

► 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

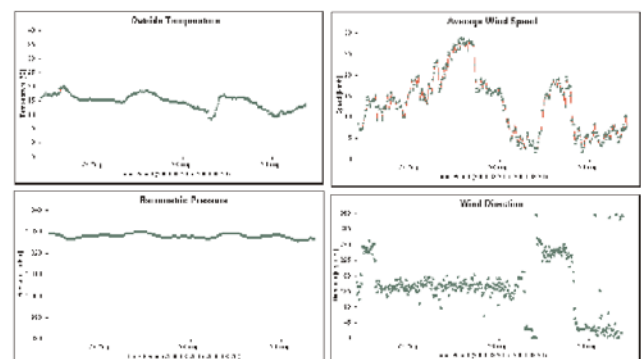
- Display of current weather variables including : wind speed, wind direction, air temperature, relative humidity, barometric pressure
- Display of daily high and low temperatures
- Display of high wind speed and wind chill
- Display of rainfall
- Display of recent weather trends
- Display of images

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.

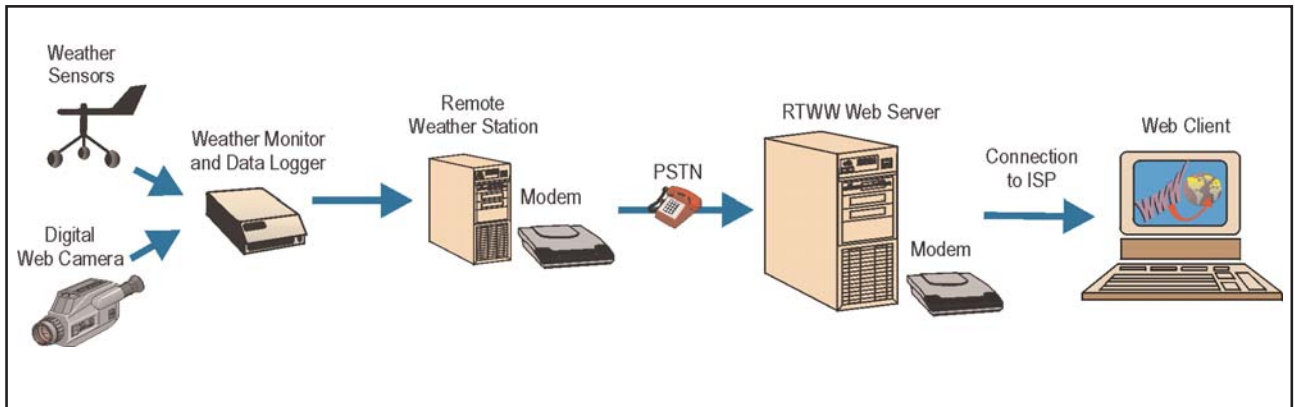


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Architecture

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

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