MICRONAIR

Spraytrac

GPS track guidance for migrant pest control

The Micronair Spraytrac GPS track guidance system is designed specifically to provide precision guidance for ground vehicles used for the control of locusts and other migrant pests. Incorporating a guidance unit and a software package, the Spraytrac system enables the driver to follow parallel spray tracks whilst recording the position of the vehicle and the status of the sprayer. Spray jobs can be viewed, printed and archived on an office or laptop computer using Micronair Spraymaps mapping software.

- Developed specifically for use with truck mounted migrant pest control sprayers
- Easy to use with minimum of operator training
- Provides precision guidance on parallel spray tracks for optimum coverage and effective utilisation of pesticide
- Logging function records the track and speed of the vehicle throughout the spray job and identifies the sprayed area
- Simple data transfer with a USB flash memory key
- Spraymaps software creates an archive and allows viewing of spray jobs or printing of job reports

Spraytrac guidance unit

The Spraytrac guidance unit, installed above the vehicle dashboard in view of the driver. The unit incorporates a LCD display screen and operator controls and can easily be removed from its mounting bracket when not required.

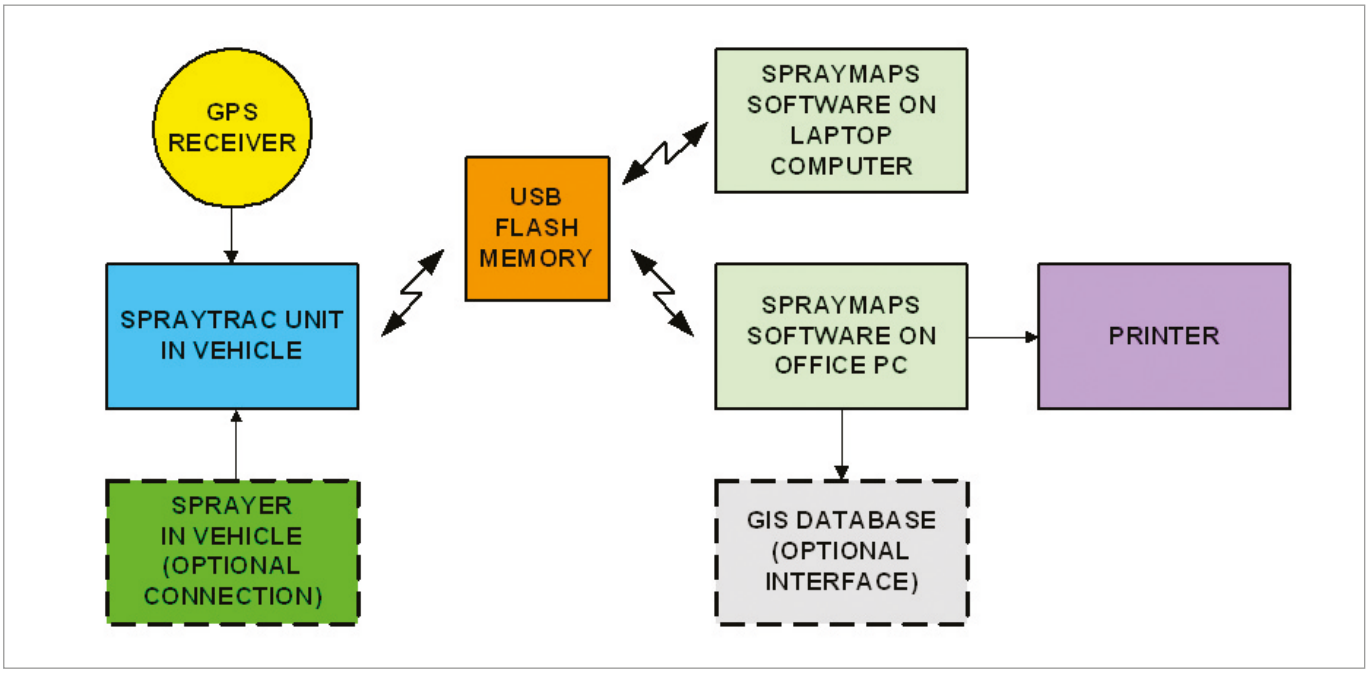
The Spraytrac software is designed to provide a very simple user interface and is suitable for use by personnel who may not have any prior experience of computers or more complex GPS devices. Operation of the system is by an on/off switch and four touch-sensitive buttons, one of which is dedicated to showing help messages on the screen. Whilst in the spray area, the screen shows a perspective image of the spray tracks and the driver need only follow a line on the display to remain on the correct track.

The position of the vehicle is continuously logged without any operator intervention for the entire time that the Spraytrac unit is switched on. The log file is retained in the memory of the unit until it is downloaded for analysis and archiving by the Micronair Spraymaps program on an office PC or a laptop computer. Text on the Spraytrac display can be in English, French or Arabic.

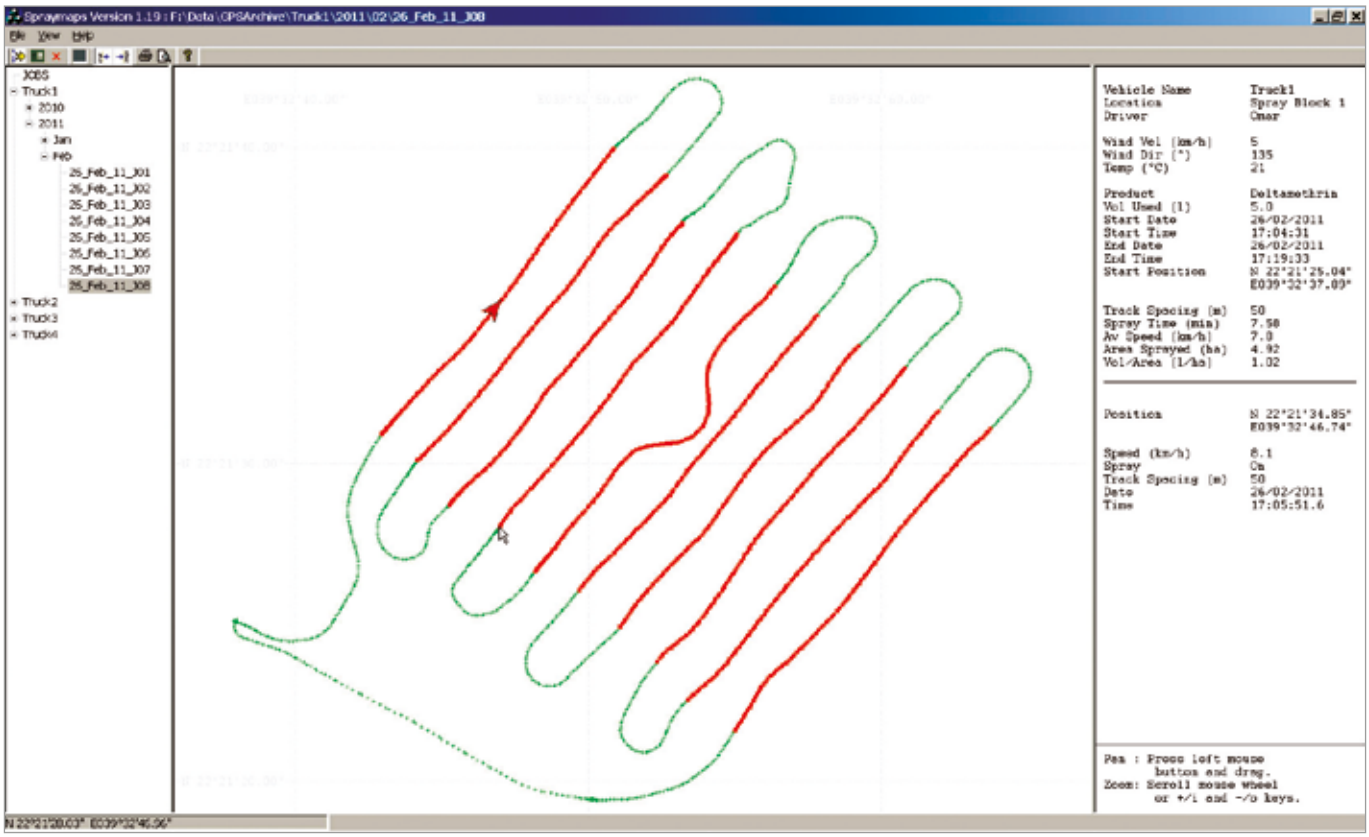
Spraymaps software package

The Spraymaps software package is installed on any desktop or laptop PC running a Windows operating system. The software provides the following functions:

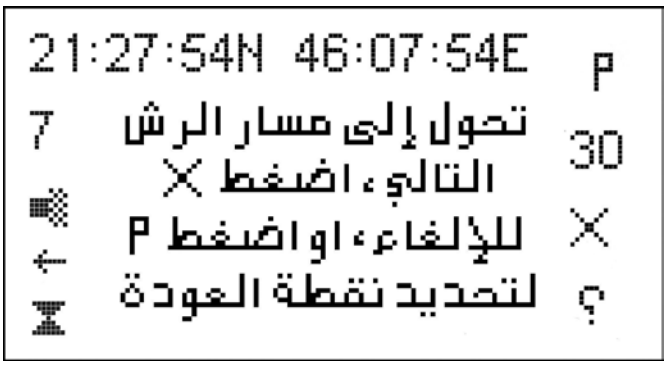
- Transfer log files from Spraytrac units in vehicles, using a USB flash memory key.
- Analyse each log file and divide it into individual spray jobs, based on the date and time of the records.
- Store individual job records in an archive. This archive is held on the hard disk of the PC or on a network file server. The archive is structured to allow easy retrieval of records for multiple spray vehicles by vehicle name, date and time.
- Enable entry of additional job data and notes in each job record.
- Retrieve, display or delete individual job records. The display shows both a visual representation of the vehicle track (together with spray on/off information, if applicable) and a summary of the job statistics.
- Print a job report comprising an image of the vehicle track and a summary of the job statistics.
- Convert job files to Shapefile and CSV format for import into a user's existing GIS database (optional).
- Create the configuration files used to upload set-up parameters (language, vehicle name etc) to individual Spraytrac units, using a USB flash memory key.

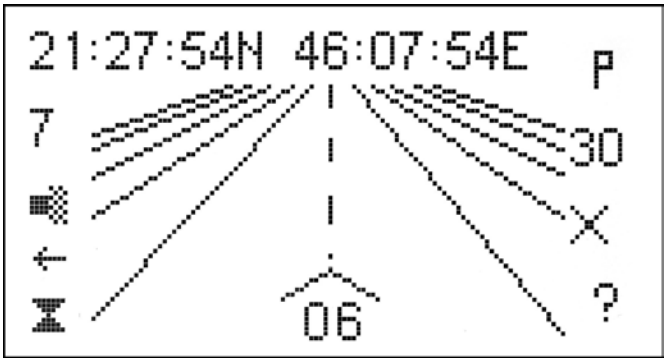


Spraymaps screen



Spraytrac screens





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Spraytrac System Unit Specification

Dimensions:	135 mm (W) x 90 mm (H) x 60 mm (D) (less mounting bracket).
Weight:	130 kg.
Mounting:	By adjustable bracket secured to vehicle. System unit can be detached from bracket when not required in vehicle.
Operating temperature:	-10°C - +35°C ambient.
Input voltage:	9 - 15 V DC.
Input current:	350 mA max.
Operating system:	Linux.
Data (log fine) memory:	2 GB.
Display:	Back-lit dot-matrix LCD with contrast control. Display optimised for viewing in both direct sunlight and low light conditions.
Controls:	Power on/off switch, display contrast adjustment and four touch-sensitive input buttons.
Display language:	English, French, Arabic with Hindi numerals or Arabic with Western numerals (operator selectable).
Sprayer interface:	Optional connection to Micron vehicle-mounted sprayers to allow logging of operation of sprayer pump.
Environmental protection:	IP 51.

GPS Receiver Specification

Dimensions:	61 mm diameter x 20 mm (H).
Weight:	0.2 kg.
Cable:	5 m long with quick-disconnect connector.
Mounting:	By magnetic base or optional M3 screw fitting.
Power supply:	From Spraytrac unit (no separate power supply connection required).
Update rate:	5 Hz.
Differential correction:	WAAS/EGNOS (where available).
Environmental protection:	IP 67.
Operating temperature:	-30°C - +80°C.

Spraymaps Software

Configuration:	One Spraymaps program can support an unlimited number of vehicle systems, although multiple copies of the software can be installed if required.
Language:	Job data display and job printouts in English, French or Arabic (language chosen during program installation).
PC specification:	User-supplied desktop or notebook PC running Windows operating system (XP, Vista or 7) with one available USB port.
Disc space required:	Minimum 1 MB free disk space for program and 1 GB per 1000 hours of total logged spray records (log files can be stored on the local hard disk or on a network server or NAS device).
PC monitor:	User-supplied monitor with minimum 1024 x 768 DPI resolution.
Printer:	User-supplied monochrome or colour printer (A4 page size).

Distributed by

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