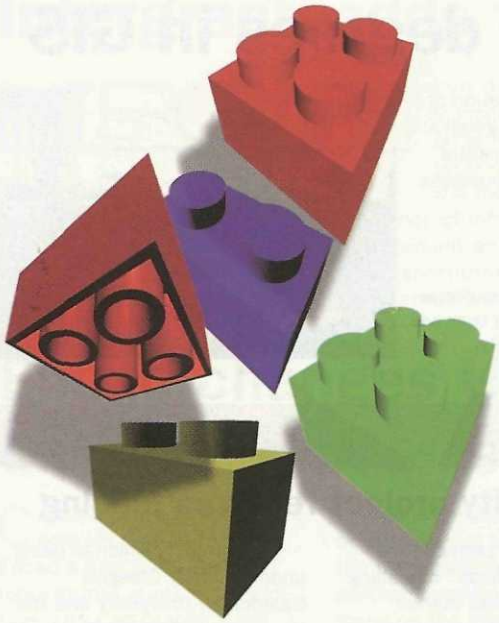

Use objects to build your own GIS software

In the current IT industry, there is a premium on capable developers, let alone those with GIS experience

In recent years, there has been a proliferation of solutions in the GIS market place. An industry once tied to servers and workstations has "liberated" itself to the desktop. But while you can purchase products that do everything you want them to, it is rare that you find one that does exactly what you want it to, no more, no less.

In many business scenarios, the products you are buying either offer far too much or just too little and the first task you perform after purchase is customisation, either by removing components or adding them, both of which incur a cost penalty. In companies with a high number of users, this can be a costly procedure. In the past, only the largest companies had the necessary resources to develop custom applications. In recent years, developments in programming languages and the promoting of reusable code in the form of "objects" has reduced the time it takes to develop applications.

A dirty term

Rapid Application Development is a term long associated with quick and dirty programming for creating short-lived packages. Its philosophy of quick interface development often resulted in cumbersome applications. In recent years, this philosophy has been turned on its head with the development of easier to use and more robust visual programming languages. But to develop spatially enabled applications for your organisation, you need to be able to create the capabilities within current GIS products. To prevent "wheel-reinvention", vendors have developed sets of objects that provide the spatial capabilities to develop applications.

Objects are like Lego bricks, providing building blocks you can piece together to form a structure or in this case an application. They reduce the time for development as they provide all of the elements required for using spatial information.

While there is obvious benefit for the consumer, if this is all so great why aren't we all developing our own applications? Time is of utmost importance in business yet even today's programming tools cannot provide an instant solution to software development – sufficient time must be given to key areas within the software development lifecycle.

Many people determine that the coding part of any development is the most time consuming, yet many of these problems are a factor of poor planning. A thorough analysis of your needs can reduce development time significantly. Testing is also an area that is not fully taken into consideration. A thorough testing cycle will not only improve product stability but directly translate into savings through reduced support calls and increased productivity.

Any development task must be adequately supported otherwise development quality may be compromised. While the development of applications may be becoming less difficult, recruiting staff to do this is not. In the current IT industry, there is a premium on capable developers, let alone those with GIS experience.

A final thought for those thinking about developing their own applications using one of the objects available. Check it provides the capabilities you need – current libraries may not have the full capabilities of their desktop counterparts. But the rate at which the object-development side of GIS is growing means it won't be long until you can get components from any number of vendors to implement the most complex or simplest of GIS functions. MA

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