NAME

perl583delta - what is new for perl v5.8.3

DESCRIPTION

This document describes differences between the 5.8.2 release and the 5.8.3 release.

If you are upgrading from an earlier release such as 5.6.1, first read the *perl58delta*, which describes differences between 5.6.0 and 5.8.0, and the *perl581delta* and *perl582delta*, which describe differences between 5.8.0, 5.8.1 and 5.8.2

Incompatible Changes

There are no changes incompatible with 5.8.2.

Core Enhancements

A SCALAR method is now available for tied hashes. This is called when a tied hash is used in scalar context, such as

```
    if (%tied_hash) {
 ...
    }
```

The old behaviour was that %tied_hash would return whatever would have been returned for that hash before the hash was tied (so usually 0). The new behaviour in the absence of a SCALAR method is to return TRUE if in the middle of an `each` iteration, and otherwise call FIRSTKEY to check if the hash is empty (making sure that a subsequent `each` will also begin by calling FIRSTKEY). Please see *"SCALAR" in perltie* for the full details and caveats.

Modules and Pragmata

CGI

Cwd

Digest

Digest::MD5

Encode

File::Spec

FindBin

> A function `again` is provided to resolve problems where modules in different directories wish to use FindBin.

List::Util

> You can now weaken references to read only values.

Math::BigInt

PodParser

Pod::Perldoc

POSIX

Unicode::Collate

Unicode::Normalize

Test::Harness

threads::shared

> `cond_wait` has a new two argument form. `cond_timedwait` has been added.

Utility Changes

`find2perl` now assumes `-print` as a default action. Previously, it needed to be specified explicitly.

A new utility, `prove`, makes it easy to run an individual regression test at the command line. `prove` is part of Test::Harness, which users of earlier Perl versions can install from CPAN.

New Documentation

The documentation has been revised in places to produce more standard manpages.

The documentation for the special code blocks (BEGIN, CHECK, INIT, END) has been improved.

Installation and Configuration Improvements

Perl now builds on OpenVMS I64

Selected Bug Fixes

Using substr() on a UTF8 string could cause subsequent accesses on that string to return garbage. This was due to incorrect UTF8 offsets being cached, and is now fixed.

join() could return garbage when the same join() statement was used to process 8 bit data having earlier processed UTF8 data, due to the flags on that statement's temporary workspace not being reset correctly. This is now fixed.

`$a .. $b` will now work as expected when either $a or $b is `undef`

Using Unicode keys with tied hashes should now work correctly.

Reading $^E now preserves $!. Previously, the C code implementing $^E did not preserve `errno`, so reading $^E could cause `errno` and therefore `$!` to change unexpectedly.

Reentrant functions will (once more) work with C++. 5.8.2 introduced a bugfix which accidentally broke the compilation of Perl extensions written in C++

New or Changed Diagnostics

The fatal error "DESTROY created new reference to dead object" is now documented in *perldiag*.

Changed Internals

The hash code has been refactored to reduce source duplication. The external interface is unchanged, and aside from the bug fixes described above, there should be no change in behaviour.

`hv_clear_placeholders` is now part of the perl API

Some C macros have been tidied. In particular macros which create temporary local variables now name these variables more defensively, which should avoid bugs where names clash.

<signal.h> is now always included.

Configuration and Building

`Configure` now invokes callbacks regardless of the value of the variable they are called for. Previously callbacks were only invoked in the `case $variable $define)` branch. This change should only affect platform maintainers writing configuration hints files.

Platform Specific Problems

The regression test ext/threads/shared/t/wait.t fails on early RedHat 9 and HP-UX 10.20 due to bugs in their threading implementations. RedHat users should see https://rhn.redhat.com/errata/RHBA-2003-136.html and consider upgrading their glibc.

Known Problems

Detached threads aren't supported on Windows yet, as they may lead to memory access violation problems.

There is a known race condition opening scripts in `suidperl`. `suidperl` is neither built nor installed by default, and has been deprecated since perl 5.8.0. You are advised to replace use of suidperl with tools such as sudo (http://www.courtesan.com/sudo/)

We have a backlog of unresolved bugs. Dealing with bugs and bug reports is unglamorous work; not something ideally suited to volunteer labour, but that is all that we have.

The perl5 development team are implementing changes to help address this problem, which should go live in early 2004.

Future Directions

Code freeze for the next maintenance release (5.8.4) is on March 31st 2004, with release expected by mid April. Similarly 5.8.5's freeze will be at the end of June, with release by mid July.

Obituary

Iain 'Spoon' Truskett, Perl hacker, author of *perlreref* and contributor to CPAN, died suddenly on 29th December 2003, aged 24. He will be missed.

Reporting Bugs

If you find what you think is a bug, you might check the articles recently posted to the comp.lang.perl.misc newsgroup and the perl bug database at http://bugs.perl.org. There may also be information at http://www.perl.org, the Perl Home Page.

If you believe you have an unreported bug, please run the **perlbug** program included with your release. Be sure to trim your bug down to a tiny but sufficient test case. Your bug report, along with the output of `perl -V`, will be sent off to perlbug@perl.org to be analysed by the Perl porting team. You can browse and search the Perl 5 bugs at http://bugs.perl.org/

SEE ALSO

The *Changes* file for exhaustive details on what changed.

The *INSTALL* file for how to build Perl.

The *README* file for general stuff.

The *Artistic* and *Copying* files for copyright information.