



# Tech Info Library

## Pascal III: Comparison to Apple II Pascal (1 of 2)

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Security: Everyone

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The majority of Apple II Pascal programs can be recompiled then executed on the Apple III without modification. The following is summary of significant differences between Pascal II and Pascal III. Please refer to the Apple III Pascal Programmer's Manual, Volume 2, starting on page 128, for additional information.

OTHERWISE Clause in CASE Statement:

Pascal III provides an OTHERWISE clause in the CASE statement. The OTHERWISE clause allows you to enter a statement that is executed if none of the cases are executed. Refer to chapter 5 of the Apple III Pascal Programmer's Manual.

SOS Pathnames:

SOS Pathnames are different from the Pascal filenames used on the Apple II. Pascal III supports both types of names, as explained in the Apple III Pascal Introduction, Filer, and Editor manual.

SOS Device Driver Support:

Pascal III supports SOS device drivers as "I/O units." See Chapters 10 thru 12 in the Standard Device Drivers Handbook.

Graphics:

The Apple III screen graphics modes driven through the SOS graphics driver differs significantly from the Apple II. Therefore, a new unit named PGRAF is supplied as a high-level interface to the graphics driver. Refer to the Standard Device Driver manual for additional information on the SOS graphics driver.

Turtlegraphics is available only for compatibility with the Apple II. Refer to Appendix K of the Apple III Pascal Programmer's Manual.

#### New Procedures:

The AppleStuff unit contains Date, TimeOfDay, ClockInfo, and SetTime procedures for reading and setting the Apple III system's internal date and time. See Appendix D of the Apple III Pascal Programmer's Manual.

#### New Data Types:

The ByteStream and WordStream types are provided for use as types of Var parameters in procedure and function definitions. See Chapter 3 of the Apple III Pascal Programmer's Manual.

#### Real Arithmetic:

For operations on type Real values, Pascal III conforms to the IEEE floating-point standard. Under default conditions, the difference between the Pascal III and Apple II Pascal is invisible, unless the program performs operations giving exceptional results, such as division by zero. See Appendix F of the Apple III Pascal Programmer's Manual for complete details.

The Apple Pascal Numeric SANE package, available for both the Apple II and Apple III, establishes a universal mathematic environment for the two systems.

#### Library Files and Units:

Each Pascal III codefile can have a "program library" file associated with it in addition to the System.Library file. Thus, library units are more convenient; furthermore, programs may have up to 48 segments at run time.

When compiling a unit, it is no longer necessary in all cases to use the Compiler's swapping option.

#### Apple Tech Notes

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