

Pace University

By Dr. Frederick Grossman

Structured systems and software development has been a major component of many educational programs at Pace University since the early 1970's. In the Lubin School of Business we offer BBA and MBA degree programs with a specialization in Information Systems as well as a Doctor of Professional Studies program with a specialization in Information Systems. In the school of Computer Science and Information Systems we offer a B.S. in Information Systems, a B.S. in Computer Science, an M.S. in Information Systems, an M.S. in Computer Science, and an M.S. in Telecommunications.

The principal courses in which we teach the concepts of structured systems development at the undergraduate level are Information Systems Concepts, Information Systems Design, and Database Management. The principal courses in which we teach these concepts are at the graduate level are Structured Systems Analysis, Structured Systems Design, Database Management Systems, and Software Engineering I, II, and III.

In addition to these academic offerings, we provide professional development courses and corporate training programs which include aspects of structured systems development and CASE.

In most of these programs and courses, students are required to complete a structured development project. These projects normally require a structured analysis and design process model, i.e., dataflow diagrams, a data dictionary and a structure chart, and data modeling using ER diagrams. Prior to 1989, these projects were done manually, i.e., on paper, in spite of the fact that the students were told that it was not practical to do such projects without automated support.

It was in 1989 that Visible Systems Corp. made it economically viable and highly functional educational subset of their "Visible Analyst Workbench" version generally Available to our students. The results of having such a CASE tool available were dramatic. The increased quality of the students' structured analysis and design projects was immediately evident to both students and faculty. The tool was introduced naturally so that a seamless interface between the analysis and design process, the structured development methodologies and the CASE tool was maintained.

The availability of more powerful educational subsets of the Windows version of the VAW has only helped to improve the quality of learning in our programs. It is inconceivable to me how this subject matter can be learned without the general availability of such a CASE tool. The Visible Analyst Workbench is extremely easy to learn and use, requiring very little class time for introduction. I have found that introducing the structured analysis and design concepts using the tool "online" in the classroom as a natural component of the instruction protocol, in conjunction with assigned reading of the Tutorial Manuscript, is more than sufficient. Some of our graduate students purchase the educational subset of VAW and consider it a valuable component of their tool set.

A secondary effect of using the VAW in our computing curricula is the transfer of technology to the "real" world. A number of our students have successfully introduced the use of CASE tools into their work environment as a result of the positive experience with VAW in their class projects. From an educator's perspective, this is a powerful measure of the success of an educational program.