Diagnostic Mode Explained

Diagnostic mode is used to log additional information related to cellphone status and operation that is not normally shown or available to the user. Under normal circumstances and vast majority of installations, using this mode is not necessary. However, at some locations where cell coverage and network availability may be an issue, the additional information may prove useful.

The Cv3 can be placed into diagnostic mode by simply texting "DIAG" (no quotes, all capitals) to the unit. The Cv3 will respond with: "Diagnostic logging is on." Once in diagnostic mode, the diagnostic information will be logged to the event log every 30 minutes. To turn off diagnostic mode, send the text "DIAG" again to toggle off. Diagnostic logging is supported by firmware version 2.32 and higher and configuration software version 3.2.6 and higher.

An example of diagnostic logging is shown below in Figure 1. And, explained immediately below.

The events at 11:31:06:
Diags: 3G CH:1062 Band 850
- cell technology used (3G), cell channel (1062) and cell band (850)
- cell:23hspa:01 is used for internal factory information only.
- csq:26 is received signal strength (RSSI) on a scale from 0 to 31, where 31 is best.
- creg:1 is cell registration status where:
0 = not registered
1 = registered on home network
2 = searching for a BS
3 = registration denied
4 = unknown
5 = roaming
- cpas:0 is cellphone status where:
0 = ready
1 = unavailable
2 = unknown
3 = ringing
4 = call in progress
5 = asleep
6 = corrupted RF calibration values
- cmgf:1 is the current SMS (texting) mode. Any other value is not valid for our application.
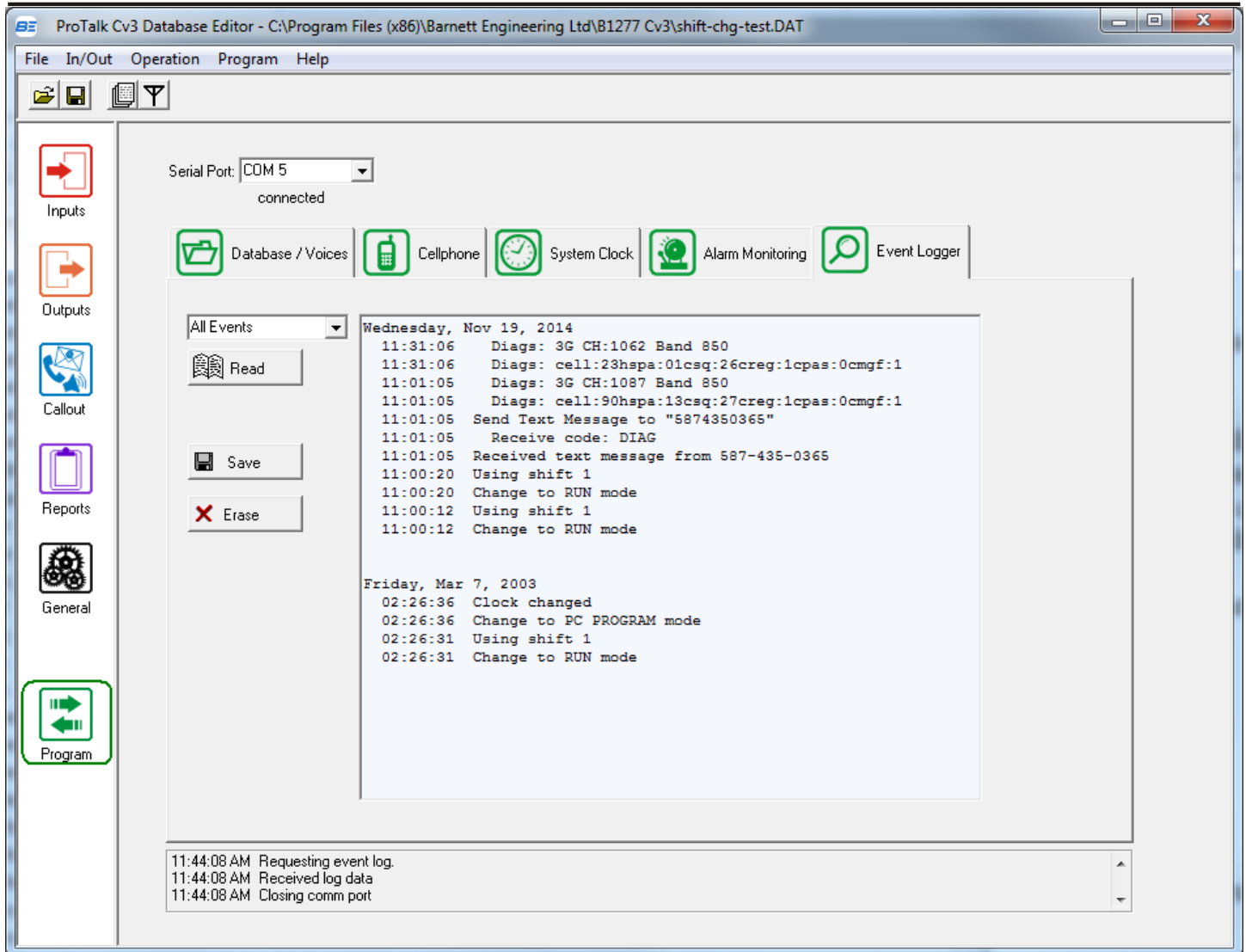
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Figure 1. Event Log Displaying Diagnostic Information