



GUARDTOP GPS



Product: GoBook Tablet PC

Application:
GIS/GPS Mapping in Agriculture

Solution:
Itronix and Survey Supplies.
A former site engineer uses Trimble GPS Technology, FastMAP, and the GoBook Tablet PC to help farmers increase their efficiency, reduce production costs, and show accurate records and sound environmental practices.

For more information contact:

Itronix Ltd
+44 (0)2476 671516
marketing@itronix.co.uk
www.itronix.co.uk

Case Study:

Guardtop Reaping the Rewards

SITUATION: In recent years the problems of agriculture have had one primary concern - how can farming become a more efficient business and adapt to the market conditions imposed on the industry by both the EU and those with the strongest buying power – the supermarkets?

One man aware of these difficulties is Andrew Tickle, an agricultural consultant based in Kent. Having come across new technologies such as GPS through his previous work as a site engineer and construction manager, he saw the potential that this technology could bring to UK farming processes and set up his own service based business, Guardtop.

Andrew observed the development of GPS in US farming methods as well as the way some of the larger UK cereal growers were adopting the technology in this country. He therefore decided to explore the benefits that his business could bring specifically to vegetable and fruit growers, by **reducing their production costs**.

The Internet provided the first port of call for Andrew to find the information he needed for his business plan and to form his ideas on what would be the best GPS for his requirements. Following extensive research he focused his attention on the Trimble website. A Trimble backpack GPS offering better than 1 metre accuracy was earmarked as the preferred tool for the job. However finding software proved more challenging.

PROBLEM: Choosing the software proved more complicated than Andrew had anticipated. After familiarising himself with the many farm management programmes available, disillusionment set in. "I would need to communicate with all these different programmes and it was simply not possible. The farm management market seemed to be very fragmented with lots of small players trying to make programmes do things they simply weren't designed to do. What I needed was one programme which would create GPS based information which could then be used to improve an enterprise's efficiency."

Ultimately it was Andrew's research on Trimble hardware that provided the software solution he was looking for. Having clearly identified what he wanted from the hardware supplier - namely a local provider with a good reputation who could deal with all his enquiries in-house - his search led him to **Survey Supplies**. An onsite meeting was set up with GIS/Mapping Manager Martyn Palmer to demonstrate the Survey Supplies system and provide solution suggestions.

AN ITRONIX SOLUTION: Andrew was adamant that to supplement his GPS he needed a data collection device with a fast processor and a large screen, and to avoid having to transfer information to an office computer. In a nutshell, a system that could collect and **process GPS data at full speed as well as providing all the power of an office PC in the field**. Consequently the system selected was an **Itronix GoBook Tablet PC** with FastMAP Office software. This meant that an office based PC was not required as a USB printer could be plugged in the side of the GoBook Tablet PC for A3 and A4 printouts and an email account was set up on the device so that data could be transferred via a Bluetooth mobile phone. Furthermore, Andrew found the sub-metre Trimble GPS provided better accuracy (+/- 15mm) than the

original earmarked tool. Now when he demonstrates the system to sceptical farmers, he puts on the backpack and walks down a straight construction joint in a concreted area, turns around and walks back along the same joint. "I then show the farmer the GoBook Tablet screen which has two lines on it," said Andrew. "This shows the distance between my shoulders, i.e. the antenna which is on my left hand side. It never fails to impress!" Since purchasing his GPS, Andrew's work has been focused on two key farming areas where the benefits for the end user are most tangible.

Salad and vegetable growers: Under immense pressure to justify crop growing costs, fertilizer inputs, and spraying programmes, salad and vegetable growers are also under pressure to protect the environment and to produce cheap high quality food. By using GPS, field perimeters can be plotted and irrigation boom widths set out prior to creating the bed-systems for planting. This data is collected either on foot or by mounting the GPS onto a quad bike. By doing this the best fit for the field can be determined depending on the equipment available (30m, 42m, 50m or 72m irrigation booms) and then planting carried out in the area under the boom only. This means that savings can be achieved in labour and machinery costs, as well as ensuring that only the exact amount of fertilizer, water, and sprays are used.

Similarly, soil testing can be carried out using GPS to locate and record the exact location of the sample. This then allows an accurate comparison to be made in future years, proving that the farming methods are not harming the soil structure or organic content.

Soft fruit sector: Many growers of soft fruit rely on piecework and foreign labour. GPS has allowed improved communication with the labour force by providing field maps, which can give all the information in picture form, i.e. length of rows, areas to be weeded, daily harvest records, and individual sectors for working groups. The GoBook Tablet PC is the ideal outdoor rugged tool to show this information in the fields.

Customer Benefits: In order to justify their production methods the farmers have to show accurate records and sound practices to the supermarket auditors. The production of high quality maps demonstrating and supporting these requirements is an essential part of the grower's package. The fact that they are produced by a third party and are in picture form is particularly useful in explaining decisions to the supermarket regulators.

Andrew Tickle, Managing Director - Guardtop.

Survey Supplies is the sole UK and Irish distributor of Trimble Mapping GPS and a Business Partner of Itronix (UK) Ltd.