



## Palmtop Recording of Botanical Data

**The Macaulay Land Use Research Institute (MLURI) is a multidisciplinary-based research institute located in Aberdeen, Scotland. They carry out research into the physical, environmental and social consequences of land use.**

### Business Problem

MLURI's research station in Hartwood, Lanarkshire carries out research on the grazing ecology of sown swards and the development of sustainable management systems. This involves the collection of botanical information by researchers working in all weathers in the Scottish countryside.

Originally botanical information was recorded using MLURI's Point software. The program was written in Pascal and had been run for many years on Husky Hunter handheld devices. The Hunters have now been replaced with Husky Fex21 machines, which are handheld PCs running Windows CE.

Tessella was asked to migrate the Point application to the new platform, making use of its Graphical User Interface (GUI).

### Tessella Solution

Tessella developed new software, Point2, for the Husky Fex21 devices using Microsoft eMbedded Visual Basic, part of the eMbedded Visual Tools suite which is designed specifically for creating applications for Windows CE devices.

Unlike the desktop PC, portable computers can vary significantly in terms of processor platform, memory capacity, and input/output strategy. As a result, designing Windows CE applications can be challenging. The eMbedded Visual Tools help by providing a framework for developing for a selected target platform.

The new Point2 application for the Husky is a significant improvement over the old application that ran on the Hunter machines. Point2 stores the field data as a text file, which can be easily transferred to a desktop computer for further analysis. The text files can then be saved to the device's ROM or to a storage card if installed.

## Results and Benefits

Providing a GUI has made the application much easier and quicker to use. Instead of having to enter data into the system via the keyboard, MLURI researchers can use the stylus to interact with the various elements of the GUI. This stylus is the portable version of the mouse and facilitates quick data entry, no matter how unfavourable the physical environment.

Mobile computing devices can be used for a wide range of applications, including data collection, remote sensing, image capture and analysis, or as an information resource for people on the move. From handheld PCs to mobile telecommunications devices, to domestic appliances and automotive components, Tessella is able to implement a solution.



MLURI use handheld PCs to assist in the collection of field data

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