NAME

README.irix - Perl version 5 on Irix systems

DESCRIPTION

This document describes various features of Irix that will affect how Perl version 5 (hereafter just Perl) is compiled and/or runs.

Building 32-bit Perl in Irix

Use

```
sh Configure -Dcc='cc -n32'
```

to compile Perl 32-bit. Don't bother with -n32 unless you have 7.1 or later compilers (use cc -version to check).

(Building 'cc -n32' is the default.)

Building 64-bit Perl in Irix

Use

```
sh Configure -Dcc='cc -64' -Duse64bitint
```

This requires require a 64-bit MIPS CPU (R8000, R10000, ...)

You can also use

```
sh Configure -Dcc='cc -64' -Duse64bitall
```

but that makes no difference compared with the -Duse64bitint because of the `cc -64`.

You can also do

```
sh Configure -Dcc='cc -n32' -Duse64bitint
```

to use long longs for the 64-bit integer type, in case you don't have a 64-bit CPU.

If you are using gcc, just

```
sh Configure -Dcc=gcc -Duse64bitint
```

should be enough, the Configure should automatically probe for the correct 64-bit settings.

About Compiler Versions of Irix

Some Irix cc versions, e.g. 7.3.1.1m (try cc -version) have been known to have issues (coredumps) when compiling perl.c. If you've used -OPT:fast_io=ON and this happens, try removing it. If that fails, or you didn't use that, then try adjusting other optimization options (-LNO, -INLINE, -O3 to -O2, etcetera). The compiler bug has been reported to SGI. (Allen Smith <easmith@beatrice.rutgers.edu>)

Linker Problems in Irix

If you get complaints about so_locations then search in the file hints/irix_6.sh for "lddflags" and do the suggested adjustments. (David Billinghurst <David.Billinghurst@riotinto.com.au>)

Malloc in Irix

Do not try to use Perl's malloc, this will lead into very mysterious errors (especially with -Duse64bitall).

Building with threads in Irix

Run Configure with -Duseithreads which will configure Perl with the new Perl 5.8.0 "interpreter threads", see *threads*.

The old Perl 5.005 threads is obsolete, unmaintained, and its use is discouraged. If you really want it, run Configure with the -Dusethreads -Duse5005threads options as described in INSTALL.

For either thread model and for Irix 6.2, you have to have the following patches installed:

```
1404 Irix 6.2 Posix 1003.1b man pages
1645 Irix 6.2 & 6.3 POSIX header file updates
2000 Irix 6.2 Posix 1003.1b support modules
2254 Pthread library fixes
2401 6.2 all platform kernel rollup
```

IMPORTANT: Without patch 2401, a kernel bug in Irix 6.2 will cause your machine to panic and crash when running threaded perl. Irix 6.3 and later are okay.

```
Thanks to Hannu Napari <Hannu.Napari@hut.fi> for the IRIX
pthreads patches information.
```

Irix 5.3

While running Configure and when building, you are likely to get quite a few of these warnings:

```
ld:
The shared object /usr/lib/libm.so did not resolve any symbols.
      You may want to remove it from your link line.
```

Ignore them: in IRIX 5.3 there is no way to quieten ld about this.

During compilation you will see this warning from toke.c:

```
uopt: Warning: Perl_yylex: this procedure not optimized because it
      exceeds size threshold; to optimize this procedure, use -Olimit
option
      with value >= 4252.
```

Ignore the warning.

In IRIX 5.3 and with Perl 5.8.1 (Perl 5.8.0 didn't compile in IRIX 5.3) the following failures are known.

```
 Failed Test                  Stat Wstat Total Fail  Failed  List of Failed
 -------------------------------------------------------------------------------
 ../ext/List/Util/t/shuffle.t    0   139    ??   ??       %  ??
 ../lib/Math/Trig.t            255 65280    29   12  41.38%  24-29
 ../lib/sort.t                   0   138   119   72  60.50%  48-119
 56 tests and 474 subtests skipped.
 Failed 3/811 test scripts, 99.63% okay. 78/75813 subtests failed, 99.90%
okay.
```

They are suspected to be compiler errors (at least the shuffle.t failure is known from some IRIX 6 setups) and math library errors (the Trig.t failure), but since IRIX 5 is long since end-of-lifed, further fixes for the IRIX are unlikely. If you can get gcc for 5.3, you could try that, too, since gcc in IRIX 6 is a known workaround for at least the shuffle.t and sort.t failures.

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Please report any errors, updates, or suggestions to *perlbug@perl.org*.