

**NAME**

Date::Manip::Changes6 – changes in Date::Manip 6.xx

**SYNOPSIS**

This describes the changes made to the Date::Manip module in the 6.xx series of releases. Major changes are marked with asterisks (\*).

For the most part, Date::Manip has remained backward compatible at every release, but occasionally, a change is made which is backward incompatible. These are marked with an exclamation mark (!).

`#=head1 VERSION 6.90 (expected 2022-12-01) #`  
`#=head1 VERSION 6.89 (expected 2022-09-01) #`  
`#=head1 VERSION 6.88 (expected 2022-06-01) #`  
`#=head1 VERSION 6.87 (expected 2022-03-01)`

**VERSION 6.86 (2021-11-15)**

Change warn to carp

All warnings are now issued with the carp command rather than warn. Requested in GitHub pull request #18, but that request was not used because it only changed the uses in the Date::Manip::Date module.

Bug fixes

Fixed a bug where the next/prev Date::Manip::Recur methods gave incorrect results when there are no dates that match the criteria. (GitHub #36)

Time zone fixes

There were no new timezone fixes on 2021-06-01 or 2021-09-01, so no releases made then.

Newest zoneinfo data (tzdata 2021e). (GitHub #37)

**VERSION 6.85 (2021-03-01)**

Test fixes

Missed some tests that were failing.

**VERSION 6.84 (2021-03-01)**

Time zone fixes

Newest zoneinfo data (tzdata 2021a).

Language fixes

Corrections and additions to Italian. Patch supplied by Leo Cacciari (GitHub #33)

**VERSION 6.83 (2020-12-01)**

Time zone fixes

No new zoneinfo data so no release on 2020-09-01.

Newest zoneinfo data (tzdata 2020d). Requested by Shawn Carroll (GitHub #32)

**VERSION 6.82 (2020-06-01)**

Time zone fixes

Newest zoneinfo data (tzdata 2020a).

**VERSION 6.81 (2020-03-01)**

Messed up the 6.80 package. This release fixes it.

**VERSION 6.80 (2020-03-01)**

Missed Changes entry for previous version.

Reported by Tina Muller (GitHub #31)

**VERSION 6.79 (2019-12-01)**

Time zone fixes

Newest zoneinfo data (tzdata 2019c).

**VERSION 6.78 (2019-08-29)**

Time zone fixes

Newest zoneinfo data (tzdata 2019b).

Documentation fixes

Fixed a broken link. Mohammad S Anwar (GitHub #29)

## **VERSION 6.77 (2019-06-01)**

Time zone fixes

Newest zoneinfo data (tzdata 2019a).

## **VERSION 6.76 (2019-03-01)**

Fixed bug in Date::Manip::Date::list\_holidays.

It was using 'now' instead of the stored date. Douglas DeStafeno

Reordered TZ detection methods

Moved checking the tzdata files to lower priority to avoid a pretty unusual situation in docker. Sven Nierlein (GitHub #20)

Time zone fixes

Newest zoneinfo data (tzdata 2018i). Requested by Shawn C Carroll (GitHub #28)

## **VERSION 6.75 (2018-12-03)**

Fixed packaging problems

Version 6.74 was not packaged correctly. Version wasn't set correctly in a few files and there were invalid entries in Makefile.PL. RT 127870.

## **VERSION 6.74 (2018-12-01)**

Removed travis file from the tarball

The tarball had a .travis.yml file in it that wasn't in the MANIFEST file. Since the MANIFEST file is automatically generated by the perl mkmanifest tool, since it didn't see the .travis.yml file, I have excluded it from the tarball. Reported by Mohammad S Anwar on GitHub (#23)

Time zone fixes

Newest zoneinfo data (tzdata 2018e)

## **VERSION 6.73 (2018-09-01)**

Fixed math on non-64-bit architectures

Much of the math in Date::Manip::Base is in a 'use integer' section. This math can overflow in some cases in non-64-bit architectures. Fixed the cases where this would reasonably occur. Reported by Daniel Albers (GitHub #22). Also reported and tested in RT 126052.

Bug in normalizing estimated business deltas

While working on the non-64-bit issue, it uncovered a bug where normalizing estimated business deltas was wrong. It had never been reported, and it was only off by a couple seconds in some rare situations.

## **VERSION 6.72 (2018-06-06)**

Fixed recurrence bug

The fix in the previous version for a rare recurrence problem broke another recurrence form. It is now corrected. Michael Schout (GitHub #20)

Fixed version problem

The wrong version was included in two files for some reason. This is fixed.

Documentation fixes

Fixed a grammatical error reported by Xavier Guimard (GitHub #19).

## **VERSION 6.71 (2018-06-01)**

Fixed an extremely rare problem with recurrences

It is possible to specify a recurrence that never produces a valid date. In these cases, looking for dates went into an infinite loop. The MaxRecurAttempts config variable was added which will stop that from happening. If no occurrence was found, an error condition will be set. Dean Hamstead (RT 123708)

**Changes file supported**

It was requested that I include a valid Changes file. I wrote a simple script to convert the Change6.pod file into a valid Change file. The Changes6.pod file is still the canonical source of this information! Requested by H. Merijn Brand

**Fix for timezone determination**

On MacOS X High Sierra, some of the timezone files were symlinks, but not properly followed. This was fixed by Stu Tomlinson (GitHub #15).

**Time zone fixes**

Newest zoneinfo data (tzdata 2018e)

**Documentation fixes**

Minor fix provided by Mohammad S Anwar (GitHub #17)

**VERSION 6.70 (2018-03-01)****(\*) (!) Changes to deltas**

Improved handling of deltas to better support the different types of deltas. Formalized how the semi-exact portions of the delta are used to produce the results that most people would expect.

The type can now be specified to guarantee several behaviors. Changed the arguments (in a backward compatible way) to several methods. Explicitly added a new type (estimated) which was there previously, but could not be manually specified.

The convert function continues to support converting from a less exact type to a more exact type, but this is deprecated and will be removed in version 7.00.

This was prompted by a bug reported by Ian Gibbs.

**(\*) (!) Deprecated some parts of Date::Manip::Delta**

The options passed to the **set** and **parse** methods have changed. The old style will be removed in version 7.00.

Deltas will also no longer support the 'exact' and 'approximate' strings (which have not been supported for some time). These will be removed in 7.00 as well.

**Deprecation of TZ postponed**

The deprecation of the TZ variable has been postponed to version 7.00.

**Some speed improvements**

I converted some of the functions to use faster algorithms. Previously, the steps were worked out using logical time/calendar based calculations. These were replaced with non-intuitive numerical calculations that gave the same result faster.

**Changed behavior if timezone not determined**

If the system timezone cannot be determined using any of the methods supplied by Date::Manip, operations will be done in the GMT timezone. Previously, Date::Manip would simply fail to load. Based on a report by Kent Fredric (RT 123229).

**Fixed Makefile.PL**

The list of what what is provided did not include the path to the file providing each module. I've fixed the Makefile.PL as well as the META files. Graham Knop (GitHub #13)

**Time zone fixes**

Newest zoneinfo data (tzdata 2018c)

**Documentation fixes**

Rewrote Date::Manip::Delta page to reflect changes, and clean up the documentation in general.

**VERSION 6.60 (2017-09-01)****Bug fixes**

Fixed a bug where if a recurrence had no interval, start and end dates passed in to the dates method would not work. PJ-DSI-DevOps (GitHub #12).

Documentation fixes

Clarified Date::Manip::TZ::all\_periods. Based on discussion with Peter Pfannenschmid.

## **VERSION 6.59 (2017-06-01)**

Time zone fixes

Newest zoneinfo data (tzdata 2017b)

Documentation fixes

Improved some of the documentation.

## **VERSION 6.58 (2017-03-01)**

Better support for \$mode in DateCalc.

DateCalc (in DM6) did not support all values for \$mode. Now it does.

Bug fixes

Parsing a date like 01/02/2016 and calling printf with %e gave '02' instead of ' 2'. Robert Wohlfarth (RT 119787).

Fixed a problem where the tzdata method of determining the timezone was producing an error which wasn't correct. John (GitHub #8)

Time zone fixes

Newest zoneinfo data (tzdata 2017a)

## **VERSION 6.57 (2016-12-01)**

Time zone fixes

Newest zoneinfo data (tzdata 2016j)

Test fixes

A faulty test was failing in a few places. RT 118705

Another test was failing due to a perl bug that popped up in 5.25.7. Tweaked the test to bypass the bug. Kent Fredric (RT 118862)

## **VERSION 6.56 (2016-09-09)**

Test fixes

A faulty test was failing most places. New release to correct that problem. Slaven Rezic (RT 117404)

## **VERSION 6.55 (2016-09-01)**

Fixed bug where \$ : : TZ wasn't used

The \$ : : TZ variable was not getting interpreted correctly when searching for a timezone. Steven Hartland (RT 114949)

Fixed bug where recurrences were not parsed correctly

Passing in incorrect values for a field was not trapped in all cases and it led to problems. All values passed in to a recurrence are now correctly checked. Albert Hilazo (GitHub #7).

Fixed a bug in some methods of creating new objects

Some methods of creating new objects based on existing objects did not correctly use the existing object. Bug has never been reported, but was discovered when adding tests to get 100% coverage.

Time zone fixes

Newest zoneinfo data (tzdata 2016f)

Test fixes

Added a number of new tests based on Devel::Cover.

## **VERSION 6.54 (2016-05-31)**

Deprecation of Date::Manip 5.xx tests

By default, the Date::Manip 5.xx tests will no longer run. Changes to the timezone data can cause failures. Since Date::Manip 5.xx is no longer supported in any way, these tests will no longer run on a system where 6.xx can be run. Richard Jelinek.

**Deprecation of TZ postponed**

The deprecation of the TZ variable has been postponed to March 2017. I decided that 1 year was not enough notice (especially since not everyone will have updated Date::Manip since March 2015 when the warning was added).

**Bug fixes**

Changed requirement for ExtUtils::MakeMaker to 6.67\_01. Quin Arnold (RT 112286)

Fixed a bug where a timezone abbreviation was not parsed correctly when passed in as a value to the SetDate, ForceDate, or TZ config variables. Based on a report in perlmonks.org.

**Time zone fixes**

Newest zoneinfo data (tzdata 2016d)

Made some improvements to how I handled the timezone data which resulted in a few of the default timezones being changed.

**Documentation fixes**

Fixed one more typo. Gregor Herrmann (RT 114095)

Clarified the Config document. Based on a report in perlmonks.org.

**VERSION 6.53 (2016-03-02)****Bug fixes**

Date::Manip::Delta::cmp had a bug in it's comparison. Ian Gibbs.

The secs\_since\_1970\_GMT method was missing a test to see if it was a valid object. Michael Stevens (RT 111915)

**Time zone fixes**

Newest zoneinfo data (tzdata 2016a)

**Documentation fixes**

Lots of typos fixed. I was using podspell to do spell checking, but it was discarding too much real text (which wasn't getting checked as a result). Switched to pod2text which does a better job. Gregor Herrmann (RT 110025)

**VERSION 6.52 (2015-12-01)****Added date ranges on unmodified dates in Recur**

The date range can now be specified for either the fully modified dates, or the unmodified dates. This will make it easier to work with holidays in some instances. Based on <[http://perlmonks.org/?node\\_id=1148735](http://perlmonks.org/?node_id=1148735)>.

**Added IWn and NWn recurrence modifiers**

Based on <[http://perlmonks.org/?node\\_id=1148735](http://perlmonks.org/?node_id=1148735)>.

**(!) Reworked holidays slightly**

Previously, every line in the Holidays section defined a unique holiday. Now, the names determine the list of holidays.

It is not allowed to have two separate holidays named exactly the same. It IS allowed to have complex holidays that require two (or more) lines in the Holidays section to define them completely.

Based on <[http://perlmonks.org/?node\\_id=1148735](http://perlmonks.org/?node_id=1148735)>.

**Bug fixes**

Fixed a bug where the RecurRange config variable wasn't getting used.

Fixed a bug where some deltas were not parsed correctly as dates. Salvatore Bonaccorso (RT 109600)

**Time zone fixes**

Newest zoneinfo data (tzdata 2015g)

## Test fixes

Added a number of new tests based on Devel::Cover.

**VERSION 6.51 (2015-09-01)**

## Changes suggested by perlritic

Played with perlritic and made a few minor changes based on it's suggestions. I doubt I will use perlritic significantly.

**(!) Date::Manip::Delta::value now returns an empty string**

If a delta has an error, or no valid delta in it, the value method returns an empty string instead of undef. This is to be consistent with the Date::Manip::Date::value method which returns an empty string.

## Bug fixes

Fixed a bug where date/delta calculations with deltas that are too large was not working correctly. They now set an error condition and fail. Jared Selengut (RT 105737)

Fixed a bug introduced by the previous patch and luckily discovered pre-release by Tom Wyant.

Fixed code that produced a warning in 5.22.0. Tom Wyant

## Improved DM6 ParseDate and ParseDateString

Added @opts argument. Based on report by Vitaly Shupak (RT 105622).

## Time zone fixes

Newest zoneinfo data (tzdata 2015f)

Now uses /etc/localtime as a method to determine the local timezone. Patch supplied by Tom Wyant (RT 105159) (modified by me). The patch uses some code derived from DateTime::TimeZone .

Clearer message when the date is not valid in the timezone.

## Test fixes

Added a number of new tests based on Devel::Cover. Over the next several releases, I intend to continue to add tests until coverage is 100%.

## Documentation fixes

Fixed a typo. Gregor Herrmann (RT 105546)

**VERSION 6.50 (2015-06-01)**

## Bug fixes

Not really a bug, but 6.49 got a bunch of NYTprof data bundled with it by mistake. It's been removed. Olivier Mengue (RT 103252)

Fixed a bug where information about whether a date was complete or truncated was discarded. Jim Avera

Fixed a bug where SetDate with a zone alias failed.

Added the Format\_MMMYYYYY config variable to allow the truncated format mmmYYYYY to be parsed instead of mmmDDYY. David W. Morganwalp and Glenn Golden (RT 103142)

Fixed Makefile.PL/Build.PL to correct for a change on perl on windows which changes a module prereq requirement. Alexandr Ciornii

## Time zone fixes

Newest zoneinfo data (tzdata 2015d)

Added aliases for older HP-UX time zones. H. Merijn Brand (RT 104141)

## Documentation fixes

Fixed URL for tzdata. Mohammad S Anwar (GitHub #3).

Better POD formats.

Fixed a documentation error. Glenn Golden (RT 103966)

**VERSION 6.49 (2015-03-01)**

Added a deprecation warning

The TZ config variable is going away. Added a deprecation warning.

Some speedups for timezone handling

Based on a report by Glenn Golden (RT 102284), I have done some optimization of the timezone handling code.

Bug fixes

Added the missing is\_date base method to Date::Manip::Base. Mario Domgoergen.

Time zone fixes

Newest zoneinfo data (tzdata 2015a)

Language fixes

A number of corrections by Nicholas Riley

**VERSION 6.48 (2014-12-01)**

Put repository on GitHub

Suggested by Gabor Szabo

parse\_time now parses ISO 8601 times

The parse\_time routine wouldn't correctly parse ISO 8601 times. This is now fixed.

Parsing special dates with timezones now works

Parsing special date formats with timezones is now supported such as:

```
Christmas at noon PST
in 3 days at noon PST
now PST
epoch 3000000 PST
```

dm\_zdump modified

To match the newest version of zdump, the gmtoff is now added at the end of each line.

Bug fixes

Fixed a bug in the printf method that would not handle embedded newlines correctly (and resulted in an infinite loop if it were preceded by a '%'). Henrique Martins

Fixed a bug where '24:00' was not parsed correctly (though '24:00:00' was).

Fixed a bug where fractional values separated by a comma weren't parsed correctly.

Time zone fixes

Newest zoneinfo data (tzdata 2014j)

**VERSION 6.47 (2014-09-01)**

Time zone fixes

Newest zoneinfo data (tzdata 2014f)

Language fixes

Fixed some encoding errors in the language pod documentation.

**VERSION 6.46 (2014-07-08)**

Broken distribution

The distribution contained an temporary edit file that caused problems. Alexandr Ciornii (RT 96459)

Time zone fixes

Newest zoneinfo data (tzdata 2014e)

Language fixes

Added some plural abbreviations that were missing. Glenn Golden (RT 96944)

**VERSION 6.45 (2014-06-05)**

Fixed a test

One test was failing (reported by Constantine Peresypkin (RT 96249) as well as several CPAN Tester reports).

## **VERSION 6.44 (2014-06-01)**

### **(\*) Improvements to UTF8 handling**

A number of changes based on a report and other discussion with Yuri Nikulin (RT 93545) including:

Case insensitive matching of UTF8 strings should work all the time.

Fixed two significant bugs in regexps for parsing dates.

Improvements to UTF8 handling.

Corrected some problems with Russian and added the cp1251 encoding.

One correction to Romanian.

Added several new test scripts.

Preliminary patches were supplied by Yuri.

New features

Modified the parse\_format function to return %+ if desired. Mike Cappella

Time zone fixes

Newest zoneinfo data (tzdata 2014c)

Documentation fixes

Clarified some DM6 functions. David Close.

Fixed a typo. Mike Cappella (RT 95619)

## **VERSION 6.43 (2014-03-03)**

Several changes to distribution files

I made several changes to Build.PL, Makefile.PL, META.yml in order to improve the quality (or kwalitee) of the module. None of these should impact anyone using the module.

Time zone fixes

Newest zoneinfo data (tzdata 2013i)

Documentation fixes

Cleaned up some of the Recur documentation. Suggested by Warren Young (RT 92794)

## **VERSION 6.42 (2013-12-02)**

Added ParseDateFormat function

Added the ParseDateFormat function to the DM6 functional interface in response to Eli Lindsey (RT 89286).

Added Common Log format

Added the date format used in apache logs: 11/Oct/2000:13:55:36 -0700 Eli Lindsey (RT 89286).

Time zone fixes

Newest zoneinfo data (tzdata 2013h)

Bug fixes

Fixed a bug where dates of the form of a delta with a timezone attached (i.e. "1 day ago at midnight UTC") failed. Ludovic Lange (RT 89256)

Fixed a bug where events handling gave a warning if there were no events that applied. RT 90344

## **VERSION 6.41 (2013-09-05)**

Bug fixes

Removed a .swp file accidentally left in the package. RT 85845

Fixed a bug in parse\_format where times between 00:00:00 and 01:00:00 weren't parsed correctly. Ole Nomann Thomsen



Fixed generated META.\* files to not require Module::Build 0.39. Carsten Wolff (RT 86137)

Fixed a bug where parse\_format did not work with a '%s' format. Mark Keisler (RT 87498)

Fixed a bug where find\_encoding wasn't imported from the Encode module. Krishna Subramanian (RT 87665)

Fixed a bug where recurrences with no interval did not work if a start and end date were specified, and no dates fell in that range. Jan Pradac

Time zone fixes

Newest zoneinfo data (tzdata 2013d)

## VERSION 6.40 (2013-06-01)

Removed PODs

POD documentation is no longer generated for Date::Manip::TZ::\* and Date::Manip::Offset::\* modules.

Time zone fixes

Newest zoneinfo data (tzdata 2013c)

## VERSION 6.39 (2013-03-01)

Added the \$mode argument to ParseDateDelta

The ParseDateDelta function (in functional interface) did not allow you to force a parsed delta to semi or approx where appropriate. This was added. Based on RT 82991.

Added get\_config method

The get\_config method was added to all classes. Suggested by Philippe Poilbarbe.

Language fixes

Fixed a German language problem. Gosta Oelstrom

Documentation fixes

Documented workaround for dmake problem in strawberry perl. Discussed on perlmonks and Martin Thurn (RT 79837).

Clarified the Examples page. Winston Heng

## VERSION 6.38 (2013-01-08)

### (\*) Tar file format corrected

Problems were reported on several OSes by people unable to install Date::Manip (and other modules). It turns out that the version of tar distributed by my linux distro (OpenSuSE) uses the 'posix' format instead of the traditional 'gnu' format by default. This causes problems for some versions of tar. I have had reports from OSX, Windows, and SunOS. Future versions of Date::Manip will be explicitly distributed in the 'gnu' tar archive format.

Reported by Jay Allen and John Ralls (RT 80594).

### (\*) Date::Manip 5.xx end-of-life

Date::Manip 5.xx is now officially out of support. I will not be doing any further work on it. The only exception is that I will consider adding user supplied patches on a case-by-case basis.

If at all possible, please use Date::Manip 6.xx instead.

### (!) Removed some deprecated config variables

The following config variables have been removed.

IntCharSet

RecurNumFudgeDays

## VERSION 6.37 (2012-12-01)

Bug fixes

Fixed a bug where ISO 8601 format YYYY-WXX-D didn't work if the week ended up in December. Gordon Lugauer.

Time zone fixes

Newest zoneinfo data (tzdata 2012j)

Documentation fixes

Spelling error fixed. RT 80621

### **VERSION 6.36 (2012-10-31)**

Fix version numbers

This was an interim release to fix the version numbers (6.35 was released with all of the version numbers 6.34).

### **VERSION 6.35 (2012-10-31)**

Fix PATH

This version was an interim release to fix the problem with the PATH being replaced.

Removed dependency on YAML

I've reverted the language data files to perl literals instead of YAML. Though not quite as easy to maintain, it solves a few problems. Patch provided by Christopher Madsen.

Bug fixes

Last versions fix for RT 78566 overrode the PATH even when that wasn't appropriate. This is fixed. Report and patch supplied by Tom Wyant (RT 80435).

### **VERSION 6.34 (2012-09-04)**

This is a bug fix so that the PATH won't break non-unix installs.

Bug fixes

Put the PATH inside the Unix section so it doesn't affect non-unix environments. Geoff Rowell

### **VERSION 6.33 (2012-09-01)**

Improvements to Date::Manip::Delta

Added convert method. This had been planned since 6.30, but based on a discussion with Henrique Martins, I moved it up in priority.

Cleaned up handling of delta field lengths (they are now only calculated once).

Added cmp method. Henrique Martins

Bug fixes

The language modules read from the DATA section, but I never closed the filehandle. This is fixed now. Patch by Doru Theodor Petrescu

Added better loading of DM5/DM6 modules. Evan Carroll (RT 78152)

Added a secure PATH to TZ.pm for taint reasons. In response to Dan Pritts (RT 78566)

Time zone fixes

Now supports timezones in files with spaces where there should be underscores. This occurs in RHEL desktop. Dan Pritts (RT 78566)

Newest zoneinfo data (tzdata 2012e)

Documentation fixes

Minor fix. Henrique Martins

### **VERSION 6.32 (2012-06-01)**

Modified Build.PL

Build.PL now has better support for building (or not building) HTML files. Apparently this is slow on Windows. Patch provide by Manoj Kumar (RT 75118)

Bug fixes

Fixed a bug in business day calculations. Frederic Briere (RT 76336)

Fixed a bug where Delta/Recur objects weren't correctly created. Zsban Ambrus

Fixed a bug where SetDate/ForceDate config variables could not be included in a file. Jerry Wilcox

## Time zone fixes

Newest zoneinfo data (tzdata 2012c).

## Documentation fixes

Better support for UTF-8 in autogenerated language module pod files.

**VERSION 6.31 (2012-03-01)**

Added extended formats to printf method.

These include the %<A=NUM>, %<a=NUM>, %<v=NUM>, %<B=NUM>, %<b=NUM>, %<p=NUM>, and %<E=NUM> formats. Chris Jackson

Can now parse formats where the time and zone are not adjacent

A string like 'Jan 21 17:13:27 2010 -0400' can now be parsed. Requested on perlmonks ('Can Date::Manip parse a unix timestamp' thread).

Added PeriodTimeSep config variable.

This allows you to use a period as a time separator. Ed Avis

Holidays can be used as date strings

You can now parse a holiday name in the Date::Manip::Date::parse method. For example, parse('Christmas'). Requested by Abigail.

Added new recur modifiers

Added WDn, IBD, and NBD modifiers.

Added a new date format

You can now parse '2nd day in May' formats. Randy Harmon

More flexibility in parsing timezones with both offset and abbrev

If you include both the offset and abbreviation in the timezone portion of a date, the parenthesis around the abbreviation are now optional, so you can parse both:

-04:00 (EDT)

-04:00 EDT

Requested by Steven Melendez.

Deltas now support fractional values.

You can now use a delta of 1.5 days. Martin Thurn (RT 42699)

Multiple holidays supported

A date may now have multiple holidays. Keith Minkler

Bug fixes

Fixed a bug where abbreviations were not being examined case insensitively. Jurgen Muck

The Holidays section may be safely split across multiple config files. A bug prevented this from working before.

Language fixes

The Norwegian translation was broken due to a typo in the language module.

Included complete documentation for each language.

Fixed a couple problems with Danish. Nicholas Oxhaj

Added Finnish (from a VERY old mail that I overlooked somehow). Iikka Virkkunen

Cleaned up the values used by printf directives to give the expected result.

Documentation fixes

Fixed a typo. Nicholas Bamber

**VERSION 6.30 (2012-01-11)**

**(\*) (!) Reworked deltas**

Much of the delta code was reworked.

The constraint that a day is treated as 24 hours was removed (by adding the concept of semi-exact deltas) to better handle daylight saving time calculations.

Made cosmetic changes to which signs will be included in a delta to make the deltas more readable. Signs which are the same as the next higher field will be omitted, even if they cross set boundaries.

Added support for non-normalized deltas. See the `$no_normalize` option for the parse and set methods.

Removed limitations on `subtract=2` not working with business calculations.

Thanks to discussion on perlmonks, and RT 65774 that prompted me to do this. I'd been wanting to do it for some time, but the discussion on perlmonks made me realize that this needed to be much higher priority.

**(!) Modified Delta\_Format**

In conjunction with the above work, added the 'semi' mode to `Delta_Format`.

**(!) Removed some deprecated config variables**

The following config variables have been removed.

```
GlobalCnf
IgnoreGlobalCnf
PersonalCnf
PersonalCnfPath
PathSep
```

```
Internal
DeltaSigns
UpdateCurrTZ
ConvTZ
OldConfigFiles
ResetWorkDay
```

**Time zone fixes**

Newest zoneinfo data (tzdata 2011n). RT 71595

Corrects a bug where +0000 and -0000 offsets were not parsed correctly. Aaron Hall

The zoneinfo data includes rules more than 20 years in the future, so we now store 30 years of future dates instead of 20 to catch these rules.

When parsing the timezone portion of the date, timezone abbreviations now take higher precedence than zone names (since that is how timezone information is typically specified). That only impacts dates where the a timezone name is the same as an abbreviation, such as 'CET'.

Previously, a date with CET in it was interpreted as in the CET timezone. Now it is interpreted as in a timezone with the CET abbreviation.

**Better handling of undef in DM6**

The date/delta parsing routines in DM6 will now handle an undef argument without issuing a warning. Earl C. Ruby III

**Bug fixes**

Fixed a bug with the `parse_format %f` and `%i` formats. Tommi Rintala

Fixed a bug where the `Date::Manip::Delta::set` function didn't work to set the month value.

Fixed a bug where parsing some dates near during a DST change failed.

Minor bug fix when using `Delta_Format`. Prompted while investigating RT 41095.

**VERSION 6.25 (2011-08-31)**

Relaxed one constraint in ISO 8601 dates

A time separated by whitespace from the date can use a single digit hour. Yuming Philip Xiang

**(\*) Set official removal dates for old config variables**

Config variables will be removed 2 years after they are deprecated (except for the TZ variable which, due to it's wide use, will be kept for 4 years).

Time zone fixes

Newest zoneinfo data (tzdata 2011i)

**VERSION 6.24 (2011-06-13)**

New features

Spaces are ignored in the SetDate/ForceDate config values. Zsban Ambrus

Bug fixes

Fixed a bug where 'in one week' wasn't correctly parsed. E. M. Shtern

Fixed a bug where options passed in to the 'new' as a listref weren't handled properly. Zsban Ambrus

Time zone fixes

Newest zoneinfo data (tzdata 2011g)

**VERSION 6.23 (2011-04-15)****(!) Renamed one Date::Manip::Recur method**

The Date::Manip::Recur::base method has been renamed to basedate . The Date::Manip::Recur::base method should return the Date::Manip::Base object like all the other Date::Manip modules.

**(\*) Reworked holidays defined as recurrences**

Improved dealing with the bootstrap problem of defining holidays, especially those that contain business day flags. Mike Tonks

New features

The printf function will now take multiple format strings and return a list of values. Zsban Ambrus

Bug fixes

Fixed a bug where GlobalCnf wasn't working. Peter Edwards

Improved error messages in a few cases.

Fixed a bug where one invalid date/timezone check was ignored. Morten Bjornsvik

Fixed a bug where '\$base2 = new Date::Manip::Base \$base1' wasn't working. RT 67143

Fixed a bug where passing dates in to the Recur->dates method failed. RT 67144

Fixed a bug where the mode wasn't being preserved correctly for a delta. RT 67150

Fixed a bug in recurrences where a base date outside of a date range with a very uncommon recurrence format would not work correctly.

Fixed a problem where the '%s' printf option didn't work in GMT. Jean-Michel Hiver

Time zone fixes

Newest zoneinfo data (tzdata 2011f)

Documentation fixes

Fixed two bad recurrence examples in the documentation. Peter Edwards and Mike Tonks

**VERSION 6.22 (2011-03-07)**

Time zone fixes

Newest zoneinfo data (tzdata 2011b)

Fixed a bug where the gmtoff method of getting the local timezone was broken. Martin Zinser.

Fixed the 'env' method of determining the local time zone to allow the value to be an offset of seconds since UTC. This allows the VMS SYS\$TIMEZONE\_DIFFERENTIAL variable to work correctly. Martin

Zinser.

Removed the `SYS$TIMEZONE_RULE` method from VMS since the value stored there is not the name of a timezone (it's a rule in a non-standard format). Based on discussion with Martin Zinser.

Improved the order in which aliases, abbreviations, etc., are tested to test current usage before non-current usage (there were a few cases where old usages were getting tested before current usage).

#### Language fixes

The module will now die if a language module cannot be loaded (most likely due to a `YAML::Syck` issue). Based on discussion with Martin Zinser.

#### Documentation fixes

Added a sample config file document. Based on discussion with Rich Duzenbury.

### VERSION 6.21 (2011-01-10)

#### New features

Deltas may now contain spelled out numbers, so 'in 2 weeks' and 'in two weeks' will both work. Daniel Shahaf

#### Bug fixes

Fixed a bug where `week_of_year` didn't work in some cases. Chris Eveland.

Fixed a minor potential bug. Geraint Edwards.

#### Time zone fixes

Updated windows time zone aliases. Daniel Harding

#### Language fixes

Added Norwegian. Glenn Sogn

### VERSION 6.20 (2010-12-01)

#### (\*) (!) Reworked recurrences

Recurrences were reworked in a (slightly) backward incompatible way to improve their usefulness (and to make them conform to the expected results). Most recurrences will work the same as previously, but a few will differ. Most of this was suggested by Jay Jacobs.

A recurring event is now calculated relative to the base date, NOT relative to a previous event. For example, if a recurrence occurs every month, and the base date was Jan 31, then previously, recurring events would have been (in a non-leap year):

```
D(0)                = Jan 31
D(1) = D(0) + 1 month = Feb 28
D(2) = D(1) + 1 month = Mar 28
...
```

The new behavior is:

```
D(0)                = Jan 31
D(1) = D(0) + 1*(1 month) = Feb 28
D(2) = D(0) + 2*(1 month) = Mar 31
...
```

Previously, if a base date were not specified, it was not determined from the date range. Now, the start date of the date range acts as the base date.

The meaning of the base date has changed slightly. It is much more meaningful and useful now.

Added iterator functions. Daniel LaLiberte

The `RecurNumFudgeDays` variable is no longer used and is deprecated.

#### Time zone fixes

Newest zoneinfo data (tzdata 2010o)

**VERSION 6.14 (2010-10-20)****(\*) Date::Manip 5.xx fully integrated with 6.xx**

Date::Manip 5.xx and 6.xx are both installed automatically, and the correct one will be chosen.

**Bug fixes**

Fixed a bug where recurrence handling was broken. RT 62128

**Documentation fixes**

A lot of documentation was cleaned up to be easier to read, and better organized.

**VERSION 6.13 (2010-10-13)****New features**

Added the input methods to Date::Manip::Date and Date::Manip::Delta. Ed Avis.

The 'date +%z' command will also be used to determine the timezone. Oliver Schulze

**Bug fixes**

Several changes to try to get rid of a memory leaks reported in RT 54937. Huge thanks to BrowserUK on perlmonks for help. Unfortunately, it ended up being a bug in perl, and will only be resolved when that bug is fixed. See the Date::Manip::Problems document for more information.

Reorganized Base/TZ to get rid of circular references.

Added end blocks to clean some global variables.

Got rid of switch/given structures.

Fixed a bug where an incomplete date with 'last' in it was causing an error. RT 60138

Fixed a bug where 'Sunday, 9th Jan 1972' wasn't parsed correctly. RT 57832

**Time zone fixes**

Fixed a bug where Zones.pm was generated with the abbreviations in the wrong order. Amish Chana.

**Language fixes**

French month abbreviations now support periods. Bernard Haerri

**Test fixes**

Added tests from RT 29655 to make sure that the problem never recurs.

**Documentation fixes**

Fixed documentation problem with the new\_\* methods in Date::Manip::Obj. Options must be passed in as \@opts rather than @opts.

Cleaned up some of the documentation.

**VERSION 6.12 (2010-09-27)****(!) IntCharSet config variable deprecated**

With better support for international character sets, the old IntCharSet config variable (which was a bandaid at best) is deprecated. Currently, the functionality still exists, but it will be removed at some point.

**New features**

Added the Encoding config variable.

Now supports parsing the EXIF date format. Rhesa Rozendaal

**Bug fixes**

Fixed Build.PL to not require perl 5.010 since the distribution as a whole does not require that (and I want that fact to be in META.yml).

Fixed a bug where the Date::Manip::Date::set method was broken when setting individual fields. Helmut A. Bender

Fixed a bug where set didn't work in Date::Manip::Delta. Patch provided in RT 59096.

## Time zone fixes

Newest zoneinfo data (tzdata 2010m)

## Language fixes

**(\*) Converted all language files to UTF-8 and added rudimentary support for character encodings. Some assistance by Stephen Ostermiller.**

Fixed problem in Polish, Dutch. Stephen Ostermiller

Extended support for 'nth' up to 53rd. Paco Regodon

Added some corrections to German. Dieter Lange

## Documentation fixes

Clarified Date::Manip::Recur documentation based on RT 59132.

**VERSION 6.11 (2010-04-30)**

## Bug fixes

Fixed a problem in Build.PL that had an incorrect module requirement.

**VERSION 6.10 (2010-04-29)****(\*) Combined 5.xx and 6.xx releases into one distribution**

Because the automatic module management tools cpan/cpanp would try to upgrade Date::Manip to the most recent version, and the most recent version will only work if perl 5.10.0 or higher is installed, both the 5.xx and 6.xx releases are now combined into a single distribution.

This is described more fully in the Date::Manip::Problems document.

**(!) Zones specified by offset**

In all operations involving time zones, the time zone must be determined. By default, it would take all of the information available (date, ISDST, etc.) and determine the most likely time zone. It would take every time zone that matched each piece of information, starting with those that matched in a standard time followed by those that matched in a daylight saving time.

When zones are specified by an offset, a standard time would always match since there are standard time zones that match all year long (the military time zones A-Z and the standard time zones of the form Etc/GMT+01). As a result, a daylight saving time match would never occur.

Since (if the date falls during a daylight saving time period) you usually want to use a time zone that has that offset in daylight saving time, the default is now to check daylight saving time zones first, followed by standard times.

See the Date::Manip::TZ manual (under the zone method) for more information.

## Bug fixes

Fixed a bug where Date\_ConvTZ not working correctly with time zones specified by offset. Chris Butler

Fixed a bug where business mode calculations involving minutes was not handled correctly. Damien Moore

Fixed a bug where business mode calculations failed in some cases. RT 56638

## Time zone fixes

Newest zoneinfo data (tzdata 2010i)

Changed Date::Manip::TZ::zone so "dst" is sometimes the default \$dstflag. Based on the bug report by Chris Butler.

OpenUNIX puts a colon at the start of some time zones. It's removed. Jean Hassler

## Test fixes

Converted tests to Test::Inter



## Documentation fixes

Fixed a documentation bug in Date::Manip::TZ where “stdonly” was listed as the default value for `$dstflag`, but in actuality, “std” is the default.

**VERSION 6.07 (2010-02-05)**

## Bug fixes

Fixed bug in Date\_TimeZone where it wasn't returning the time zone. Robert Eden

**VERSION 6.06 (2010-02-05)**

## Bug fixes

Minor bug where %Z printf format didn't always work.

Added support for 5pm back in (it was omitted accidentally). Mark Kennedy

Fixed a minor warning. Morten Bjoernsvik

Some additional speedups.

## Time zone fixes

Newest zoneinfo data (tzdata 2010b)

Added dm\_zdump example script.

Improved TZ::periods functionality

Fixed bug in Date\_ConvTZ where empty values weren't defaulting to local time zone. Robert Eden

Fixed a couple of problems in the generated time zones for some odd cases (America/Resolute and Asia/Tehran).

**VERSION 6.05 (2009-12-09)****(!) %z format**

In Date::Manip 5.xx, the %z format in UnixDate printed the offset in the form -0500. In 6.00, I changed that to -05:00:00, but this broke RFC 822 compliance.

I've changed %z back to -0500, and introduced a new format (%N) which returns -05:00:00.

Incidentally, this is the LAST unused letter, so I am now going to have to either stop adding formats, or add some extended format syntax. Not sure yet which, but this may involve a backwards incompatible change in the future.

**(\*) Significant speedups.**

Thanks to Moritz Lenz and BrowserUK on perlmonks for suggestions (and a number of other people on perlmonks for suggestions that I did not end up using, but which provided a great discussion).

## Bug fixes

Fixed a bug in parse\_date where the current time was getting used instead of the documented 00:00:00

Bug fix where DateCalc didn't work with \$mode in some cases.

Fixed Makefile.PL/Build.PL to handle Win32::TieRegistry requirement.

Changed %z printf behavior back to 5.xx and added %N format. Gilles Lamiral

Added dm\_date example script.

## Time zone fixes

Fixed bug where non-English Windows versions didn't get the time zone. Thanks to Rene Schickbauer for testing.

## Test fixes

Reduced the precision of 1 test to avoid a rounding difference when using a perl compiled with uselongdouble. Andreas Koenig

**VERSION 6.04 (2009-11-25)**

## Bug fixes

Fixed a bug where events were not interpreted in the correct time zone if SetDate/ForceDate used.

**VERSION 6.03 (2009-11-24)**

## Bug fixes

Corrects a backward incompatibility with UnixDate. Rene Schickbauer

## Test fixes

A couple more corrections to the tests.

**VERSION 6.02 (2009-11-24)**

## Bug fixes

Disabled curr\_zone\_methods when taint checking on. I believe that Date::Manip is completely taint friendly at this point.

## Test fixes

A quick fix to make sure that the tests run correctly in other time zones.

**VERSION 6.01 (2009-11-23)**

## Bug fixes

**(\*) Fixed a bug where dates were sometimes getting the wrong time zone when SetDate/ForceDate in effect.**

**VERSION 6.00 (2009-11-23)**

## First release of the 6.xx series

Date::Manip 6.00 is a total rethink of the module, and a nearly complete rewrite. Please refer to the Date::Manip::Changes5to6 document for a list of incompatible changes.

## Reorganization

**(\*) Massive reorganization and near total rewrite.**

**(\*) Broke into several smaller modules**

## New Features

**(\*) Full time zone support (using tzdata 2009s)**

Added some functionality (suggested by James Elson to improve setting the “current time”. Done with the ForceDate config variable.

**(\*) Converted languages to YAML for much easier maintenance. Patch and suggestion provided by Evan Carroll**

Added much better formats for deltas. Suggested by Jim Hranicky.

Borrowed the \_FindWindowsTZName function from the DateTime-TimeZone module.

Added SetDate config variable (based on a suggestion by Christian Campbell).

Added parse\_format which was first suggested by Kim Ryan.

## Other changes

Several config variables deprecated

Thanks to Jonathan Hogue for helping test Windows additions.

## Bug fixes (correcting problems in the 5.xx releases)

Fixed a bug where “YYtoYYYY=c” wouldn’t work.

VMS bugfix to not call ‘date’ command. Lane

New Year’s Day defined using a recurrence which might push the observed day to the previous year was broken. Reported by Jerry Wilcox.

#### Language fixes

Fixed typo in Turkish translation.

Spelling fix in Dutch. Bart Van Loon

#### Additional credits

I have received many suggestions over time which were automatically handled during the 6.00 rewrite. Although the changes weren't made because of the suggestions specifically, I wanted to acknowledge them since I appreciate the suggestions.

I believe the first person to suggest writing Date::Manip as an OO module was Eduard Derksen.

Delta\_Format initialization done outside of the function. Eric Boehm

Added \$subtract to calculation routines. First suggested by Steve Berlage.

Added ability to set individual parts of the date (Date::Manip::Date::set). First suggested by Martin Thurn.

UnixDate (i.e. Date::Manip::Date::printf) only calculates formats when they are needed. Eduard Derksen

Parsing will skip some date/time formats if requested. This was first suggested by Eduard Derksen.

It has been suggested several times to support multiple languages, multiple config files, or multiple sets of Date\_Init options. These suggestions (by Meng Fang, Ed Avis, Christian Campbell, and perhaps others) were at the back of my mind as I developed the Date::Manip::Base class.

The regular expressions are all i18n friendly in anticipation of much better support for localization. First suggested by Alex Kapranoff.

Parsing a date ('today', 'Monday') gives a time of '00:00:00'. Suggested by Mark Aitchison.

Working with fractional days was suggested by Peter van Hardenberg. This is implemented in Date::Manip::Base::day\_of\_year method.

### BUGS AND QUESTIONS

Please refer to the Date::Manip::Problems documentation for information on submitting bug reports or questions to the author.

### SEE ALSO

Date::Manip – main module documentation

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### AUTHOR

Sullivan Beck (sbeck@cpan.org)