

Nexgen instrumentation engineers can provide a bespoke service ranging from simple interrogation of a datalogger through to full WASP analysis. The majority of our customers simply require us to download the data and provide them with a CD-ROM every month, but also to keep checking the sites to ensure the systems are functioning correctly. The standard service comprises the following:

Signal Designations

Each datalogger is configured to suit the client's wishes and the particular instruments being utilised. As an example the following typical designations are used to identify signals recorded:

Cn-1	C1-A100R(m/s) @ 40m - 10 min Average Speed
Cn-2	C1-A100R(m/s) @ 40m - 10 min Maximum 1 sec gust
Cn-3	C1-A100R(m/s) @ 40m - 10 min Standard Deviation
Am-1	A1-W200P(°) @ 40m -10 min Vector Average Direction
Am-2	A1-W200P(°) @ 40m -10 min Vector Std Dev Direction
T	TEMP-Inner Temp(°C)-10 min Average
Bx	Battery 1(V) -10 min Average

Logged signals are either digital counter or analogue voltage type:

Cn	digital counter channel 'n' (n=1..12) with switching type input (e.g. anemometer)
Am	analogue voltage channel 'm' (m=1..8) with voltage type input (e.g. wind vane)

In addition, logger status is recorded through battery voltage and temperature:

Bx	logger battery voltage (x=1..3)
T	logger circuit temperature

Every Day

Daily emails are sent by each data logger with an encoded binary file attached which contains the previous day's measured, averaged & logged data in addition to status text similar to the following:

Nomad2 Status Report as of 13:00 Local Time, 30 Sep 2005 (13:00 GMT, 30 Sep 2005)

Since last report at 13:00 Local Time, 29 Sep 2005:

Compact flash card (32MB) has 35% free.
Modem (SWI GSM) was on for 240 minutes.
Dial in connect time was 0 minutes, with 0 KBytes transferred.
Network connect time was 3 minutes, with 91 KBytes transferred.
12V Power average 13.12V, minimum 12.60V.
9V Battery 1 average 9.39V, minimum 9.29V.
9V Battery 2 average 9.28V, minimum 9.25V.
Internal Temperature maximum 16.59 degrees C, minimum 10.40 degrees C.
System active 3.9%

Every Week

Each week the logger is contacted through the dial-in procedure in order to check general status. This provides an opportunity to conduct any remedial action, such as uploading new firmware, checking time settings etc. Active readings are viewed to see if there are any obvious sensor problems. In the event of any e-mail problems the weekly data is downloaded.

Every Month

Each month a CD is prepared containing the following pieces of information:

1. raw, encoded binary data files as emailed by the data logger
2. extracted data in spreadsheet format: XLS format with graphs & also ASCII CSV format
3. site report documents (if applicable) including graphic files of site photos
4. summary report, per logger, indicating any issues in the previous month (e.g. time change, dubious data, new firmware upgrade)
5. notes report for all sites giving overview of previous month's logging.

