

<p>Tango</p>		<p>Dual Band GSM/GPRS 900/1800 eller 850/1900 Data, SMS, tale og fax RS232 interface 10 – 30Vdc</p>
<p>Samba kompakt</p>		<p>Quad Band GSM / GPRS/ EDGE 900/1800 eller 850/1900 Data, SMS, MMS, fax Incl. GSM antenne</p>
<p>Metis</p>		
<p>GM Fax/sms Alarm</p>		<p>Sender besked ved alarm</p>
<p>eWON 2001</p>		<p>PSTN, ISDN, GSM/GPRS RS232, 485, 422 seriel porte eller MPI porte</p>
<p>eWON 4001</p>		<p>GSM / GPRS / PSTN modem RS232, RS485 Ethernet 10/100Mb</p>
<p>eWON 2101</p>		<p>GSM / GPRS / ISDN / PSTN modem RS232, 485, 422 porte eller MPI port Ethernet 10/100Mb port RJ45</p>
<p>Stepp III</p>		<p>Tri Band GSM/GPRS modem med 20 kanaler GPS modtager tale, SMS, data, TCP/IP</p>

The low cost, high-efficient GSM/GPRS modem for industrial applications

- Integrated Dual Band GSM/GPRS core
- Data, SMS, Voice and Fax
- GPRS class B, class 2 or class 10
- CS 1 to 4 and PBCCH support
- Two RS232 interfaces
- Audio Interface
- Software reset functionality
- Car voltage range power supply
- Automotive compliant power connector
- Robust antenna cable with FME connector
- Mounting cradle
- Complete FTA/CE/e1 approval

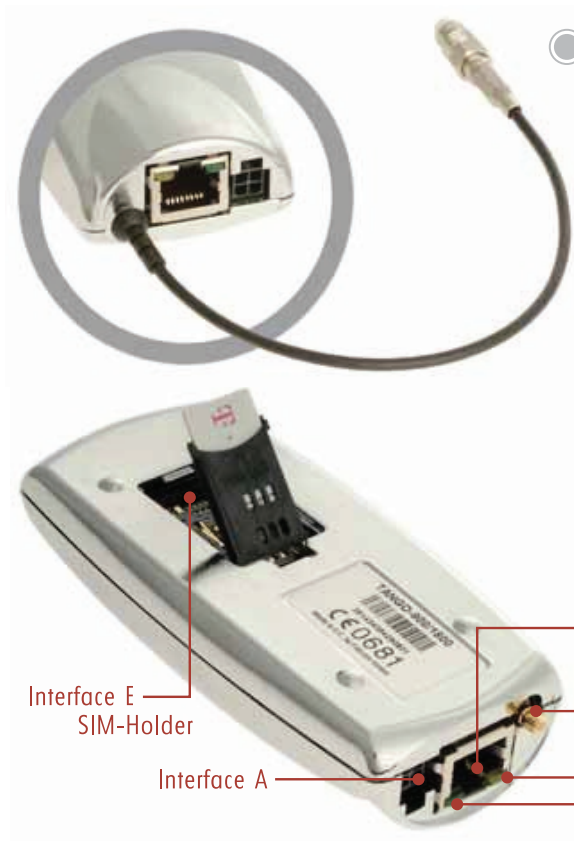


The FALCOM TANGO

is a Plug & Play Dual Band GSM/GPRS device for direct and easy connection to any terminal equipment that is able to handle AT-commands for modem control. The TANGO concept offers two RS232 (V 24, ± 12 V) interfaces, audio interface, car voltage range power supply. The complete and sophisticated GSM/GPRS

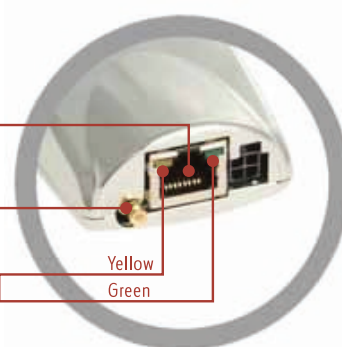
protocol stack, the software reset functionality, the car voltage range power supply as well as the robust mechanical concept are making out of the FALCOM TANGO concept perfect solution for wide range of highly sophisticated telemetry, M2M, remote control and security applications. The set of FTA/CE and e1 approval allows

quick implementation of GSM/GPRS functionality into existing industry and automotive solutions, respectively the creation of completely new systems. System integrators are supported by test- and evaluation software package as well as by full range of all relevant accessories.



Interface specifications

- Interface A: 4pin Micro-Fit™ 3.0 Molex
Part number: 43045-0406 (female)
- Interface B: Standard RS232 serial interface
- Interface C: Audio 8pin RJ45, RS232 (Rx, Tx) serial interface
- Interface D: GSM antenna with SMB or FME antenna connector
- Interface E: SIM card reader for small SIM cards (3 V)
- Interface F: LED's for status indication



technical specifications

Average Current Consumption (mA/12 V)

TANGO GSM			TANGO GPRS Class 2			TANGO GPRS Class 10		
900	1800		900	1800		900	1800	
31	31	Idle mode (-85 dBm)	31	31	Idle mode (-85 dBm)	32	31	Idle mode (-85 dBm)
125	96	Transmit mode (level 7/3)	123	103	Transmit mode (level 7/3)	118	110	Transmit mode (level 7/3)
162	118	Transmit mode (level 5/0)	158	127	Transmit mode (level 5/0)	147	138	Transmit mode (level 5/0)
			GPRS Mode			GPRS Mode		
			160		Transmit mode (level 5)	257		Transmit mode (level 5)

Certification	Power Supply	Dimensions
Complete FTA/CE and e1 approval	DC 10,8 - 31,2 V	52 x 24,4 x 111,5 mm
GSM/GPRS Engine	Interfaces	Weight
Wismo Quick Q2400 series	D-Sub 9pin (female): RS232 (Master)	82,6 g with SMB connector
	RJ45 8pin (shielded): RS232 (Rx, Tx) (Slave)	88,0 g with FME connector
	Audio (Headset), power output	
	Micro-Fit™ 3.0 4pin (female): power input	Temperature Range
	Antenna cable with FME or SMB (female)	operation: -20 to +55 °C
	connector for Dual Band GSM antenna	storage: -30 to +85 °C
	SIM card reader: small SIM cards	

Quad Band GSM/GPRS/EDGE Modem

- Integrated Quad Band GSM/GPRS/EDGE engine
- GSM 850/900/1800/1900 MHz
- Data, Fax, SMS, MMS
- Audio/Video streaming
- Integrated SIM interface
- GSM antenna included
- Plug-n-Play
- Integrated USB-Hub
- Very lightweight
- World-wide applicable



The FALCOM SAMBA 75

is a Plug-and-Play, compact, light-weight, wireless modem that provides EDGE, GPRS and GSM connectivity for portable, handheld computers and others. The major benefit over earlier SAMBA GSM/GPRS modem is that SAMBA75 supports EDGE and additionally offers a TCP/IP stack.

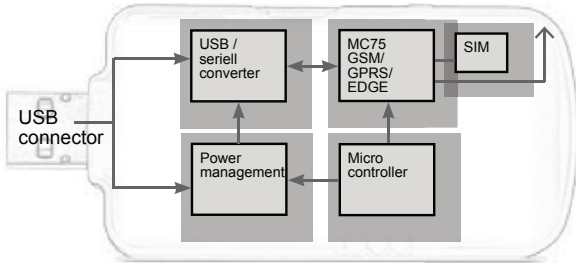
SAMBA75 allows subscribers to send and receive data, including digital images, web pages and photographs, with a transfer rate three times higher than possible with GSM/GPRS services. It supports MMS, SMS & fax.



It can be easily controlled by using AT command for all kinds of operations.

The SAMBA75 is designed for use on any GSM network in the world.

Block diagram



Software driver

Modem driver,
RIL/NDIS driver - for
Microsoft® Windows
2000/XP/Mobile

Hardware requirements

- Pentium® 90 or higher with
- CD-ROM drive
- A valid SIM card
- Free compatible USB port
- Appr. 6 Mb of free hard disk space



Technical specification

General	Basic features
Quad-Band GSM/GPRS/EDGE modem	SMS (GSM and GPRS mode): text and PDU,
850 / 900 / 1800 / 1900 MHz	SMS, MMS
Class 4 (2W) for EGSM900	point to point MT and MO, SMS broadcast
Class 1 (1W) for DCS1800 / PCS1900	GSM circuit data features: transparent and
Small size and low power consumption	non transparent up to 9600 bps, group 3: class 1,
Fax / data transmission without extra hardware	class 2, alternate fax, MNP 2
Internal 3 V SIM interface	
Easy remote control by AT commands for dedicated applications	
Fully type approved according to GSM phase 2+ specification	GPRS packet data features:
Fully shielded and ready-to-use	data uplink transfer: max. 42.8 kbps;
	data downlink transfer: max. 85.6 kbps;
	coding schemes CS-1 to CS-4
Electrical characteristics	WAP compliant and compliant with SMG 31
Power supply: +5 V DC (through USB port)	
Physical characteristics	EDGE features:
Dimensions: (L x W x H)	data transfer max. 384 kbps
88.7 mm x 37.6 mm x 12.6 mm	provides audio/video streaming
Weight: 79 g	
Normal range temperature: -20°C to +55°C	
restricted operation:	
-30°C to -20°C and +55°C to +65°C	
Interfaces	Other features
Single antenna interface	SIM, network and service provider locks
Internal SIM interface: 3 V only	Real time clock
USB serial link	UCS 2 character set management

GM 1110005 GSMAlarm

GM GSMAlarm is a versatile alarm transmission device for GSM-networks. The device has connectors for four detectors, one by-pass switch, one temperature detector and two outputs, one for local alarm and one remotely controllable.

Reliable and easy-to-use **GM GsmAlarm** sends alarms and status information via SMS to guard-centers or straight to your mobile phone. The settings of

GM GsmAlarm can be altered locally with cable, remotely with SMS or remotely with GSM-data connection. This way changing parameters after installation can be done easily.

GM GsmAlarm is presented in three different enclosure options and with a wide range of accessories to ensure the scalability to a customers needs.



Specifications:

- 4 inputs
- 1 bypass-switch input
- 1 temperature detector input
- 1 alarm relay output
- 1 relay output for remote controlling via SMS
- Input voltage +12...+28V
- Temperature sensor Dallas DS1820

Sende SMS, E-mail, Fax fra din S7- 300, 400

Ønsker du at:

- Overvåge din proces
- Sende SMS, E-mail, Fax ved alarmer.

Beskrivelse:

- **GM** har udviklet software til overførsel af alarmer fra S7 PLC, der giver mulighed for at overføre alarmer til Mobiltelefon, E-mail og Fax.
- **GM** leverer modem, antenne og softwarepakke klar til installation, med mulighed for at indlægge egne tekster (40 karakter).
- Der er funktions menu til indtastning af modtagernumre og -beskeder.

Address	Name	Type	Initial value	Comment
0.0		STRUCT		
+0.0	Str_1	STRING[40]	'Alarm - vandstand lav i bassin'	Tekst 1 max. 40 karakter
+42.0	Str_2	STRING[40]	'Alarm - generel maskinfejl'	Tekst 2 max. 40 karakter
+84.0	Str_3	STRING[40]	'Alarm - oliefilter'	Tekst 3 max. 40 karakter
+126.0	Str_4	STRING[40]	'Alarm - tekst streng 4'	Tekst 4 max. 40 karakter
+168.0	Str_5	STRING[40]	'Alarm - tekst streng 5'	Tekst 5 max. 40 karakter
=210.0		END_STRUCT		

Hvad indeholder **GM Fax/sms Alarm**:

- GM 1110001** Intelligent GSM-modem
- GM 1110030** GSM skabs- el. rude antenne
- Alarm Software** Software benyttes sammen med dit PLC program
- TS adapter** Simatic TS adapter, V5.2 el. større
- GM 1110020** RS232, kabel 1,8m

Uden for tilbud:

1. TDC's data sim kort

Bestilling og levering:

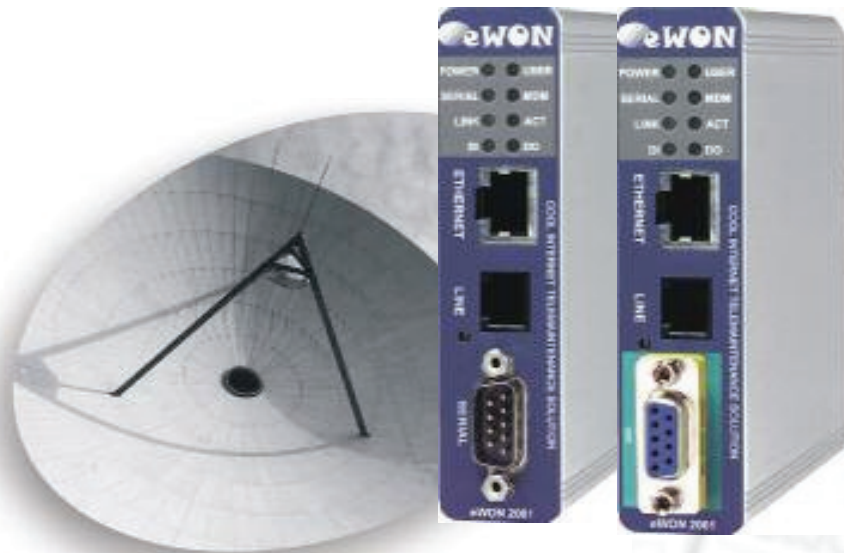
- **Varenummer:** **GM Fax/sms Alarm**
- **Pris:** p.f.
- **Bestilling:** Telefon: 7020 4840, Fax: 7020 4847
- **Levering:** 2 uger.

You select...
You
 We connect
we

- Embedded PSTN, ISDN, GSM/GPRS modem
- Ethernet 10/100Mb port RJ45
- RS232,485,422 serial port or MPI port
- Transparent gateway:
 - MODBUS TCP/RTU
 - FINS TCP/Hostlink
 - ISOTCP / MPI,PPI
 - EthernetIP /DF1
 - XIP /Unitelway
- Alarms managements on PLC variable
- Alarms Notification by SMS, email or trap SNMP
- Embedded firewall
- 24 VDC Power supply, Rail DIN mounting
- 1 x digital Input (alarms) and 1 x Digital Output (fail Safe)
- Configuration by Web Page



eWON2001 Industrial IP Router



Typical Applications

- Industrial TCP/IP Router
- PLC Remote Maintenance (teleservice) by PSTN, ISDN, GSM/GPRS
- Alarms management and notification

PLC and Device Support

- Schneider TSX Premium & Micro with UNITELWAY and XIP
- Schneider TWIDO with MODBUS/RTU
- Schneider Momentum/Quantum with MODBUS TCP and RTU
- Wago I/O modules with MODBUS TCP or RTU
- Siemens S7-200 with PPI, Siemens S7-300/400 with MPI and ISOTCP
- Allen Bradley SLC500 and Logix family with DF1 and EthernetIP
- Omron CJ and CS with FINS TCP/UDP and FINS Hostlink
- LEM QWave power quality analyzer and much more...

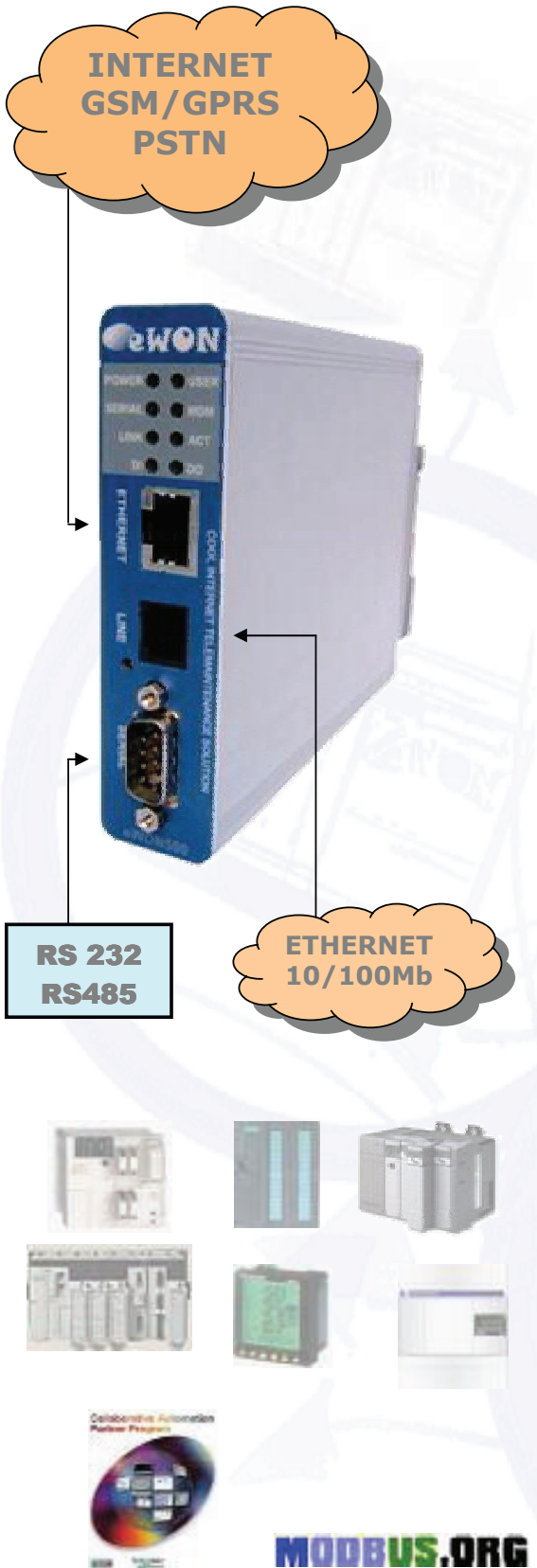
Highlights

- PLC Remote maintenance on the programming serial port with the original PLC Software
- PLC Remote maintenance on the Ethernet port with the original PLC Software
- Tagnames data acquisition by Modbus, DF1, FINS Hostlink, PPI, MPI, Unitelway serial protocol and ISOTCP, EIP, MODBUS TCP, FINS TCP Ethernet protocol
- Alarms management on user threshold and notification by email, FTP put and SNMP trap
- Configuration by Embedded Web Page

Gateways Ethernet/serial	<ul style="list-style-type: none"> - MODBUS TCP / MODBUS RTU - XIP / UNITE - Ethernet IP / DF1 - FINS TCP / FINS Hostlink - ISO TCP / PPI-MPI - VCOM / ASCII
Programmable Gateways	MPI, PPI, DF1, Unitelway, FINS Hostlink to MODBUS/TCP or SNMP ASCII dedicated protocol to FTP, SNMP, MODBUS/TCP.
Data Acquisition	Data Acquisition (Tagnames) in MODBUS/RTU, MODBUS/TCP, Unitelway, DF1, PPI, MPI, FINS Hostlink, FINS TCP, Ethernet IP, ISO TCP, ASCII Protocol.
Alarms	Alarms notification by email, FTP put and/or traps SNMP. Threshold: low, lowlow, high,highhigh + deadband and activation delay. Alarms logs in http and via FTP Alarms cycle: ALM, RTN, ACQ et END.
Script	Dedicated application to be programmed with the Basic language.
Synchronization	Embedded real-time clock, manual setup via http or automatic NTP setup
File Management	FTP client and server for configuration, firmware update and data transfer.
Web Site	Security: DAA and session control. HTML standard supports all of the PDA browsers. eWON system and user Web site.
MPI	MPI embedded controller certified up to 1,5 Mbds
Maintenance	SNMP V1 with MIB2 and/or via FTP files
Materials	<p>ARM processor @75Mhz, 16Mb SDRAM, 8Mb Flash, Din Rail Mounting Power supply 12 - 24VDC +/-20%, SELV; consumption: 3-6 watts 1x SUBD9 serial port RS232, RS485 not isolated or MPI port isolated. 1x RJ45 Ethernet 10/100 baseTx; 1,5kV isolation 1x digital input: 0/24VDC; 3,5kV isolation 1x digital output: open collector 200mA@30VDC; 3,5 kV isolation</p> <p>Embedded modem : PSTN 56kbds, ISDN or GSM/GPRS class10</p> <p>Operating Temperature range: 0° to 50°C, 80% humidity (no condensation). Dimensions : 120(Depth) x 105(Height) x 26(Width) mm; Weight : <300gr CE, UL labelled</p>

Product Reference

Reference EW212xy	<p>where</p> <ul style="list-style-type: none"> - x = 0 with serial port RS232, 422 ou 485 - x = 6 with MPI port - y = 4 PSTN 56kbds embedded modem - y = 5 GSM/GPRS EU embedded modem - y = 3 ISDN EU embedded modem
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PLC Remote Maintenance

- Schneider TSX Premium & Micro with UNITELWAY
- Schneider TWIDO with MODBUS/RTU
- Schneider Momentum/Quantum with MODBUS
- Wago I/O modules with MODBUS
- Siemens S7-300/400 with MPI (via eLINK)
- Allen Bradley with DF1
- Any PLC/Equipment with Ethernet TCP/IP

Remote Service

- Data Acquisition with UNITE, MODBUS, DF1, MPI
- Data logging in internal data base
- Alarms on limits to be configured
- Notification by email, SMS, FTP put and SNMP trap
- Report emission (maintenance, worked time...) preconfigured in Word, Excel, Html, CSV
- Remote MMI (Light Client) by browser, PDA...
- System and user defined Web pages

Remote Control

- Data retrieval in data base via FTP
- Applications in ASP mode
- SCADA or supervision software

RAS modem, IPR

- PPP remote access with PAP,CHAP support
- Embedded firewall, NAT
- IP address filtering
- TCP/IP routing table
- Classical point to point callback
- Internet callback

Configuration

- By embedded system Web pages
- FTP files upload and download

Characteristics

- 1 x digital input
- 1 x digital output
- Ethernet port 10/100Mb
- Serial port RS232, RS422 or RS485
- Embedded modem in option: PSTN, GSM/GPRS

Remote Maintenance	PLC point to Point RAS or Internet remote access: <ul style="list-style-type: none"> - Premium & Micro with PL7pro - Twido with Twidosoft - Momentum and Quantum with Concept - Wago I/O modules with Wago I/O Pro 32 - S7-300 and S7-400 with Simatic Manager STEP7 (via eLINK) - Allen Bradley with RSLogix and any PLC / device / equipment with TCP/IP
Remote Service	Data acquisition (Tagnames) in MODBUS/RTU, MODBUS/TCP, UniTelWay, DF1, MPI (via eLINK) & serial ASCII Protocol. 'Tagnames' enable alarm management, Basic programming, custom Web pages, reporting...
Data Logging	Internal data base for data logging 21.000 points. Retrieval of the data base with files transferred by FTP put or email attachment.
Alarms	'Tagname' database: 128Kb. Alarm Notification by email, SMS, FTP put and/or SNMP trap. Available standard limits to configure: Very Low, Low, High, Very High + Dead zone and activation delay. Alarm summary and historian available in HTTP and via FTP files transfer. Alarm cycle management: ALM, RTN, ACQ and END.
MMI	HTTP: System and user defined Web site. SNMP: 'TagName' read/write FTP: whole set of parameters are available in files
CallBack	Call back on user request or on amount of rings. Direct or Internet call back (supports dynamic DNS)
FireWall	IP filtering
Script	Dedicated application to be programmed with the Basic language.
Router	IP forwarding, NAT, port forwarding and routing tables.
Internet	RAS connection (PPP), PAP/CHAP security. Data compression, ISP connection (Internet Service Provider) primary et secondary, supports DNS.
Synchronization	Embedded real-time clock, manual setup via http or automatic NTP setup
File Management	FTP client and server for configuration and data transfer.
Web Site	Security: DAA and session control. HTML standard supports all of the PDA browsers. eWON system and user Web site. SSI technology (Server Side Include) and BASIC scripted ASP (Active Server Pages).
Maintenance	SNMP V1 with MIB2 and/or via FTP files
Material	ARM processor @75Mhz, 8Mb SDRAM, 8Mb Flash, Din Rail Mounting Power supply 12 - 24VDC +/-20%, SELV; consumption: 3-6 watts 1x SUBD9 serial port: RS232, RS422 or RS485, 1,5kV isolation 1x RJ45 Ethernet 10/100 baseTx; 1,5kV isolation 1x digital input: 0/24VDC; 3,5kV isolation 1x digital output: open collector 200mA@30VDC; 3,5 kV isolation Option: embedded modem : PSTN or GSM/GPRS Operating Temperature range: 0° to 50°C, 80% humidity (no condensation). Dimensions : 120(Depth) x 105(Height) x 26(Width) mm; Weight : <300gr CE, UL labelled

Product Reference

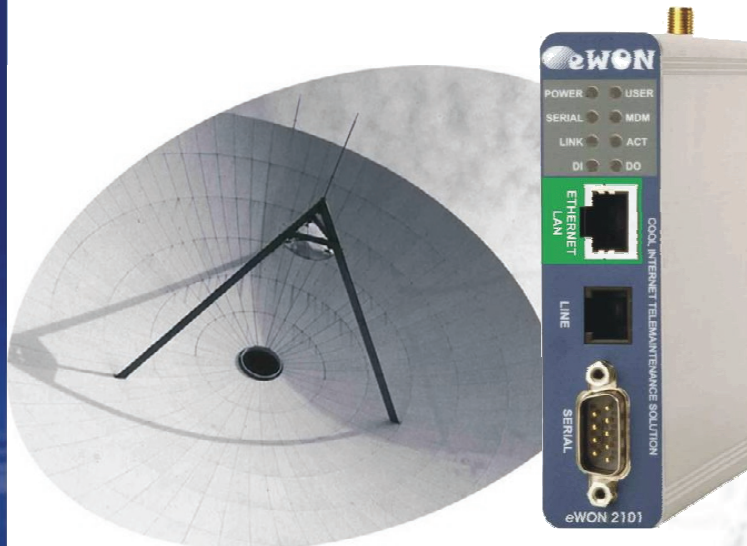
Reference	Description
EW41201	eWON 4001, Ethernet
EW41202	eWON 4001, PSTN33 modem
EW41205	eWON 4001, GSM/GPRS modem

You select...
 You
 We connect
 we

- Ethernet 10/100Mb port RJ45
- RS232,485,422 serial port or MPI port
- One embedded modem:
 - PSTN
 - ISDN
 - GSM/GPRS
- 24 VDC Power supply, Rail DIN mounting
- 1 x digital Input (alarms) and 1 x Digital Output (fail Safe)
- SSL based VPN with static or certificate public key encryption
- Gateways serial protocol for Rockwell, Schneider, Omron and Siemens PLC
- Alarms Managements on PLC variables
- Configuration by Web Page
- Embedded firewall with NAT and IP filtering



eWON2101 Industrial VPN Router



Typical Applications

- GPRS for remote PLC Control & Maintenance
- Secure Dial-up Internet for Remote Control & maintenance
- Centralized Monitoring on GPRS network

PLC and Device Support

- Schneider TSX Premium & Micro with UNITELWAY and XIP
- Schneider TWIDO with MODBUS/RTU
- Schneider Momentum/Quantum with MODBUS TCP and RTU
- Wago I/O modules with MODBUS TCP or RTU
- Siemens S7-200 with PPI, Siemens S7-300/400 with MPI and ISOTCP
- Allen Bradley SL500 and Logix family with DF1 and EthernetIP
- Omron CJ and CS with FINS TCP and FINS Hostlink
- LEM QWave power quality analyzer and much more...

Remote Service

- Data Acquisition on serial link with UNITE, MODBUS RTU, DF1, PPI, MPI and Hostlink and on Ethernet port with MODBUS TCP, EIP, FINS TCP, ISO TCP
- Alarms management and notification by email, SMS, FTP put and SNMP trap
- Remote Maintenance with the original PLC Software on Ethernet or serial PLC port
- Remote access and control by standard Internet browser, PDA...
- Configuration by Embebbed Web Page

Routing & VPN

- VPN tunnel with shared key or PKI cert
- Firewall, NAT and IP filtering
- Internet callback and GPRS always connected features
- Dynamic IP DNS support

Ethernet/serial Gateway	<ul style="list-style-type: none"> - MODBUS TCP / MODBUS RTU - XIP / UNITE - Ethernet IP / DF1 - FINS TCP / FINS Hostlink - ISO TCP / PPI-MPI - VCOM / ASCII
Remote Service	Data acquisition (Tagnames) in MODBUS/RTU, MODBUS/TCP, Unitelway, DF1, PPI, MPI, Hostlink, FINS TCP, Ethernet IP, ISO TCP & serial ASCII Protocol.
Alarms	<p>Alarm Notification by email, SMS, FTP put and/or SNMP trap. Available standard limits to configure: Very Low, Low, High, Very High + Dead zone and activation delay. Alarm summary and historian available in HTTP and via FTP files transfer. Alarm cycle management: ALM, RTN, ACQ and END.</p>
MMI	<p>HTTP: System and user defined Web site. SNMP: 'TagName' read/write FTP: whole set of parameters are available in files</p>
CallBack	Call back (direct or by Internet) on user request or on amount of rings.
Router, FireWall	NAT, IP filtering& forwarding, NAT, Dynamic DNS support.
Script	Dedicated application to be programmed with the Basic language.
VPN	Based on OpenVPN 2.0, a SSL VPN solution based on SSL/TLS industry standard protocol.
VPN security	The VPN security model is based on using SSL/TLS for session authentication and the IPSec ESP protocol for secure tunnel transport over UDP. It supports the X509 PKI (public key infrastructure) for session authentication, the TLS protocol for key exchange, the cipher-independent EVP (DES, 3DES, AES, BF) interface for encrypting tunnel data, and the HMAC-SHA1 algorithm for authenticating tunnel data.
Internet	RAS connection (PPP), PAP/CHAP security. Data compression, ISP connection (Internet Service Provider) primary et secondary, supports DNS.
Synchronization	Embedded real-time clock, manual setup via http or automatic NTP setup
File Management	FTP client and server for configuration, firmware update and data transfer.
Web Site	Security: DAA and session control. HTML standard supports all of the PDA browsers. eWON system and user Web site. SSI technology (Server Side Include) and BASIC scripted ASP (Active Server Pages).
Maintenance	SNMP V1 with MIB2 and/or via FTP files
Materials	<p>ARM processor @75Mhz, 16Mb SDRAM, 8Mb Flash, Din Rail Mounting Power supply 12 - 24VDC +/-20%, SELV; consumption: 3-6 watts 1x SUBD9 serial port RS232, RS485 not isolated or MPI port isolated. 1x RJ45 Ethernet 10/100 baseTx; 1,5kV isolation 1x digital input: 0/24VDC; 3,5kV isolation 1x digital output: open collector 200mA@30VDC; 3,5 kV isolation Option: embedded modem : PSTN 56kbds, ISDN or GSM/GPRS Operating Temperature range: 0°to 50°C, 80% humidit y (no condensation). Dimensions : 120(Depth) x 105(Height) x 26(Width) mm; Weight : <300gr CE, UL labelled</p>

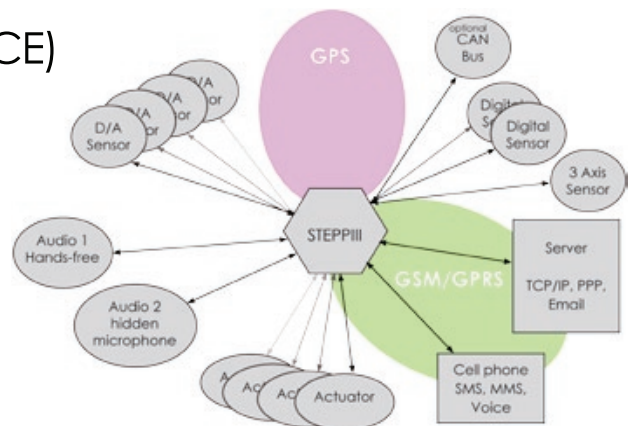
Product Reference

Reference	where
EW232xy	<ul style="list-style-type: none"> - x = 0 for RS232, 422 or 485 serial port - x = 6 for MPI port (coming mid 2006) - y = 3 for embedded ISDN EU modem - y = 4 for embedded PSTN 56K modem - y = 5 for embedded GSM/GPRS EU modem - y = 6 for embedded GSM/GPRS US modem

STEPP III

Automotive Vehicle Location solution

- Quad Band GSM/GPRS Engine
- Voice, SMS, Data, TCP/IP
- High sensitive 20 channel SiRFstarIII GPS
- Li-Polymer (1100 mA) backup battery
- Automotive temperature range
- Configurable history function
- Configurable geo-fencing
- CAN interface (optional)
- Fully specified (FTA, FCC, E1, CE)
- 3-Axis motion sensor
- Online Tracking
- Evalkit including evaluation and configuration tool



The FALCOM STEPP III

is a Plug & Play GSM/GPRS/GPS terminal with an embedded configurable software application. The device concept is targeting for direct implementation as a mobile client in a wide range of high volume, low-cost, flexible system solutions like AVL, fleet management, vehicle security and recovery and other related areas.

The tracking functionality of the embedded mobile client application is combined with variety of alert messaging capabilities. The configurable alert messages contain current position and status report and use 2 digital and 4 analogue inputs and 4 digital outputs as hardware backbone. In addition to that two predefined inputs are detecting ignition line and main power (car battery) failure. Depending on the specific system

solution scenario four digital outputs allow the remote control of external actuators. The integrated two audio channels allow voice communication too.

The STEPP III concept reduces the efforts for the creation of a turn key tracking and security solution to the definition of the server (dispatcher) application. In this way the time-to-market, the design-in risk and the total cost of solution are substantially reduced.

The STEPP III-Evalkit provides an easy and efficient way to evaluate and configure all system parameters of the mobile client. The configuration of the STEPP III can be done via local serial link or remotely via the GSM network.

Software features

- Configurable geo-fencing
- Configurable history with more than 300.000 records
- Configurable localisation and status report upon dispatcher request
- Configurable localisation and status report by timer
- Configurable two digital and four analogue inputs for alert messaging
- Four digital outputs for remote control of external actuators
- Configurable sleep mode
- Controlled by PFAL commands
- Voice, SMS, CSD, TCP, e-mail



Applications

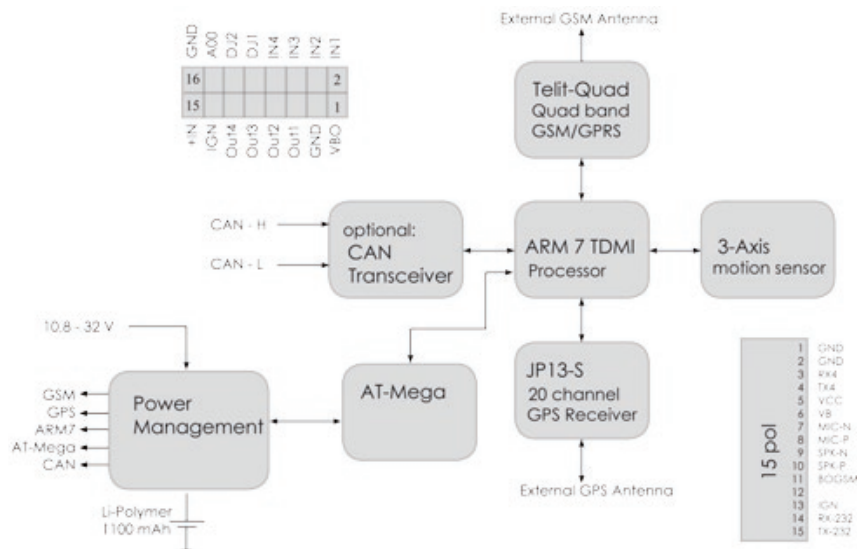
- Fleet management
- Vehicle management
- Remote tracking and monitoring
- Safety and security
- Off-road applications
- Real-time Navigation and Positioning
- Pay-as-you-drive

trace4you

- Real time tracking
- History data
- Geofence etc.



Block diagram



Technical specification

GSM / GPRS core	Hot start (open sky): < 1 sec., average
STEEP III: Telit GE864-QUAD module	Cold start: < 42 sec., average
850/900/1800/1900 MHz	
GSM services	Power supply
Phone, Data, SMS	DC 10,8 - 31,2 V
	Build-in Lilon battery
GPRS services	Physical characteristics
GPRS class B, class 10	Dimensions (LxWxH): 55 x 88 x 22 mm
TCP/IP (accessible via PFAL commands)	Weight: approx. 120 g
Processor	Temperatur range
ARM7/TDMI	Operation*: -30 ° to +80 °C
	Charging: 0 ° to +40 °C
	Discharging: -20 ° to +60 °C
GPS core	Interfaces
OEM single board 20 channel GPS receiver	16pin MOLEX 43045-1609:
C/A code: 1.023 MHz chip	2 digital inputs, 4 analogue inputs
SIRFstarIII	4 digital outputs, ignition, power input,
TXCO	15pin AMP 5-558556-1:
Casing: fully shielded	RS232 (Rx, Tx),
Memory: 2 MB / 512 kB	Speaker, Microphone,
GPS datum	Power Output, Vbatt
WGS-84	SIM card reader for small 3 V SIM cards
DGPS accuracy	GPS RF connector 50 Ohm FAKRA/Radiall
Position 1 to 5 m typical	GSM RF connector 50 Ohm FAKRA/Radiall
Velocity 0.05 m/sec typical	3 LED's (user programmable)
GPS acquisition rate	Motion sensor
Hot start: < 18 sec., average	3 axis motion sensor

*These temperatures can affect the sensitivity and performance of the unit

Ved du, hvor din **Båd** er?

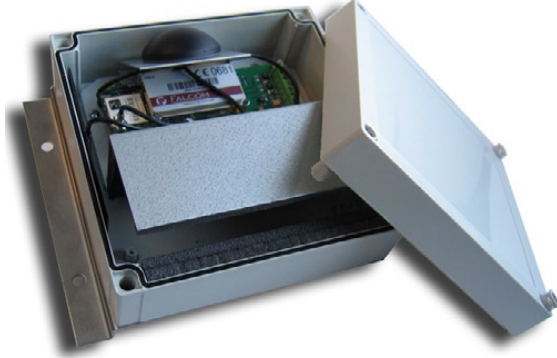
Med GM 1110008 har du altid overblik over hvor din båd befinder sig. GM 1110008 kombinerer GPS og GSM. Den har indbygget batteri med lang levetid, og så er den hurtig og nem at installere på en båd.



GM 1110008 giver dig:

- daglig rapport fra båden med position og batteri status.
- bevægelses sensor sender alarm, hvis båden fjernes eller bevæger sig uden tilladelse.
- indbygget batteri med mindst to års levetid, og i den daglige rapport kan man samtidig med positionen se, hvor lang levetid der er tilbage på batteriet.

Tekniske oplysninger:



- GM 1110008 er indbygget i en IP 65 standard slagfast plastik kasse. Kassen er vandtæt beregnet til udendørs montering
- Størrelse er 18x18x7,5 cm
- Vægt 2 kg med 17 Ah indbygget batteri
- GPS og GSM antenne er indbygget i kassen
- 2 års batteri levetid ved almindelig brug
- 2 digital sensor indgange
- Bevægelses-sensor som sender alarm, hvis båden bevæger sig. Muligvis kun hvis båden er på land
- 2 relæ-udgange, som kan aktiveres med SMS.

GM 1110008 vil sende en daglig position, sammen med positionen kommer der status af batteriet.

Fra en PC med kortsoftware og et GSM modem modtages alarmer og daglige positioner. Man har hurtigt overblik, hvor alle de både der er tilsluttet systemet, befinder sig.

Når båden ikke er i brug (på land) aktiveres bevægelses-sensoren (evt. med SMS). Så længe båden ikke bevæger sig, vil den automatisk sende en daglig rapport. Hvis båden flyttes, bliver der inden for 30 sekunder sendt en SMS, der fortæller at liften nu bevæger sig.

Fra en PC sendes en SMS til GM 1110008 med spørgsmål om hvor den befinder sig.

GM 1110008 sender derefter en position som kan ses på kortet.

GM 1110008 kan monteres flere steder på båden. GM 1110008 kan leveres med en stålramme, der beskytter mod slag og hærværk.

Kontakt GreenMatic for yderligere oplysninger og demonstration af GM 1110008 med kortsoftware.

Det er billigere end man tror.

Ved du, hvor din **Lift** er ?

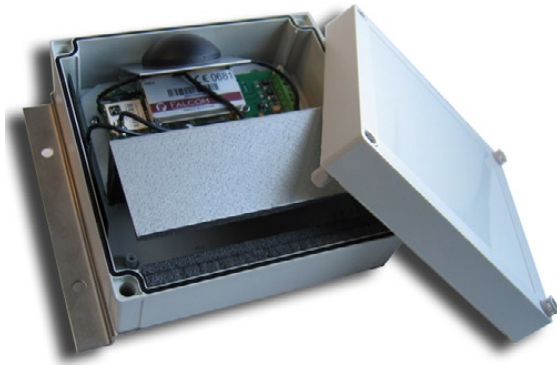
Med GM 1110009 har du altid overblik over hvor din lift befinder sig. GM 1110009 kombinerer GPS og GSM. Den har indbygget batteri med lang levetid, og så er den hurtig og nem at installere på en lift.



GM 1110009 giver dig:

- daglig rapport fra liften med position og batteri status.
- bevægelses sensor sender alarm, hvis liften fjernes eller bevæger sig uden tilladelse.
- indbygget batteri med mindst to års levetid, og i den daglige rapport kan man samtidig med positionen se, hvor lang levetid der er tilbage på batteriet.

Tekniske oplysninger:



- GM 1110009 er indbygget i en IP 65 standard slagfast plastik kasse. Kassen er vandtæt beregnet til udendørs montering
- Størrelse er 18x18x7,5 cm
- Vægt 2 kg med 17 Ah indbygget batteri
- GPS og GSM antenne er indbygget i kassen
- 2 års batteri levetid ved almindelig brug
- 2 digital sensor indgange
- Bevægelses-sensor som sender alarm, hvis liften bevæger sig.
- 2 relæ-udgange, som kan aktiveres med SMS.

GM 1110009 vil sende en daglig position, sammen med positionen kommer der status af batteriet.

Fra en PC med kortsoftware og et GSM modem modtages alarmer og daglige positioner. Man har hurtigt overblik, hvor alle de lifte, der er tilsluttet systemet, befinder sig.

Når liften ikke er i brug aktiveres bevægelses-sensoren (evt. med SMS). Så længe liften ikke bevæger sig vil den automatisk sende en daglig rapport. Hvis liften flyttes, bliver der inden for 30 sekunder sendt en SMS, der fortæller, at liften nu bevæger sig. Fra en PC sendes en SMS til GM 1110009 med spørgsmål om hvor den befinder sig. GM 1110009 sender derefter en position som kan ses på kortet.

GM 1110009 kan monteres uden på liften. GM 1110009 kan leveres med en stålramme, der beskytter mod slag og hærværk.

Kontakt GreenMatic for yderligere oplysninger og demonstration af GM 1110009 med kortsoftware.

Det er billigere end man tror.

Ved du, hvor din **TRAILER** er?

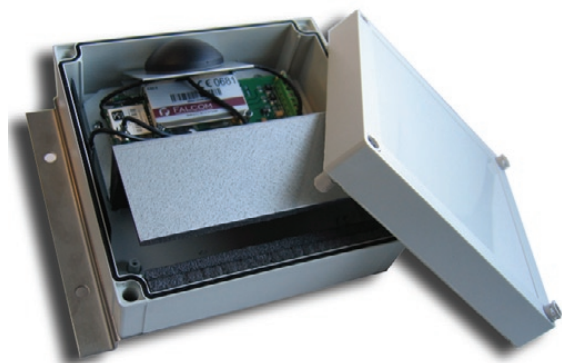
Med GM 1110010 har du altid overblik over hvor din trailer befinder sig. GM 1110010 kombinerer GPS og GSM. Den har indbygget batteri med lang levetid, og så er den hurtig og nem at installere i en trailer.



GM 1110010 giver dig:

- daglig rapport fra traileren med position og batteri status.
- bevægelses sensor sender alarm, hvis traileren fjernes uden tilladelse.
- indbygget batteri med mindst to års levetid, og i den daglige rapport kan man se, hvor lang levetid der er tilbage på batteriet.

Tekniske oplysninger:



- GM 1110010 er indbygget i en IP 65 standard slagfast plastik kasse. Kassen er vandtæt beregnet til udendørs montering
- Størrelse er 18x18x7,5 cm
- Vægt 2 kg med 17 Ah indbygget batteri
- GPS og GSM antenne er indbygget i kassen
- 2 års batteri levetid ved almindelig brug
- 2 digital sensor indgange
- Bevægelses-sensor som sender alarm, hvis traileren bevæger sig.
- 2 relæ-udgange, som kan aktiveres med SMS.

GM 1110010 vil sende en daglig position, sammen med positionen kommer der status af batteriet.

Fra en PC med kortsoftware og et GSM modem modtages alarmer og daglige positioner. Man har hurtigt overblik, hvor alle de trailere, der er tilsluttet systemet, befinder sig.

Parkér traileren og aktivér bevægelses-sensoren (evt. med SMS). Så længe traileren ikke bevæger sig vil den automatisk sende en daglig rapport. Hvis traileren flyttes, bliver der inden for 30 sekunder sendt en SMS, der fortæller, at traileren nu bevæger sig.

Fra en PC sendes en SMS til GM 1110010 med spørgsmål om hvor den befinder sig. GM 1110010 sender derefter en position som kan ses på kortet.

GM 1110010 kan monteres uden på traileren. Hvis taget ikke er af metal, kan den også monteres indvendigt. GM 1110010 kan leveres med en stålramme, der beskytter mod slag og hærværk.

Kontakt GreenMatic for yderligere oplysninger og demonstration af GM 1110010 med kortsoftware.

Det er billigere end man tror.

Dual band Base antenna GM 1110044

GM 1110044 is high effective base/marine antenna for the 900/1800 MHz band. The antenna is the newest base antenna in the BA antenna family.

The metal parts are made of surface threaded brass. The glass fibre tube is covered with white UV-protecting paint, and can withstand all weather conditions.

Rugged design, which can stand all weather conditions.

Specifications:

GM 1110044

- Band: 900 MHz
- Antenna type: $\frac{1}{2}$ wave broad banded dipole
- Gain: 0 dBd
- Frequency range: 890 - 960/1710-1880 MHz
- Polarisation: Vertical
- SWR 70 MHz BW: $\leq 1,5$
- Max power: 50 W
- Connector: FME-female
- Total Length: App. 30 cm
- Weight: App. 380 g
- Cable: 20 m, RG 58



GM 1110044

SPSMAP

Internet (Google) based mapping and Satellite software for Falcom STEPP, Mopas and SecuTrack

Introduction

SPSMAP is a program which gives the user the opportunity to retrieve a position from Falcom STEPP, MOPAS or SecuTrack (Track). Since all communication is based on SMS a GSM modem is required for communication. The GSM modem must have a character set which supports _, some of the Siemens based modems does not support this. Please contact SPS for modem.

Only STEPP, MOPAS or SecuTrack sold by SPS can be used with this program.

Mapping software

The position is shown on the Google map retrieved from the Internet. When a position has been reviewed as a SMS the position is shown on the Google map. SPS is not responsible for the quality of the maps for your area.

It is assumed the computer has access to the Internet.

Modes of operation

Installation

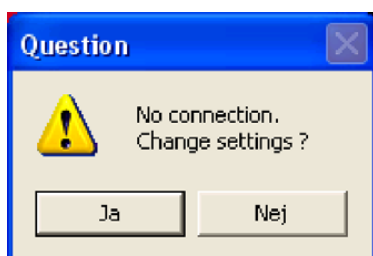
SPSMAP is delivered on a Floppy disk or download from the Internet. There is no sophisticated installation program for SPSMAP. To install SPSMAP perform the following simple STEPP.

- Create a directory SPSMAP
- UNZIP SPSMAP to this directory, use the password received from SPS when SPSMAP was purchased.
- Create an ICON for SPSMAP.
- SPSMAP is now ready to run.

Running SPSMAP

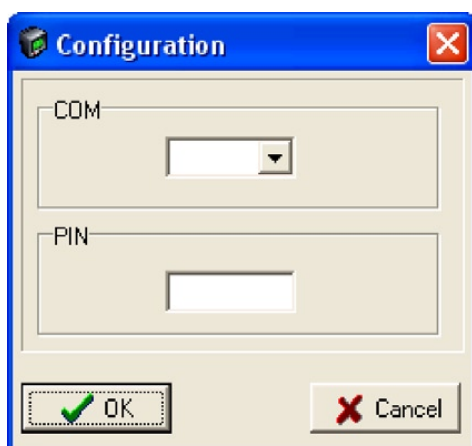
Make the GSM modem ready, this includes inserting a SIM card and remember the PIN code. Remember the COM port where the GSM modem is connected to the computer. Turn the GSM modem on.

First time GSM MAP is started the user must define the communication parameters, the following menu will appear.



Answer Ja/Yes

The following menu will now appear



Select the COM port where the GSM modem is connected, if there is a PIN code write the pin code and select OK.

Organisation of units in SPSMAP.

All units are organised in groups and within each group by name.

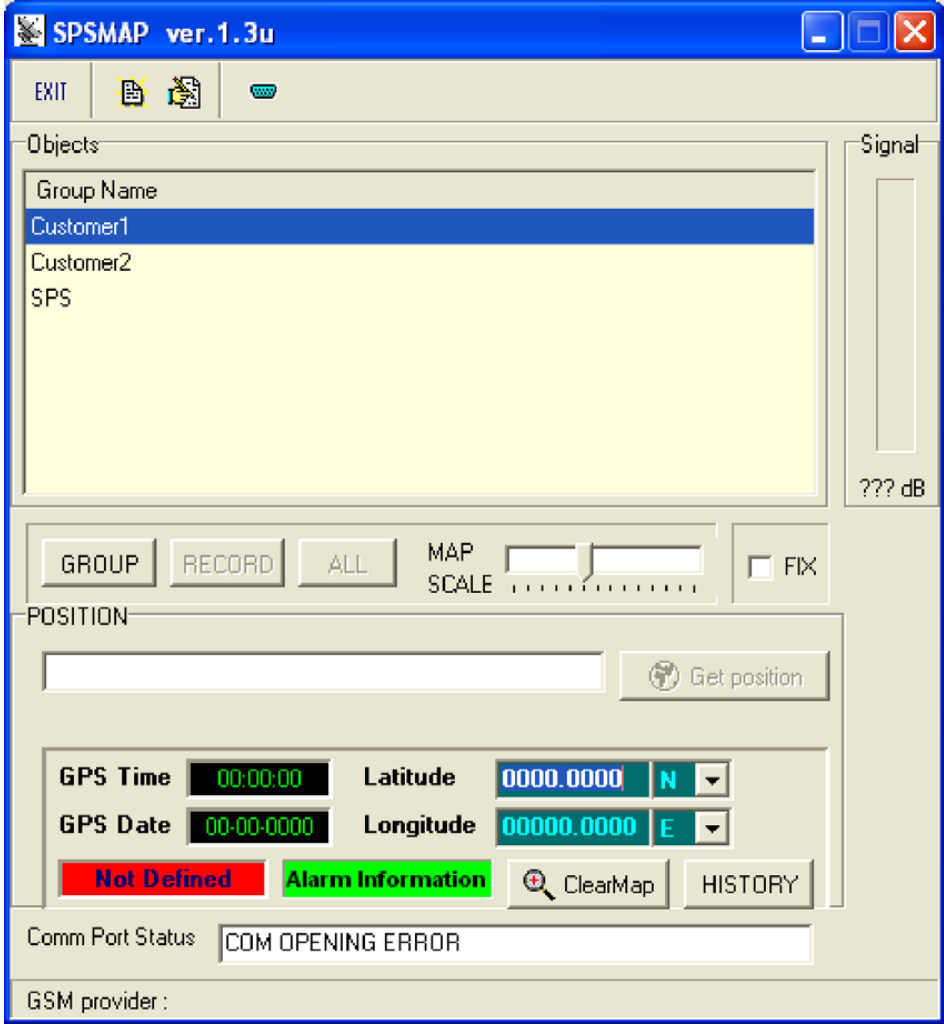
Example Group name is SPS and the units is named STEPP.

Only units in the selected group is shown on the map.

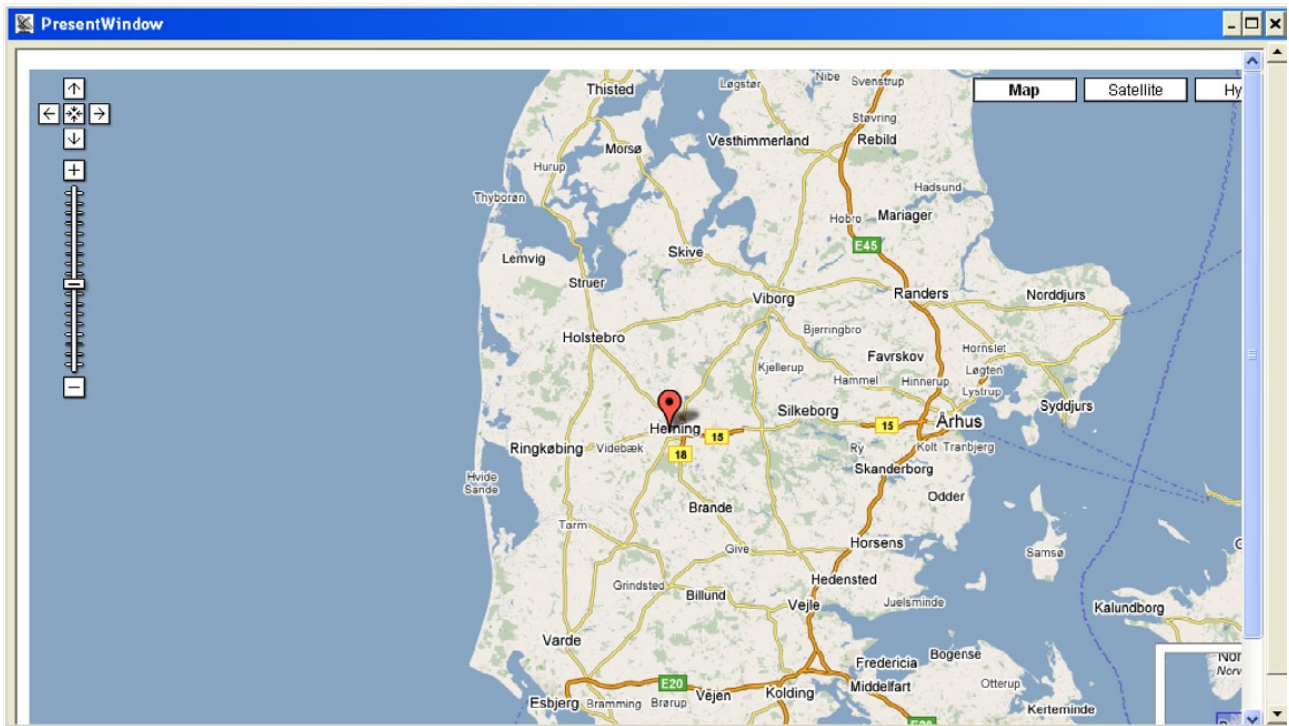
By switching to a new group all the units in that group is shown on the map.

Each unit has a historical database with 100 entries.

SPSMAP is now ready to run and the main window will appear. In the initial start all the groups in the database is shown. Select a group and all the units in that group is shown on the map.

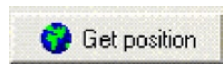


The map is now shown with the position of the unit.



To get a new position.

Select a unit from the menu and ask for a position with



When the position is received the position will now be shown.

Changing between groups.

To show all group With this the last positions from all the units in that group is shown on the map.

Historical replay.

It is possible to show all the stored positions in the historical database. It is also possible to show just one single position from the historical database.

First select a unit from menu click on s now possible to show all the stored

positions or just a single position.

Showing the unit on a satellite picture.

Click on the Satellite Icon on the Google map and the map will be switched to a satellite image. Please note that in some areas the satellite picture can be of a poor quality.



Validity of the received GPS position (This only applies to STEPP)

Perfect Position This means the GPS in the unit has a perfect position within 3 to 5 meters.

Stored Position This means the unit is not able to get a valid position from the GPS. The position shown is the last good position. It could be the unit is inside a house and the position stored could be outside the house.

Marginal Position This means the GPS did not have a perfect position and return a warning indicating the position can be several meters off.

The following is showing the position as it is received from the GPS, this includes the date and time received from the GPS. Please note the GPS time is always shown in GMT time.

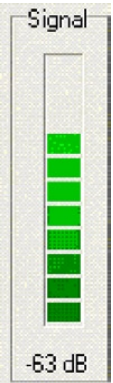
GPS Time	16:02:56	Latitude	5555.3179	N
GPS Date	17-01-2005	Longitude	01140.3743	E

Alarm Information In this field the information regarding alarms is shown. For MOPAS and SecuTrack the percentage of the battery level is shown for all positions.

It is possible to change the initial scaling of the map when it is opened. Zooming on the map is done with the zoom functions provided by Google, shown on the left side of the map.



When this FIX is marked, then the last unit will be shown in the centre of the map



This shows the current GSM signal, just like normally shown on a handy personal GSM.



In this field the position is shown as it is received from the unit.

To get more information of the unit in the position click



Adding a new unit



This icon will open the following window to allow the user to add a new car to SPSMAP

The 'Car' dialog box has a title bar with a close button. The main area is titled 'New car' and contains three text input fields: 'Name', 'Group', and 'GSM number'. To the right of these fields are three radio buttons: 'STEPP' (selected), 'MOPAS', and 'TRACK'. A checkbox labeled 'Map' is also present. At the bottom, there are two buttons: 'Cancel' with a red 'X' icon and 'Save' with a green checkmark icon.

It is important the GSM number is written with +XX for the country code like +45 for Denmark. When this is marked then the unit will always be shown on the map when this group is selected.

Editing an existing unit



Select a car from the list of cars

The 'Car' dialog box has a title bar with a close button. The main area is titled 'Edit car' and contains three text input fields: 'Name' (containing 'Herring'), 'Group' (containing 'Customer1'), and 'GSM number' (containing '+4512345678'). To the right of these fields are three radio buttons: 'STEPP' (selected), 'MOPAS', and 'TRACK'. A checkbox labeled 'Map' is checked. At the bottom, there are two buttons: 'Cancel' with a red 'X' icon and 'Save' with a green checkmark icon.

Changing the COM port and PIN code



The 'Configuration' dialog box has a title bar with a close button. It contains two sections: 'COM' with a dropdown menu showing 'COM 5', and 'PIN' with an empty text input field. At the bottom, there are two buttons: 'OK' with a green checkmark icon and 'Cancel' with a red 'X' icon.

Example of unit shown of the map followed by the same as satellite image.

