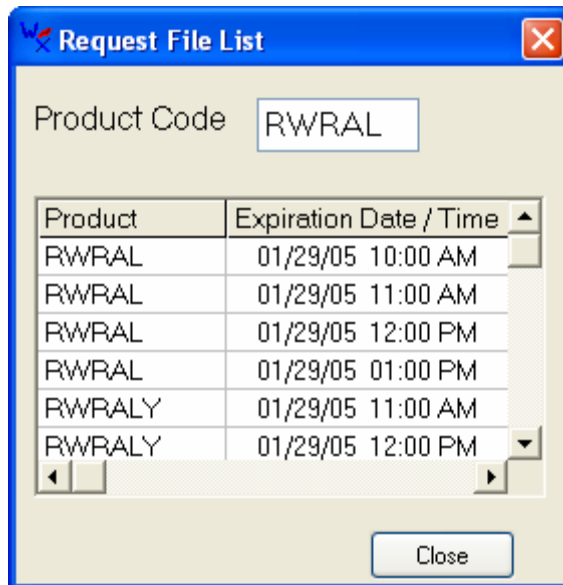
The product codes are composed of a 3-character weather product code and either a 2-character state or forecast office code. Appendix A contains a list of the forecast office codes. Appendix B contains a list of weather product codes.   For example a special weather statement for Birmingham, Alabama is coded SPSBHM. 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.

Product List

The Product List menu option opens a window with a list of recently received products. This window appears as follows:
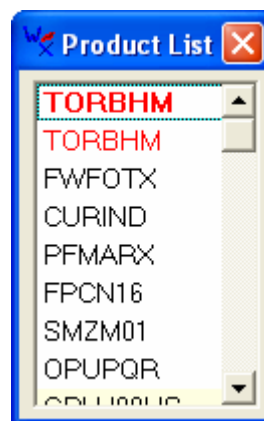
You can click on any of the received products to see the text or image associated with the product name. This window can be left on the desktop while the main Message Client window is minimized.

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.

Weather Graphics

Click on the *Image Viewer* menu button to launch the Weather Graphics Image viewer. This viewer allows you to view the weather graphics transmitted via email and also processed radar images. You can start more than one viewing window, by clicking on the Image button again. It also has a slideshow feature for viewing all images.

The main window appears as follows:
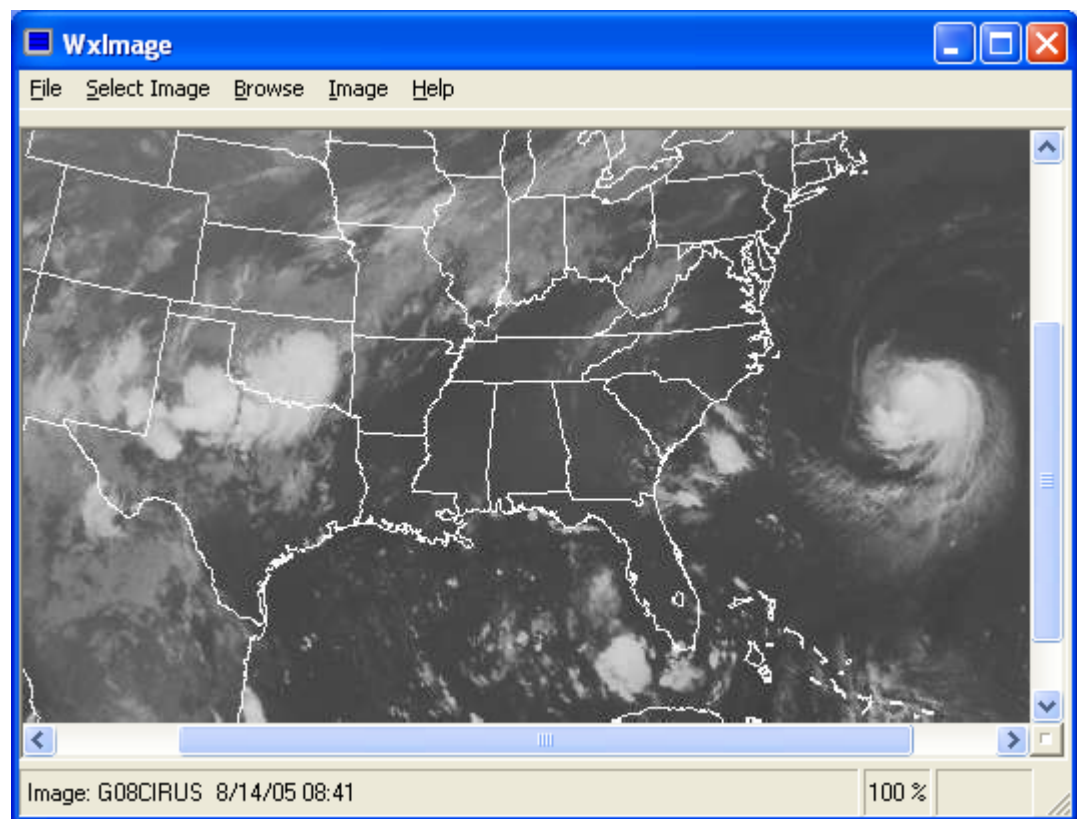
The menu buttons on this screen perform these functions:

a. The *File* menu option allows you to Save the displayed image, Print an image, Setup the program, select a recent image, or exit the program.
   1. The *Save Image* button is used to save the currently displayed image. Images can be saved in GIF, JPG, PNG, TIF and BMP format.
   2. The *Print Image* button will print the currently displayed image to your default printer.
   3. The *Setup* button is used to establish program parameters and image lists.
   4. The last four images viewed are listed for easy access.
b. The *Select Image* button is used to select an image to be displayed.
c. The *Browse* button is used to see a thumbnail of the images recently received.
d. The Image button allows you to alter the sizing and resizing behavior of the displayed image.
   1. The *Fit to Window* option, when checked, will cause the displayed image to fit the size of the image viewer.
   2. 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.
e. The *Animate* button is used to animate an image. The button only appears if more than one image is available for animation.
   1. The *Start* button or function key F8 starts the animation.
   2. The *Stop* button or function key F9 stops the animation.
   3. The *Increase* speed button or function key F11 increases the animation speed.
   4. The *Decrease* speed button on function key F12 decrease the animation speed.
f. The *Help* button displays information about the program.

To select an image, click on the *Select Image* button. You will see this screen.
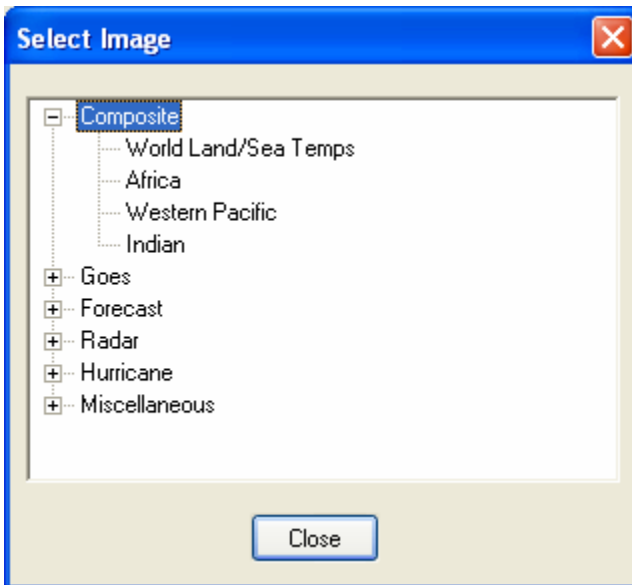
Images are broken down into six categories. Click on one of the categories to see a list of images available. When an image is selected, the program will display the image, if it is available. If the Auto Animate option is enabled, the image will automatically begin animation.

The Miscellaneous category contains a slide show option. This can be used with the animate option to show all images.

Images can also be selected by using the Browse option. Clicking on the Browse option will display a thumbnail of each image currently stored.
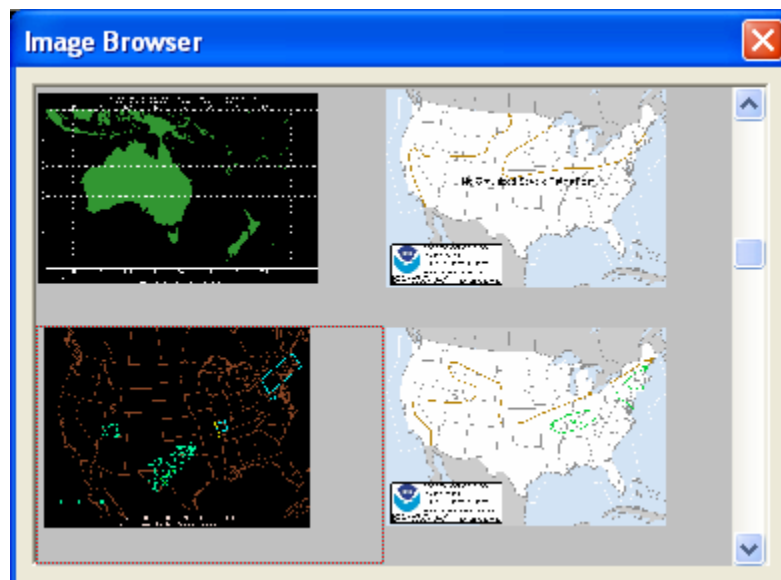
To display one of the images, click on the thumbnail.

The Setup screen's Images tab can be used to add or delete images.
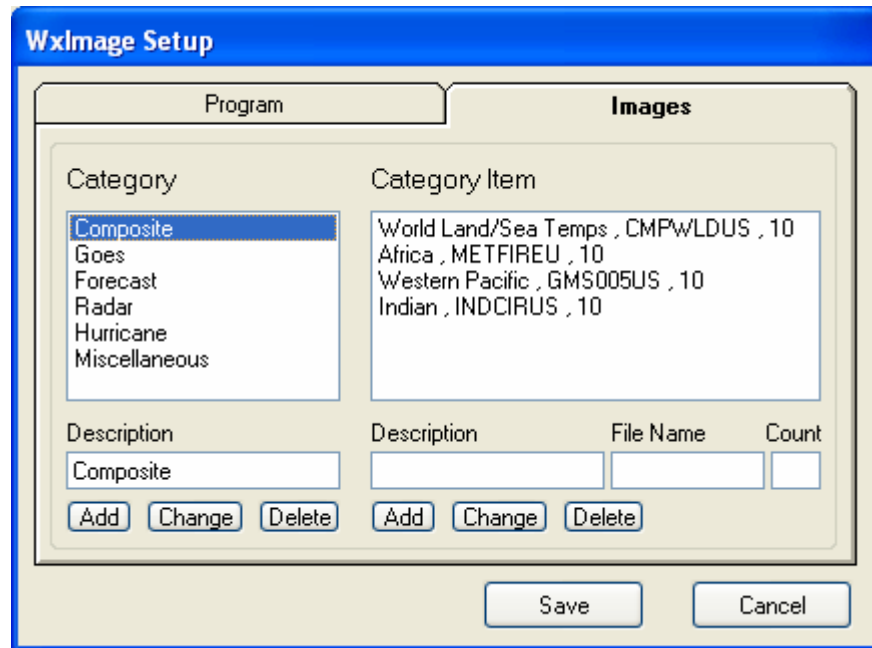
To add a category, enter the category description and click *Add*. To change a category, click on the category, make any changes and click on *Change*. To delete a category, click on the category and press the keyboard delete key or click on the *Delete* button.

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.

The Setup screen's *Program* tab can be used to specify the weather graphics directory and automatic animation option.
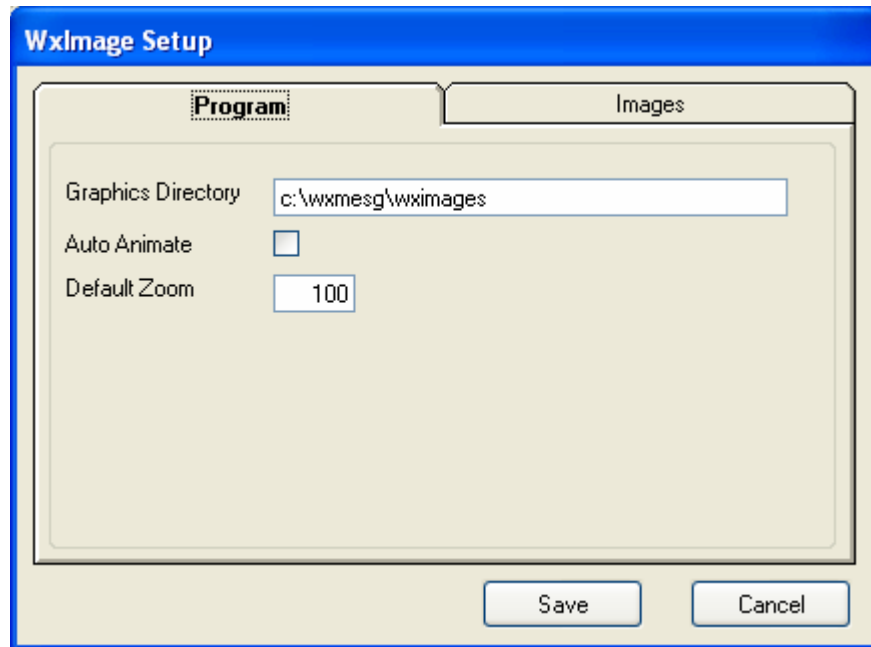
This directory is automatically setup by the system. This directory should not have to be changed under normal situations. See the second note below.

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, unless disk space is limited.

12. **WxMap – Weather Message Map Client**
The Weather Message mapping program, WxMap, can be installed on any computer attached to a TCP/IP network. It will communicate with Weather Message Server to visually display weather alarms. WxMap uses GIS technology to allow you to view any part of the United States map and its possessions.

It is recommended that WxMap be placed in the startup box on Windows. This will insure that the program is automatically started each time the computer is booted. WxMap does not appear in the task bar, but runs from the system tray. To open the program, right click on the MAP icon and select open.

The map included with the program does not show the state outlines or interstate roads. To add this capability, download and install these map layers form your CD or the Weather Message downloads page.

The main window appears as follows.
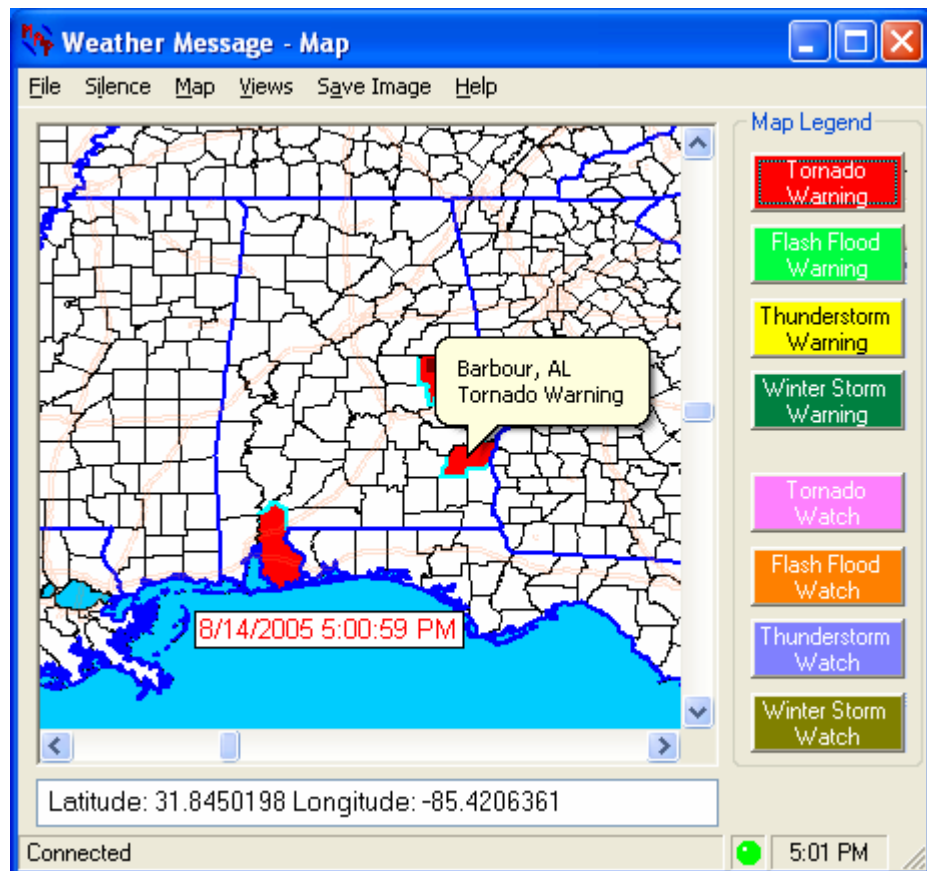
The menu buttons on the screen perform these functions.

a. The *File* menu option allows you to Setup the program, select a default printer, Set Map Landmarks, Connect a server, Refresh the Map, Print the Map Image, or exit the program.
   1. The *Program Setup* button is used to establish Program Parameters. The Setup button is used to establish program parameters. Note: If you enable the Password for Setup/Exit, you will have to enter the password "SNOW" to access the setup screen.

2. The *Printer* button is used to select a default printer.
3. The *Map Landmarks* button is used to establish landmarks and text for the map
4. The *Connect* button is used to establish a connection with the Weather Message Server. The system will automatically try to make a connection once every minute when it is not connected.
5. The Refresh Map button is used to refresh the map with alarms. This option removes all of the current alarms and requests outstanding alarms from the Weather Message server.
6. The *Print* button is used to print an image of the map to the default printer
b. The *Silence* button is used to stop a warning sound that is playing.
c. The *Map* button is used to change the map size and select the mouse pointer's operation.
1. Click on *Zoom In* or press the F11 key to zoom in.
2. Click on *Zoom Out* or press the F12 key to zoom out.
3. The *Select Mode* allows you to click on a county and get warning information. This is the normal mode of operation.
4. The *Drag Mode* allows you to move the map around. The pointer changes to a hand. Use this for fine map positioning.
5. The *Zoom Mode* allows you to draw a rectangle around an area and zoom to that area. The pointer changes to a hand with a finger.
6. The *Lock Map* option can be used to lock the map display. When locked, it cannot be moved. The scroll bars on the sides of the map are also removed.
7. The *Reset Map* option returns the map to a predefined size.
d. The Views button allows you to select two different views of the map.
1. Click on *View 1* to select the first stored view.
2. Click on *View 2* to select the second stored view.
3. Click *Save View 1* to save the current map view as View 1.
4. Click *Save Save 2* to save the current map view as View 2.
e. The *Save Image* button is used to save the map image to a jpeg file. A file named MapImage.jpg is created in the WxMesg directory.
f. The *Help* button displays information about the program.

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. The exit password is "SNOW". This password should not be given to your end users.

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.

You can click on any of the weather type buttons and see a list of active warnings or watches. You can also identify the counties and their current alarms, in the display, by moving the mouse pointer over one of the counties. Pause for a second and the county name and state will appear, along with a list of active alarms. Left Click once on the county and a window will be displayed showing the actual weather message that caused the alarm. If more than one alarm is active, you will see each message associated with the active alarms associated with the county.

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, SLS, 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 program 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.
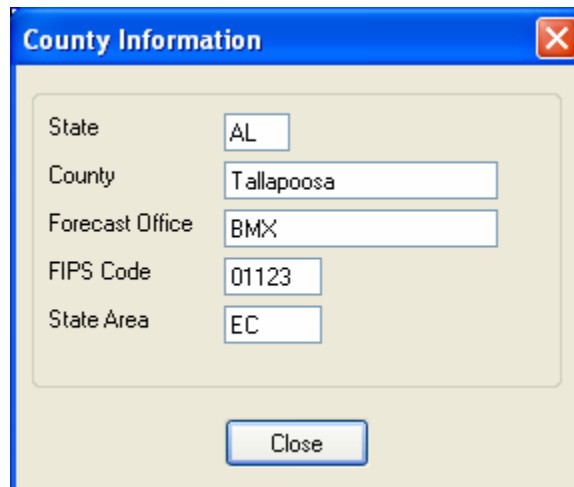
The software will also draw a dark blue line around counties that have alarms, which are about to expire. Five minutes before the alarm is to expire, the program will outline the county. This will assist you with identifying counties that have alarms about to expire.

Hint: If the system tray icon is outlined with a red circle, 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.

To see information about the county, right click on the county. A menu will display allowing you to *Show County Information*, *Show Notes*, or *Label County* with its name.

Selecting *Show County Information* will cause the program to display a window that contains the county's state, name, fips code and location within the state. Here is an example:
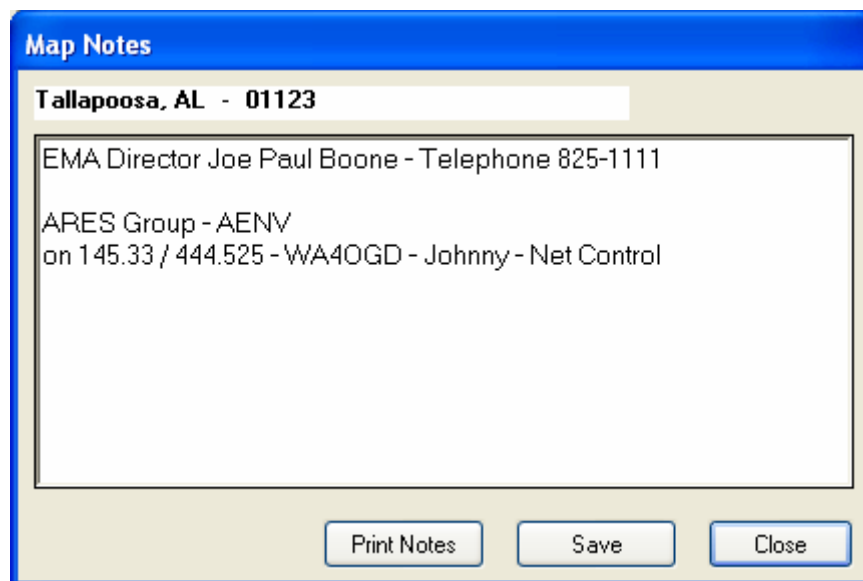
Selecting Show Notes will cause the program to display a window that allows you to enter and update notes about the selected county.

The notes for each county are stored in the ..\WxMesg\Map\Notes directory. They are stored as RTF files and can be edited with any RTF editor. Fonts and colors can be included when using an external editor.

Setup

After you have installed the program, you should click on the Setup button and select Program Setup. Enter the *TCP/IP Address* and *TCP/IP Port* of the Weather Message Server. The following is a picture of the Settings setup screen.

The *Host TCP/IP Address* is the address of the Weather Message Server. Enter the address of your primary server in this field. The default is 127.0.0.1 for the local computer.

The *Host TCP/IP Port* is the port defined for use by Weather Message Server. 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 Map Client a different identification number. This identifier can be used to send a specific alarm to a specific client or group of clients.

Click on the *Settings* tab for additional program settings.
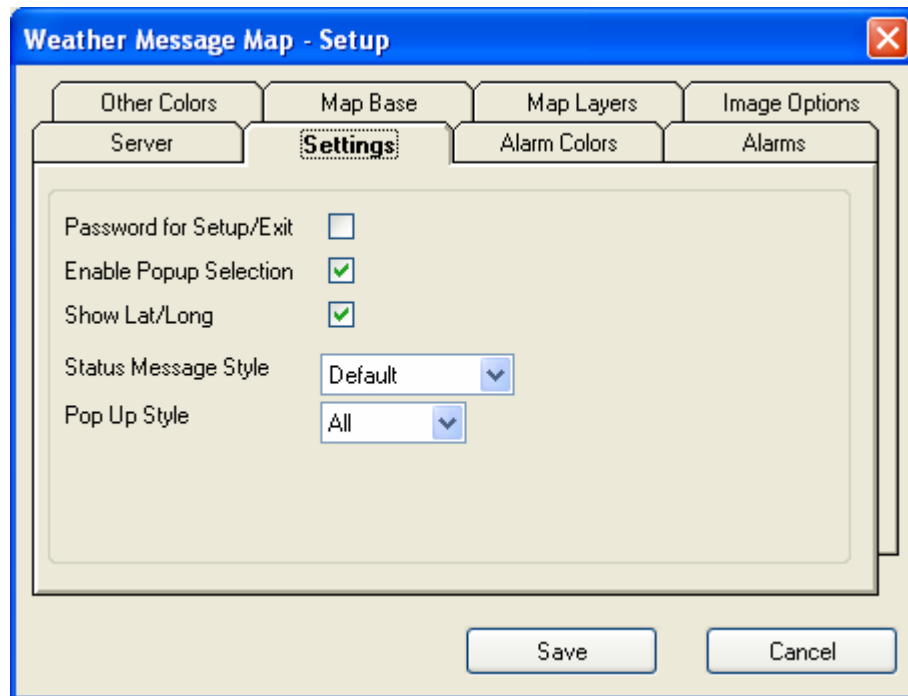
The *Password for Setup/Exit* option allows you to require a password to access the Setup menu or exit the program.

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

The *Show Lat/Long* option causes the program to display the latitude and longitude of the mouse pointer when it is in the map area.

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 minimized.

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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 Message Client 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.

Click on the *Alarm Colors* tab to change the colors of the alarms and their position in the legend.
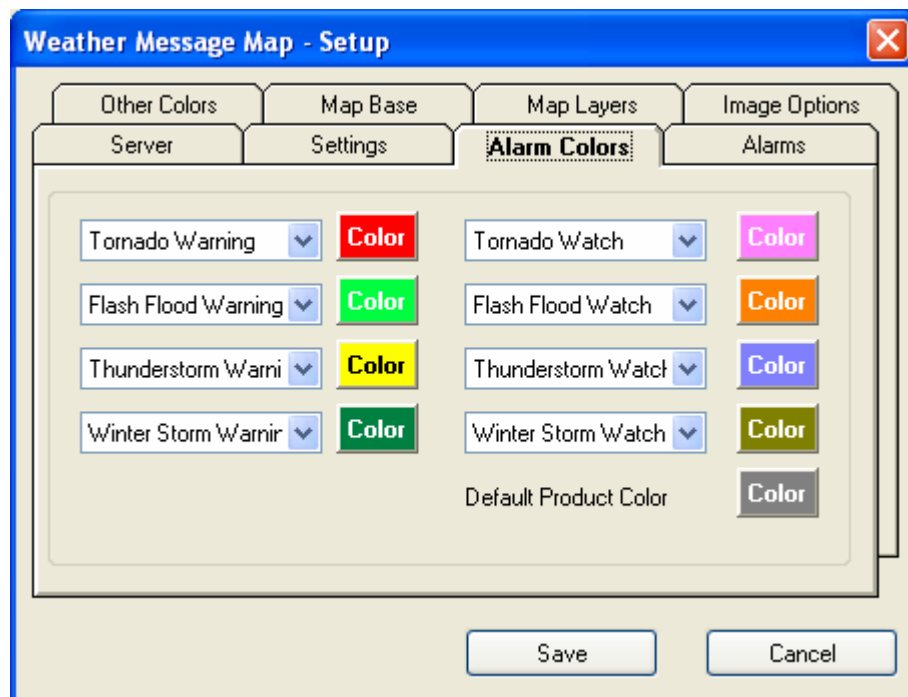
This tab allows you to select a color for the eight weather alarms listed in the legend. You can also rearrange the order of the warning and watches. Products sent to WxMap, with no associated color, will be colored in the default product color. See the Other Colors tab to establish colors for other products. To change a background color, left click on the *Color* button you want to change. To change the text color, right click on the *Color* button.

The order of warning and watch products can be changed. To rearrange the products, use the down arrow next to each item to select a different product order.

Click on the *Alarms* tab to change the alarm sounds and popup options.
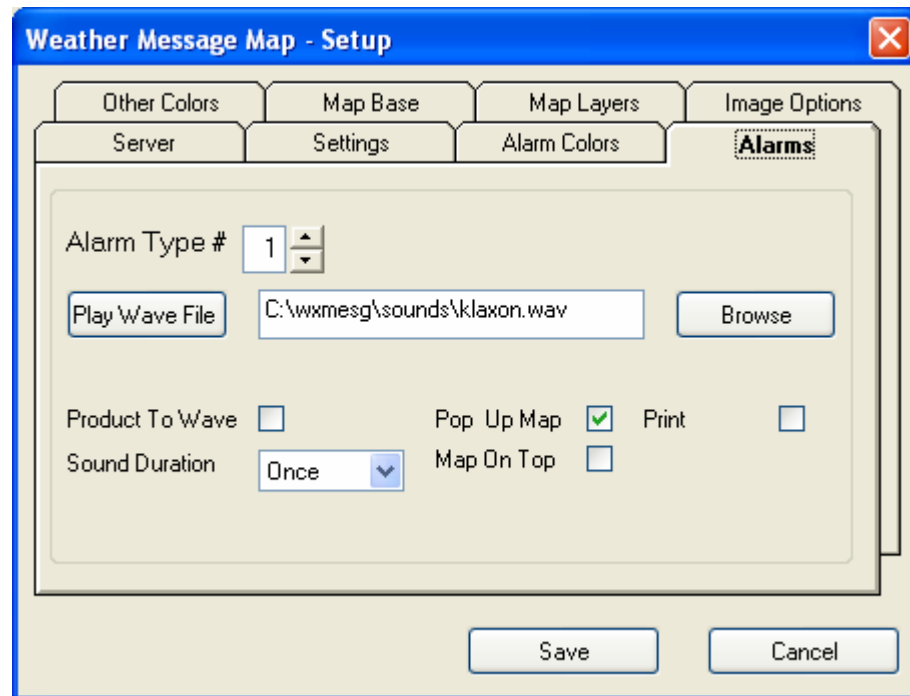
The Weather Message Server Setup program allows you to associate an Alarm Type for each alarm that is sent to the Map. This Alarm Type causes the map program to play a wave file.

Note: The Message Client and Map use the same alarm type.

WxMap supports up to 20 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. 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 Setup.

Note: If WxMap is running on the same computer as Message Client, you should setup the sounds in one program, otherwise the sound will be played by both programs.

The *Product to Wave* field is used when you want a specific sound to be played based on the product identifier. When using this option, you will have to name the wave file the same as the product identifier. This

wave file will also need to be saved in the "Sounds" directory located in the WxMesg 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 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 *Pop Up Map* field 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 and be the active program.

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

Click on the *Other Colors* tab to establish colors for products not listed in the legend.
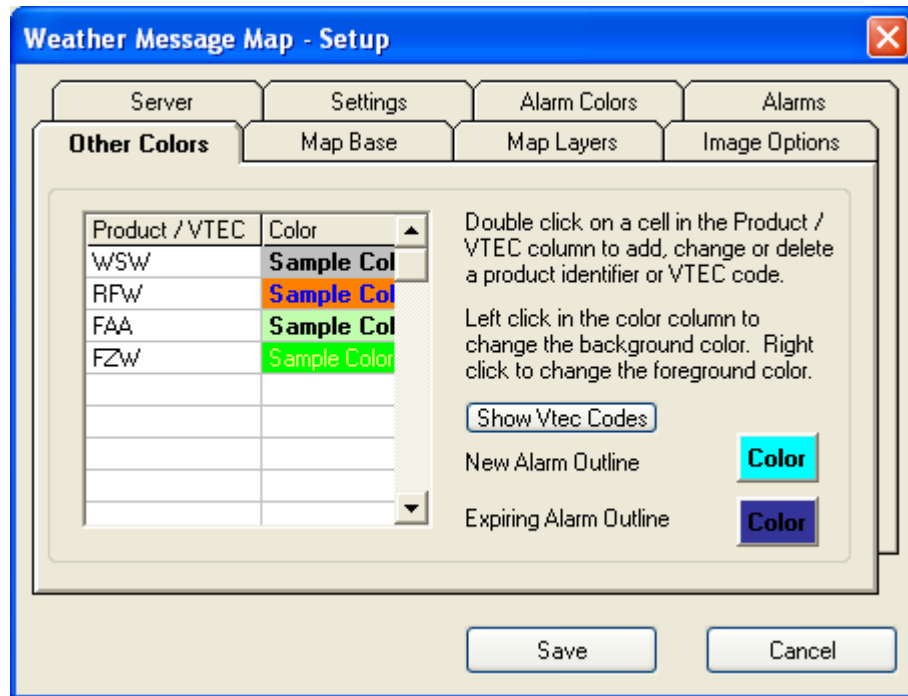
The *Product / VTEC* column contains the first three letters of the AWIPS identifier or a two letter VTEC phenomena followed by a one-letter significance to be colored. To add a new product identifier or VTEC code, scroll down to a blank cell and double click in the cell. Enter the product identifier and press enter. Then right click to change the foreground (text) color or left click to change the background color.

To view a list of VTEC phenomena and significances, click on the *Show Vtec Codes* button, or see Appendix K for a list of these codes.

Using the VTEC phenomena and significance codes allows you to color the many different phenomena contained in WSW (winter weather) and NPW (non-precipitation) messages.

Click on the *Map Base* tab to change settings for the base map layer.

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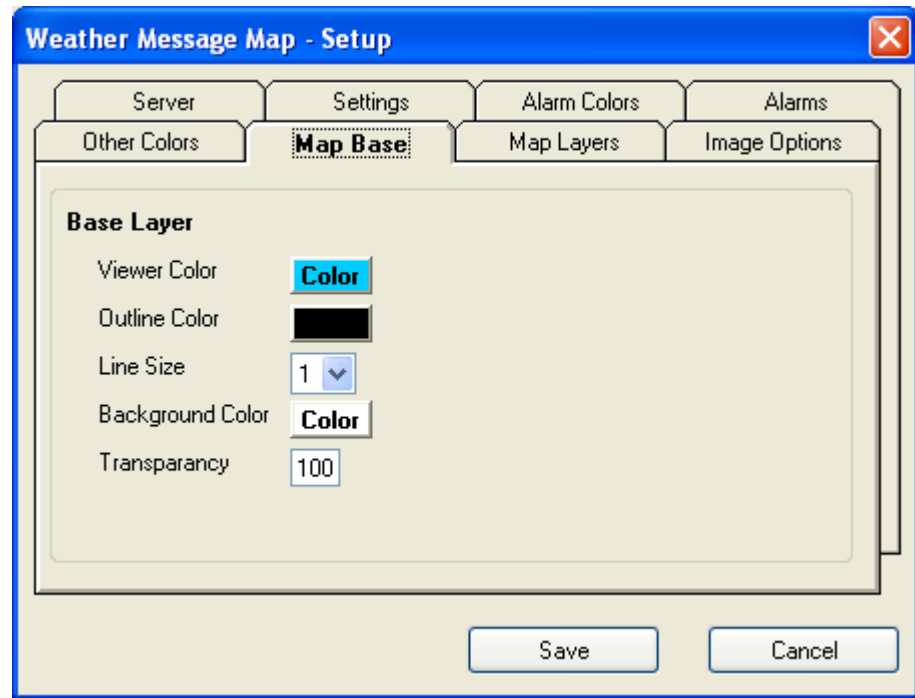
The *Viewer Color* button allows you to change the color of the areas outside of the map. This is normally the color of the oceans.

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 *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.

Click on the *Map Layers* tab to add or change map layers.
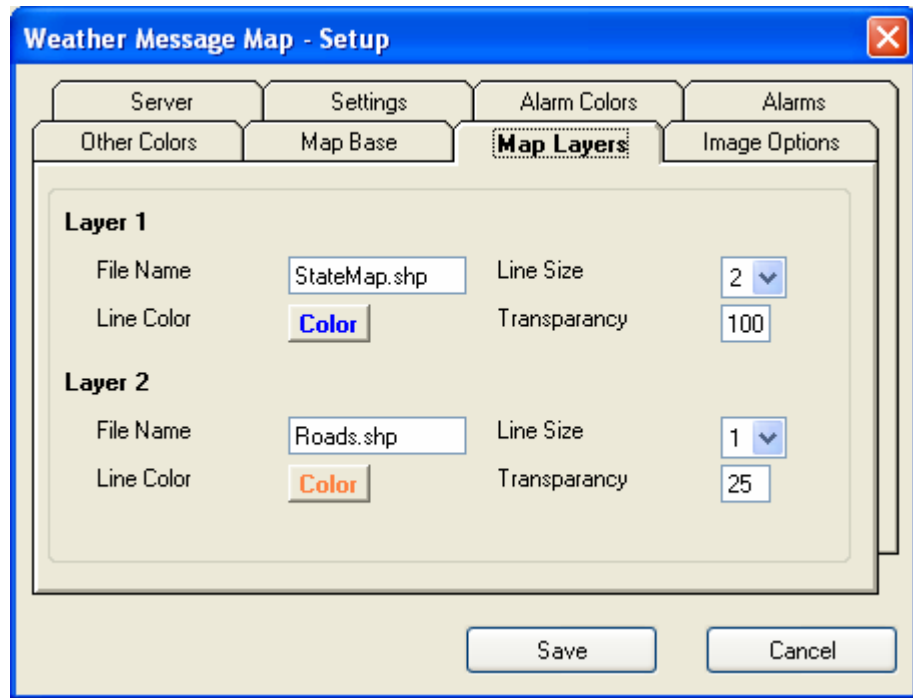
The Weather Message website has an optional map layer download that contains state outlines and interstate roads. This setup screen shows these optional layers loaded.

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 *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 ..\wxmesg\maps directory.

Click on the *Image Options* tab to setup options for saving the map image to a directory or ftp server.
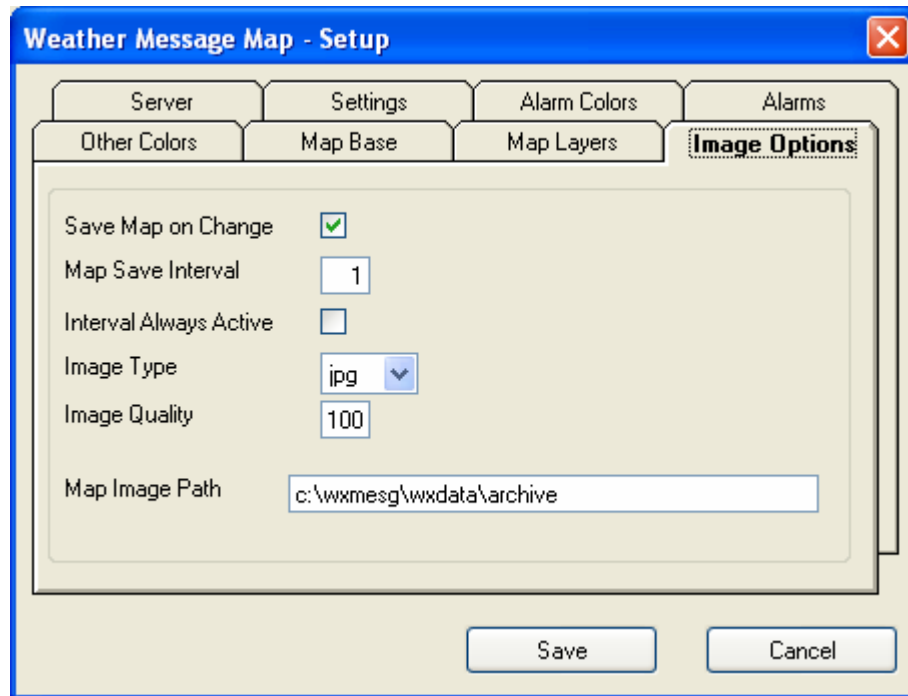
The *Save Map on Change* option will cause the program to save an image of the map each time it changes.

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 on Change* option is enabled. You can set this interval to zero. When it is set to zero, the program will only save the map when it changes.

The *Interval Always Active* causes 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 when there is a change or active watch/warnings.

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 *Map Image Path* allows you to specify a directory or ftp address to store the map image. This works in conjunction with the *Save Map on Change* option and *Map Save Interval*. This field must be entered and

defaults to the installation path of WxMap. A file named MapImage.jpg or MapImage.png is created in the directory path specified.

If you want to store the image on a web server using ftp, the ftp command must be entered in this format
 ftp://username:password@www.server.name filename.
Note: There is one space character in this format. A single space character must follow the server name. Failure to enter a space will abort the ftp. The filename can include a path prefix if required.

Note: On the main map screen, you can press "control-s" to cause the program to save the map image to the Map Image Path. If you use a ftp command, a ftp transfer will be started.

Note: If you use ftp to transfer a map image, consider the amount of time it takes to transfer the image when setting the Map Save Interval. Slow Internet connections will require a less frequent or longer Map Save Interval.

Note: This program has the capability to ftp the same image to a second ftp site. Contact Weather Message for additional information.
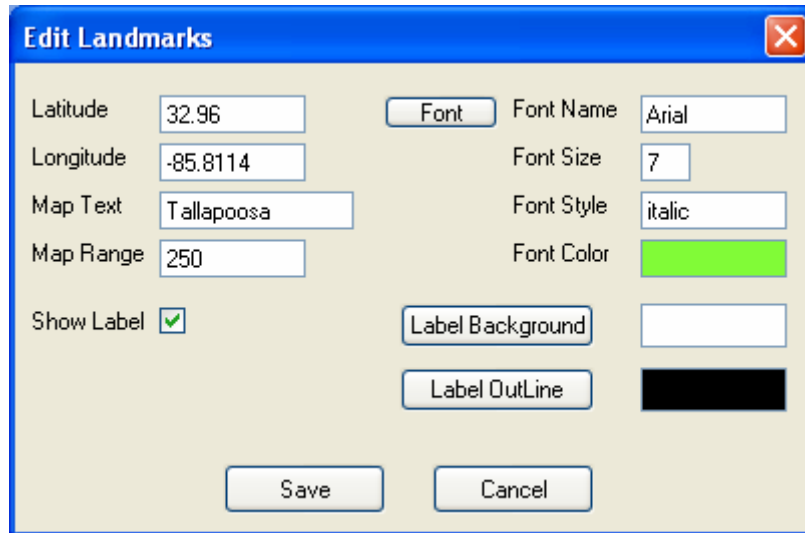
Landmarks

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 establish landmarks, click on the *Setup* button and select *Map Landmarks*. The following screen will be displayed.

Latitude	Longitude	Text	Range	Font Name
32.96	-85.8114	Tallapoosa	250	Arial
32.96	-85.81	.	500	Arial
29.77	-87.1	#	500	Arial

Weather Message Map - Landmarks

Save   Cancel

To add, change or delete a landmark, click on the line that you want to modify and right click, then select the appropriate function, *Edit* or *Delete*. If adding or changing, the following screen will appear.

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. The 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 your landmark, is greater than or equal to the current map range, it will be shown.

The font for the landmark can be selected by clicking on the *Font* button. Although each font field can be manually changed, you need 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.

Note: You can add up to 500 landmarks.

13. **WxPager**
    WxPager is a command line paging program for Weather Message. It supports the TAP modem protocol used by most paging companies for alphanumeric paging. It also supports the SNPP, WCTP and HTTP

protocols. You will need a modem installed in the computer that will be running Weather Message.

Note: Weather Message Setup automatically configures WxPager with the services and groups you establish. There should be no need to configure the program manually. This documentation is included for completeness.
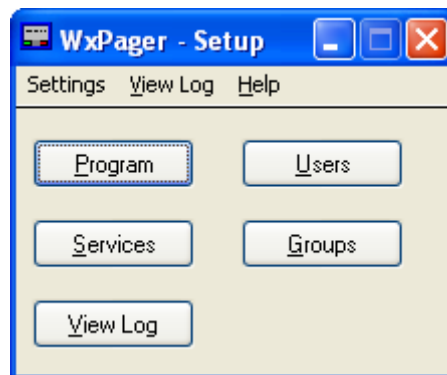
The *Program* button displays a screen to setup general program operation. The *Services*, *Users* and *Groups* buttons are not used for Weather Message. The Weather Message Server Setup program automatically update the user and group files. The *Services* button displays a screen to add services. The *Users* button displays a screen to add users. The *Groups* button displays a screen to add groups. The *View Log* button allows you to see a log of all pages made by the system.

The program setup screen appears below.
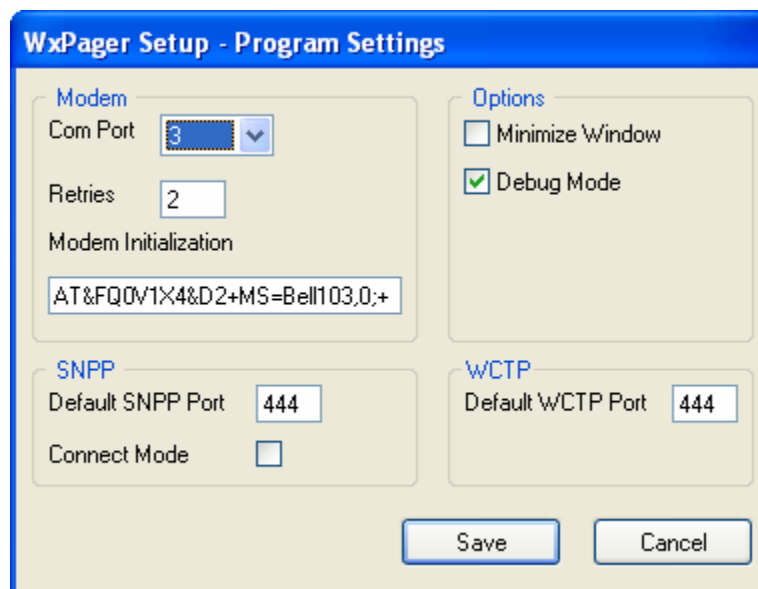
This screen allows you to specify the communications port (com port) that is attached to your modem. The *Retries* field is used to specify the number of times that the program will attempt to connect to your paging provider when their modem line number is busy.   The *Modem Initialization* box is used 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 program to remain connected to the SNPP server when sending a group of messages.

The *Options* box allows you to specify if the program should run minimized and if you want the debug mode enabled. If the debug mode is enabled, the program will create a file named DebugPg.txt in the WxMesg directory.

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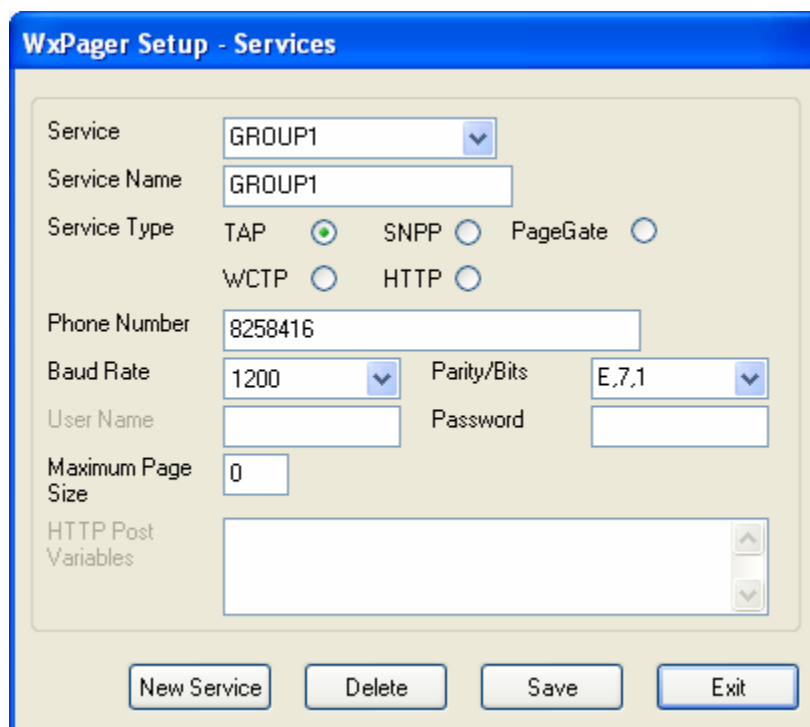
If these codes do not work with your modem, send e-mail to help@wxmesg.com. Include your modem model number and we will try to send you an initialization string that will work.

The Services, User and Group setup screen appear below. These screens are not used by Weather Message.
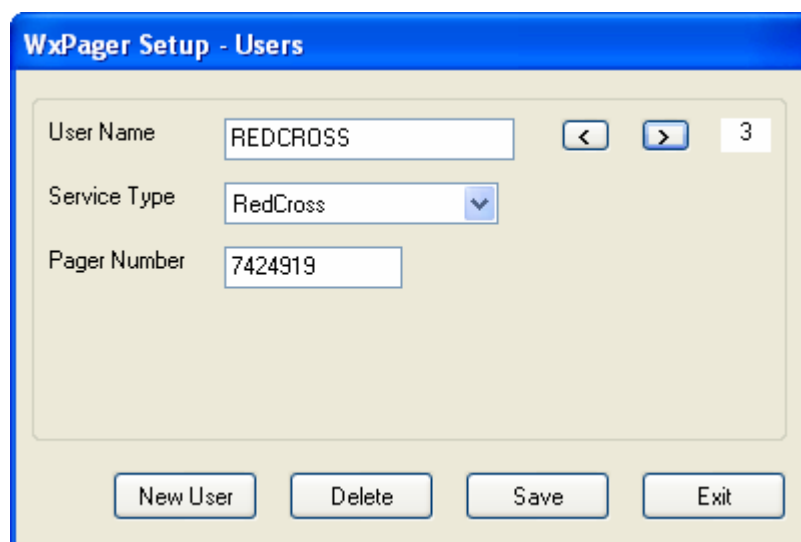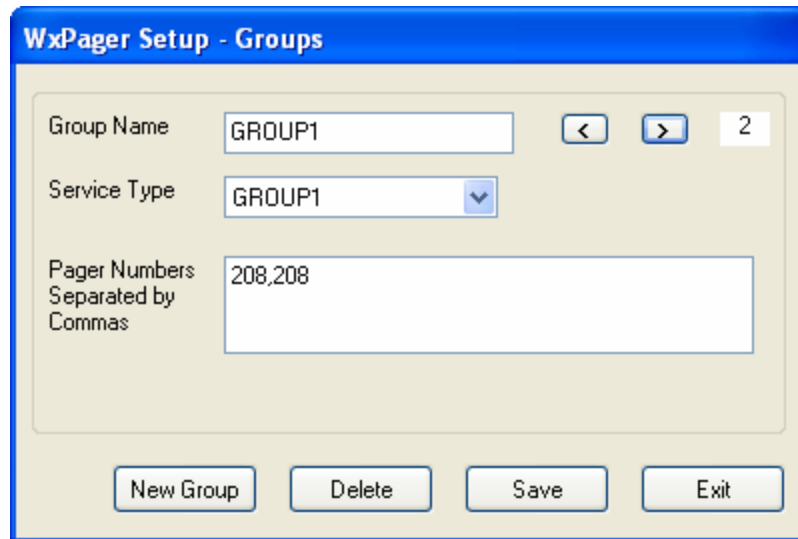
Note: The Weather Message Server Setup program will overwrite any changes made to the Services, Users or Groups.

The *View Log* screen appears below.
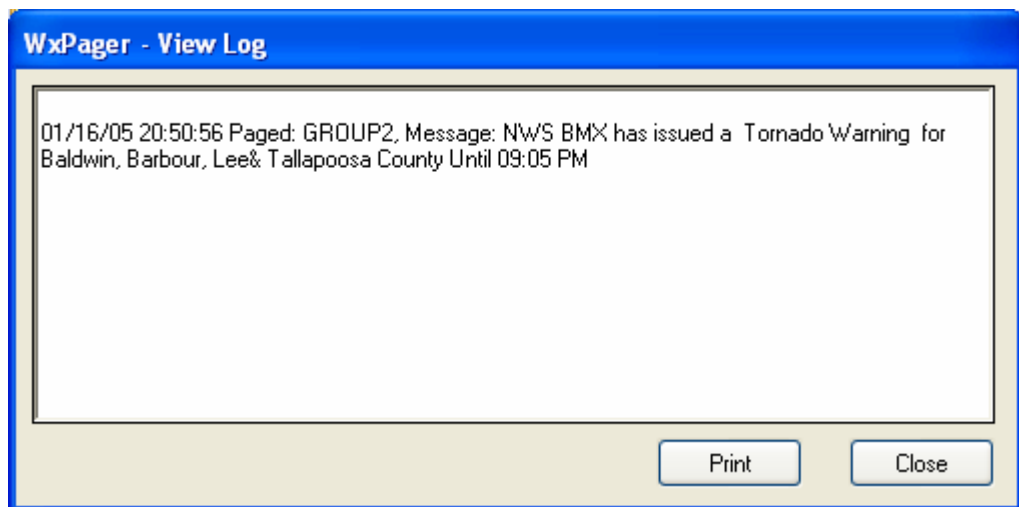
The *View Log* screen can be used to see the pages sent, along with any error messages. The *Print* button can be used to print the log displayed on the screen. The log file will never get any larger than 50,000 bytes. Once it reaches this limit, it is copied to the file PagerLog.old and a new log file is created. This prevents your hard drive from filling up with large log files.

14. **WxMesgText Message Creator**
     WxMesgText is a support program that can be used to create test weather messages. After establishing alarms, it is desirable to create test messages to verify the proper operation of your alarms.

To start this application, click on *Start*, *Programs*, *Weather Message*, *WxMesg Text Creator*. You will be presented with the following screen.

The menu buttons on this screen perform these functions.

a. The *File* menu option allows you to Open a different message, Save the displayed message, Save the displayed message under another name or Exit the program.
  1. The *Open* button is used an existing message. The program attempts to locate messages in the c:\program files\wxmesg\wxdata\wxlocal directory.
  2. The *Save* button is used to save the displayed message to the file name that was originally opened.
  3. The *Save As* button is used to save the displayed message to a different file name.
b. The *Help* button displays information about the program.

When the program first starts, it attempts to load the default file WxProd.txt from C:\Program Files\WxMesg\WxData\WxLocal. The test products are maintained in this directory.

The sample 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 . These 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.

After you have the test message formatted and worded properly, you can now save the message for future reference. Clicking the *Save* button will save the message using the file name displayed.

To send the message to Weather Message for processing, click the *Send* button.

15.   WxScheduler

WxScheduler is a support program that can be used to schedule user-defined messages or graphics for processing by Weather Message. The program can retrieve the messages or graphics from local directories, an Ftp server, or Http server. The retrieved messages are automatically copied to the ingest directory at the time specified.

This application is generally used for two purposes: to schedule monthly tests of the software and 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.

If you plan to use WxScheduler, it is recommended that it be placed in the startup box on Windows. This will insure that the program is automatically started each time the computer is booted. WxScheduler does not appear in the task bar, but runs from the system tray. To open the program, right click on the Clock icon and select *Open*.

The main screen appears below.
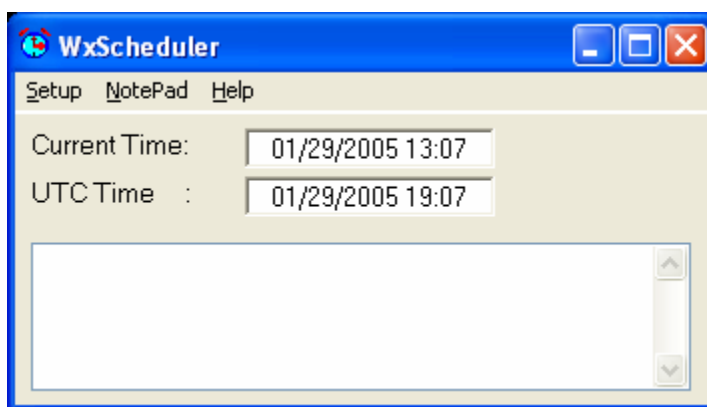
The *Setup* menu option is used to schedule messages and enter program specific information. The *NotePad* option is used to start NotePad to edit user-defined text messages. The *Help* option displays information about the program.

The main processing window shows the current status of WxScheduler. When it is processing a message, you will see information about the message scroll through the text box.

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\WxData\WxLocal to store your user-defined messages. This directory is automatically created for use by WxMesgText 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.

For messages downloaded from the Internet, proceed to the Establishing Schedule section.

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

Sample Message

The following screen shows a sample message being created for a monthly system test.
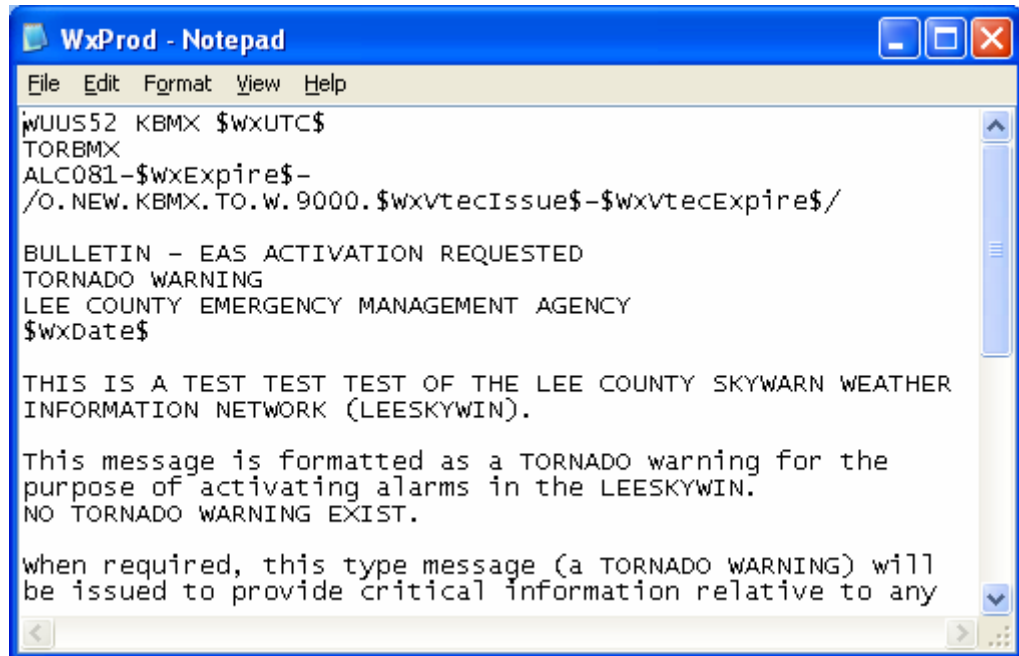
The file name for the message must end with the extension ".txt". You will also notice that some special program codes are used in the message. These special codes tell WxScheduler where to put special text in the message.

The special codes are:
    $WxUTC$ 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.

Establishing a Schedule

After you have created the test message(s) or selected the website that you will use to download messages, click on the *Setup* button. When the setup screen appears, click on the *Schedule* tab to setup your schedule. The following screen is displayed.
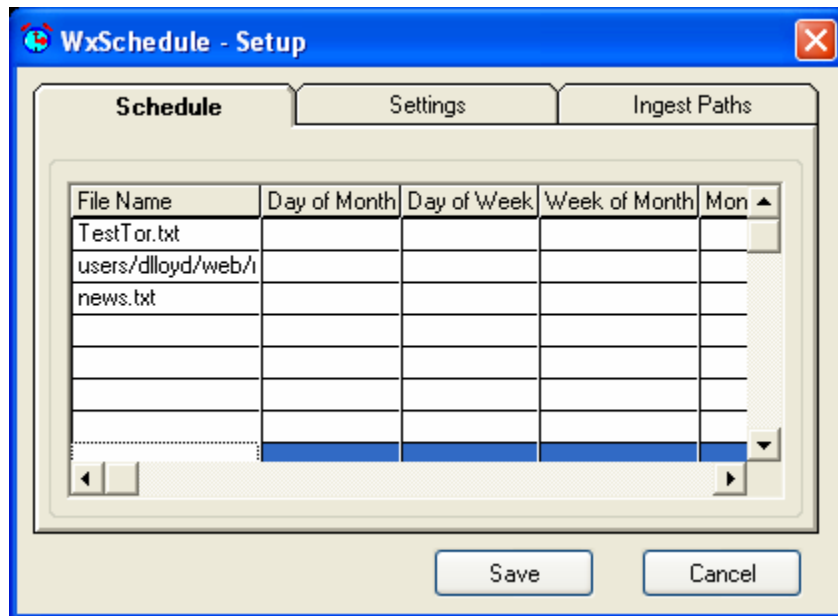
To add, change or delete a scheduled item, click on the line that you want to modify and right click, then select the appropriate function, *Edit* or *Delete*.

Hint: To send the message immediately, right click and select the *Send Now* option.

If adding or changing, the following screen will appear.
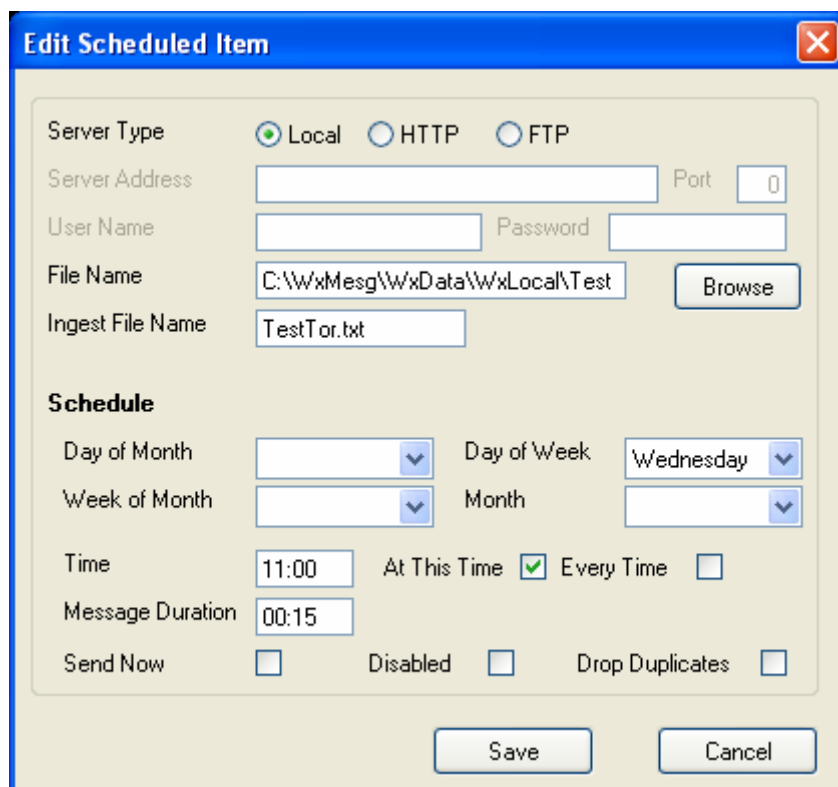
Select the server type for this alarm: *Local*, *HTTP* or *FTP*. In the above example, the message will be obtained locally.

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.

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 monthly test, *the Day of Month* and *Month* fields are left blank. The *Day of Week* and *Week of Month* are 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.

Before entering a time, select the *At This Time* or *Every Time* to indicate if this item should be processed at a specific time or time interval. 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.

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.

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 *Drop Duplicates* checkbox, when checked, will create a CRC32 checksum on 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 following screen shows a graphic that is scheduled to be retrieved from the Internet every 30 minutes, using *HTTP*.

This is an example of how to retrieve National Hurricane Center graphics using WxScheduler.

Settings

The settings tab allows you to set program options.
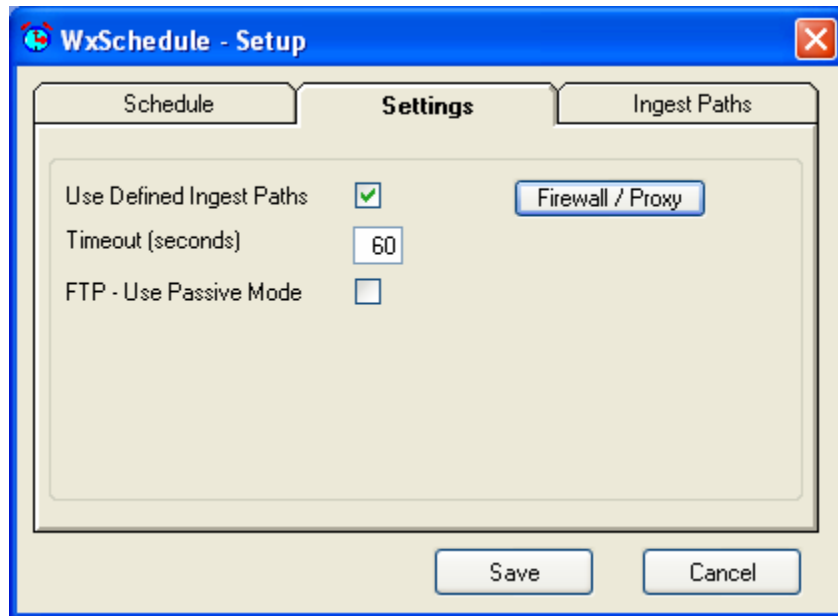
The *Use Defined Ingest Paths* check box, when checked, will cause the program to use the ingest paths defined in the ingest programs, WxByte and WxIngest. If you want to define your own ingest paths for the scheduler, remove this check.

The *Timeout* field allows you to specific the maximum amount of time the program will wait on the HTTP or FTP servers to respond.

The *FTP – Use Passive Mode* check box, when checked, will instruct the program to use the passive mode to communicate with FTP servers.

The *Firewall / Proxy* button allows you to setup firewall / proxy requirements for WxScheduler.

Ingest Paths
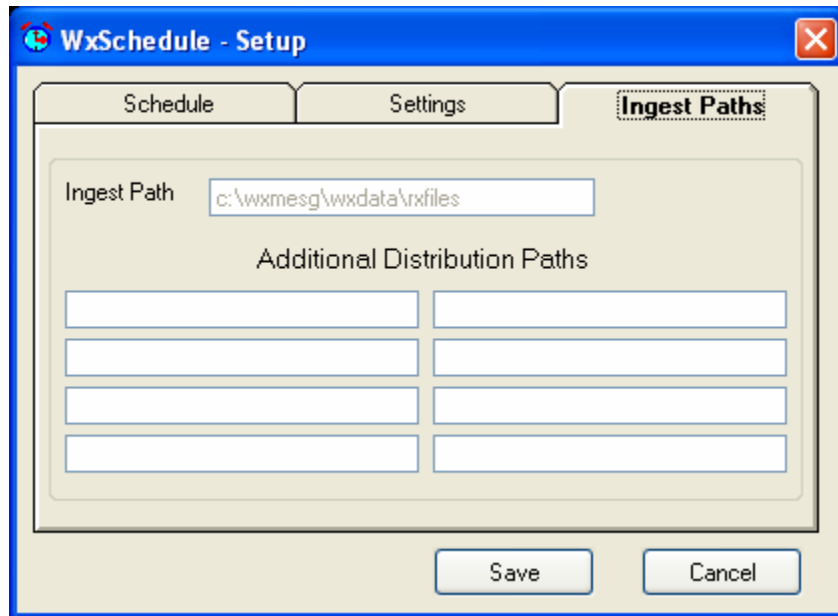
Enter the ingest directories that you want the scheduled items to be copied when they are processed.

Note: If the *Use Defined Ingest Paths* setting is checked, you will not be able to change the paths listed.

Firewall / Proxy Settings

The Firewall / Proxy screen allows you to setup access through a firewall and/or proxy. The setup screen supports firewall settings for the ftp protocol and http protocol. It also supports proxy access for the http protocol. The setup screen follows:

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.

Firewall / Proxy Settings

Firewall Ftp	Firewall Http	Proxy

Host Name

Port   0

User Name

Password

Type   3 - Socks 5

Save   Cancel

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.

Firewall / Proxy Settings

| Firewall Ftp | Firewall Http | Proxy |

Host Name 127.0.0.1 HTTP Version 1.0 ☐

Port 83

User Name

Password

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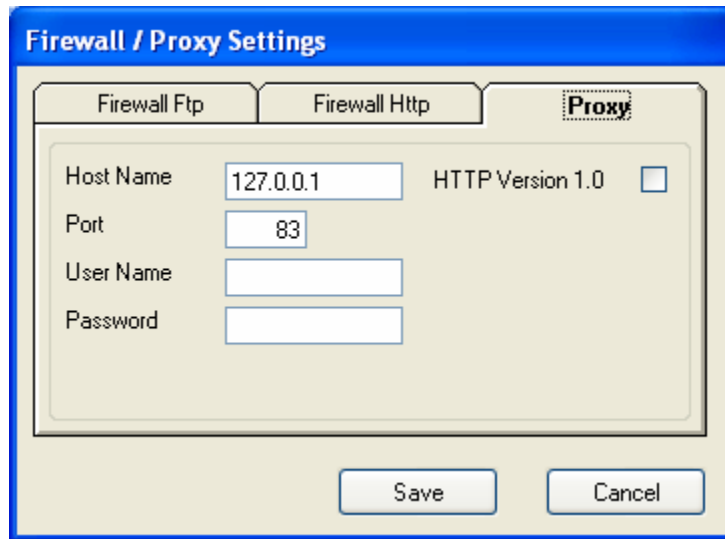
For a Proxy access, enter the domain name or TCP/IP address of the proxy in the *Host Name* field.

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.

16. **WxRadar**
WxRadar is a support program that can be used to automatically retrieve radar images. It can be used to 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 to retrieve the radar images.

If you plan to use WxRadar to retrieve images on a schedule, it is recommended that it be placed in the startup box on Windows. This will insure that the program is automatically started each time the computer is booted.

The main screen appears below.
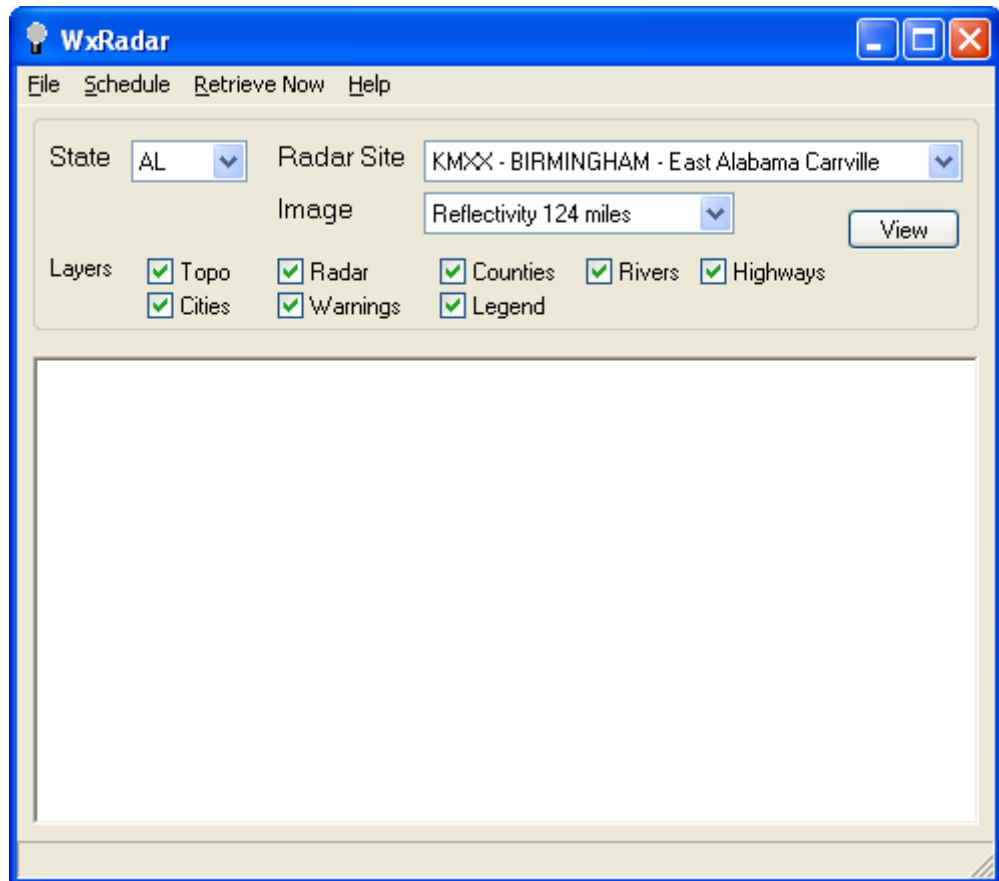
In the standalone mode, you can view a selected radar site image.
Select the state, radar site, the image type, layers to be displayed and
click *View*. The program will retrieve the selected site.
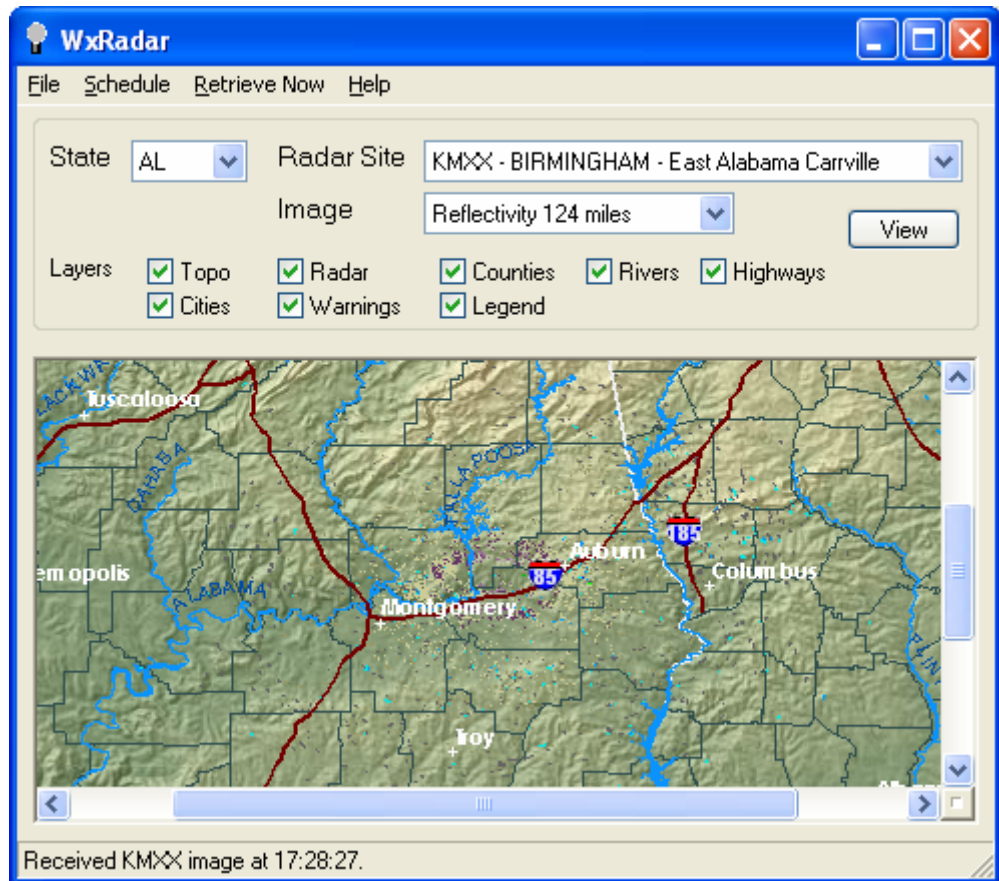
To view a different site or image, select that site or image and click on *View*.

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 display image can also be printed. Click on the *File* menu option and select *Print*. The image will be printed to your default printer.

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

Note: If the program 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.

Automatically Retrieving Images for Ingest

WxRadar can also be setup to retrieve images based on a schedule. 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.

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.

Settings

Before establishing the schedule, you will need to setup the ingest directories. Click on *File*, then *Setup*. You will see the following screen.
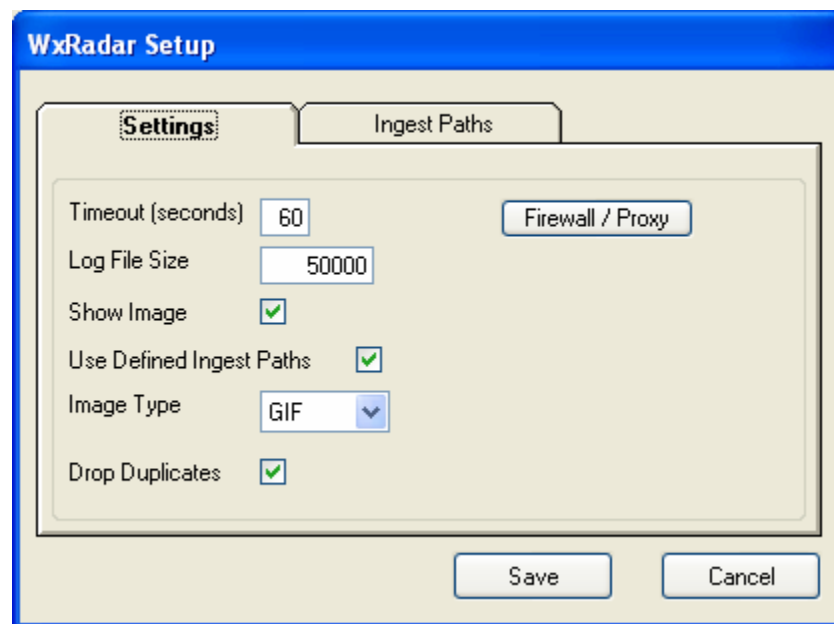
The *Timeout* field allows you to specific the maximum amount of time the program will wait on the NOAA servers to respond.

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 *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.
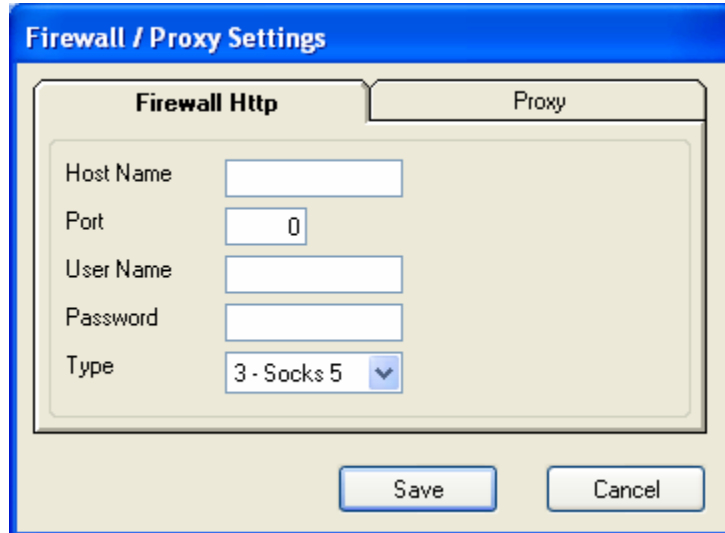
The *Firewall / Proxy* button allows you to setup firewall / proxy requirements for WxRadar. See the Firewall / Proxy section for additional information.

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 *Drop Duplicates* checkbox, 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.

Firewall / Proxy Settings

The Firewall / Proxy screen allows you to setup access through a firewall and/or proxy. The setup screen supports firewall settings for the http protocol. It also supports proxy access for the http protocol. The setup screen follows:

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.

Ingest Paths
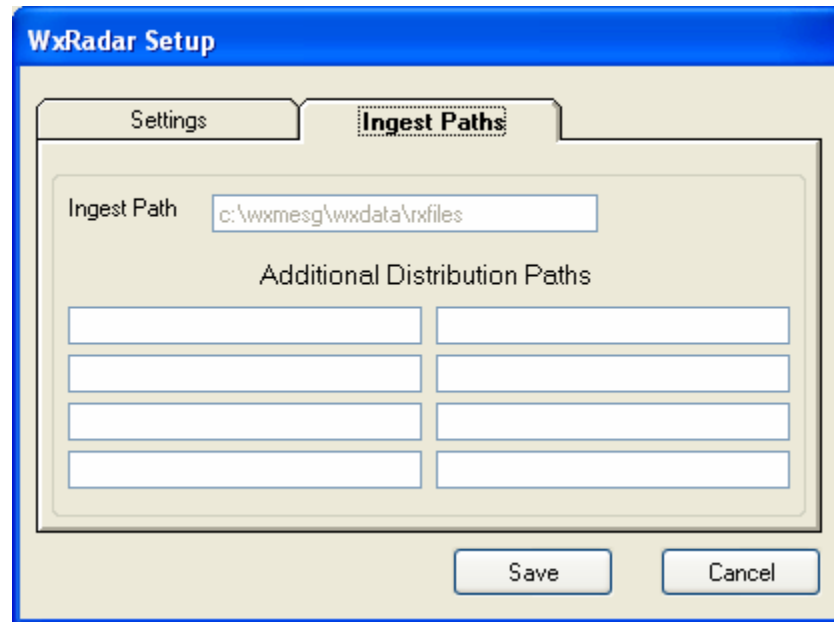
Enter the ingest directories that you want the received files copied to when they are received.

Note: If the *Use Defined Ingest Paths* setting is checked, you will not be able to change the paths listed.

Setting up the Schedule

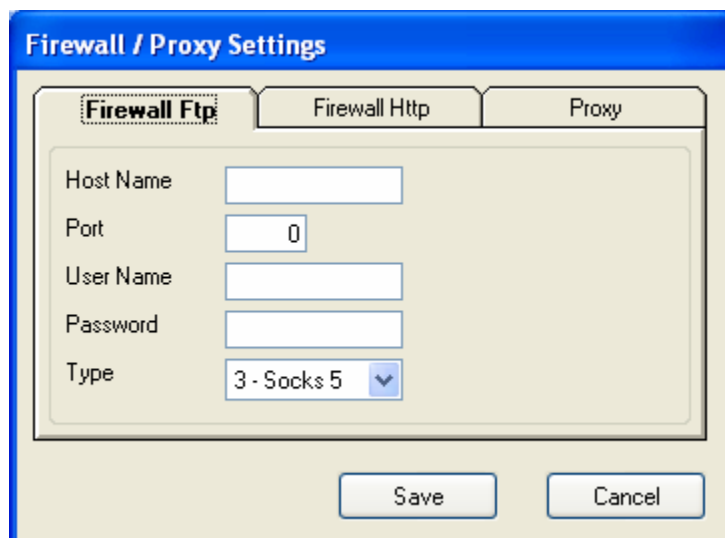For the main program screen, select *Schedule*. The screen will change to the scheduling mode. You will see the following screen.

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 press the *Delete* button.

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 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15,
20, 25, 30, 35, 40, 45, 50, 55 and 60 minutes.

The programs operation 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.

Note: The selected images will be retrieved according to the schedule
established. If you want to retrieve all images immediately, click on the
Retrieve Now menu button.

17. Weather Message – Weather Wire Utility

Weather Message – Weather Wire is a support program that can be used to send messages, in weather wire format, to a serial port. To use this program, you should create alarms in Weather Message that archive messages to a directory for processing by Weather Wire.

The main screen appears below.
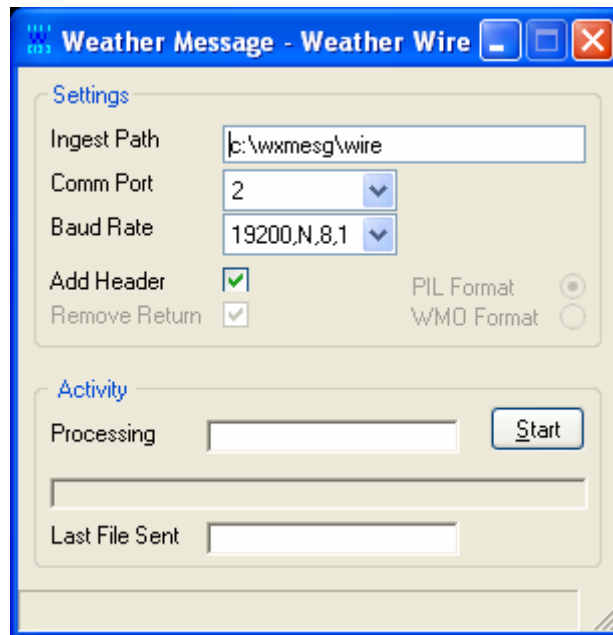
The *Ingest Path* should be set to the archive directory you established when alarms were created in Weather Message. Set the *Comm Port* and *Baud Rate* as required by your external equipment.

The *Add Header* check box, 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* check box, 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. The button will toggle between Stop and Start.

Note: You must click the Stop button to make changes to the Settings.

18. WxLoader – Web Upload Utility

WxLoader is a support program that can be used to manage weather content for websites or other purposes. 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 capability to upload text products and monitor the expiration date/times of these products.

The ability to monitor the expiration date/times of products allows WxLoader to manage weather content placed on a website. When a product expires, it can replace the expired message text with a user-defined message.

If you plan to use WxLoader, it is recommended that it be placed in the startup box on Windows. This will insure that the program is automatically started each time the computer is booted.

The main screen appears below.
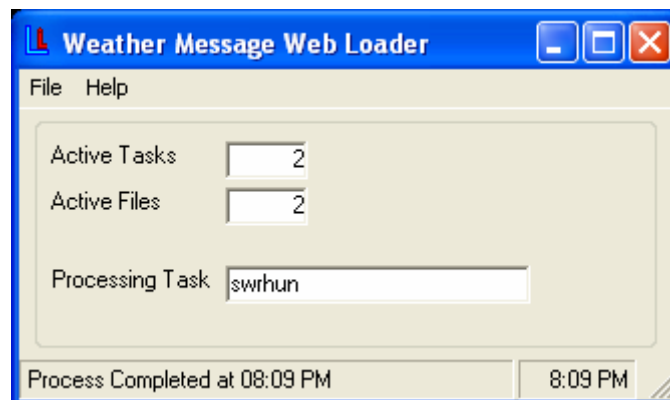
The *File* menu has options to *Setup* the program and establish tasks; *Process Now* to process tasks; and *Exit* to stop the program. The *Help* option displays information about the program.

The main processing window shows the status of WxLoader. When it is processing tasks, you will see the status information updated.

WxLoader works by processing files that have been alarmed and archived to a local directory in Weather Message Server. This allows Weather Message Server to handle the alarms and message content while WxLoader handles uploads and message expirations.

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

Program Options

To setup the Program Options, click on File, then Setup. Click the Program Options tab. The following screen will appear.
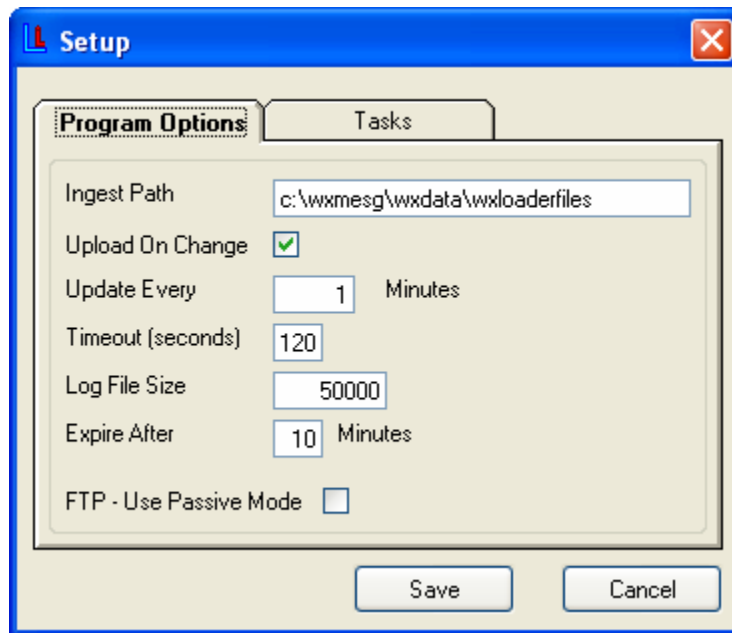
The *Ingest Path* is the directory path where WxLoader should pickup the files archived by Weather Message Server. This path is initially empty. You will need to decide on a common directory path that will be used by WxLoader and Weather Message Server. The path "c:\program files\wxmesg\wxdata\wxloaderfiles" can be used for that purpose.

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 Updated Every Minute setting.

The *Update Every Minutes* option setups 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.

The *Timeout* field allows you to specific the maximum amount of time the program will wait on the HTTP or FTP servers to respond.

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

The *Expire After Minutes* option is used by the program to expire products that do not contain an expiration date/time. Some products do not contain 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.

The *FTP – Use Passive Mode* check box, when checked, will instruct the program to use the passive mode to communicate with FTP servers.

Tasks

To setup Tasks, click on File, then Setup. Click the Program Options tab. The following screen will appear.
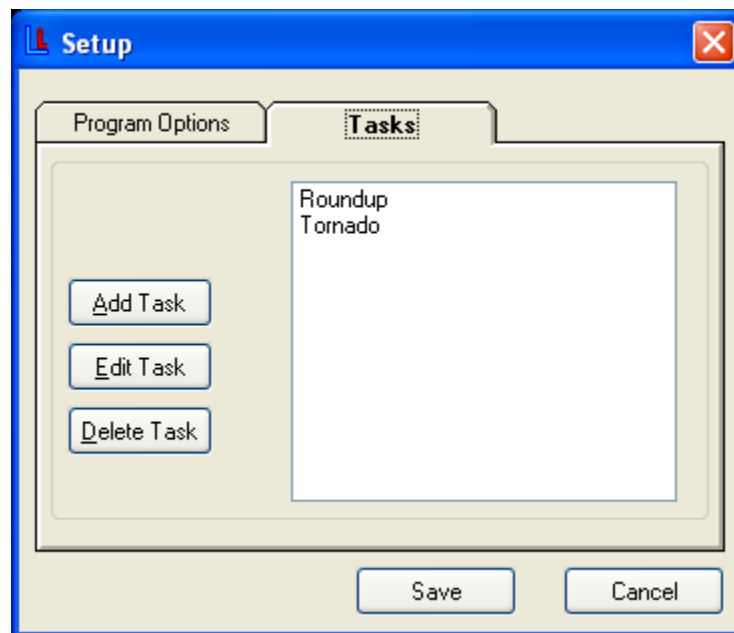
The *Add*, *Edit* and *Delete Task* buttons are used to create, change and remove tasks. You can also edit tasks by double clicking on the listed task.

When adding or editing a task, the following screen appears.

The *Task Name* field describes this task. Use short descriptive names to identify your tasks.

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 ..\WxMesg\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 enter on the HTML tab.

The *Destination File Name* is the name you want the resulting message to be named on your server or directory. This field is required.

Select the type of save, *Local*, *FTP* or HTTP. 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.

Once the basic task information has been established, you need to identify the files that will be processed. Click on the Files tab to see this screen.
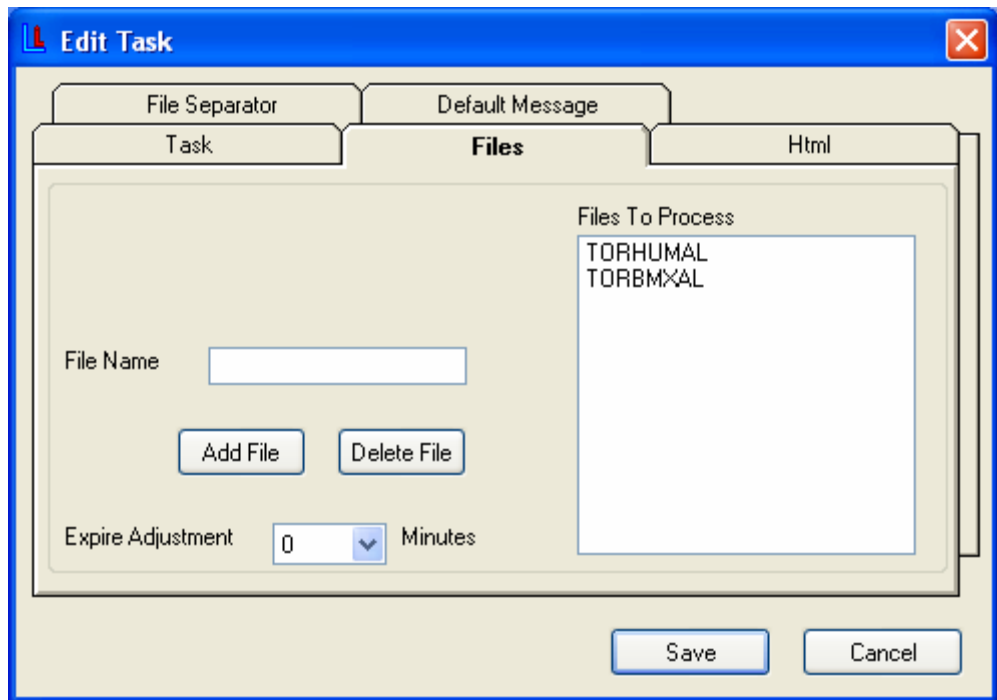
Enter a file name to process in the *File Name* field. Click the *Add File* button to add this file to the list. The file name is normally the EMWIN file name. This file is created by Weather Message Server for processing.

To delete a file, highlight the file name and click *Delete File*. You can also press the Delete key.

The Expire Adjustment field allows you to modify the expiration times of received files from −10 to +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 times.

The HTML tab is used to specify HTML code or other text to encapsulate the weather text. Click on the HTML tab to see this screen.
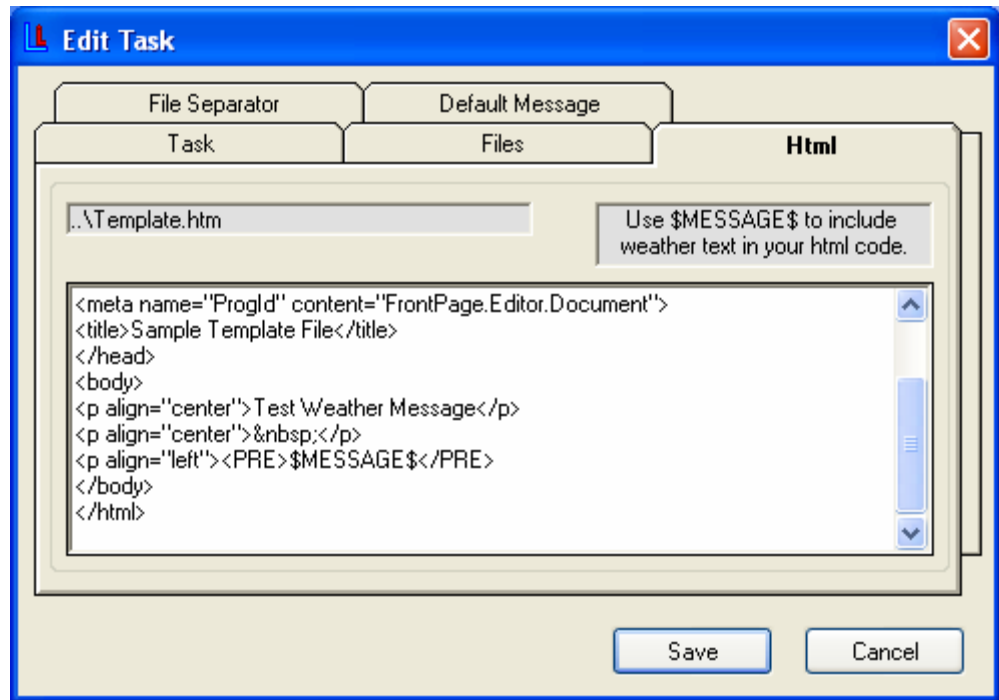
Enter your HTML code in the text box. Remember to use the variable $MESSAGE$ in this code as a place marker for your text.

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: Appendix F contains examples of html code used to publish weather text to a web page.

The File Separator tab is used to specify text that should appear between multiple files. Click on the File Separator tab to enter this text.
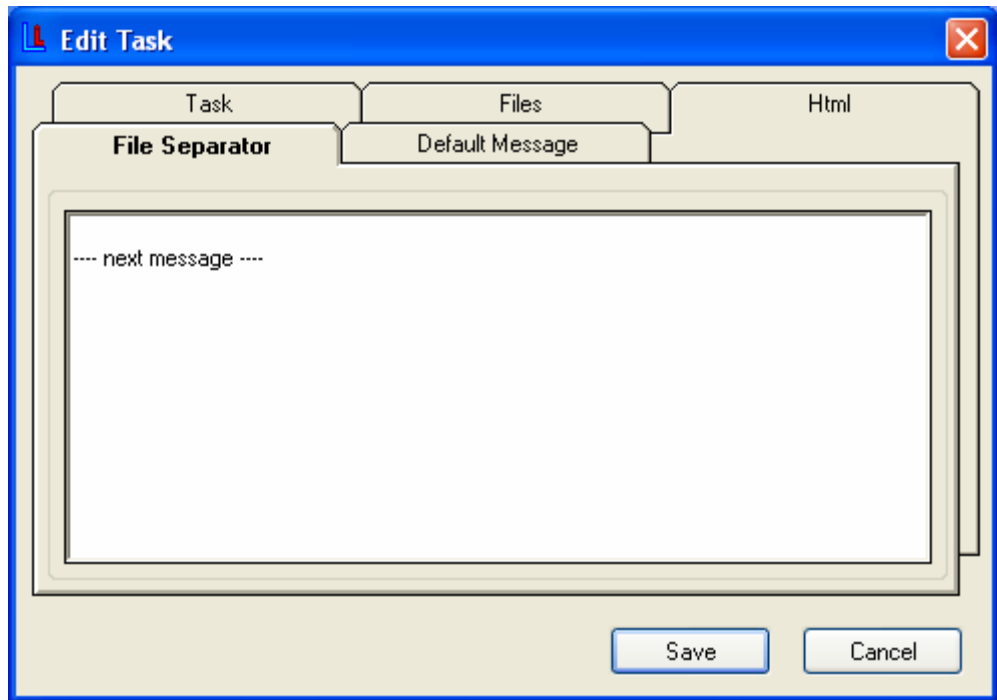
Enter the file separator text in the text box.

The Default Message tab is used to specify text to be published when there are no active files for this task. Click on the Default Message tab to enter this text.
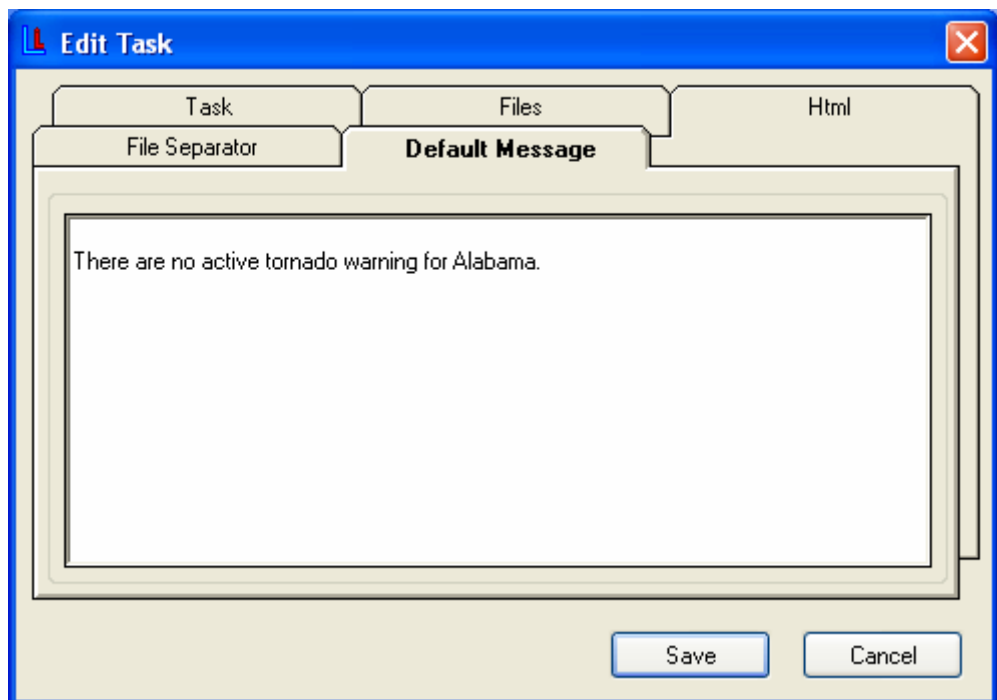
Enter the default message text in the text box. This field can be left blank.

After all information has been entered click the *Save* button.

Alarms

In order for WxLoader to work, the appropriate files must be stored in the Ingest directory by Weather Message Server. This is accomplished by setting up a regular alarm in Weather Message and specifying archive options. The following is a screen shot of the archive tab from Weather Message Setup showing the correct archive options.

You can specify Short, Selected, Selected No Head, Full text, Full text No Head, and Raw in the *Archive Action* box. The *Archive Path* is the same as the Ingest Path setup in WxLoader. You will notice that the path has \# appended to the path name. This is necessary to get Weather Message Server to append the expiration date/time to the file that is created.

Note: If you fail to add \# to the path, your messages will not expire at the appropriate time.

Note: The Raw option is used by WxLoader to create an internally defined short message. The Raw option will allow the program to combine like messages in to one short message. For example, two

SVR products issued by different forecast offices will be combined into one short message. Here is an example message created with the Raw 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. A Weather Roundup has been issued for Tallapoosa county until 9:10 PM and Lauderdale, Colbert, Franklin, Lawrence, Limestone, Madison, Morgan, Marshall, Jackson, De Kalb and Cullman counties until 10:00 PM.

Notice how it combines the Weather Roundup when there are two different expiration times.

19.   Future Direction
This software will be enhanced only by user recommendations. If you want other features, please let us know.

20.   Program Assistance
You can contact the program author by email at this address danny@wxmesg.com. If you use mail, sent correspondence to Danny Lloyd, 203 Old Shepard Road, Dadeville, Alabama 36853.

Notes:

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Appendix A – Weather Forecast Office Abbreviations
Sorted by State

AAQ	PALMER	AK	STO	SACRAMENTO WFO		CA
ABE	BETHEL	AK	ALS	SAN LUIS VALLEY		CO
ABR	POST ROGERS MEMORIAL	AK	BOU	DENVER/BOULDER		CO
ACD	COLD BAY	AK	COS	CITY OF COLORADO SPRINGS		CO
ADQ	KODIAK	AK	DEN	DENVER		CO
AFA	FAIRBANKS	AK	GJT	WALKER		CO
AFC	ANCHORAGE WFO	AK	LIC	LIMON		CO
AFG	FAIRBANKS WFO	AK	NEC	NATIONAL EARTHQUAKE CENTER		CO
AHO	HOMER	AK	PUB	PEUBLO MEMORIAL		CO
AJK	JUNEAU WFO	AK	STR	STRATTON		CO
AJN	JUNEAU	AK	BDL	BRADLEY		CT
AKN	KING SALMON	AK	BDR	SIKORSKY MEMORIAL		CT
AMC	MCGRATH	AK	IAD	WASHINGTON DULLES		DC
ANC	ANCHORAGE	AK	ILG	NEW CASTLE		DE
ANT	ANNETTE ISLAND	AK	EYW	KEY WEST		FL
AOM	NOME	AK	JAX	JACKSONVILLE		FL
AOT	WIEN MEMORIAL	AK	MFL	MIAMI/TAMIAMI		FL
ASN	ST. PAUL ISLAND	AK	MLB	MELBOURNE		FL
AUN	UNALAKLEET	AK	TAE	TALLAHASSEE		FL
AVD	VALDEZ	AK	NHC	NATIONAL HURRICANE CENTER		FL
AVW	VALDEZ WSO	AK	TAE	TALLAHASSEE WFO		FL
AYA	YAKUTAT	AK	TBW	TAMPA BAY/RUSKIN		FL
BHM	BIRMINGHAM	AL	AGS	BUSH FIELD		GA
BMX	BIRMINGHAM	AL	ALR	ATLANTA RFC		GA
HSV	HUNTSVILLE	AL	ATL	ATLANTA/PEACHTREE CITY		GA
HUN	HUNTSVILLE	AL	FFC	PEACHTREE CITY-FALCON		GA
MGM	DANNELLY	AL	SAV	SAVANNAH		GA
MOB	MOBILE	AL	GUA	TIJAN		GU
FSM	FORT SMITH	AR	GUM	GUAM INTNL AIRPORT		GU
LZK	NORHT LITTLE ROCK	AR	HEB	EWA BEACH	OAHU,	HI
FGZ	FLAGSTAFF/BELLEM	AZ	HFO	HONOLULU WFO	OAHU,	HI
FLG	FLAGSTAFF PULLIAM	AZ	HLI	LIHUE	KAUAI,	HI
PHX	PHOENIX SKY HARBOR	AZ	HTO	HILO	HILO,	HI
PSR	PHOENIX WFO	AZ	ALO	WATERLOO		IA
TWC	TUCSON WFO	AZ	DBQ	DUBUQUE		IA
EKA	MURRAY	CA	DMX	JOHNSTON/DES MOIN		IA
FAT	FRESNO	CA	DSM	DES MOINES		IA
LAX	LOS ANGELES	CA	DVN	DAVENPORT		IA
LOX	LOS ANGELES OXNA	CA	SUX	SIOUX GATEWAY		IA
MTR	MOTEREY WFO	CA	BOI	BOISE		ID
RDD	REDDING	CA	LWS	LEWISTON-NEZ PERCE		ID
RSA	SACRAMENTO RFC	CA	PIH	POCATELLO		ID
SAC	SACRAMENTO EXECUTIVE	CA	CHI	CHICAGO		IL
SAN	SAN DIEGO - LINDBERGH	CA	CIR	CARIO		IL
SCK	STOCKTON METROPOLITAN	CA	ILX	LINCOLN		IL
SFO	SAN FRANCISCO	CA	LOT	LEWIS UNIVERSITY		IL
SGX	SAN DIEGO WFO	CA	MKX	MILWAUKEE		IL

MLI	QUAD-CITY	IL	RST	ROCHESTER	MN
MMO	MARSEILLES	IL	STC	ST. CLOUD	MN
PIA	GREATER PEORIA	IL	COU	COLUMBIA	MO
RFD	GREATER ROCKFORD	IL	EAX	PLEASANT HILL	MO
SPI	CAPITOL	IL	KRF	KANSAS CITY RFC	MO
EVV	EVANSVILLE	IN	LSX	ST CHARLES 88D	MO
IND	INDIANAPOLIS	IN	MKC	KANSAS CITY DOWNTOWN	MO
IWX	NORTH WEBSTER	IN	SGF	SPRINGFIELD	MO
CNK	BLOSSER	KS	STL	LAMBERT-ST LOUIS	MO
DDC	DODGE CITY	KS	UMN	MONETT	MO
GLD	RENNER	KS	JAN	JACKSON	MS
ICT	WICHITA MID-CONTINENT	KS	MEI	KEY	MS
TOP	PHILIP BILLARD	KS	TUP	TUPELO	MS
JKL	CARROLL	KY	BYZ	BILLINGS	MT
LEX	BLUE GRASS	KY	FCA	GLACIER PARK	MT
LMK	LOUISVILLE WFO	KY	GGW	GLASGOW	MT
PAH	BARKLEY	KY	GTF	GREAT FALLS	MT
SDF	STANDIFORD	KY	HLN	HELENA	MT
LCH	LAKE CHARLES	LA	MLS	FRANK WILEY	MT
LIX	SLIDELL	LA	MSO	MISSOULA	MT
ORN	NEW ORLEANS RFC	LA	TFX	GREAT FALLS 88D	MT
SHV	SHREVEPORT	LA	AVL	ASHEVILLE	NC
BOS	LOGAN	MA	CLT	CHARLOTTE/DOUGLAS	NC
BOX	BOSTON	MA	ILM	NEW HANOVER	NC
ORH	WORCESTER	MA	MHX	MOREHEAD/NEWPORT	NC
TAR	BOSTON RFC	MA	RAH	RALEIGH WFO	NC
BWI	BALTIMORE-WASHINGTON	MD	RDU	RALEIGH-DURHAM	NC
WBC	NWS HDQTRS	MD	TOX	SILER SITY	NC
WNC	CAMP SPRINGS CPC	MD	BIS	BISMARK	ND
WNH	CAMP SPRINGS HPC	MD	FAR	HECTOR	ND
WNM	CAMP SPRINGS MPC	MD	FGF	FARGO/GRAND FORK	ND
WNO	CAMP SPRINGS NCEP	MD	ISN	SLOULIN	ND
CAR	CARIBOU	ME	GID	GRAND ISLAND WFO	NE
GYX	GRAY/PORTLAND	ME	LBF	NORTH PLATTE	NE
PWM	PORTLAND JETPORT	ME	LNK	LINCOLN	NE
APN	ALPENA	MI	OAX	OMAHA/VALLEY 88D	NE
APX	NORTH CENTRAL LOWER MICHIGAN	MI	OFX	NORFOLK	NE
DTW	DETROIT METROPOLITAN WAYNE	MI	OMA	EPPLEY	NE
DTX	DETROIT/WHITE LAKE	MI	CON	CONCORD	NH
FNT	BISHOP	MI	ACY	ATLANTIC CITY	NJ
GRR	GERALD R. FORD	MI	EWR	NEWARK	NJ
HTL	ROSCOMMON	MI	PHI	MT HOLLY/PHI WFO	NJ
LAN	CAPITAL CITY	MI	ABQ	ALBUQUERQUE	NM
MKG	MUSKEGON	MI	EPZ	SANTA TERESA 88D	NM
MQT	MARQUETTE	MI	ROW	ROSWELL INDUSTRIAL CENTER	NM
SSM	SAULT STE MARIE	MI	EKO	ELKO	NV
DLH	DULUTH	MN	ELY	ELY	NV
INL	FALLS	MN	LAS	MC CARRAN	NV
MPX	CHANHASSEN	MN	LKN	ELKO WFO	NV
MSP	MINNEAPOLIS-ST. PAUL	MN	REV	RENO WFO	NV
MSR	MINNEAPOLIS RFC	MN	VEF	LAS VEGAS WFO	NV

WMC	WINNEMUCCA	NV
ALB	ALBANY	NY
ALY	ALBANY WFO	NY
BGM	BINGHAMTON	NY
BUF	GREATER BUFFALO	NY
HON	HURON	NY
NYC	CENTRAL PARK WEATHER STATION	NY
OKX	BROOKHAVEN/UPTON	NY
CAK	AKRON-CANTON	OH
CLE	CLEVELAND-HOPKINS	OH
CMH	PORT COLUMBUS	OH
DAY	COX-DAYTON	OH
ILN	BORNE AIRPARK	OH
MFD	MANSFIELD LAHM	OH
TIR	WILLIMINGTON RFC	OH
TOL	TOLEDO EXPRESS	OH
YNG	YOUNGSTOWN-WARREN	OH
OUN	NORMAN/WESTHEIME	OK
TSA	TULSA WFO	OK
TUA	TULSA RFC	OK
WNS	NORMAN SPC	OK
AST	ASTORIA	OR
BNO	BURNS	OR
EUG	MAHLON SWEET	OR
LMT	KLAMATH FALLS	OR
MFR	ROGUE VALLEY	OR
NMW	ASTORIA CG	OR
PDT	EASTERN OREGON AT PENDLETON	OR
PDX	PORTLAND	OR
PQR	PORTLAND WFO	OR
PTR	PORTLAND RFC	OR
SLE	MCNARY	OR
CTP	STATE COLLEGE WFO	PA
ERI	ERIE	PA
PBZ	PITTSBURG/CARAOPOLIS	PA
PHL	PHILADELPHIA	PA
RHA	STATE COLLEGE RFC	PA
JSJ	MARIN	PR
PVD	GREEN STATE	RI
CAE	COLUMBIA METROPOLITAN	SC
CHS	CHARLESTON FORCE BASE	SC
GSP	GREENVILLE-SPARTANBURG	SC
ABR	ABERDEEN	SD
FSD	FOSS	SD
RAP	RAPID CITY	SD
UNR	RAPID CITY WFO	SD
BNA	NASHVILLE/OLD HICKORY	TN
MEG	MEMPHIS WFO	TN
MEM	MEMPHIS	TN
MRX	MORRISTOWN/KNOX	TN
OHX	OLD HICKORY/NASHVILLE	TN

TYS	KNOXVILLE/MORRISTOWN	
AMA	AMARILLO	TX
BRO	BROWNSVILLE/SOUTH PADRE ISLAND	TX
CRP	CORPUS CHRISTI	TX
DRT	DEL RIO	TX
EHU	FORT WORTH NWSRH	TX
EWX	NEW BRAUNFEL 88D	TX
FTW	MEACHAM	TX
FWD	FORT WORTH	TX
FWR	FORT WORTH RFC	TX
GLS	SCHOLES	TX
HGX	HOUSTON/DICKINGSON	TX
LUB	LUBBOCK WFO	TX
MAF	MIDLAND	TX
SAT	SAN ANTONIO	TX
SJT	MATHIS	TX
SPS	SHEPARD FORCE BASE	TX
VCT	VICTORIA	TX
SLC	SALT LAKE CITY	UT
AKQ	WAKEFIELD	VA
LWX	STERLING	VA
LYH	LYNCHBURG	VA
ORF	NORFOLK	VA
RIC	RICHMOND	VA
RNK	ROANOKE/BLACKBURG	VA
WAL	WALLOPS FLIGHT FACILITY	VA
BTV	BURLINGTON	VT
EAT	PANGBORN MEMORIAL	WA
GEG	SPOKANE	WA
OLM	OLYMPIA	WA
OTX	SPOKANE/FELTS	WA
SEA	SEATTLE-TACOMA	WA
SEW	SEATTLE WFO	WA
YKM	YAKIMA	WA
ARX	LA CROSSE 88D	WI
EEW	NEENAH	WI
GRB	AUSTIN STRAUBEL	WI
LSE	LA CROSSE	WI
MKE	GENERAL MITCHELL	WI
MSN	DANE-TRUAX	WI
EKN	ELKINS-RANDOLPH-JENNINGS RANDOLPH	WV
HTS	TRI-STATE	WV
RLX	RUTHDALE/CHARLESTON	WV
CPR	CASPER/NATRONA	WY
CYS	CHEYENNE	WY
LND	LANDER	WY
RIW	RIVERTON	WY
SHR	SHERIDAN	WY

Appendix B – Text Weather Product Abbreviations
Sorted by Product Abbreviation

Product WMO Description

Product	WMO	Description
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 NWWS
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
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
CFW	WH	Coastal Flood Warnings, Watches or Statements
CGR	SX	Coast Guard Surface Report
CHG	WT	Computer Hurricane Guidance
CLI	CD	Climate Report (Daily)
CLM	CX	Climatological Report (Long Term)
CMM	CS	Coded Climatological Monthly Means
COD	FX	Coded Analysis and Forecasts
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 Forcast
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
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
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 Admisistrative Message
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	Hydrometeorlogical Coordination Message
HLS	WT	Hurricane Local Statement
HMD	AG	Hydrometeorological Discussion
HMW	WO	Hazardous Materials Warning
HSF	FZ	High Seas Forecast
HWO	FL	Hazardous Weather Outlook
HYD	SX	Rainfall Reports
HYM	CS	Monthly Hydrometerological 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
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
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
PLS	SX	Plain Language Ship Report
PMD	FX	Prognostic Meteorological Discussion
PNS	NO	Public Information Statement
PSH	AC	Post Storm Hurricane Report
PWO	WW	Public Severe Weather Alert
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				Advisory
SEV	WW	SPC Watch Point Information Message	TCP	WT	Public Tropical Cyclone Advisory
			TCS	TX	Satellite Tropical Cyclone Summary
SFD	FX	State Forecast Discussion	TCU	WT	Tropical Cyclone Update
SFP	FP	State Forecast	TCV	WT	Tropical Cyclone Watch/Warning
SFT	FP	Tabular State Forecast	TID	SO	Tide Report
SHP	SM	Surface Ship Report at Synoptic Time	TMA	SE	Tsunami Tide/Seismic Message Acknowledgment
SIM	AT	Satellite Interpretation Message	TOE	WO	911 Telephone Outage Emergency
SLS	WW	Severe Local Storm Watch and Areal Outline	TOR	WF	Tornado Warning
			TPT	SX	Temperature Precipitation Table
SMF	FN	Smoke Management Weather Forecast	TSM	SE	Tsunami Tide/Seismic Message
			TST	NT	Test Message
SMW	WH	Special marine Warning	TSU	WE	Tsunami Watch/Warning
SPE	TX	Satellite Precipitation Estimates	TVL	FP	Travelers Forecast
SPF	WT	Storm Strike Probability Bulletin	TWD	AC	Tropical Weather Discussion
SPS	WW	Special Weather Statement	TWO	AC	Tropical Weather Outlook and Summary
SPW	WO	Shelter in Place Warning			
SRF	FZ	Surf Forecast	TWS	AC	Tropical Weather Summary
STA	NW	SPC Tornado and Severe Thunderstorm Reports	UVI	AE	Ultraviolet Index
			VAA	FV	Volcanic Activity Advisory
STD	AT	Satellite Tropical Disturbance Summary	VOW	WO	Volcano Warning
			WAR	WO	Space Environment Warning
STO	SX	Road Condition Reports	WAT	WO	Space Weather Message Watch
STP	AS	State Max/Min Temperature and Precipitation Table	WCN	WW	Watch County Notification
			WCR	AX	Weekly Weather and Crop Report
SUM	WO	Space Weather Message Summary	WDA	CX	Weekly Data for Agriculture
SVR	WU	Severe Thunderstorm Warning	WEK	FX	27-day Space Weather Forecast
SVS	WW	Severe Weather Statement	WOU	WO	Watch Outline Update
SWO	AC	Severe Storm Outlook Narrative	WRK	NZ	Local Work File
SWR	AS	State Weather Roundup	WSW	WW	Winter Weather Warnings, Watches, Advisories
SWS	AW	State Weather Summary			
TAF	FT	Terminal Aerodrome Forecast	WVM	NW	Warning Verification Message
TAV	FP	Travelers Forecast Table	WWA	NW	Watch Status Report
TCA	FK	Tropical Cyclone Advisory	ZFP	FP	Zone Forecast Product
TCD	WT	Tropical Cyclone Discussion			
TCE	WT	Tropical Cyclone Position Estimate			
TCM	WT	Marine/Aviation Tropical Cyclone			

Appendix C – State / Marine Zone Abbreviations

Alabama	AL	Mississippi	MS
Alaska	AK	Missouri	MO
American Samoa	AS	Montana	MT
Arizona	AZ	N. Pacific Ocean	PK
Arkansas	AR	Nebraska	NE
California	CA	Nevada	NV
Central Pacific Ocean	PH	New Hampshire	NH
Colorado	CO	New Jersey	NJ
Connecticut	CT	New Mexico	NM
Delaware	DE	New York	NY
District of Columbia	DC	North Carolina	NC
Eastern N. Pacific Ocean	PZ	North Dakota	ND
Florida	FL	Northern Mariana Islands	MP
Georgia	GA	Northwest Atlantic Ocean	AN
Guam	GU	Ohio	OH
Gulf of Mexico	GM	Oklahoma	OK
Hawaii	HI	Oregon	OR
Idaho	ID	Pennsylvania	PA
Illinois	IL	Puerto Rico	PR
Indiana	IN	Rhode Island	RI
Iowa	IA	S. Central Pacific Ocean	PS
Kansas	KS	South Carolina	SC
Kentucky	KY	South Dakota	SD
Lake Erie	LE	St. Lawrence River	SL
Lake Huron	LH	Tennessee	TN
Lake Michigan	LM	Texas	TX
Lake Ontario	LO	Utah	UT
Lake St. Clair	LC	Vermont	VT
Lake Superior	LS	Virgin Islands	VI
Louisiana	LA	Virginia	VA
Maine	ME	W. Pacific Ocean	PM
Maryland	MD	Washington	WA
Massachusetts	MA	West Atlantic Ocean	AM
Michigan	MI	West Virginia	WV
Midway Islands	UM	Wisconsin	WI
Minnesota	MN	Wyoming	WY

Appendix D – Graphical Weather Product Names

EMWIN File Name	Description
CMPWLDUS.GIF	Land/Sea Temperatures and Clouds
FFG001US.GIF	1-Hour Flash Flood Guidance
FFG003US.GIF	3-Hour Flash Flood Guidance
FFG006US.GIF	6-Hour Flash Flood Guidance
G08CIRUS.JPG	GOES 8 Satellite Image - All United States
G08HURUS.JPG	GOES 8 Satellite Image - Southern US / Caribbean
G10CIRUS.JPG	GOES 10 Satellite Image - Western United States
G10FDIUS.JPG	GOES 10 Satellite Image - Pacific Ocean
GMS005US.JPG	Satellite Image Earth View - Pacific Ocean
GPHJ88US.GIF	Significant River Flood Outlook
IMGFNT00.GIF	0000Z Surface Analysis
IMGFNT06.GIF	0600Z Surface Analysis
IMGFNT12.GIF	1200Z Surface Analysis
IMGFNT18.GIF	1800Z Surface Analysis
IMGSJUPR.JPG	Satellite Image - Caribbean Islands
IMGSNDUS.GIF	GOES Sounder
IMGSWPUS.JPG	Satellite Image - Southwestern Pacific
IMGWWAUS.GIF	United States Warnings, Watches and Advisories
INDCIRUS.JPG	Satellite Image Earth View - Indian Ocean
METFIREU.JPG	Satellite Image Earth View - Africa
MOD91EUS.GIF	6-Hour QPF 91e
MOD92FBW.GIF	12-Hour Forecast of Fronts/Pressure and Weather
MOD93SUS.GIF	6-Hour QPF 93e
MOD94SUS.GIF	Excessive Rainfall Potential Outlook
MOD96FBW.GIF	36-Hour Forecast of Fronts/Pressure and Weather
MODDY1US.GIF	Day 1 Convective Outlook
MODDY2US.GIF	Day 2 Convective Outlook
MODQP1US.GIF	24-Hour Day 1 QPF 94q
MODQP2US.GIF	24-Hour Day 2 QPF 98q
RADALLUS.GIF	NEXRAD Radar Coded Message - Cloud Tops, Outlooks
RADREFUS.GIF	NEXRAD Radar Coded Message - Reflectivity
SESALLUS.GIF	Earth View -
TRKATLUS.GIF	Atlantic Tropical Cyclones
TRKNEPUS.GIF	Northeast Pacific Tropical Cyclones
TRKNINUS.GIF	North Indian Tropical Cyclones
TRKNWPUS.GIF	Northwest Pacific Tropical Cyclones
TRKSEPUS.GIF	Southeast Pacific Tropical Cyclones
TRKSINUS.GIF	South Indian Tropical Cyclones
TRKSWPUS.GIF	Southwest Pacific Tropical Cyclones
TRKWLDUS.GIF	Worldwide Tropical Cyclones

Appendix E – 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 appendix 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 was 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 preloaded with words, check the Weather Message Miscellaneous Downloads or send e-mail to the Weather Message Yahoo group.

Appendix F – 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, enter a ftp command in the format:
   ftp://username:password@www.server.com /path/path/filename.txt

   Note: There is only one space in the above command - between the server name and the ftp directory.

To send a HTML file, you will need to create a template file and place it in the WxMesg directory. In your html template, enter the code $MESSAGE$ where you want the weather text to be inserted. You will change your ftp command to read:

ftp://username:password@www.server.com template.htm#/path/path/pagename.htm

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"> </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.

Appendix G – 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"> </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.

Appendix H – What is EMWIN

EMWIN stands for the **E**mergency **M**anagers **W**eather **I**nformation **N**etwork. 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.

Appendix I – 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/.*

Appendix J – 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.

Appendix K – VTEC

VTEC stands for Valid Time Event Coding. VTEC is used in certain products to further refine the message. For a list of products that have operational VTEC coding, see http://www.weather.gov/os/vtec/resources/VTECevents.xls. NWS Operational guide 10-1703 contains additional VTEC information, http://www.nws.noaa.gov/directives/010/pd01017003b.pdf.

 These VTEC phenomena and significances are available for alarm selection or use in WxMap.

Phenomena

AS	Air Stagnation		HY	Hydrologic
FA	Areal Flood		UP	Ice Accretion
AF	Ashfall		IS	Ice Storm
AV	Avalanche		HI	Inland Hurricane Wind
BZ	Blizzard		TI	Inland Tropical Storm Wind
DU	Blowing Dust		LE	Lake Effect Snow
BS	Blowing Snow		LB	Lake Effect Snow and Blowing Snow
BW	Brisk Wind		LW	Lake Wind
CF	Coastal Flood		LS	Lakeshore Flood
FG	Dense Fog		LO	Low Water
DS	Dust Storm		MA	Marine
EH	Excessive Heat		SV	Severe Thunderstorm
EC	Extreme Cold		IP	Sleet
FW	Fire Weather		SC	Small Craft
FF	Flash Flood		SW	Small Craft for Hazardous Seas
FL	Flood		RB	Small Craft for Rough Bar
FZ	Freeze		SI	Small Craft for Winds
ZF	Freezing Fog		SM	Smoke
ZR	Freezing Rain		SN	Snow
FR	Frost		SB	Snow And Blowing Snow
GL	Gale		SR	Storm
HZ	Hard Freeze		TO	Tornado
SE	Hazardous Seas		TR	Tropical Storm
HT	Heat		TS	Tsunami
HS	Heavy Snow		TY	Typhoon
SU	High Surf		WI	Wind
HW	High Wind		WC	Wind Chill
HU	Hurricane		WS	Winter Storm
HF	Hurricane Force Wind		WW	Winter Weather

Significance

W	Warning		F	Forecast
A	Watch		O	Outlook
Y	Advisory		N	Synopsis
S	Statement			