

Elsinore Technologies and VBA Help Get the Bugs Out of the Class

Class Software Solutions (CSS) is a leading producer of Microsoft® Windows and Web-based database and electronic commerce solutions that help members of the municipal, recreation, leisure and education industries cultivate customer relationships and enhance revenue opportunities. Since its introduction in 1985, CSS' products have been installed in over 500 sites with more than 10,000 licensed users worldwide.

As their business expanded, CSS realized they needed a more robust quality assurance (QA) process. They began searching for tools to facilitate that process. In particular, CSS wanted a software solution that would integrate better with their developers' desktop applications and development tools. After exploring the idea of building their own system, they decided to use **Visual Intercept** from **Elsinore Technologies**.

Visual Intercept is designed to integrate closely with Microsoft's Visual SourceSafe™ version control software. Visual Intercept's integration with Microsoft's Visual Basic® for Applications (VBA) allows CSS to add the unique functionality of a home-developed system while reaping the time saving benefit of using a third-party software application.

CSS AT A GLANCE

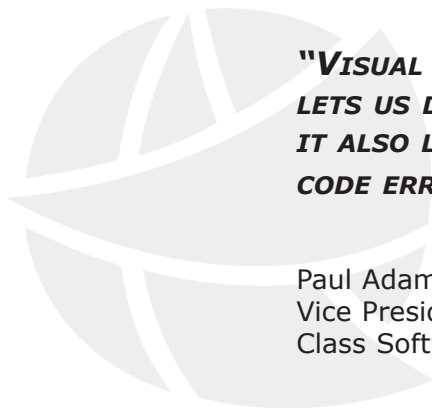
- Software development for the leisure, municipal and education industries
 - Microsoft® Windows® and Web-based database and electronic commerce solutions
 - As business expanded, a robust, cost-effective and scalable Windows-based bug tracking system became critical to assist the company in keeping its competitive advantage.
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CSS' PRODUCTS

CSS offers two main products. CSS Class is an integrated suite of software products delivering a combination of functionality, usability, support and ease of installation and training for the recreation, leisure, cultural, education, sports, health and wellness industries. To meet the needs of small municipalities, parks and recreation departments and school boards, CSS developed a second product bundle, CSS Class Express, which is more cost-effective for smaller installations.

HELPING QA KEEP PACE WITH BUSINESS GROWTH

As the recreation and education industries increasingly turn to software for help managing their businesses, CSS has grown considerably, adding several new members to the development team during the past few years. The management team needed to expand the product development program, which was based on an Onyx bug-tracking software system.



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Paul Adamson
Vice President of Development
Class Software Solutions (CSS)

"The old QA paradigm was one of functionality," says Paul Adamson, Vice President of Development at CSS. "Bugs were recorded in terms of what the system was doing at the time of the error. We wanted something that would take a more back-end approach. We wanted to switch to a source code paradigm, where bugs could be graphed according to where in the source code they were most likely to occur. We felt the source code paradigm would be more helpful to the developers as they fixed the errors."

Clearly, software would play a major role in updating CSS' QA process. The CSS team quickly rejected the idea of simply adding licenses for their Onyx bug tracking system as being too expensive. Then they investigated developing their own system, but they didn't want to take developers' focus away from the company's rapidly growing core business. After more research and testing, they decided on Elsinore Technologies' Visual Intercept, a robust, customizable system that is cost-efficient to adopt and maintain.

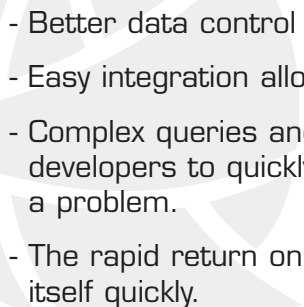
VISUAL INTERCEPT

Visual Intercept is the only bug tracking system designed from the ground up to integrate with Microsoft development and productivity tools, including Visual SourceSafe, VBA and Office. Using a three-tier 32-bit architecture, Visual Intercept is enterprise-ready, scalable and ODBC-compliant. In addition, the Visual Intercept Software Developer's Kit (SDK) provides direct access to the Visual Intercept engine, allowing users to create custom solutions, interfaces and business logic.

"Visual Intercept is an incredibly robust system that lets us develop very complicated queries and metrics," says Adamson. "It also lets us provide more information about source code errors to developers very efficiently."

Visual Intercept was implemented, customized and running at CSS in only two weeks. CSS is already at work on additional enhancements, including a project to add more issues to the system, implementation of a new bug notification service, creating additional reports and developing a Web front end.

BENEFITS OF VISUAL INTERCEPT

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- Better data control yields consistent results and lower cost.
 - Easy integration allowed for minimal time spent configuring the system.
 - Complex queries and the storage of more detailed metrics enable CSS' developers to quickly and efficiently deal with bugs before they become a problem.
 - The rapid return on investment allows the new system to pay for itself quickly.

MICROSOFT VBA

A major factor in CSS's decision was the incorporation of Microsoft VBA in Visual Intercept. VBA is the embeddable version of Visual Basic, placing the development environment right inside the product. Key product functions can be exposed to VBA, allowing them to be manipulated and customized without accessing and changing the product's source code.

"VBA lets us provide the functionality that each of our very different customers require, without going to the expense of building that functionality into the product," says Scott Baker, Project Manager for Visual Intercept Enterprise at Elsinore.

Another benefit of VBA is that each VBA-enabled component interpolates seamlessly with VBA-enabled components in other applications, such as Microsoft Visual SourceSafe, Microsoft Office and numerous third party applications. For example, the CSS team used VBA to develop a unique integration with the Onyx system, which allowed Visual Intercept to replicate issues in Onyx. Developers used this feature to maintain the Onyx system during the transition to Visual Intercept.

"VBA was absolutely critical for us," says Adamson. "It lets us develop our own custom forms, which means our developers get more complete information when they are ready to start debugging. VBA is also a link between Visual Intercept and SourceSafe, where we do our version control. This integration allows us to implement the source code paradigm, where we can keep detailed metrics on exactly where in the code the bugs are likely to occur."

RESULTS

The new system lets CSS developers bring their products to market quickly and cost-effectively, helping the company outsell its competitors. Specific benefits include:

- The capability to handle complicated queries and store more detailed metrics, such as number of bugs per line of code and statistics on where in the code bugs are likely to occur.
- Better control over data presentation. A VBA-developed form prompts QA staffers to enter bugs in a uniform way.
- Integration with Visual SourceSafe, helping track bugs to specific areas of the source code, rather than in terms of functionality.
- Return on Investment. CSS estimates an ROI of 1.7, with initial savings of just over \$20,000. The company expects to yield even more significant savings due to improved bug- detecting capabilities.

The next time you take a course or go on a cruise, you may just have a more enjoyable time because of the cost savings and better record-keeping from the Elsinore/CSS software solution.

About Visual Intercept

Visual Intercept provides a scalable and customizable solution for tracking defects, feature requests and outstanding issues. Integrated with Microsoft Project, Office, BackOffice, and all Developer Tools, Visual Intercept is a productivity solution for the Microsoft tools user. The Visual Intercept product suite includes: Visual Intercept Enterprise, Visual Intercept Project, Visual Intercept Web, Visual Intercept Web Relay, and the Visual Intercept SDK.

About Elsinore Technologies, Inc.

Elsinore Technologies, Inc., was founded in 1995 to address the need of software developers to solve problems in a structured way. Elsinore Technologies' Visual Intercept software now provides the industry's only enterprise issue management solution that was designed from the ground up to integrate with all Microsoft development and productivity tools. The company's mission is to deliver enterprise class issue management solutions that combine out-of-the-box capability, an intuitive, project-oriented interface and robust extensibility. With thousands of customers in more than 30 countries, Elsinore Technologies' 100% commitment to customer success continues to benefit companies seeking the best in enterprise issue management solutions. For more information, visit www.elsitech.com.