



In 1999, a major candy maker suffered a 12 percent loss in its revenues—approximately \$200 million—due to a software glitch. This problem could have been averted through systematic, consistent, and regular peer review and inspection of the software code during its development. But few software developers today conduct this sort of review because it increases development time and cost. Here is a product that could make code review and inspection easier and less costly.



Visual FlowCoder™

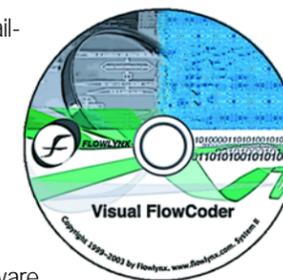
How It Helps: Visual FlowCoder software is designed for programmers and their managers. It automatically builds a graphical code inspection system that can reduce overall project cost and time by 50 to 80 percent. In addition, developers can reduce the number of defects in shipped software by up to 50 percent. Another advantage is that Visual FlowCoder can help detect computer viruses and back doors, improving system security. The software visually documents the code so anyone can understand it. It also supports any amount of code written in any programming language.



How It Works: The product is made of various "intelligent" software agents (small programs dedicated to executing specific tasks) that scan the code on a server. These agents provide useful feedback about potential defects, track the state of a software project, and even automate the porting of code between languages. Using data gathered by the agents, the software creates a visual summary where procedures, functions, and other routines are flowcharted based on the algorithmic flow of the code. This flowcharting tool allows programmers and managers to easily review the functional flow of the code and inspect it in a collaborative environment.

How Much It Will Cost: For one-seat minimal support, the price of the software is about \$2,000. For a 25-seat enterprise server and tools plus additional training, the cost is approximately \$60,000. Extended software training and implementation are available at \$1,800 per day.

When It Will Be Ready: Visual FlowCoder software is available now for Windows® 95, 98, 2000, and NT, as well as Unix/Linux. There are more than 50 licensed commercial and government users, including Chase Manhattan Bank, Lockheed Martin, NASA, and Raytheon.



Who Is Working On It: This product was developed by FlowLynx, Inc., which was founded in 1992 as Ublige Software and Robotics Corporation to develop advanced artificial intelligence hardware and software. In 1998, Ublige was renamed FlowLynx to reflect a new emphasis on flowcharting technology. Today, the company provides a full range of software development services, and its main competence is state-of-the-art re-engineering and management tools for the software development life cycle. It employs four people and occupies about 3,000 square feet of office space in Huntsville, Alabama. For more information, contact Luis Lopez of FlowLynx at (714) 389-9493 or luis@flowlynx.com. The company Web site is www.flowlynx.com.




MDA Origins

Visual FlowCoder software was developed through BMDO SBIR research conducted by Ublige from 1997 to 1999. Under a 1997 Phase I contract, the company determined the feasibility of building intelligent software agents that could analyze source code and map the flow of a large software system. Under a 1998 Phase II contract, it developed prototype software, including new tools enabling users to visualize the flowcoding process. BMDO invested in this technology to improve the quality and maintenance of critical software used in ballistic missile defense applications.

