

# Diamond Point International (Europe) Ltd.

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## TrimTrac Application Note 1 – 'Passive'

Unit is configured to report once daily or weekly (with its last logged position) at a specific time but still logs its last 128 motion activated message to memory (128 place FIFO). Because of the infrequency of reporting, the unit is set to be available to the GSM network at a predefined interval (minutes or hours, set by T4). This means parameters can be changed with a maximum wait of the predefined interval. This scenario promotes long battery life, low SMS cost and low server interaction.

Below is the Provisioning GUI, with these configurations the unit will log position every three hours during motion (T4 set to 10800), report in every day (at 0600) and be available to the GSM network every 90 minutes for 60 seconds. The parameters are indicated. The important parameter here is Report Delay Flag, also note T1, it is set out at its maximum, so the unit will still send a report every 11.5 days as Report Delay flag allows only Idle timeout (T1) and Scheduled Reports to be sent by the GSM engine.

The screenshot shows the "Diamond Point TrimTrac Provisioning Tool" window. It has a menu bar with "File", "Query Settings From TrimTrac", "Load Default Settings From Software", "Load/Save Settings From File", "Write Settings To TrimTrac", and "Help". The main area is divided into several sections: "Serial Port Setup" (COM Port: COM3, buttons for "Open COM port" and "Close COM port"), "Firmware" (Trimble Navigation Ltd, TrimTrac (tm), Revision: 1.08.00.0000), "Communication Parameters" (Unit ID: 00000000, Phone, SIM Pin, Password: 00000000), "GPS Parameters" (GPS Elevation Mask: 5, GPS PDOP Mask: 120, GPS PDOP Switch: 60, GPS Signal Level: 10, GPS Dynamics Mod: 5), "Application Parameters" (T1: 43200, T2: 300, T3: 120, T4: 10800, T5: 60, T6: 168, T7: 15, Motion Report Flag: 0, Report Delay Flag: 3, Diagnostics Mode: 1, Communication Mode: 0), "Extended Parameters" (T18: 21600, T19: 5400, T20: 60, T21: 20, Rolling Motion Second Count: 10, Idle Wakeup Motion: 1, Scheduled Reporting Mode: 1, Delay State Polling Mode: 0, Idle State Polling Mode: 1, Query Hold Flag: 0, Delay State Motion Detect: 1, Position Report Transmit #: 1, Status Report Transmit #: 1, Motion Override: 0), "VAM Parameters" (High Priority Alert: Idle Timeout: 10, Transmit Timeout: 0, Delay Timeout: 10, Query Timeout: 60, Transmit Attempts: 0, Ignore: 0; Medium Priority Alert: Idle Timeout: 10, Transmit Timeout: 120, Delay Timeout: 10, Transmit Attempts: 0, Ignore: 0; Low Priority Alert: Transmit Attempts: 0, Ignore: 0). At the bottom, there is a "Status" section showing "Status of last command" as "OK (FILE WRITE)", the "www.dpie.com" logo, and links for "Our Website" and "Email Support".

The circled settings are settings which are different from the TrimTrac defaults.

To change the parameters over the air, sent these two SMS:

```
>STKA999990000300000120010800000060168150310;PW=00000000;ID=00000000;*17<  
>STKX10216000100540000060000010010120100;PW=00000000;ID=00000000;*31<
```

**Remember:** Change the ID and Password for the applicable TrimTrac you are sending the SMS to, and then recompile with new checksum.