SmartView™

Oblique aerial view (OAV) imagery supplements traditional overhead ortho imagery by providing multiple, angled views of ground features, allowing decision makers to see these features in context with surrounding ones, regardless of the angle being viewed. However, most current OAV collection relies on frame-by-frame image gathering, which results in an abundance of single-frame images that require third-party proprietary software for storage and management. These approaches fall short on accuracy and limit viewing and roaming capabilities.
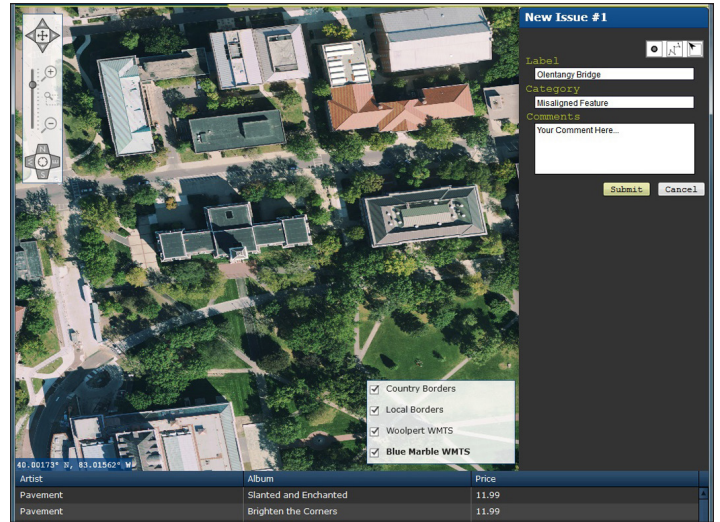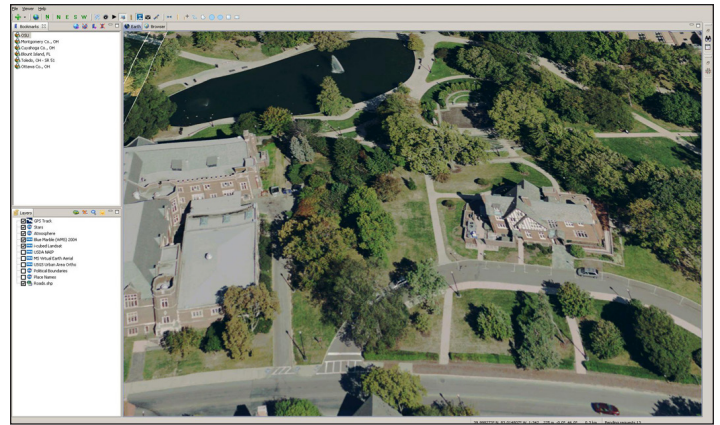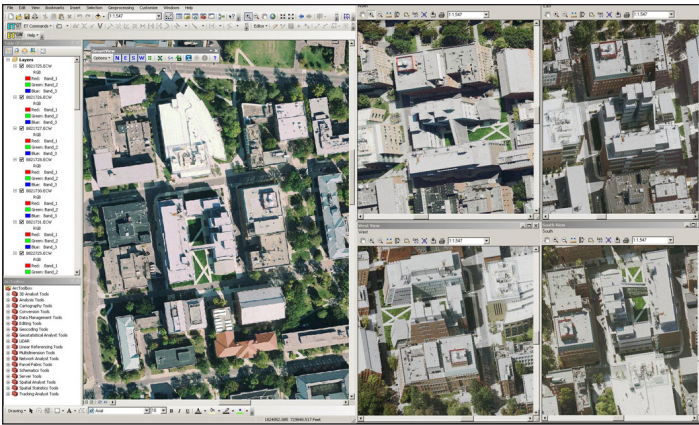
Woolpert's solution—SmartView™—is state-of-the-art camera technology linked with an image-processing workflow that uses three-line scanning principles to produce four cardinal views in addition to using traditional overhead ortho imagery. The result is a continuous oblique and over-head-view dataset compatible with existing GIS, CAD, and map-server systems. Our SmartView imagery and applications give users the accuracy, usability, and flexibility unavailable with current OAV approaches.

The only product of its type, SmartView imagery is collected using photo-grammetric-grade, large-format, digital-scanning cameras. Combined with GPS and inertial measurement technologies, the data produces exceptional positional ground accuracies that are critically important to first-responders. Additionally, OAV imagery produced by SmartView can be overlaid on existing data layers of the highest accuracy.

The SmartView package replaces thousands of postage-stamp photos with continuous images and cuts the time from delivery to use to just a few minutes.

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Current technologies require access to an image database that contains thousands of individual image frames, only viewable one at a time and often difficult—if not impossible—to search through for specific coordinates and views. Since SmartView imagery is delivered as continuous image layers, thousands of postage-stamp photos are replaced with only a few OAV images. And our free viewing applications make it easier to quickly switch between views. With the built-in tools, you can make true vertical and 3-D measurements, and the ArcGIS Extension allows you to view the data in real-world coordinates and access full GIS functionality. Multiple oblique views and an overhead view are also collected in a single mission, allowing zooming capabilities in any given cardinal direction. Most importantly, since the delivered data is not a licensed product, it belongs to you.

Application	Benefits
Desktop	Stand-alone application that allows users to rapidly view seamless OAV imagery from multiple views
ArcGIS Extension	Add-on application that integrates with ArcGIS to view the data in real-world coordinates and provide seamless viewing and access to all GIS functionality
Connect	Web-based version of the Desktop application that provides multiple users with access to data without the need for software