

**NAME**

Date::Manip – Date manipulation routines

**DESCRIPTION**

Date::Manip is a series of modules designed to make any common date/time operation easy to do. Operations such as comparing two times, determining a date a given amount of time from another, or parsing international times are all easily done. It deals with time as it is used in the Gregorian calendar (the one currently in use) with full support for time changes due to daylight saving time.

From the very beginning, the main focus of Date::Manip has been to be able to do ANY desired date/time operation easily. Many other modules exist which may do a subset of these operations quicker or more efficiently, but no other module can do all of the operations available in Date::Manip.

Date::Manip has functionality to work with several fundamental types of data.

**dates**

The word date is used extensively here and is somewhat misleading. In Date::Manip, a date consists of three pieces of information: a calendar date (year, month, day), a time of day (hour, minute, second), and time zone information. Calendar dates and times are fully handled. Time zones are handled as well, but depending on how you use Date::Manip, there may be some limitations as discussed below.

**delta**

A delta is an amount of time (i.e. the amount of time between two different dates). Think of it as the duration of an event or the amount of time between two dates.

A delta refers only to an amount of time. It includes no information about a starting or ending date/time. Most people will think of a delta as an amount of time, but the term 'time' is already used so much in this module that I didn't want to use it here in order to avoid confusion.

**recurrence**

A recurring event is something which occurs on a regular recurring basis.

**holidays and events**

Holidays and events are basically named dates or recurrences.

Among other things, Date::Manip allow you to:

- \* Enter a date in practically any format you choose.
- \* Compare two dates, entered in widely different formats to determine which is earlier.
- \* Extract any information you want from a date using a format string similar to the Unix date command.
- \* Determine the amount of time between two dates, or add an amount of time (a delta) to a date to get a second date.
- \* Work with dates using international formats (foreign month names, 12/10/95 referring to October rather than December, etc.).
- \* Convert dates from one timezone to another.
- \* To find a list of dates where a recurring event happens.

Each of these tasks is trivial (one or two lines at most) with this package.

**HOW TO USE DATE::MANIP**

There are three different ways to use Date::Manip . There are three interfaces (version 5 functional interface, version 6 functional, and version 6 object-oriented). A complete description of each is included in the Date::Manip::Interfaces document. The recommended (and the only one with access to the full functionality of the module) is using the Object-Oriented interface.

**SEE ALSO**

Because Date::Manip performs so many operations, the documentation is extensive. It includes the following documents:

**Information about the different interfaces**

Read this for a detailed description of each of the interfaces, including information on how to choose and use the interface best suited to your situation.

Date::Manip::Interfaces

A complete description of the functional interfaces available. NOTE: it is recommended that you use the OO interface wherever possible as the functional interfaces have some limitations.

**A description of the functional interfaces:**

Date::Manip::DM5

The version 5 functional interface

Date::Manip::DM6

The version 6 functional interface

**Objects and configuration**

An introduction to the Date::Manip classes used by the object-oriented interface and how to configure them:

Date::Manip::Objects

An overview of the various Date::Manip modules, and how to use them.

Date::Manip::Config

Information for configuring Date::Manip

**Date::Manip object-oriented modules**

These are the modules for using the object-oriented interface.

Date::Manip::Obj

This is the base class. All other classes listed here inherit the methods defined in this class.

Date::Manip::Base

A module for doing low-level date operations.

Date::Manip::TZ

A module for working with time zones.

Date::Manip::Date

The module for working with dates.

Date::Manip::Delta

The module for working with deltas (amount of time).

Date::Manip::Recur

The module for working with recurrences (recurring dates).

**Timezone information**

Date::Manip::DM5abbrevs

Time zone abbreviations used in the version 5 interface.

Date::Manip::Zones

Time zone data included in Date::Manip used in the version 6 interfaces.

**Miscellaneous information:**

Date::Manip::Calc

Detailed information on how date calculations are done.

Date::Manip::Holidays

Information on defining and using holidays and events.

Date::Manip::ConfigFile

A sample config file.

Date::Manip::Lang

Information about the languages supported by Date::Manip and how to add a new language.

Date::Manip::Lang::english  
Date::Manip::Lang::catalan  
Date::Manip::Lang::danish  
Date::Manip::Lang::dutch  
Date::Manip::Lang::finnish  
Date::Manip::Lang::french  
Date::Manip::Lang::german  
Date::Manip::Lang::italian  
Date::Manip::Lang::norwegian  
Date::Manip::Lang::polish  
Date::Manip::Lang::portugue  
Date::Manip::Lang::romanian  
Date::Manip::Lang::russian  
Date::Manip::Lang::spanish  
Date::Manip::Lang::swedish  
Date::Manip::Lang::turkish

A description of the parseable words in each language currently supported by Date::Manip.

### **Information about the module and administrative things:**

Date::Manip::Migration5to6

Information on changes necessary to scripts when upgrading from 5.xx to 6.xx.

Date::Manip::Changes5

Change log for Date::Manip 5.xx

Date::Manip::Changes5to6

Differences between version 5.xx and 6.00 (including information on upgrading); this contains more details than the Migration5to6 document.

Date::Manip::Changes6

Change log for Date::Manip 6.xx

Date::Manip::Misc

Miscellaneous information about Date::Manip (who should use it; acknowledgments).

Since many other date/time modules exist, some of which may do the specific operation(s) you need faster, be sure to read “SHOULD I USE DATE::MANIP” in Date::Manip::Misc before deciding which of the Date and Time modules from CPAN is for you. However, if you want one module to do it all, Date::Manip is the one to use.

Date::Manip::History

Musings on the history of Date::Manip written around it's 20th birthday.

Date::Manip::Problems

Common problems and instructions for reporting bugs.

Date::Manip::Examples

Examples of how to use Date::Manip.

### **LICENSE**

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### **AUTHOR**

Sullivan Beck (sbeck@cpan.org)