MacOberon by Institut für Computersysteme, ETH Zürich

Oberon, the successor of Pascal and Modula-2, is both a programming language and a novel programming environment designed by N. Wirth and J. Gutknecht at ETH Zürich. It is now available without fee from ETH. Currently there are implementations for Apple Macintosh II , Digital Equipment DECstation , IBM RS6000 , and Sun SPARCStation . These implementations are completely source-code compatible with each other and share the same document architecture. This sheet shows some of the characteristics of the Macintosh implementation of the Oberon System, MacOberon , and describes how to obtain it.

Language

- Strong type checking

- Modules with type-checked interfaces and separate compilation

- Type extension, which provides for object-oriented programming

- Support for run-time type tests

- Compatibility between all numeric types (mixed expressions)

- String operations
Compiler

- Generates native code; no separate linking necessary

- Very fast compilation

- Can compile directly from edit window
System

- Single-process multitasking

- Automatic garbage collection

- Commands: procedures that can be called like programs

- Dynamic loading (adding modules to a running program)

- Text as a built-in abstract data type

- Tools for text and graphics editing, and for program development

Literature
The standard software distribution contains sufficient on-line documentation to enable normal use of the system. This documentation can also be printed from within the application. However, for serious work we recommend the following two books published by Addison-Wesley. The full source listings of the whole Oberon system (including the original Oberon compiler for NS32000) will be included in a further book by N. Wirth and J. Gutknecht, which should be available in October.

N. Wirth and M. Reiser: Programming in Oberon. Steps beyond Pascal and Modula-2.

Addison-Wesley, to appear in February 1992.

Tutorial for the Oberon programming language and concise language reference.

M. Reiser: The Oberon System. User Guide and Programmer's Manual.

Addison-Wesley, 1991, ISBN 0-201-54422-9.

User manual for the programming environment and reference for

the standard module library.

System Requirements
MacOberon requires a Macintosh equipped with a Motorola 68020 processor (or higher) and a floating-point coprocessor . It will not run on Macintosh Classic computers. However, it does run on the Macintosh Quadra with caching enabled, and on the Macintosh IIsi if one of several widely available public-domain INITs is used to emulate the floating-point coprocessor which is lacking on this Macintosh model. MacOberon prefers to run under System 7 but is backward-compatible with releases 5 and 6 of the Macintosh operating system. Memory and disk requirements are minimal, but a large monitor is highly recommended.

How to get MacOberon
MacOberon can be obtained via anonymous internet file transfer ftp (at no charge) or on floppy disk (for a fee of 30 Swiss Francs, which is about 20 U.S. Dollars). We accept payment via Eurocard/Mastercard or VISA. To order by credit card, specify your credit card number, expiration date, and your name exactly as it appears on the card.

FTP Hostname:

neptune.inf.ethz.ch

Internet Address:

129.132.101.33

FTP Directory:

Oberon/MacII

For Further Information Please Contact our Secretary at
Institut für Computersysteme ETH, 8092 Zürich, Switzerland,
Telephone (1)254 7311, Facsimile (1)262 3973
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