Institut für Informatik

Zürich, 26th July 1982

Release of Modula-2 Compilers

The design of the programming language Modula-2 (*), started in 1977, was followed by several implementation efforts. The following compilers are being distributed under a licensing agreement with the purpose of protecting the language from arbitrary changes and extensions.

Compiler M2RT11, operating on the PDP-11 (LSI-11) under RT-11, generating PDP-11 code. The compiler is written in Modula-2 itself.

Compiler M2M, written in Modula-2, generating M-Code. M-Code is defined by an interpreter described in Modula-2. This compiler is primarily used to transport Modula-2 onto other computers by either

1) Coding the M-Code interpreter in machine language of the target computer, yielding an interpretive implementation, or

2) Replacing the compiler's pass 4 by a program directly generating code for the target machine.

The compiler is released in source form only. For initial bootstrap another Modula-2 compiler (e.g. M2RT11) could be used.

The fee for each compiler is SFr. 350.--. Our intention in distributing compilers for Modula-2 is to provide a modern tool for programming and thereby to advance the state of software engineering. The above fee must therefore not be regarded as a price for the compiler, but rather as a handling charge and coverage of documentation, tape, package and postage. The compilers are recorded on 9-track, 800 BpI mag-tapes in RT-11 file structured format.

If you wish to receive a compiler, please indicate M2RT11 or M2M, sign the enclosed license agreement and return it to

> Institut für Informatik ETH-Zentrum CH-8092 Zürich / Switzerland

A translation of M2RT11 into Pascal has been developed to several *cross-compilers*, generally designed to run on CDC / Cyber computers. A package of programs called SMILER-2 is distributed, containing cross-compilers and a cross-linker for DEC PDP-11/LSI-11, Motorola M6809, and Motorola M68000. It is recorded on a 9 track, 1600 BpI mag-tape in EBCDIC fixed format.

The fee for this package is SFr. 350.-- too. To receive it, please indicate SMILER-2 on the license agreement, sign and return it to

Mr. H. Seiler Computer Center ETH CH- 8092 Zürich / Switzerland

Tel .: 00411 256 3480

Compiler M2RT11 has also been adapted to UNIX by and is available from

Dr. Jeffrey Tobias Dept. of Computer Science University of New South Wales P.O. Box 1 Kensington, N.S.W. 2033 / Australia

This compiler is known as M2UNIX. To obtain it, send a completed license agreement indicating M2UNIX, together with Aust. \$ 150.-- to Dr. Tobias.

(*) Modula-2 Report: N. Wirth, Programming in Modula-2, Springer Verlag, 1982, ISBN 3-540-11674-5.

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concerning use and distribution of the program subsequently called *the compiler* for the programming language Modula-2 between

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subsequently called *the licensee*, and the Swiss Federal Institute of Technology in Zürich (Eidgenössische Technische Hochschule), subsequently called ETH, *the licensor*.

1. The license

1.1. ETH grants the licensee the right to use the compiler for its employees, customers, or students. He has no right to sell or give the compiler to third parties.

1.2. The licensee obtains the right to use the compiler for any of its requirements (education, production, demonstration) at no cost, except for the initial handling charge.

1.3. The licensee agrees not to charge any "software cost" for the use of the compiler to its paying customers.

1.4. The licensee does not obtain the right to sell the compiler nor its modified versions for commercial profit without further agreement with ETH.

1.5. ETH has no obligation to "maintain" the compiler, i.e. to adapt it to new operating systems, nor to extend the language Modula-2. However, it will inform the licensee about discovered errors and their correction.

2. Documentation

2.1. ETH will make available its documentation at production cost, and retain the copyright for it.

2.2. ETH grants the licensee the right to produce its own manuals, handbooks, or other documentation under the provision that ETH's authorship of the language and its compilers is explicitly mentioned. In particular, it must be mentioned that Moudla-2 and the compiler were designed and developed at the Institut für Informatik, ETH Zürich.

3. Rights and Authorship

3.1. The licensee has the right to adapt the Basic Software to its own computing environment. He agrees, however, not to alter the compiler in such a way that the language accepted by the compiler is changed. The reference document is the report *Modula-2*, contained in N. Wirth, *Programming in Modula-2*, Springer-Verlag, 1982.

3.2. Extensions of the language are not considered as changes. However, the licensee agrees to report planned extensions to ETH; he is discouraged from making substantial extensions in the interest of program portability.

3.3. If the licensee derives another compiler from the one subject to this license, he agrees to report its availability and, if requested, to make it available to the licensor under the same conditions as stated in this license.

Location:

Date:

The Licensee:

The Licensor:

July 1982