

## ► Real-Time WeatherWatch

Real-Time WeatherWatch (RTWW) provides real-time weather information from multiple remote sites on an interactive web page. Weather trends are displayed allowing clients to monitor and predict weather patterns. A digital camera captures high-resolution images which are displayed on a web page allowing the World Wide Web client to view the selected site and its weather conditions.

### Features

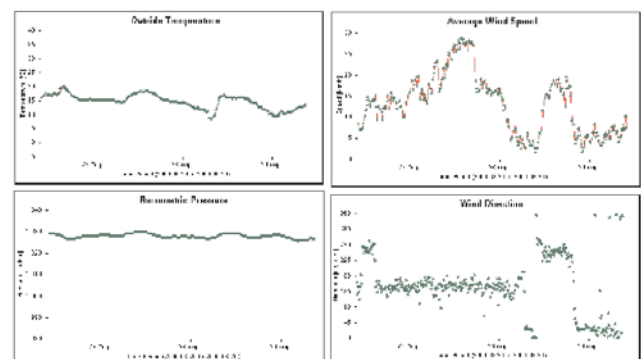
- Display of current weather variables including : wind speed, wind direction, air temperature, relative humidity, barometric pressure
- Display of daily high and low temperatures
- Display of high wind speed and wind chill
- Display of rainfall
- Display of recent weather trends
- Display of images

### Applications

- Online weather reports for surfers, windsurfers, fishermen, divers, hang-gliders and other sports enthusiasts
- Weather monitoring and data gathering
- Viewing or surveillance of remote sites
- Long term climate monitoring
- Prediction of local weather trends
- Surf and swell surveillance
- Agricultural monitoring
- Security systems and surveillance systems
- Traffic monitoring

### Operation

Custom software running on the remote PC records local weather information from the weather sensors and camera via modem and leased or dial-up line. A table provides HTTP links to the pages displaying weather data and images as well as providing links to other related pages.

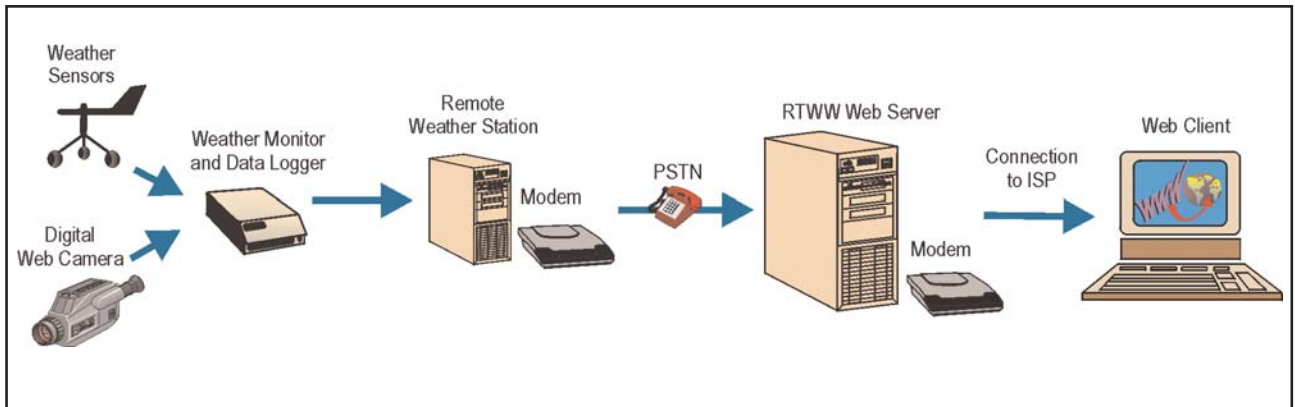


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### Architecture

The RTWW consists of the following components :

- Weather Sensors
- Weather Monitor and Data Logger
- Camera
- Remote Weather Station with modem and Uninterruptable Power Supply (UPS)
- Dial-up or leased line connectivity to the RTWW Web Server via the Public Switched Telephone Network (PSTN)
- Web Server
- Leased line or dial-up connection via an Internet Service Provider (ISP) to the Web Client



### Specifications

<b>Weather Monitor and Sensors</b>	Anemometer, Wind Vane, Indoor and Outdoor Temperature Sensors, Indoor Relative Humidity Sensor, Barometric Pressure Sensor, Rain Gauge
<b>Anemometer</b>	Measures wind speed up to 250 km/h
<b>Wind Vane</b>	Measures wind direction in 1 or 10 degree increments
<b>Temperature Sensors</b>	Measures air temperature from -45 to 60 Celsius to 1 degree accuracy
<b>Relative Humidity Sensors</b>	Measures humidity to 1% accuracy
<b>Weatherlink Data Logger</b>	Performs interface between PC and weather instruments
<b>Web Camera</b>	640 x 480 resolution at 0,5 fps
<b>Remote PC</b>	Pentium Processor 32 Mbytes RAM SVGA Video Card 2 Parallel Ports, 4 Serial Ports Windows NT V4.0 Framegrabber Card 700 VA UPS
<b>Modems</b>	Dial-Up Modems : 33,6 K modems (56 K enabled) Leased Line Modems : 4-wire line modems
<b>Web Server</b>	Pentium Processor, 32 Mbytes RAM, SVGA Video Card 2 Parallel Ports, 8 Serial Ports, Windows NT V4.0 Webserver