

Earl C. Van Horn, Ph.D.

Dr. Earl C. Van Horn is the founder and chief engineer of Seaway Computing, which provides information technology services to small businesses. Seaway Computing's clients include electronics manufacturers, dental practices, real estate offices, mortgage companies, and professional consultancies. The services provided include security, networking, remote access, upgrades, and end-user support.

Dr. Van Horn was recently affiliated with the Mitre Corporation, where he provided technical guidance and oversight on the system architecture of the Integrated Maintenance Data System (IMDS) for the United States Air Force. IMDS is a point-of-maintenance transaction processing system using thin-client technology to support maintenance of aircraft and other assets.

Dr. Van Horn's career includes work for small and large companies, where he has contributed as an engineer, project leader, manager, and management consultant. His technical experience includes: requirements analysis, configuration management, system simulation, object-based systems, network application security, and client-server transaction and database systems. His assignments frequently emphasize communication of technical concepts to management, developers, salespeople, and customers. He has served as engineering consultant to Harvard Research Group, a technology market research firm.

Dr. Van Horn is an experienced developer of computer software systems, with special expertise in development systems, tools, and methodologies. He was a Consulting Engineer with the Digital Equipment Corporation, where he was project leader for conception and advanced development of DEC/CMS, a version control system for software code and documentation. Later he was technical director and development manager of a language and database system with a semantic-object data model, for configuration management of engineering design data. His work at Digital also included applications of public-key technology to network application security, and simulation of the VAX 8600.

Prior to Digital, Dr. Van Horn was a Systems Consultant at SofTech, Inc. of Waltham, Mass. He led the development of an on-line financial database application, a software framework for Consumer Price Index applications, and a data-flow approach to banking applications. He also provided enhancements and supported users of an on-line circuit simulation facility, and developed the lexical and syntactic parts of a JOVIAL compiler. Before working at SofTech, he was employed at Honeywell Information Systems, Inc., the General Electric Company, and the Massachusetts Institute of Technology.

Dr. Van Horn received the S.B., S.M., and Ph.D. degrees in Electrical Engineering from M.I.T. His Ph.D. thesis, *Computer Design for Asynchronously Reproducible Multiprocessing*, was written while he was a Research Assistant in the Laboratory for Computer Science. His list of publications includes two whose significance has been recognized by republication. His article, "Software Must Evolve," which explains and dignifies the realities of industrial software development, was republished in the IEEE's *Tutorial on Software Maintenance*. His best known technical publication, "Programming Semantics for Multiprogrammed Computations," written with Jack B. Dennis, was republished in the 25th Anniversary Issue of the *Communications of the ACM*.

