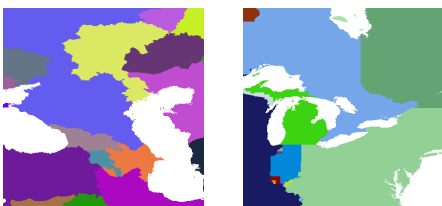# Case Study

Golden Hour

Golden Hour is a photography application designed to partner the already successful website and is accompanied by a free version called Golden Lite.

A key design decision was to have an app that required no internet access so that photographers working in remote locations could still have the comprehensive data at their fingertips. This presented two key challenges, firstly how to perform the astronomical calculations on the phone and secondly, how to convert a latitude/longitude from any point on the map into the corresponding timezone – a feat normally undertaken by web services due to the complexity of the timezone polygon information.

This is just the sort of difficult problem we love to get our teeth into and after some research we developed a neat solution to both problems.

1) The accuracy of the calculations were important and we used the key astronomical reference work by Jan Meeus to inform our decision to work with an existing and highly regarded c++ library that we were able to track down. This ability of the iPhone to work with C++ as well as objective-c is a great feature that we were delighted to harness.

2) The latitude/longitude to timezone was a much harder problem to solve. We prepared a new virtual GIS workstation and using many gigabytes of open source world polygon data we arrived at a suitable representation of the timezones – but how on earth to fit this on the phone? Our minds sizzled and we came to the conclusion that if we could uniquely colour each timezone, we could prepare a map that we could use behind the scenes on the phone to solve the problem. This map then had to be sliced into hundreds of squares so we could deploy it on the phone .

Golden Hour is our most advanced application to date and is the perfect companion for travelling photographers.

Apple® iPod® iPod Touch® and iPad™ are trademarks of Apple Inc.

Mindsizzlers LLP
Suite 404,
324 - 326 Regent Street
London W1B 3HH

tel +44 (0) 560 366 1689
fax +44 (0) 800 007 3307
web www.mindsizzlers.com