Berkeley Pascal User’s Manual
Version 3.0 – July 1983

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ABSTRACT

Berkeley Pascal is designed for interactive instructional use and runs on the PDP/11
and VAX/11 computers. Interpretive code is produced, providing fast translation at the
expense of slower execution speed. There is also a fully compatible compiler for the
VAX/11. An execution profiler and Wirth’s cross reference program are also available
with the system.

The system supports full Pascal. The language accepted is ‘standard’ Pascal, and a
small number of extensions. There is an option to suppress the extensions. The exten-
sions include a separate compilation facility and the ability to link to object modules pro-
duced from other source languages.

The User’s Manual gives a list of sources relating to the UNIX® system, the Pascal
language, and the Berkeley Pascal system. Basic usage examples are provided for the
Pascal components pi, px, pix, pc, and

Errors commonly encountered in these programs are discussed. Details are given of spe-
cial considerations due to the interactive implementation. A number of examples
are provided including many dealing with input/output. An appendix supplements
Wirth’s Pascal Report to form the full definition of the Berkeley implementation of
the language.

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Introduction

The Berkeley Pascal User’s Manual consists of five major sections and an appendix. In section 1 we give sources of information about UNIX, about the programming language Pascal, and about the Berkeley implementation of the language. Section 2 introduces the Berkeley implementation and provides a number of tutorial examples. Section 3 discusses the error diagnostics produced by the translators pc and pi, and the runtime interpreter px. Section 4 describes input/output with special attention given to features of the interactive implementation and to features unique to UNIX. Section 5 gives details on the components of the system and explanation of all relevant options. The User’s Manual concludes with an appendix to Wirth’s Pascal Report with which it forms a precise definition of the implementation.

History of the implementation

The first Berkeley system was written by Ken Thompson in early 1976. The main features of the present system were implemented by Charles Haley and William Joy during the latter half of 1976. Earlier versions of this system have been in use since January, 1977.

The system was moved to the VAX-11 by Peter Kessler and Kirk McKusick with the porting of the interpreter in the spring of 1979, and the implementation of the compiler in the summer of 1980.