

## NAME

README.vos - Perl for Stratus VOS

## SYNOPSIS

This file contains notes for building perl on the Stratus VOS operating system. Perl is a scripting or macro language that is popular on many systems. See *perlbook* for a number of good books on Perl.

These are instructions for building Perl from source. This version of Perl is not supported on VOS Release 14.2 or earlier releases. If you have a Continuum platform running VOS Release 14.3 through 14.7, download Perl from the Stratus Anonymous FTP site at <ftp://ftp.stratus.com/pub/vos/posix/ga/continuum/continuum.html>. If you have a V Series platform running VOS Release 15.0 or later, or if you have a V Series platform running OpenVOS Release 17.0 or later, download Perl from <ftp://ftp.stratus.com/pub/vos/posix/ga/v-series/v-series.html>. The perl distribution files on the Stratus anonymous FTP site are stored in a format called a "bundled file". Instructions for unbundling the Perl distribution file are at <ftp://ftp.stratus.com/pub/vos/utility/utility.html>.

If you are running VOS Release 14.4.1 or later, you can obtain a pre-compiled, supported copy of perl by purchasing Release 2.0.1 (or later) of the VOS GNU C/C++ and GNU Tools product from Stratus Technologies.

## BUILDING PERL FOR VOS

To build perl from its source code on the Stratus Continuum platform, you must have VOS Release 14.5.0 or later, the STCP product, and the GNU C/C++ and GNU Tools, Release 2.0.1 or later. On the V Series platform you must have VOS Release 15.0.0 or later, and any version of the GNU C/C++ and GNU Tools product.

To build full perl using the supplied Configure script and makefiles, change to the "vos" subdirectory and type the command "compile\_full\_perl" or "start\_process compile\_full\_perl". This will configure, build, and test perl.

## INSTALLING PERL IN VOS

- 1 If you have built perl using the Configure script, ensure that you have modify and default write permission to `>system>ported` and all subdirectories. Then type

```
gmake install
```

- 2 While there are currently no architecture-specific extensions or modules distributed with perl, the following directories can be used to hold such files (replace the string VERSION by the appropriate version number):

```
>system>ported>lib>perl5>VERSION>7100
>system>ported>lib>perl5>VERSION>8000
>system>ported>lib>perl5>VERSION>i786
```

- 3 Site-specific perl extensions and modules can be installed in one of two places. Put architecture-independent files into:

```
>system>ported>lib>perl5>site_perl>VERSION
```

Put site-specific architecture-dependent files into one of the following directories:

```
>system>ported>lib>perl5>site_perl>VERSION>7100
>system>ported>lib>perl5>site_perl>VERSION>8000
>system>ported>lib>perl5>site_perl>VERSION>i786
```

- 4 You can examine the `@INC` variable from within a perl program to see the order in which Perl searches these directories.

## USING PERL IN VOS

### Restrictions of Perl on VOS

This port of Perl version 5 to VOS prefers Unix-style, slash-separated pathnames over VOS-style greater-than-separated pathnames. VOS-style pathnames should work in most contexts, but if you have trouble, replace all greater-than characters by slash characters. Because the slash character is used as a pathname delimiter, Perl cannot process VOS pathnames containing a slash character in a directory or file name; these must be renamed.

This port of Perl also uses Unix-epoch date values internally. As long as you are dealing with ASCII character string representations of dates, this should not be an issue. The supported epoch is January 1, 1980 to January 17, 2038.

See the file `pod/perlport.pod` for more information about the VOS port of Perl.

### Handling of underflow and overflow

Prior to VOS Release 14.7.0, VOS does not support automatically mapping overflowed floating-point values to +infinity, nor automatically mapping underflowed floating-point values to zero, unlike many other platforms. The Perl `pack` function has been modified to perform such mapping in software on VOS. Performing other floating-point computations that underflow or overflow will probably result in SIGFPE. Don't push your luck.

As of VOS Release 14.7.0 or later, the VOS POSIX runtime sets up the PA-RISC and IA-32 hardware floating-point status register so that the overflow and underflow exceptions do not trap, but instead automatically convert the result to infinity or zero, as appropriate. As of this writing, there are still floating-point operations that can trap, for example, subtracting two infinite values. This is recorded as suggestion `posix-1022`, which has been fixed in VOS Release 15.2 and higher.

## TEST STATUS

When Perl 5.9.0 is built using the native build process on VOS Release 14.7.0 and GNU C++/GNU Tools 2.0.2a, all but nine attempted tests either pass or result in TODO (ignored) failures. The tests that fail are:

```
t/io/dup, test 2 t/io/tell, test 28 t/op/pack, test 0 ext/B/t/bytecode, test 1 ext/Devel/Peek/t/Peek, test 1
ext/Encode/t/enc_module, test 1 ext/IO/t/io_dup, test 2 lib/ExtUtils/t/MM_Unix, test 94
lib/Net/ing/t/450_service, test 8
```

## SUPPORT STATUS

I'm offering this port "as is". You can ask me questions, but I can't guarantee I'll be able to answer them. There are some excellent books available on the Perl language; consult a book seller.

If you want a supported version of perl for VOS, purchase the VOS GNU C/C++ and GNU Tools Release 2.0.1 (or later) product from Stratus Technologies, along with a support contract (or from anyone else who will sell you support).

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## LAST UPDATE

October 6, 2010