

Software Development

For almost twenty years the key members of dhp11 have worked together, developing software for organisations large and small. During this time they have created over seven hundred software modules¹ for nearly a thousand projects². Even the most recent member of the team has spent eight years writing code in this environment.

From the very start dhp11 specialised in three areas:

- Computer Aided Design (CAD), specifically MicroStation from Bentley Systems.
- Digital mapping, especially the products created by Ordnance Survey Great Britain (OSGB).
- The Transport and Utility sectors, with a focus on electricity, water and rail.

After so many years of software development dhp11 have acquired experience in many other areas, but within these three we think we can justifiably consider ourselves experts.

CUSTOMERS AND PROJECTS

Our customers are generally (but not exclusively) large corporates. They usually engage us for specific in-house projects with a high CAD and/or mapping content.

Some recent customers and projects are:

- Converting a MicroStation V7 system to MicroStation V8 for Western Power Distribution.
- Developing the 'Intelligent Scheme Plan' tool for Network Rail.
- Enhancing a project costing system for Laing O'Rourke.
- Speeding up our OS-MasterMap Topo to DGN translator for Cable & Wireless.

CORPORATE MEMORY

Too often teams are put together on an ad-hoc basis for specific projects. When the project is completed or abandoned, the team is broken up and the members go their separate ways. Only rarely is the same team given an opportunity to apply the lessons they have learnt on another project.

At dhp11 the same development team has completed hundreds of projects for hundreds of different customers.

There are very few development and management scenarios that we have not previously encountered in some form.

ADOPT, ADAPT, IMPROVE

dhp11 make a conscious effort to learn from our customers. Every time we encounter a new methodology, technique or other development practice we weigh it against our current practices.

We adopted a project management technique from Cable & Wireless, we adapted a software testing methodology used by Data Sciences³ and we improved a software debugging system suggested by Intergraph.

With our extensive Corporate Memory we remember the things that we have tried in the past - and whether they worked or not. We don't mind making a mistake once. We *really* don't like making the same mistake twice.

1 Module number 756 'GPC' (General Polygon Clipping) was created on 2008-07-08.
 2 Project number 0932 is 'WPD XM Conversion'.
 3 Now IBM Global Services

RELIABILITY BUILT IN

We are a small company and we would rather spend our time writing new code than than fixing old software. When we write code we are painfully aware that if it goes wrong the person that wrote it is the person that has to fix it.

This is a powerful incentive for us to get it right first time.

GETTING THE BEST OUT OF US⁴

We work best if you give us clear goals and then leave us to work out the details. We'll come back to you with an outline plan and some questions. We'll go round this loop a few times until we get to the prototype stage.

After we've created a prototype we might enhance it until we get a working system or we might decide to scrap it and start again. It depends on the project. Either way you can expect frequent updates, and we expect a lot of feedback.

In the initial stages of a project we like to have frequent meetings. We prefer face to face and once a week is not unusual.

A typical meeting goes like this:

- Demonstrate the work done in the previous week.
- Get some initial feedback.
- Install the software on the client's system.
- Get the client to operate the system and get more feedback.
- Categorise changes as: Immediate, Later and "nice to have".
- Agree which changes will be in the next block of work.

Where possible we like to deal with end-users directly. For some reason this troubles many organisations and we are forced to work through intermediaries. We adapt to your working practices but we'd still prefer to have as much contact with end-users as you can allow us.

IT'S YOUR PROJECT

Although we prefer a RAD approach, we are quite happy to embrace any Project Management system the client chooses. If you want to set up a Project Board, start writing huge specifications and adopt a full PRINCE2⁵ methodology that is fine by us.

We are small, so we can be flexible, and we appreciate that the RAD approach is not suitable for every project.

MORE INFORMATION

For more information about how the highly experienced team at dhp11 can help you develop high quality software, please contact:

- Technical: derek.hunter@dhp11.com
- Testing and support: andrew.keen@dhp11.com
- Commercial and legal: matthew.bayes@dhp11.com

4 Our development technique is actually quite fashionable at the moment. You might hear it called Rapid Application Development (RAD) or Agile Programming.
 5 PProjects IN Controlled Environments.