

Customer

The National Trust is a charity in the United Kingdom, preserving, protecting and opening to public heritage like historic houses, gardens, industrial monuments, mills and open air properties.

Challenge

Within a 3 years' project tens of thousand of plants in 80 gardens have to be identified, surveyed and catalogued. Information from the survey work has to be entered into a central database.

Solution

MobileMapper CX, a precise and weatherproof handheld GPS receiver has been selected for the survey work. DigiTerra Explorer 5, a clever mobile GIS and data collection software displays map layers quickly and records details in a simple way.

Results

Consolidating information from the GPS-survey work in a central database, will enable experts to identify which plants, trees or heritage vegetables need to be propagated. Thanks to the comprehensive view of the current collections, gardens can be prepared for the challenges of climate change as well.

The National Trust (UK)

Mobile GIS helps cataloguing rare plants

The National Trust, being a charity completely independent of the UK Government, protects and opens to the public over 300 historic houses and gardens and 49 industrial monuments and mills. It also looks after forests, woods, fens, beaches, farmland, downs, moorland, islands, archaeological remains, castles, nature reserves, villages. It has 3.5 million members and 50,000 volunteers, and an estimated 50 million visits are made annually to its open air properties.



The Challenge

The UK's biggest ever plant hunt began in May 2008 when gardeners and volunteers kicked off a survey that will capture details of the wide range of plants growing in more than 80 significant National Trust gardens in England, Wales and Northern Ireland. The three-year mammoth task – compared by the Daily Telegraph to the challenge faced by Victorian botanists risking all to discover exotic plants over a century ago – is vital to the better conservation of plant collection. During the project, sponsored by the Yorkshire and Clydesdale Banks, each plant has to be identified, and specific details like planting date, horticultural value exact location and a lot more have to be recorded. Also a photo has to be taken during the survey and attached to the catalogue.

Mike Calnan, Head of Parks and Gardens at the National Trust, says: „*This is the biggest and most comprehensive plant survey ever undertaken in the UK. At the moment we have records for around 5 per cent of plants in the National Trust gardens and this survey will take that figure to beyond 75 per cent in the next three years. Hundreds of staff and volunteers help us catalogue the plants found in our gardens, something that we haven't had the resource to carry out before.* „

This survey project has to be supported by handheld GPS receivers equipped with a mobile GIS data capture application. Information from all of the survey work carried out in the gardens has to be entered into a central database for further analysis.

Software used

DigiTerra Explorer 5 mobile GIS and data collection software

Hardware used

Magellan Mobile Mapper CX handheld GPS receiver

Consultant involved

Ormston Technology Ltd.

For more information

DigiTerra Information Services Ltd.

H-1025 Budapest
Csévi u. 6.

Hungary

Phone: + 36 1 225 8173

E-mail: info@digiterra.hu

The Solution

After evaluating several competing models, the National Trust selected Magellan's handheld data collector device with GPS receiver, MobileMapper CX, implemented by Ormston Technology Ltd. With so many staff and volunteers involved and the amount of properties to be surveyed, ease of use and value for the money were prerequisites. MobileMapper CX is a rugged device with a strong construction, it is weatherproof and provides the accuracy required, sub meter or greater with post processing. Thee GPS receivers are equipped with DigiTerra Explorer 5, a mobile GIS and data capture software. Franklyn Tancock, who is coordinating the project at the National Trust, explains:

"DigiTerra Explorer was selected because it is an easy to understand, straightforward application. Details of captured information are easily written onto pre-constructed forms. To enable easy identification and display on the map, each layer can have a different symbol and even points can be labeled."

The software's additional features also proved helpful for managing a survey of this scale, with a search facility allowing plants to be located easily on the map or the handy auto-save feature. Since the work can't all be done outside in the beautiful gardens, DigiTerra Explorer provides full PC version for the office tasks. National Trust staff can interchange files between PC and handheld, display the map in different views and print partial or full maps.

The Results

Information from all of the survey work carried out in the gardens will be entered into a central database. This will enable experts to identify which plants, trees or heritage vegetables need to be propagated at the new National Trust's specialist propagation unit.



The propagation of plants will enable the Trust to replenish existing collections, prepare its gardens for the challenges of climate change and make plants available to other properties.

"For the first time, we will be able to map out the thousands of rare species of plant in the care of the National Trust which have been bred by passionate plant collectors or gathered by plant hunters on expeditions during the last 400 years or so. We might even 'discover' plants that we didn't know we had."

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