David Weinflash

Leland Boeman

CSC 372

Smalltalk

*Abstract*

*Introduction*

*History*

Smalltalk is a fully object-oriented, dynamically typed, reflective programming language. Smalltalk was created and designed during the 1970s at the Xerox Palo Alto Research Center. The founding fathers of the language, or the members of the Learning Research Group (LRG) at Xerox, include Alan Kay, Dan Ingalls, Adele Goldberg, Ted Kaehler and Scott Wallace. Born from a research setting, Smalltalk was designed in part for educational use. Primarily, however, Smalltalk was designed in order to extend the philosophy of constructionist learning, where learners construct mental models to understand the world around them. In designing the first version of Smalltalk, or Smalltalk-71, lead researcher Alan Kay attempted to extend the idea of message passing (as inspired by the programming language Simula) and implement the Smalltalk language in “a page of code”. Since the release of the first public version (Smalltalk-80) in 1980, a variety of implementations have derived from the initial version. Perhaps most notably, an open source implementation named “Squeak” was born from Apple Smalltalk and includes an active community of developers today. Pharo, a fork of Squeak, is also in use today and includes an active group of participants in research as well as commercial environments.

*Control Structures*

*Data Types*

*Subprograms*

*Summary*

*References*