COMPUTING INTEGRITY
INCORPORATED
3102 Valley Brook Drive
Champaign, IL 61822-6112
217.693.1019

PROGRESS | Application Partner

Thomas Mercer-Hursh
Major Accomplishments
15 December, 2017

COMPUTING

2014	Developed automated system for database code and data relationships of existing ABL code for analysis.
2008	Developed automated system for building sub-program component UML models directly from Progress ABL Code and OpenEdge schema.
2006	Published framework classes illustrating new object-oriented principles in Progress ABL which have been adopted in other production ABL systems.
2004	Successful solo implementation of Siebel CRM software without assist from established Siebel implementation partners.
2003	Completed replacement of all major forms used by a Integrity/Solutions customer with high-quality Actuate reports, saving on printing costs and enabling PDF transmission of reports to customers.
2000	Completion of second generation of Royalty Contracts module for Integrity/Solutions, apparently the only stand-alone royalty contracts module available from any source and evaluated by users as superior to all known vertical market offerings.
1999	Accumulated development of Integrity/Solutions application software exceeds 1.75 million lines of code.
1998	Defined and championed a modular service-oriented architecture integrated over the Forte FusionBus to provide a loosely-coupled, distributed application architecture similar to the later ESB/SOA principles.
1997	Successfully defended replacement of Integrity/Solutions at a publisher customer by the leading vertical market publishing software by demonstrating that nearly $1 million dollars in customization would be required to equal I/S existing features. Subsequently defended replacement by Oracle Financials, PeopleSoft, and J.D. Edwards by demonstrating even higher customization costs. Customer subsequently invested in Computing Integrity.
1994	Enhanced development toolset such that a custom development project totaling over 300,000 lines of Progress 4GL code completed in just over 300 development hours including all design, coding, and initial testing.
1993	Created a paradigm for full life cycle software engineering of fourth generation language applications and designed and begin implementation of suite of integrated software to support this paradigm.
1992	Designed and developed a specification-based program generation tool for 4GL software which facilitates extremely rapid, no-compromise development of high-functionality software and rapid evolution of large software systems with changing technology.
1991	Designed and implemented an innovative high volume returns processing system for a customer that shortened processing backlogs from three months to under two days and reduced peak staff requirements by 75%.
1991	Accumulated development of Integrity/Solutions application software exceeds 1 million lines of Progress 4GL created with approximately 12 total person years of development.
1990	Utilized personal sales skills and the advantages of 4GL development to make a sale ultimately worth over $1,000,000 despite head-to-head competition from established vertical market leaders.
1987	Initiated design process for unified distribution sector software capable of addressing a wide variety of vertical markets with a single set of software. Initial installations include produce brokerage and international reseller of packaging equipment.
1985	Utilized computer-based project-management technologies to detect a serious completion schedule problem for a software start-up and then re-allocated resources and tasks to complete the project on schedule, avoiding a serious dilution of equity.
1984	Played a key role in the testing and enhancement of the first integrated high-end office automation package for Unix systems and developed a market positioning plan for this product which was utilized by the manufacturer.
1983	Designed, developed, and marketed an application generator product for relational database software that was significantly more powerful than competing products of the period.

1982	Designed and wrote a unique, integrated job-cost/time-billing system suitable for use by a wide range of industries which normally require vertical market packages.
1981	Designed an innovative, transportable, user-configurable database system for creating library catalogs of highly varied, non-standard materials which was widely used in environmental libraries.
1980	Designed and wrote an innovative attribute-based information retrieval system for personnel agencies that was faster and more full-featured than existing systems. Created a 4GL for high productivity development.
1979	Designed the first micro-computer based system for pharmacies that included patient history and drug interaction controls.
1976	Participated in the creation of the BSD Version of Unix.
1974	Served as Languages Task Force Chairman for the Computer Selection Committee in a competitive review and benchmark process for a $9,000,000 purchase which drew national attention for thoroughness.
1973	Developed software to provide rapid retrieval for a large database of cross-cultural information which was subsequently adopted by several other universities.
1972	Designed a system for the automation of structural analysis of myth texts using heuristic language translation techniques.
1971	Developed unique two-dimensional stack methodology for rapid processing of complex genealogical tree data.
1970	Designed and wrote a minicomputer-based message handling front-end processor that allowed a mid-range mainframe to support 16 times its normal user capacity.
1969	Designed and wrote the first commercial use of a property-vector set theoretic database for an on-line interactive educational information system.

SCIENCE AND MATHEMATICS

1977	Innovated modeling techniques for ecology and population genetics which were both more suitable for the teaching of problem solving and more effective in developing working models in actual research.
1975	Innovated a new statistic for comparing predictions to observations in genetics which received international attention.
1974	Developed a new multi-variate analytical technique for assessing the contribution of size to variations in shape in population metrical comparisons.
1973	Pioneered the use of three-dimensional fourier transforms and computer graphics displays for use in bone shape studies.
1972	Developed a statistic for the comparison of linear pattern variations for use in archaeological research.
1971	Innovated a technique for analyzing the equilibrium condition in a genetic migration system using eigenvector extraction which was more precise and much faster than existing theta transform methods.
1970	Developed a technique for precise measurement of complex three-dimensional surfaces of sub-centimer size for use in fossil studies.
1966	Developed first large scale computer simulation of evolution in a population represented at the DNA level.

EDUCATION

1978	Co-authored three nationally marketed college-level biology texts and associated computer-simulated laboratories with tested teaching effectiveness in excess of all competing methodologies.
1977	Designed, developed, and brought to market a sophisticated simulated laboratory in Mendelian genetics which is still in use and which in 1989 was still rated among the best computer offerings for college-level biology in a major university review.
1976	Developed an innovative teaching model for scientific problem solving which was so effective that students consistently improved their problem solving skills even in areas in which they had received no direct instruction.
1972	Created an innovative course to teach biological anthropology through a history of science which was highly successful in teaching the process and evolution of science and its relationship to society.
1970	Assisted in development of innovative course designed to utilize leading edge educational technology to teach about educational technology.
1969	Assisted in curriculum development of pioneering cross-cultural course in sexual behavior.