

Keynote Address 1

Measurement Strategies

Adele Goldberg

ParcPlace-Digitalk Inc.

After ten years of attention to the development and use of object technology, how do we measure up? In software development projects, we measure for two reasons: to find out how we are doing relative to plan, and to determine whether we have reached our stated goals. We measure by counting those objective attributes of projects—products, processes, and resources—that provide useful information for managers, developers, and customers alike. But we only measure when we clearly understand how to objectively count and how what we count answers the questions we pose about our goals. A software code testing strategy is therefore only a part of an overall measurement program.

In this talk, I identify a technique for setting up an effective measurement program. The technique combines the ideas proposed in earlier publications about project management decision frameworks with basic quality assurance strategies. An application of this technique is used to measure whether we, as an industry, are meeting our goals for object technology.

Dr. Adele Goldberg serves as Chairman of the Board and a founder of ParcPlace-Digitalk, Inc. Prior to the creation of ParcPlace, Adele received a Ph.D. in Information Science from the University of Chicago and spent 14 years as researcher and laboratory manager of Xerox Palo Alto Research Center. From 1984-1986, Adele served as president of the ACM, the computer professional society. Solely and with others, Adele wrote the definitive books on the Smalltalk-80 system and has authored numerous papers on project management and analysis methodology using object-oriented technology. Dr. Goldberg edited "The History of Personal Workstations," published jointly by the ACM and Addison-Wesley in 1988 as part of the ACM Press Book Series of the History of Computing which she organized, and co-edited "Visual Object-Oriented Programming" with Margaret Burnett and Ted Lewis. In 1995, a new book on software engineering appeared entitled "Succeeding With Objects: Decision Frameworks for Project Management" with Kenneth S. Rubin. She was recipient of the ACM Systems Software Award in 1987 along with Dan Ignalls and Alan Kay, PC Magazine's 1990 Lifetime Achievement Award for her significant contributions to the personal computer industry, is a Fellow of the ACM, and was honored in 1995 with the Reed College Howard Vollum Award for contributions to science and technology. She is currently a member of the scientific advisory board of the German National Research Centers (GMD).