

with WeatherLink™

INTRODUCTION

This document provides a step-by-step process on how to set up your own personal weather website including choosing an Internet Service Provider. WeatherLink™ is compatible with many of the ISPs out there and provides a great deal of flexibility in how you want to present your weather information: You can either use pre-made templates from Davis Instruments or create your own web pages.

INTERNET CONNECTION

First of all, you will need access to the Internet. If you already have access to the Internet, you may skip to the next paragraph. If you don't have access, you will need to get an Internet Service Provider (ISP). There are many out there to choose from. Some of the most well-known and well-liked ISPs are AOL, EarthLink, AT&T Yahoo, NetZero and Juno. Some offer only dialup service (low speed), while others offer only high speed service, and some offer both types of service. Dialup service is available to anyone with a phone line, but long-distance charges or other charges may apply in rural areas. High speed service, which may be supplied by either a phone company (e.g., AT&T, Qwest) or a cable company (e.g., Comcast, Cox) is typically only available in urban or suburban areas. High speed service is also available via satellite to anyone with a clear view of the southern sky (in the contiguous United States through HughesNet). High speed service generally costs more even though there are companies offering cheaper introductory rates or lower rates for somewhat lower speed service. High speed is generally a better value for speed. Also note that WeatherLink does not support secure FTP, so ask the ISP whether they require you to use secure FTP to upload information to your website.

You will need some personal web space on the ISPs server (or your own server) for your website. The cheaper services may not include this space for free. Others may not offer it at all. You should weigh the cost of the cheaper services + web space cost versus the cost of a more expensive service with web space included. To activate your personal web space on AOL, users must use the (keyword FTP) AOL FTP client to go to the Favorite Site "members.aol.com", where a "/screenname" directory is created. AOL includes 2 MB of web space with its service free. If you use the Davis Instruments web templates only (~80 KB), then the web space that is typically provided should be sufficient. Otherwise, you may want to consider the size and content of your website, usually quoted in MB (1000s of KB).

Ask a friend to print out the following websites for you. They contain information on choosing an ISP:

<http://www.consumersearch.com/www/internet/isp/comparisonchart.html>

<http://pcworld.about.com/magazine/1811p148id18624.htm>

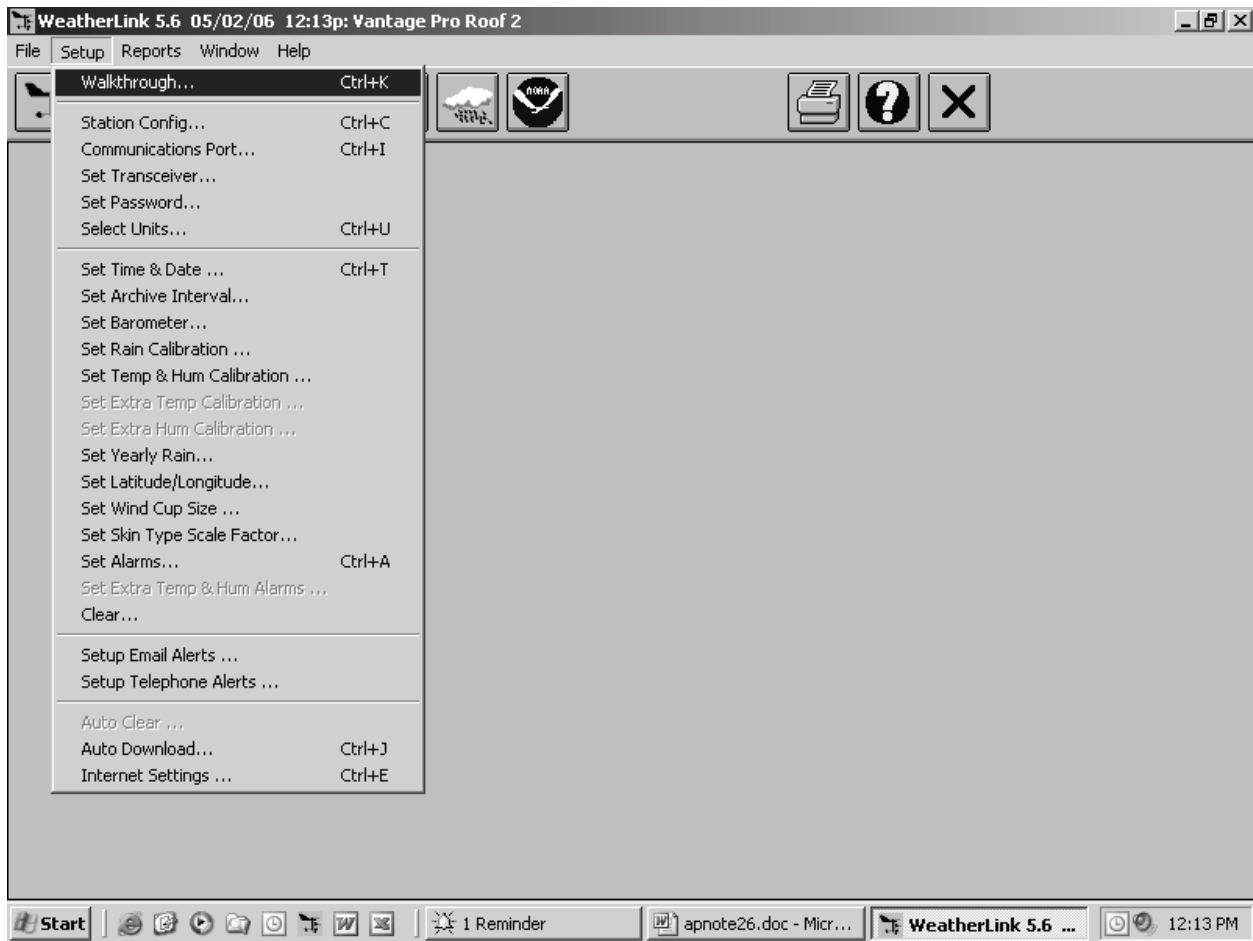
<http://www.theispguide.com/>

Often times, the ISP will provide software that will automatically configure your computer's settings. If not, for a dial up connection, more recent versions of Windows will have a Wizard that will walk you through the setup. For a high speed connection, consult your ISP. Typically, for high speed service, you will need to have a "specialized" modem installed.

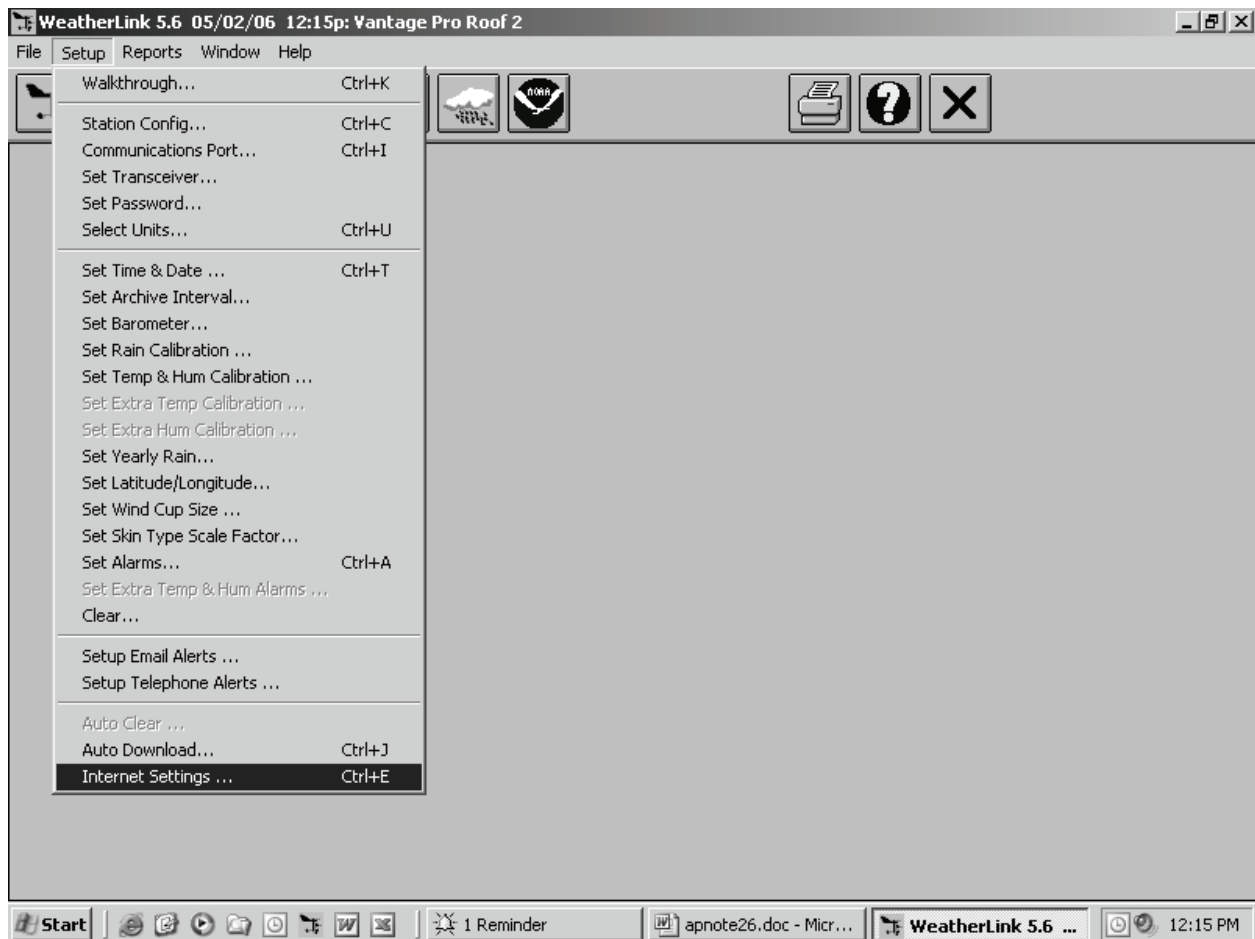
SETTING UP WEATHERLINK

To avoid interruptions in your day to day computing, it is best to have a dedicated stand-alone system and a router (which allows multiple computers to access the Internet). The router will allow multiple computers to access the Internet as needed. WeatherLink will work just fine on any compatible system, but will periodically interrupt your activities to inform you of its Internet upload activities. You will need a version of WeatherLink for Windows 5.1 or later and a Windows 95 PC or later or WeatherLink for Mac OSX and a Vantage Pro2, Vantage Pro, Weather Monitor II, Weather Wizard III, or Perception station. Consult your particular WeatherLink product for any other specific computer requirements.

Follow the installation instructions to install WeatherLink on your computer (if it isn't already installed). Use the Walkthrough feature on the Setup menu to setup your weather station on your computer. After those steps are completed, you are ready to start setting up the software to send updated weather information to your personal weather website.



Select Internet Settings on the Setup menu (at the bottom of the menu),

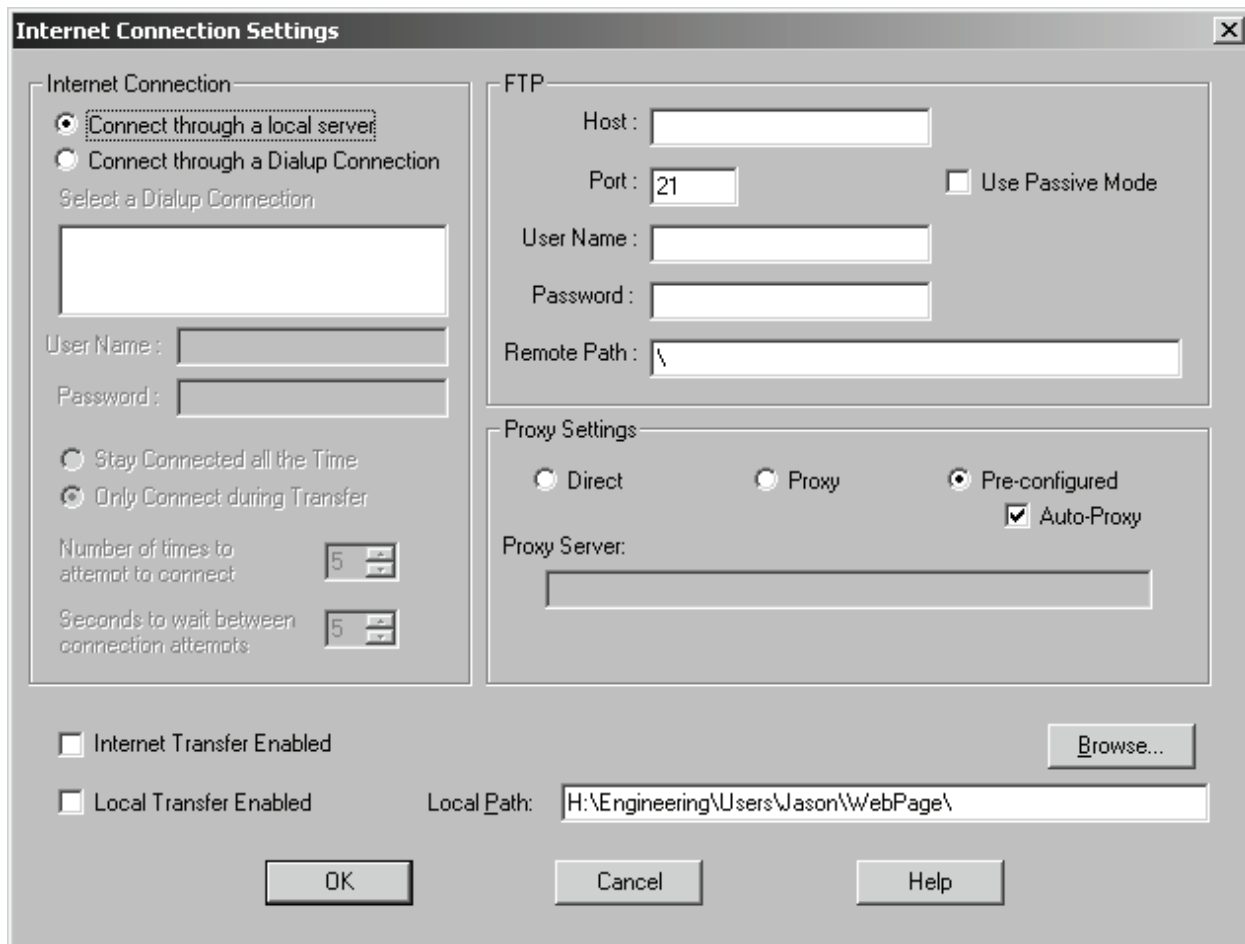


and then push the Internet Connection Settings button.

Internet Connection Summary	
Internet Transfer Enabled:	<input type="button" value="Off"/>
Internet logon:	<input type="text"/>
FTP host:	<input type="text"/>
Local Transfer Enabled:	<input type="button" value="Off"/>
Connection Type:	<input type="text" value="Connect through LAN."/>
FTP logon:	<input type="text"/>
FTP Path:	<input type="text" value="\"/>
Proxy Server:	<input type="text" value="Use Default Proxy Server"/>
Local Path:	<input type="text" value="H:\Engineering\Users\Jason\WebPage\"/>

Data Upload Summary	Profile 1	Profile 2	Profile 3	Profile 4	Profile 5	Profile 6	Profile 7	Profile 8
Offset Time:	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>
Upload Frequency	<input type="text" value="1 min."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>
Automatically download before Internet upload	<input type="text" value="Yes"/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>
Number of Template Files to transfer	<input type="text" value="3"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Number of Reports to transfer	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Number of Current Data Images to transfer	<input type="text" value="26"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Number of Historical Data Images to transfer	<input type="text" value="31"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>

First indicate whether you connect to the Internet using a dialup connection or not. Select the “Connect through a Dialup Connection” for dialup, otherwise select the “Connect through a local server”. If you have a Dialup connection, your connection should be listed in the box below. If not, you may need to setup one. You will still need to enter your username and password for your Internet connection. AOL users must use the “local server” selection and manually connect or sign-on to AOL before attempting a web page upload. The reason for this is “The Internet-connected machines at AOL do not have access back to the systems where the membership data is kept, so there is currently no way to verify login/password information on external connects.”



If you have dialup service, choose whether you want to “Stay Connected all the Time” to the Internet or whether you want WeatherLink to “Only Connect during Transfer”. If you do not have a second phone line, you should select “Only Connect During Transfer”. You will need the phone line open for phone calls when not in use. You can alter the settings for connection attempts if you wish. Unless you experience issues with your connection, these settings should be fine.

Next, enter your FTP information unless you are transferring data to local hard drive. A local hard drive is a letter drive accessible from your computer. You will need to get FTP information from your ISP. The host is a domain name such as www.davisnet.com or a series of numbers with dots in-between (Internet Protocol address). The host is sometimes different from your ISP domain address. For AOL users, the FTP host is “members.aol.com”. The FTP port number is usually 21 and is the default setting. Enter a user name and password, if required, to FTP. These may be different than those used to connect to your ISP. AOL users will need use the user name ANONYMOUS and the password is your AOL e-mail address: “screen-name”@aol.com for the FTP settings. Enter a remote path or subdirectory where you want the data files to be transferred if desired. If you plan to only have one web page on your website, you don’t need a remote path or subdirectory.

Proxy settings of “Pre-Configured” and “Auto-Proxy” are generally the correct choice for most ISPs. Use these settings unless the pre-configured setting is not working for you. The "Proxy" should be used if you will be using a different proxy server for uploading data than you use for browsing the Internet or checking e-mail. (This is not common). "Direct" is when you know that you do not need to use a proxy server (when you are connected directly to the server through a LAN or WeatherLink is running on the server).

If you have Local Transfer (to a local hard drive) enabled, you will need to enter a file path name or use the Browse button to select a location. It is recommend to test uploading to a local hard drive first before attempting to upload to your website. This way, you may determine whether any problems you encounter are due to the upload information or the Internet Connection setup.

CHOOSING YOUR PREFERRED TYPE OF WEB PAGE

WeatherLink provides sample template files that you can use without having to design your own web pages. We provide you samples that will match your station type. WeatherLink provides detailed instructions on how to select and setup any of the sample templates for your web page. Under the Help file Index, type or search for “Sample Templates” or look under “Sample HTML Templates”. The sample templates come in three basic flavors:

- “Weather Summary” (Current conditions text only)
- “Current”. Current conditions with text, graphics, and historical information in a Java applet “ticker”
- “History”. Historical data with text, graphics, and current conditions in a Java applet “ticker”

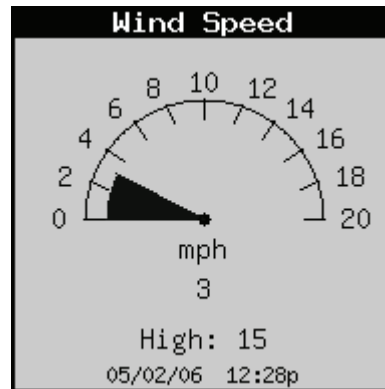
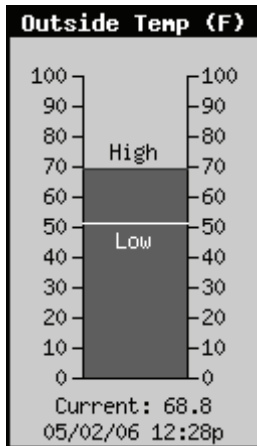
If one of these pages is all the content you want on your website, you can name the template file “index.htx” and your website address will take visitors directly to that page. Otherwise, use this as your main page. You may name it index.htm if it does not contain weather data tags.

However, you may design your own web pages as well. WeatherLink provides several style elements that can be utilized in the design of your web page:

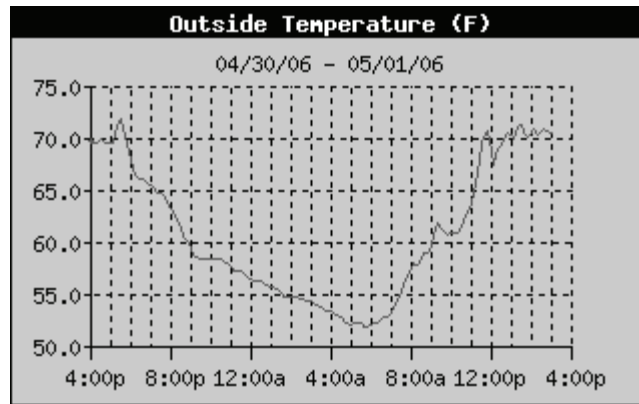
- Current and Historical text
- Current data graphics
- Historical data graphics
- Reports
- Java applet “ticker”

WeatherLink uses what are called “weather tags” or place holders for weather data. These are called “comment tags” in HTML syntax: `<!--outsideTemp-->`. The software parses through a template file with the default extension *.htx and replaces these tags with actual weather data before uploading the web page to its destination site. From that, WeatherLink creates an *.htm page with actual weather data values on it. These can either be current conditions or highs and lows (daily in the Vantage Pro, high/low from the console display for the Monitor, Wizard, or Perception)

WeatherLink uses a *.gif file format to generate graphics representing current data conditions. WeatherLink generates a bar graph with current data value and the current time as of upload and the option to show a low and/or high. The wind graphics use a dial format.



WeatherLink also uses *.gif to generate history graphics. These are graphs of history weather data. You pick the plot span of choice in the Profile options.



These images are created by the WeatherLink software at the time of upload and placed at your destination web page location. Thus, these images exist only at the destination location.

Reports: WeatherLink also allows you to upload text reports. The choices of upload to your website are NOAA summaries, or text listing of weather records for the past 2 days or the past week. Additionally, you may provide your weather data to the Citizen Weather Observer Program (CWOP) or Weather Underground. Please note that none of the Reports are part of the Sample Templates. You will need to configure them manually if you want to use them.

Depending upon your version of WeatherLink, to upload to Weather Underground, you may need to get a software plug-in from Weather Underground and it may appear as a separate feature item on the Setup menu. To utilize this as a separate feature item, you will need to consult their documentation or website for details: <http://www.wunderground.com>. Otherwise, the feature is documented in the WeatherLink Help file.

The CWOP captures the data that is sent by the APRS feature for use in improving NOAA's forecast models. You will need to sign up before sending your data. This process gives you a "call sign" which is a unique identifier for your weather station. Details on this are provided in the WeatherLink software Help file and at the following website: <http://www.wxqa.com>

Java Applet "Ticker": We include a Java applet called "davisticker.class" that will show you a text string in a "ticker" format. The Sample History template is designed so that the applet gets its data from a separate data file. You may configure your own custom web page to do the same or you may embed the text weather data within the java code itself. The following website includes instructions on how to specialize the ticker to your own preferences: <http://www.davisnet.com/support/weather/davisticker.asp>

SETTING UP YOUR CUSTOM WEB PAGE

WeatherLink provides a number of Profiles to give you flexibility in the timing of updating data. Depending upon the data presented on your website, you may want to update some data less often than other data. For example, you may want to update your current data every 10 minutes, but update your reports twice a day. The APRS report may be an exception to this. NOAA retrieves the data every 15 minutes. Sending APRS data any more often than this will not benefit NOAA.

To configure a particular profile, select one of the Configure buttons on the main Internet Settings dialog box at the bottom.

Internet Settings

Internet Connection Summary

Internet Transfer Enabled: Internet logon: FTP host:

Local Transfer Enabled: Connection Type: FTP logon:

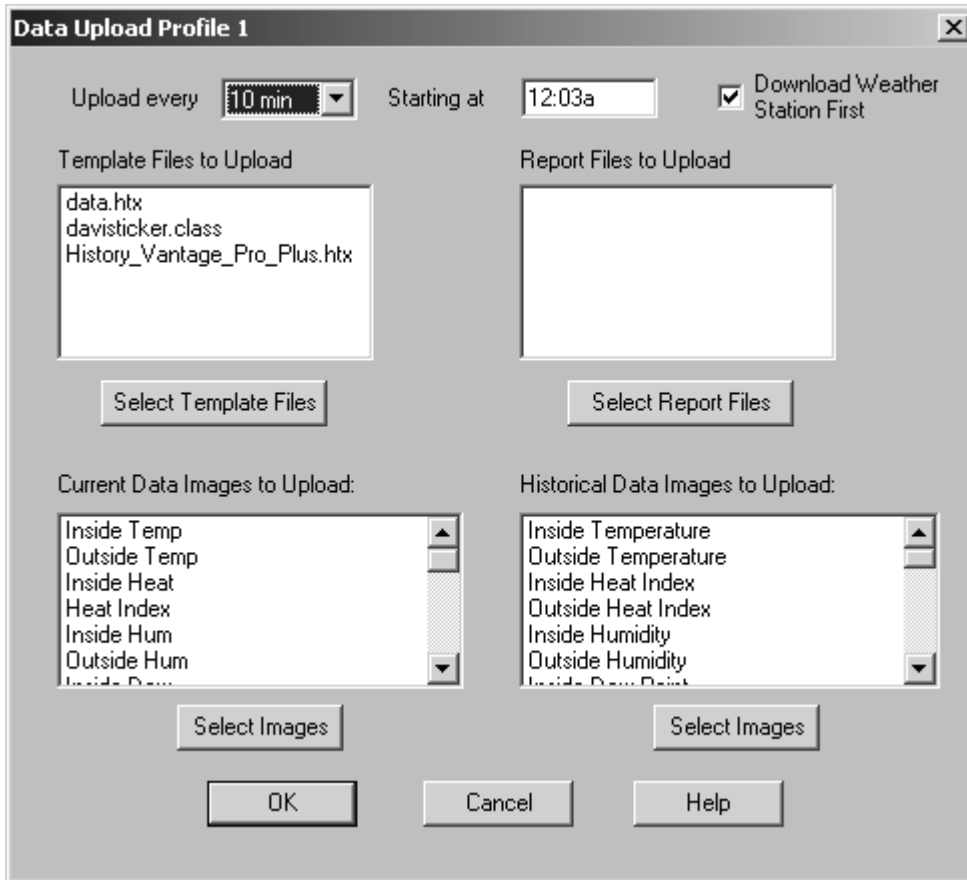
FTP Path: Proxy Server:

Local Path:

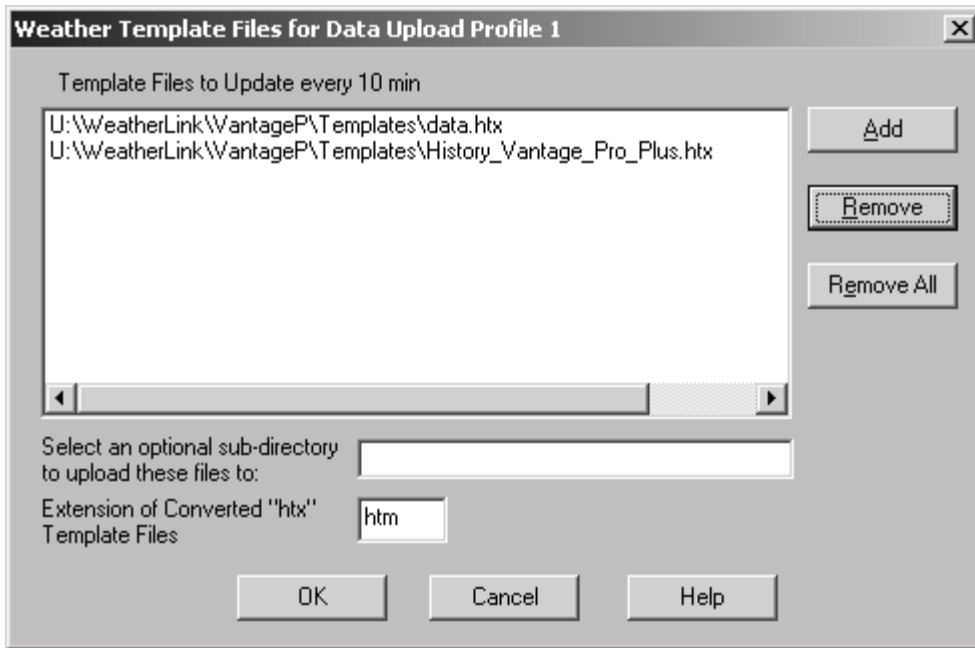
Data Upload Summary

	Profile 1	Profile 2	Profile 3	Profile 4	Profile 5	Profile 6	Profile 7	Profile 8
Offset Time:	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>
Upload Frequency	<input type="text" value="1 min."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>
Automatically download before Internet upload	<input type="text" value="Yes"/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>	<input type="text" value="..."/>
Number of Template Files to transfer	<input type="text" value="3"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Number of Reports to transfer	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Number of Current Data Images to transfer	<input type="text" value="26"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Number of Historical Data Images to transfer	<input type="text" value="31"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
	<input type="button" value="Configure"/>	<input type="button" value="Configure"/>	<input type="button" value="Configure"/>	<input type="button" value="Configure"/>	<input type="button" value="Configure"/>	<input type="button" value="Configure"/>	<input type="button" value="Configure"/>	<input type="button" value="Configure"/>

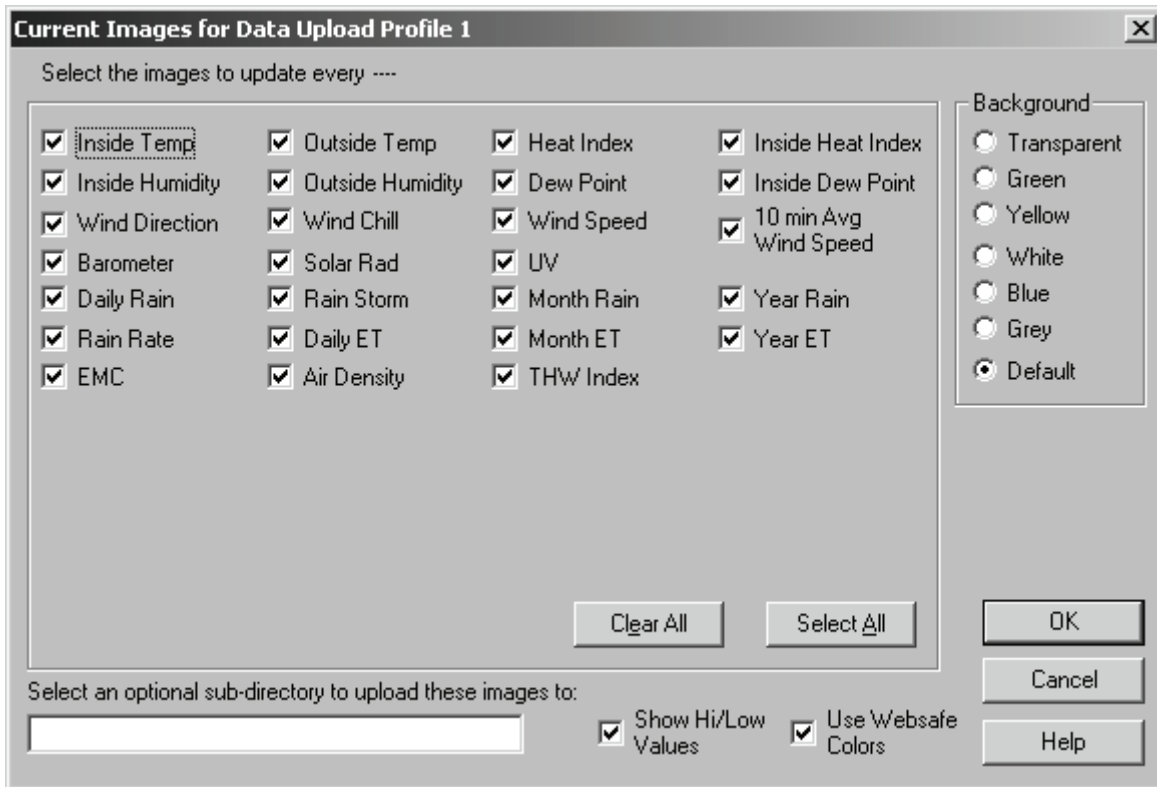
Each dialog box lets you select what you want to update. Choose the Upload Interval to indicate how often you want to update your web page data. Select “Download Weather Station First” if you are uploading Historical data or a report to ensure the most up to date data is uploaded. For web pages that contain current data, choose an Upload Interval that balances the need to have updated data with the need to conserve bandwidth or computer resources. 10 minutes is generally a good interval for most people, particularly if you have a high speed connection. You may want a slower interval, like 1 hour, if you have dialup, particularly if you don’t have a second dedicated phone line for Internet access. For updating reports, twice a day is a good upload interval. An interval of 1 minute should only be used if you are transferring data directly to a server (“direct” FTP) or a local hard drive. For testing purposes, temporarily set the “Starting at” time to 2 minutes later than the current time to force an upload. You may leave the Upload Interval set to the value you normally have set. Note that due to finite bandwidth, ISPs have limits on how much data you can transfer at any given time.



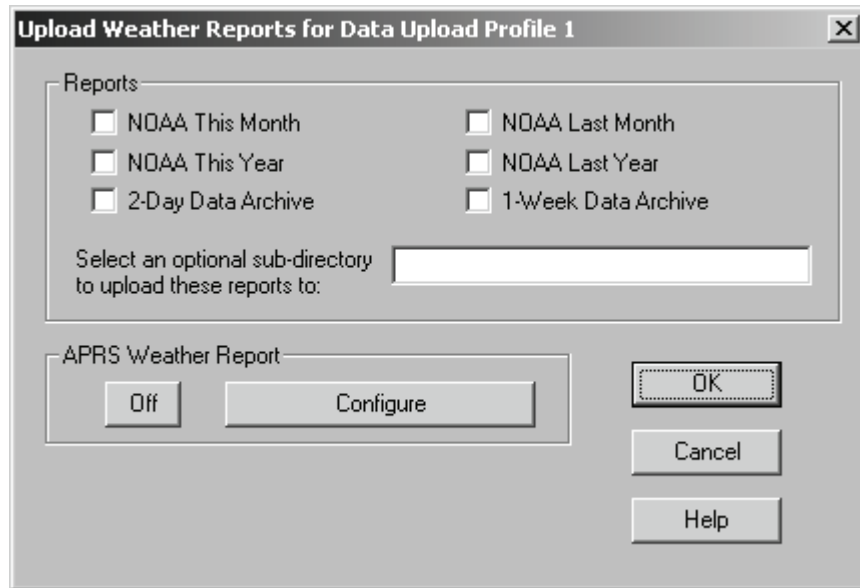
If your web pages contain weather data “tags”, select the “Select Templates Files” button to tell WeatherLink where you’re template files are located. You will need to do this whenever you have text weather data on your web page that needs to be updated regularly. It is recommended that you store these files in the Templates folder of your station folder.



If the pages contain Current or History Data image *.gifs, be sure to indicate which *.gifs your web page will need.



If you plan to update reports as often as you update your web pages, then select the reports you want to update. Otherwise, select another Profile, and choose the Reports feature to active one or more of the reports. Use the Upload Interval to determine how often to update the reports. As stated earlier, you may want to select another Profile to activate your APRS weather report to specifically update every 15 minutes.



TESTING YOUR WEB PAGE

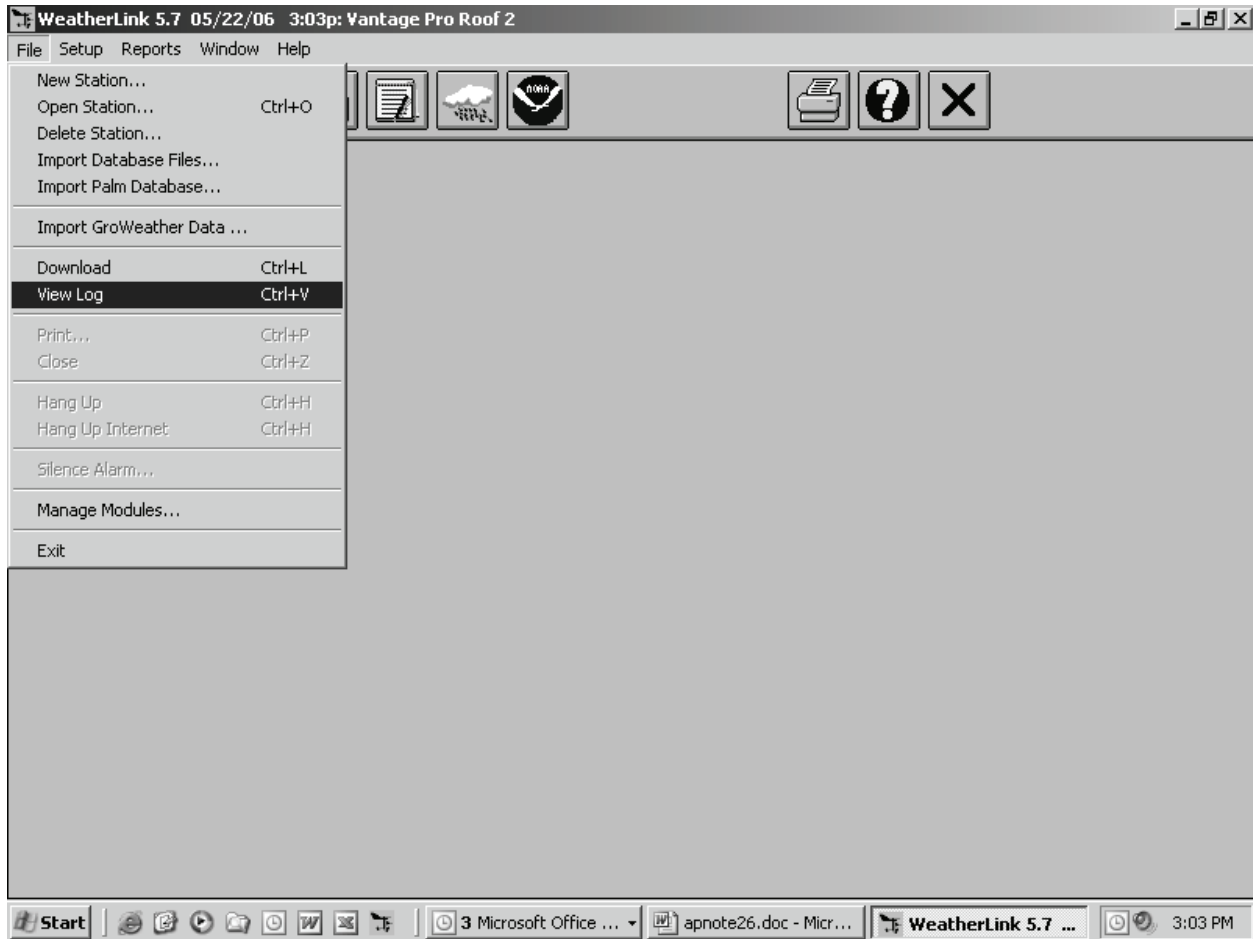
First, configure your web page to transfer to a location on a local hard drive (any file location you can access using a letter drive) to ensure that the web page is being properly created. Be sure to enable your "Local Transfer" by selecting the button on the main Internet Settings or checking the check box on the Internet Connection Settings dialog box.

Note that only Current and History image files and web template files need to be uploaded each time. Other files such as the Davis logo or the davisticker need only be uploaded to your FTP site once. Once these are confirmed to have successfully transferred to your website, you remove these files from the upload list. If you are only transferring files to a local drive, you can simply copy these other files to the destination location without using the automated WeatherLink mechanism. AOL does not support file names that have spaces in them, so you will need to rename the "Davis Logo.gif" file either "Davis_Logo.gif" or DavisLogo.gif.

If the local drive transfer is successful, next try to transfer to your FTP site (if you have one). Be sure to enable your "Internet Transfer" by selecting the button on the main Internet Settings or checking the check box on the Internet Connection Settings dialog box. AOL users will need to be signed-on to AOL to FTP files to their AOL web page.

TROUBLESHOOTING

WeatherLink keeps track of the success of each Internet upload in its “Log” file. Generally, this can be used as a helpful tool to diagnose any upload problems you may have. Select “View Log” from the File menu to see the log file.



If you can successfully create and transfer web pages to a local drive, but you cannot successfully FTP to your website, then your FTP settings may not be configured correctly, or there may be technical problems at your FTP site.

If you have problems creating a web page on your local drive, then check your Profile settings to ensure that you are uploading enough information (files) to properly generate a web page:

If you have missing weather data text in your web page, check to make sure that the web page is selected as a template for upload. Dashes indicate proper data encoding, but missing data being reported by your weather station. Check your weather station documentation for troubleshooting this problem.

If you are missing a Current or History image, then check to make sure that these images are selected under the “Select Images” dialog box. These images must be checked here for them to be generated. It may be simpler to use the “Select All” option when troubleshooting the upload of an image. In normal practice, only the images used on the web page should be selected to reduce upload time and minimize bandwidth issues, particularly with a dialup connection. These images are created by the WeatherLink program and transferred to your FTP or local transfer site. These images will not appear in your station’s Templates folder. Be sure you are looking at the web page at the final destination before deciding if your images uploaded correctly.

If you are using a History image, select “Download Weather Station First” to make sure the history graph is filled out with the latest data. Also, if you have no data at all, the images will not be created.

If you are missing a Report, check to make sure that it is selected in the Select Reports dialog box. You may want to test these separately from your other web page elements when initially testing.

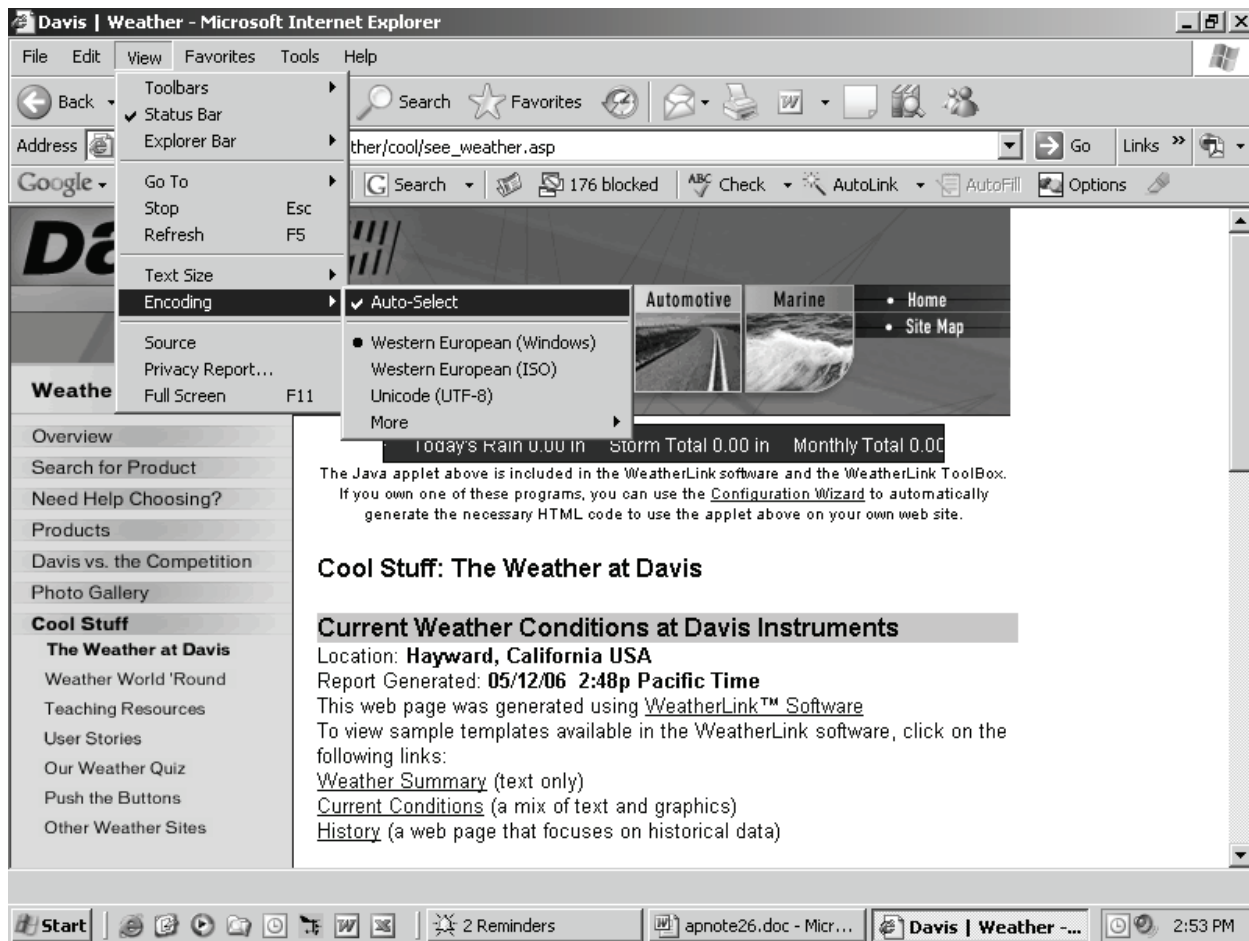
If you are using a java applet such as the “davisticker.class” file, be sure this file resides at the destination location. If

your applet does not appear on your web page, this may explain why. If the applet appears, but is missing data, check to make sure that this data file is selected for upload as a template file. Also note that there is a 200 character buffer limit for the Java ticker applet. If the 200 character limit falls within a tag then the software will not recognize it as a tag and just display it as text. To fix this do a <cr> right before the Tag.

If you are attempting to use one of the Sample Templates, you will find the various selections under the Sample Templates folder in the WeatherLink folder. The selection you choose should be copied from this folder to the Templates folder under your particular station folder.

If you are attempting to upload your own custom web page, and the data does not appear correctly, try uploading a sample template. If the sample template uploads correctly, you may want to check your HTML code for errors. Remember, WeatherLink uses the comment tag syntax as place holders for inserting current weather data.

WeatherLink uses a degree symbol for temperature units and a superscript 2 for the solar radiation units. These may not appear properly depending upon your web browser text encoding settings. You should use an Auto-Select setting, if available. In Windows' Internet Explorer, this setting is accessible under Encoding under the View menu.



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