

What is it?

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[GIS 3D Printing Made Easier With Software](#)

Rapid prototype technologies are a natural fit for 3D topographic or terrain mapping, because of the models' geometric complexity, and their lack of a need for any specific structural integrity. The limitation in the past has been in dealing with the tremendous variety of geographic information system (GIS) data formats. But recently, a number of companies have developed software to more easily translate the GIS data into a STL format.

One such company is 3D Outlook Corporation, the developer of [LandPrint.com](#). This Washington state company is a software developer, not a service bureau. In fact, 3D printer manufacturer [Z Corporation](#) approached 3D Outlook CEO Tom Gaskins two years ago to ask him if he would consider developing the software in order to occupy Corp.'s idle printers. As author of NASA's World Wind, an open source virtual globe, Gaskins was a natural candidate for the work.

Today, using a Google Earth-type interface, you can have any small corner of the globe color 3D printed for you, in a Z Corp ink-jetted plaster and polymer-based model. A square model costs \$37.95 USD, 6" is \$49.95, & 8" is \$69.95. 3D Outlook utilizes geospatial data from NASA and the US Geological Survey.

Gaskins also licenses the mapping software to other companies, like [Anvil Prototyping](#) in North Carolina, [3D Creation Lab](#) in the UK, and [3DLandprint](#) in Denmark. The Danish models are notable for their use of light detection and ranging (LIDAR) data, which allows for the incorporation of building and vegetation features.

Gaskins says that orders through LandPrint.com range from a few a week to "10s of orders every time an article comes out," but that he's not getting as many inquiries now. "As a retail product, it's not a critical thing," he says. "We're using the time to develop the software further."

Over the last six months, Gaskins has been working on software to allow people to load their own map or imagery datasets. He plans to offer this capability by the end of 2009, although the variety of data, and the need for a simple interface, is proving challenging.

"The world of GIS data is really a mess," Gaskins tells RapidToday. "It varies on compression and has different projections. There are 10 different formats in common use - regarding elevation, even more than that. Much of it is processed to work well as a flat map, so we have to put it back in its original form."

Fortunately, there is no shortage of data sources. And while Google Earth may use proprietary data from [DigitalGlobe](#), free sources abound. "There are literally hundreds of sites you can draw data from for free," says Gaskins.