HCR/Pascal will correctly compile and execute programs which conform to the ISO 7185 and BS 6192 Level 0 Pascal Standards, as well as the ANSI/IEEE770X3.97-1983 Pascal Standard. In addition HCR/Pascal passes all Conformance Tests in the Pascal Validation Suite Release 4.0 from the British Standards Institute.

HCR/Pascal offers the strengths of Pascal combined with the flexibility and versatility of UNIX and C and the interface between HCR/Pascal, UNIX and C language is seamless. When working with HCR/Pascal all the standard UNIX development and editing tools are at your disposal.

o HCR/Pascal programs can invoke UNIX system calls and assembly language routines.
o HCR/Pascal programs can call C routines and directly access C libraries.
o C programs can call HCR/Pascal routines and directly access HCR/Pascal libraries.
o HCR/Pascal includes a complete UNIX compatible implementation of a dynamic string package modelled on the USCD Pascal.
o HCR/Pascal contains a built-in library of functions providing Pascal programs with complete access to the UNIX file system.
o HCR/Pascal can be used as a Pascal-to-C translator. Thus the user has access to the standard UNIX C debuggers such as *sdb* and *adb* as well as the UNIX profiler *prof.*
o Efficient compiled code
o A macro preprocessor with all the features of the C preprocessor including *efine* and *nclude.*
o Separate compilation of multiple module programs.
o The *otherwise* clause in case statements.
o The built-in routines *sizeof, addressof* and *exit.*
o Automated installation.
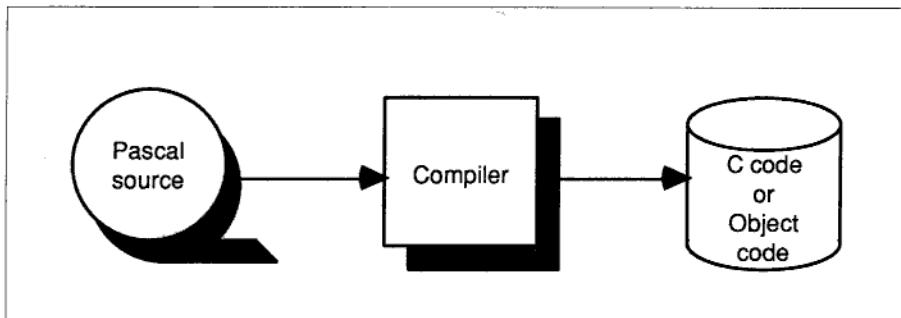
Run-time procedures

getarg	Get command line argument
nargs	Return number of command line arguments
pclose	Close a Pascal file variable
pcreate	Create a Pascal file by name
pinit	Connect a file variable to file description
popen	Open a Pascal file number
pseek	Admin random read/write file access
pstat	Get status of a Pascal file

Functions

abs	Compute absolute value
adressof	Find address of variable
arctan	Compute arctangent
chr	Convert integer to character
concat	Concatenate strings
copy	Copy from string
cos	Compute cos
delete	Delete characters in strings
dispose	Return allocated memory
eof	Test for end-of-file
eoln	Test for end-of-line
exit	Terminate a procedure
exp	Exponential

get	Read value from file
insert	Returns length of string
ln	Compute natural log
new	Allocate memory for variable
odd	Test for odd integer
ord	Find ordinal position
pack	Transfer unpacked to packed array
page	Output a page break
pos	Pattern match within a string
put	Write value to file
pred	Returns preceding value of ordinal
read	Read from file
readln	Read a line from a text-file
reset	Initialize a file for write
rewrite	Initialize a file for read
round	Round real to integer
sin	Calculate sin
sizeof	Size of a variable
sqr	Calculate square
sqrt	Calculate square root
succ	Return succeeding value of ordinal
trunc	Truncate real to integer
unpack	Transfer packed to unpacked array
write	Write to a file
writeln	Write a line to a file

Extensions
HCR/Pascal provides a compact set of langauge extensions designed to help make Pascal easy to use in the UNIX environment. These include a completely UNIX compatible implementation of all the features of the USCD Pascal's string package – the external reference and private reference (required for separate compilation), the unchecked declaration (provides access to C subprograms that accept varying numbers or types of arguments), the built-in functions *sizeof, addressof* and *exit*; and the option of using an *otherwise* clause in case statements.

Portability
Pascal programs are quite portable and many existing Pascal applications including all standard conforming ones will run on HCR/Pascal unchanged.

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