

Re: Basic beginner questions about mapping

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"Nick" <no.spam@my-website.net> wrote in message
news:lh60c092ho3iifeckae1u8lpp6u6d4k9m4@4ax.com...

> *Ok all, so what suffix is a vector map instead of JPG ?*

> *I would be interested to know where the complexity of converting from JPG
to*

> *this other file format is ?*

> --

A vector map does not have a particular suffix. You are confusing filetypes with types of data. Converting between filetypes is relatively easy. A JPEG is just a bitmap – a picture made from row after row of different colour dots, albeit in the case of a jpeg, there is some compression going on, but ultimately its still a picture. Its easy to convert that to a BMP, GIF, or almost any other bitmap-based format you care to choose by just writing out the dots in the correct format.

A vector map on the other hand is a list of co-ordinates, plus some 'value-added' information such as street names for example. You could define an extremely simple map with the data:

N45.123456 E3.98765 High Street

A mapping GPS receiver would be able to draw a (very simple) map using just that information. Obviously, it would need to be in the right format, and there isn't a standard for doing that. Each manufacturer uses their own proprietary format. But file formats aside, consider exactly how you would convert a picture made up of dots, into the data described above. Text recognition is just one of the problems. How do you define what colour a road is? Then you zoom in and discover that the "brown" colour you thought was a road is actually made up of dozens of different colours, and the colours change according to what part of the map you are looking at! There are tools available to help. They will do things like colour reduction, joining up gaps in lines and so on, but speaking as someone who put several weeks of effort into digitising contour lines in the Alps, I can state that it is **extremely** labour intensive, time-consuming, error prone and frustrating.

Walter

PS, before someone points out that the High Street above is out in the North Sea somewhere, I know – I just made up the numbers. ;-)

PPS, I just thought of a good(ish) analogy. Imagine a simple journey you know well and make regularly. In Microsoft Word (or your favourite editor), type in the instructions to follow so that someone who had never been to that area could follow them to make that journey. Now try and save that file as a JPEG map.