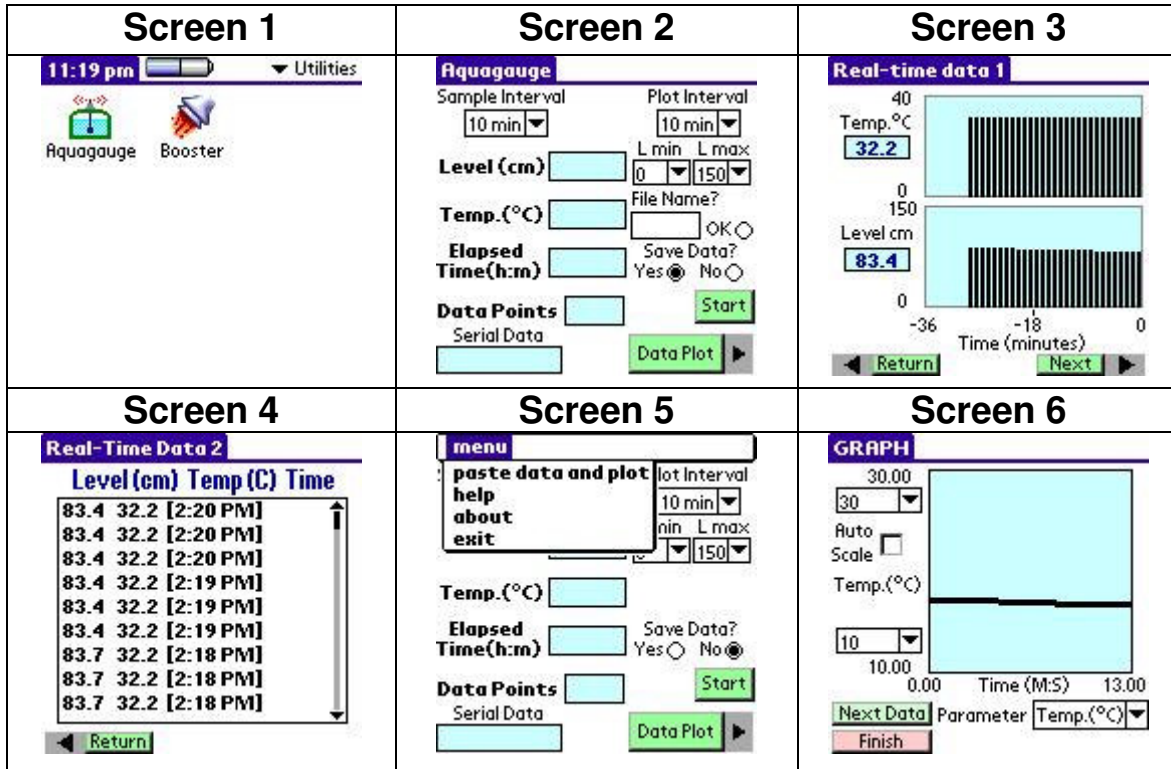


# Aquagaugae Palm OS PDA Data Display and Collection Software



## Description

Aquagaugae Palm OS PDA Software may be used to collect and display data transmitted serially by RF from an Aquagaugae wireless water level sensor. The file Aquagaugae-install.prc is included on CD and can be loaded by Hotsync to a PDA running Palm OS 4.1 or lower, with a minimum of 2 MB of memory. By clicking on the filename the software should be installed at the next Hotsync operation. After installation, the Aquagaugae and Booster icons will appear on the Palm desktop as shown in Screen 1 above. With some systems a second Aquagaugae icon generated by the installation process may also appear. This program should be removed using the "Delete" function in the desktop menu. The Booster software comprises several programs which are necessary for the main Aquagaugae software to function and these should not be deleted.

After launching the software the user will be presented with Screen 2, headed "Aquagaugae". This is the main control page for the program and includes functions that allow variation of the data sample interval, the data plotting interval and the scale of the y-axis for the water level versus time plot. All received data can be saved to the Palm Memo Pad for later use; however, because of the intrinsic limitations of the file size for memos in the Palm operating system, only 30 data samples per memo can be saved. Additional data will be automatically stored in sequentially numbered files appended to the primary filename entered at setup. It is suggested that this feature be used sparingly since the number of saved memo files can build up rapidly when lengthy data collection operations are performed. Other information displayed includes the water level, temperature (air temperature

not water temperature) elapsed time, number of data points and status of the last wireless serial data transmission.

## **Operation**

Connect the Palm PDA to the RF receiver unit using the Palm serial data cable accessory. Switch on the RF receiver and press the "Start" button in the opening screen of the Palm Aquagauge software to activate the data collection and display process. Received data will be displayed in Screens 2, 3, and 4. Screen 3, headed "Real-Time Data 1" illustrates the graphical "chart recorder" display in which the graphs scroll to the left as new points are plotted. The x and y scales on the graph are determined by the values chosen at setup in Screen 2. Screen 4, headed "Real-Time Data 2", shows the numerical record of the collected data as it is received. Buffer overflow causes data to be truncated on a first-in first-out basis once 1000 characters have been received.

To terminate the application return to Screen 2 and press the "Stop" button. The program can then be reinitialised by pressing the "Reset" button. Saved data can be retrieved in the Palm Memo Pad directory. These data can also be replotted using the Aquagauge software. To accomplish this, copy all the data in the Memo Pad file to the clipboard. Do not copy the Memo Pad file title on the first line of the memo. Open the Aquagauge software and click on the "Aquagauge" title. From the menu items click on "Paste data and plot" shown in Screen 5 above. Screen 6, headed "Graph" will then load. Check the "Auto Scale" box and select either temperature or level from the menu, then "Plot Data". The data should then be plotted to scale after a few seconds delay. The y-axis upper and lower bounds can also be set to any of a number of preselected values. To terminate the process press the "Finish" button.