NAME

perl584delta - what is new for perl v5.8.4

DESCRIPTION

This document describes differences between the 5.8.3 release and the 5.8.4 release.

Incompatible Changes

Many minor bugs have been fixed. Scripts which happen to rely on previously erroneous behaviour will consider these fixes as incompatible changes :-) You are advised to perform sufficient acceptance testing on this release to satisfy yourself that this does not affect you, before putting this release into production.

The diagnostic output of Carp has been changed slightly, to add a space after the comma between arguments. This makes it much easier for tools such as web browsers to wrap it, but might confuse any automatic tools which perform detailed parsing of Carp output.

The internal dump output has been improved, so that non-printable characters such as newline and backspace are output in `\x` notation, rather than octal. This might just confuse non-robust tools which parse the output of modules such as Devel::Peek.

Core Enhancements

Malloc wrapping

Perl can now be built to detect attempts to assign pathologically large chunks of memory. Previously such assignments would suffer from integer wrap-around during size calculations causing a misallocation, which would crash perl, and could theoretically be used for "stack smashing" attacks. The wrapping defaults to enabled on platforms where we know it works (most AIX configurations, BSDi, Darwin, DEC OSF/1, FreeBSD, HP/UX, GNU Linux, OpenBSD, Solaris, VMS and most Win32 compilers) and defaults to disabled on other platforms.

Unicode Character Database 4.0.1

The copy of the Unicode Character Database included in Perl 5.8 has been updated to 4.0.1 from 4.0.0.

suidperl less insecure

Paul Szabo has analysed and patched `suidperl` to remove existing known insecurities. Currently there are no known holes in `suidperl`, but previous experience shows that we cannot be confident that these were the last. You may no longer invoke the set uid perl directly, so to preserve backwards compatibility with scripts that invoke #!/usr/bin/suidperl the only set uid binary is now `sperl5.8.`*n* (`sperl5.8.4` for this release). `suidperl` is installed as a hard link to `perl`; both `suidperl` and `perl` will invoke `sperl5.8.4` automatically the set uid binary, so this change should be completely transparent.

For new projects the core perl team would strongly recommend that you use dedicated, single purpose security tools such as `sudo` in preference to `suidperl`.

format

In addition to bug fixes, `format`'s features have been enhanced. See *perlform*

Modules and Pragmata

The (mis)use of `/tmp` in core modules and documentation has been tidied up. Some modules available both within the perl core and independently from CPAN ("dual-life modules") have not yet had these changes applied; the changes will be integrated into future stable perl releases as the modules are updated on CPAN.

Updated modules

Attribute::Handlers

B

Benchmark

CGI

Carp

Cwd

Exporter

File::Find

IO

IPC::Open3

Local::Maketext

Math::BigFloat

Math::BigInt

Math::BigRat

MIME::Base64

ODBM_File

POSIX

Shell

Socket

> There is experimental support for Linux abstract Unix domain sockets.

Storable

Switch

> Synced with its CPAN version 2.10

Sys::Syslog

> `syslog()` can now use numeric constants for facility names and priorities, in addition to strings.

Term::ANSIColor

Time::HiRes

Unicode::UCD

Win32

> Win32.pm/Win32.xs has moved from the libwin32 module to core Perl

base

open

threads

> Detached threads are now also supported on Windows.

utf8

Performance Enhancements

- Accelerated Unicode case mappings (`/i`, `lc`, `uc`, etc).

- In place sort optimised (eg `@a = sort @a`)

- Unnecessary assignment optimised away in

```
my $s = undef;
my @a = ();
my %h = ();
```

- Optimised `map` in scalar context

Utility Changes

The Perl debugger (*lib/perl5db.pl*) can now save all debugger commands for sourcing later, and can display the parent inheritance tree of a given class.

Installation and Configuration Improvements

The build process on both VMS and Windows has had several minor improvements made. On Windows Borland's C compiler can now compile perl with PerlIO and/or USE_LARGE_FILES enabled.

`perl.exe` on Windows now has a "Camel" logo icon. The use of a camel with the topic of Perl is a trademark of O'Reilly and Associates Inc., and is used with their permission (ie distribution of the source, compiling a Windows executable from it, and using that executable locally). Use of the supplied camel for anything other than a perl executable's icon is specifically not covered, and anyone wishing to redistribute perl binaries *with* the icon should check directly with O'Reilly beforehand.

Perl should build cleanly on Stratus VOS once more.

Selected Bug Fixes

More utf8 bugs fixed, notably in how `chomp`, `chop`, `send`, and `syswrite` and interact with utf8 data. Concatenation now works correctly when `use bytes;` is in scope.

Pragmata are now correctly propagated into (?{...}) constructions in regexps. Code such as

```
my $x = qr{ ... (??{ $x }) ... };
```

will now (correctly) fail under use strict. (As the inner `$x` is and has always referred to `$::x`)

The "const in void context" warning has been suppressed for a constant in an optimised-away boolean expression such as `5 || print;`

`perl -i` could `fchmod(stdin)` by mistake. This is serious if stdin is attached to a terminal, and perl is running as root. Now fixed.

New or Changed Diagnostics

`Carp` and the internal diagnostic routines used by `Devel::Peek` have been made clearer, as described in *Incompatible Changes*

Changed Internals

Some bugs have been fixed in the hash internals. Restricted hashes and their place holders are now allocated and deleted at slightly different times, but this should not be visible to user code.

Future Directions

Code freeze for the next maintenance release (5.8.5) will be on 30th June 2004, with release by mid July.

Platform Specific Problems

This release is known not to build on Windows 95.

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.