VEHICLE / ASSET TRACKING

APPLICATION BACKGROUND

Many industries need to track vehicles and other assets for commercial and occupational health, safety and security reasons.

GPS receiver modules are easily obtained to mount on a vehicle or asset and the position of the asset is shown locally.

This application reads the GPS position and routinely sends the position via cell phone or satellite networks to a central server to display on Google Maps using a standard web browser and perhaps exported out to a companion GIS/Land Information System.

This vehicle / asset tracking system is generally used in conjunction with a wider application, such as remote asset monitoring.

There are several applications for mobile maintenance facilities, truck mounted repair facilities for example, where test and commissioning data is collected from oil wells or other assets on a regular maintenance trip. Having the GPS location recorded along with the data is useful as an audit trail of the measurements at different locations.
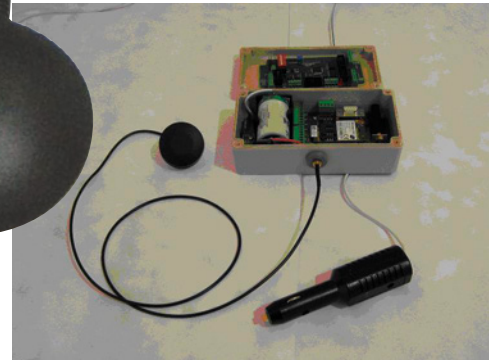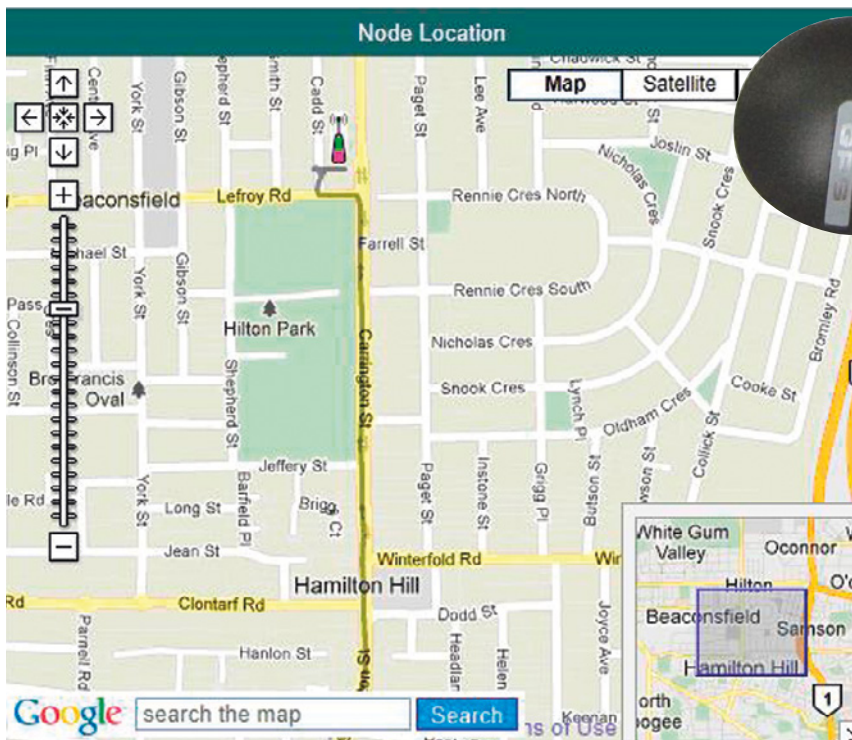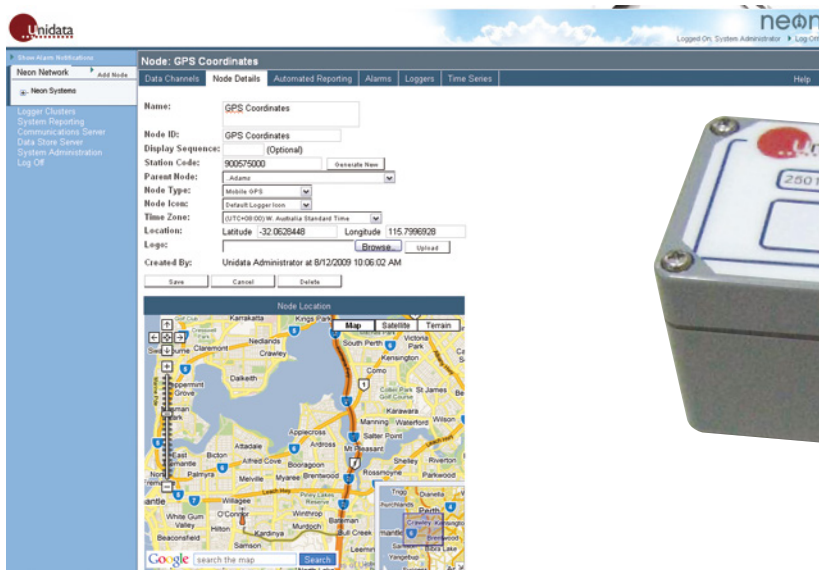
APPLICATION DETAIL

The 2501A Neon GPS Receiver Module is a GPS Receiver with a dedicated interface to the Neon Remote Logger family of products.

The 2501A Neon GPS Receiver Module receives standard NMEA GPS data streams and puts those data streams into registers that can be read by Neon Remote Loggers. The Neon Remote Loggers can be programmed to routinely or on demand obtain the current latitude and longitude and send this position data to the Neon Server.

The system supports Geo Fencing, where the system can alarm when the unit is brought within a specified distance from a location, for example 500 meters from a depot or pumping station.

The Neon Server presents the position data overlaid on a Google maps interface if required, as well as displaying various options for tracking history and tracking of different specified groups. The connected Neon Remote Logger records the latitude and longitude as required by the logging scheme and schedule so the position can be logged in the same way as normal logged data. Hence the position logging is maintained even when there is no cell phone or satellite phone coverage.

Neon Remote Loggers have digital inputs and outputs and available for input or output of tracking status information or operational information.

As an example an input could be connected to a distress button, a disable button, a battery status or vehicle status input. As an example, an output could be connected to a warning light or siren.

	Sensor Name	Channel Type	Data Times		Data Values		Units	Status
Remove	LATITUDE(RAW)	Latitude	From:	27/04/2011 09:27:00	First:-32.5366400	Last:-32.0665516	Dec Mins	Active
			To:	27/07/2011 14:21:11				
Remove	LONGITUDE(RAW)	Longitude	From:	27/04/2011 09:27:00	First:115.7506933	Last:115.7793383	Dec Mins	Active
			To:	27/07/2011 14:21:11				
Remove	NMEAAGE(RAW)	Not Specified	From:	27/04/2011 09:27:00	First:	0		Active
			To:	27/07/2011 14:21:11	Last:	0		
Remove	Internal Battery(RAW)	Not Specified	From:	27/04/2011 09:27:00	First:	3747	mV	Active
			To:	27/07/2011 14:21:11	Last:	3759		
Remove	External Supply(RAW)	Not Specified	From:	27/04/2011 09:27:00	First:	27500	mV	Active
			To:	27/07/2011 14:21:11	Last:	25297		
Remove	SDISTAT(MAX)	Not Specified	From:	27/04/2011 09:27:00	First:	0		Active
			To:	27/07/2011 14:21:11	Last:	0		

TYPICAL CONFIGURATION

APPLICATION SPECIFIC INSTRUMENTS / INPUTS

Options	Unidata Part Number	Description
GPS Receiver with 3G / 4G NRL	3004B-MC00	GPS Receiver with Neon Remote Logger

NEON TELEMETRY - NRL / RTU / FIELD UNITS

Options	Unidata Part Number	Description
Ethernet	3016A-000 / 3008A-000	Neon Remote Logger-16 or 8 Analog Ch / Touch Screen Display
Ethernet & 3G / 4G	3016A-C00 / 3008A-C00	Neon Remote Logger-16 or 8 Analog Ch / Touch Screen Display
Ethernet & 3G / 4G and LoRa	3016A-CL0 / 3008A-CL0	Neon Remote Logger-16 or 8 Analog Ch / Touch Screen Display
Equatorial Orbit Satellite - Inmarsat	3016A-00I / 3008A-00I	Neon Remote Logger-16 or 8 Analog Ch / Touch Screen Display
Equatorial Orbit Satellite - Inmarsat & 3G / 4G	3016A-C0I / 3008A-C0I	Neon Remote Logger-16 or 8 Analog Ch / Touch Screen Display
Low Earth Orbit Satellite - Globalstar	3016A-00G / 3008A-00G	Neon Remote Logger-16 or 8 Analog Ch / Touch Screen Display
Satellite - Iridium Short Burst Data	3016A-00R / 3008A-00R	Neon Remote Logger-16 or 8 Analog Ch / Touch Screen Display
Standalone RTU / NRL - Industrial	3004A-00 / 3004A-0L	Neon Remote Logger-4 Analog Ch with or without Touch Screen Display
Cellular RTU / NRL 3G / 4G - Industrial	3004AC0 / 3004A-CL	Neon Remote Logger-4 Analog Ch with or without Touch Screen Display
M – Series Standalone RTU / NRL	3004B-M000 / 3004B-M0B0	Neon Remote Logger-4 Analog Ch with or without Li Battery
M – Series Cellular RTU / NRL 3G / 4G	3004B-MC00 / 3004B-MCB0	Neon Remote Logger-4 Analog Ch with or without Li Battery
M – Series LoRa RTU / NRL	3004B-ML00 / 3004B-MLB0	Neon Remote Logger-4 Analog Ch with or without Li Battery
M – Series Ethernet RTU / NRL	3004B-MEBL	Neon Remote Logger-4 Analog Ch, Li Battery & LCD are optional
M – Series Microsatellite RTU / NRL	3004B-MHBL	Neon Remote Logger-4 Analog Ch, Li Battery & LCD are optional
M – Series Iridium Short Burst Data RTU / NRL	3004B-MIBL	Neon Remote Logger-4 Analog Ch, Li Battery & LCD are optional

NEON APPLICATION SOFTWARE - CUSTOMER SERVER

Options	Unidata Part Number	Description
Neon Applications Software	2302A	Neon Server Software Licence Incl 5 NAL
Neon Applications Software	2302A-10	Additional 10 NRT Access Licence
Neon Applications Software	2302A-20	Additional 20 NRT Access Licence
Neon Applications Software	2302A-50	Additional 50 NRT Access Licence

NEON HOSTING SERVICE - UNIDATA SERVER

Options	Unidata Part Number	Description
Neon Hosting Service	2301A	Neon Data Initial Subscription Setup Fee
Neon Hosting Service	2301A-01	Neon Data Service Fee for 1-50 NRT
Neon Hosting Service	2301A-02	Neon Data Service Fee for 51-100 NRT
Neon Hosting Service	2301A-10	Neon Data Service Fee Metering

DATALOGGER MANAGEMENT SOFTWARE

Options	Unidata Part Number	Description
Starlog V4 Management Software	6308A-AUE	STARLOG V4 Full Licence Key

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Vehicle / Asset Tracking 3818