The Realisation of Research

SnakeGrid (Local Coordinate Mapping)

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Category(s):
Software - non-medical

Description:

SnakeGrid® (Local Coordinate Mapping)

Available For: Licensing and collaborative development

Summary

SnakeGrid® products provide innovative solution to a significant problem in engineering surveying, namely the design of a coordinate system that has minimal scale factor and height distortion even when projects extend for many hundreds of kilometres.

The Technology and its Advantages

SnakeGrid®, a registered trademark of UCL Business PLC, includes a range of bespoke and over the counter surveying solutions based on technologies developed in UCL Civil, Environmental and Geomatic Engineering Department.

SnakeGrid® products provide innovative solution to a significant problem in engineering surveying, namely the design of a coordinate system that has minimal scale factor and height distortion even when projects extend for many hundreds of kilometres.

When working on projects that extend a few kilometres, engineers and surveyors are accustomed to the concept of a local site grid that effectively makes a flat earth assumption. As projects grow beyond a few kilometres, however, it becomes necessary to introduce a projected coordinate system - and then all those working on the site have the problem of making scale factor corrections. If there is a significant height range across the project then there is the added problem of making reductions to sea level or any other standard reference height.

The SnakeGrid® solution provides a coordinate grid system that maintains a unity scale factor along a trend line that follows the project in and height. In this way, projects such as railways, highways and pipelines can extend for hundreds of kilometres can have a single seamless grid with a scale factor distortion less than a few parts per million along the whole project and for several kilometres on either side.

The SnakeGrid® family of products, a design service to produce the SnakeGrid®, software to transform between coordinate system and mapping of raster images and also provides the core SnakeGrid® functionality as a Dynamic Link Library (DLL) for integration into third party software and instrumentation.

Market Opportunity

-Rail companies across Europe

-Engineering infrastructure companies

-Major pipeline projects

-Civil Engineering surveying companies

Intellectual Property Status

SnakeGrid® is a registered Trademark of UCL Business PLC.

Further Information

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