



## Insider's Look At CrossView™

### Mapping The Way

“The beauty of the program is that it allows GIS Analysts to directly draw upon and leverage the geospatial data they depict daily in ArcMap, and create an integrated workflow that removes the need to hand off cross-section and profiling tasks to others.”

### Created By GIS Pros For GIS Pros

As part of the DPRA GIS team that developed this innovative product, Steve Miller has spent years using ESRI® software to support various environmental remediation efforts, including chemical clean up projects. Undertakings of this scope require intimate knowledge of not only the area's topography, but also its subsurface environment and its influence on groundwater contamination and potential impacts on soil remediation, utility work, and other subsurface engineering projects.

Typically, Steve's group uses GIS technology to develop, capture, manage, analyze and report upon geospatial environmental data. Their common tasks include: complex geo-database design, management, and maintenance; cartographic design and production; complex spatial modeling; and GIS application development and deployment. While the majority of their cartographic products are traditional two-dimensional maps that often convey tremendous detail, there has long been a three-dimensional component in their product repertoire. And while interactive three dimensional models and “snap shot stills” of these have their appropriate time and place, they aren't necessarily the most practical, efficient, or even the best method for visualizing and conveying the subsurface environment—especially in conveying highly detailed information in a static display that invites analysis and contemplation. In many cases, and especially in formal, published reports, it is usually two-dimensional subsurface profiles (cross-section diagrams) that are used to convey a wealth of subsurface information that no other data visualization technique truly matches.

### Before CrossView

Before developing CrossView, Steve and his group had tried a variety of different solutions, all with unsatisfactory results. One such solution involved a very expensive, specialized application that required an inordinate amount of training, expertise, and data preparation to use.

In Steve's words, “It was like buying and maintaining a Ferrari, and hiring a chauffeur, just to drive to the corner market once a week.” Another solution involved working with CAD technicians—and while they certainly were able to develop functional cross-section diagrams, they spent an awful lot of time and effort conveying data and end product needs between GIS and CAD specialists. Yet another solution involved a ridiculously labor-intensive procedure in command-line ArcInfo. While this produced beautiful cross-section diagrams, this simply required too much time and money to be practical. Since there were no justifiably affordable products on the market that made professional-looking cross-section diagrams within the ArcGIS® environment, Steve's team took this necessity as a cue to build an application that would do precisely what they needed.

With a detailed knowledge of ArcGIS and ArcObjects® to guide them, Steve's team began work on developing this innovative cross-section software to work seamlessly with ESRI's ArcMap environment, thereby making the most of the knowledge and experience ESRI users already had. Shortly thereafter, Steve's group found that they had engineered an ArcGIS software plug-in that drastically improved their productivity in their environmental restoration efforts.

“The program worked so well that it just felt natural {to the ESRI workflow}.”

Once completed, Steve’s team soon began to see applications of this one-of-a-kind platform for other GIS users doing environmental restoration, geo-hydrology projects, or even construction and utility development–In fact, anyone using ArcMap® and surface or subsurface datasets.

“Because CrossView works directly with the surface and planimetric datasets within an existing ArcMap document to develop a highly detailed picture of the subsurface environment, it is adaptable for anyone working with ESRI’s ArcGIS Desktop software. Its intuitive nature removes virtually all learning curves for competent ArcMap and ESRI surface dataset users. In fact, as we began developing it, we couldn’t understand why ESRI hadn’t included this type of functionality all along. So we built the application as if it should have been included directly within the ArcMap workflow. What we came up with is a wizard-based tool suitable for ArcGIS users of all kinds that creates professional quality cross-section diagrams, and is flexible enough to address a wide variety of subsurface applications. And because the application retains or ‘passes through’ attributes from input datasets to output cross-section features (e.g., wells and soil bore segments), all of that descriptive information is there in the output diagram to make labeling and annotation far easier. The program worked so well that it just felt natural to try to extend this flexibility to ESRI users worldwide.”



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#### About A-Prime Software™

A-Prime Software is a GIS software company focused on enhancing the detail, visualization tools, and flexibility of current mapping applications with unique technologies. With a rich history in aiding the government in environmental restoration, the creators of A-Prime are dedicated to improving the workflow of GIS professionals, which saves both time and money. Taking its name from the mapping symbol that notes both start and end, A-Prime remains focused on charting new ground in the mapping industry by developing innovative software that broadens and sharpens the way we view the world.



#### For More Information

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