

NAME

Module::Load::Conditional - Looking up module information / loading at runtime

SYNOPSIS

```
use Module::Load::Conditional qw[can_load check_install requires];

my $use_list = {
    CPANPLUS      => 0.05,
    LWP           => 5.60,
    'Test::More' => undef,
};

print can_load( modules => $use_list )
    ? 'all modules loaded successfully'
    : 'failed to load required modules';

my $rv = check_install( module => 'LWP', version => 5.60 )
    or print 'LWP is not installed!';

print 'LWP up to date' if $rv->{uptodate};
print "LWP version is $rv->{version}\n";
print "LWP is installed as file $rv->{file}\n";

print "LWP requires the following modules to be installed:\n";
print join "\n", requires('LWP');

### allow M::L::C to peek in your %INC rather than just
### scanning @INC
$Module::Load::Conditional::CHECK_INC_HASH = 1;

### reset the 'can_load' cache
undef $Module::Load::Conditional::CACHE;

### don't have Module::Load::Conditional issue warnings --
### default is '1'
$Module::Load::Conditional::VERBOSE = 0;

### The last error that happened during a call to 'can_load'
my $err = $Module::Load::Conditional::ERROR;
```

DESCRIPTION

Module::Load::Conditional provides simple ways to query and possibly load any of the modules you have installed on your system during runtime.

It is able to load multiple modules at once or none at all if one of them was not able to load. It also takes care of any error checking and so forth.

Methods

`$href = check_install(module => NAME [, version => VERSION, verbose => BOOL]);`

`check_install` allows you to verify if a certain module is installed or not. You may call it with the following arguments:

module

The name of the module you wish to verify -- this is a required key

version

The version this module needs to be -- this is optional

verbose

Whether or not to be verbose about what it is doing -- it will default to `$Module::Load::Conditional::VERBOSE`

It will return `undef` if it was not able to find where the module was installed, or a hash reference with the following keys if it was able to find the file:

file

Full path to the file that contains the module

dir

Directory, or more exact the `@INC` entry, where the module was loaded from.

version

The version number of the installed module - this will be `undef` if the module had no (or unparseable) version number, or if the variable `$Module::Load::Conditional::FIND_VERSION` was set to true. (See the `GLOBAL VARIABLES` section below for details)

uptodate

A boolean value indicating whether or not the module was found to be at least the version you specified. If you did not specify a version, `uptodate` will always be true if the module was found. If no parsable version was found in the module, `uptodate` will also be true, since `check_install` had no way to verify clearly.

See also `$Module::Load::Conditional::DEPRECATED`, which affects the outcome of this value.

`$bool = can_load(modules => { NAME => VERSION [,NAME => VERSION] }, [verbose => BOOL, nocache => BOOL])`

`can_load` will take a list of modules, optionally with version numbers and determine if it is able to load them. If it can load *ALL* of them, it will. If one or more are unloadable, none will be loaded.

This is particularly useful if you have *More Than One Way* (tm) to solve a problem in a program, and only wish to continue down a path if all modules could be loaded, and not load them if they couldn't.

This function uses the `load` function from `Module::Load` under the hood.

`can_load` takes the following arguments:

modules

This is a hashref of module/version pairs. The version indicates the minimum version to load. If no version is provided, any version is assumed to be good enough.

verbose

This controls whether warnings should be printed if a module failed to load. The default is to use the value of `$Module::Load::Conditional::VERBOSE`.

nocache

`can_load` keeps its results in a cache, so it will not load the same module twice, nor will it attempt to load a module that has already failed to load before. By default, `can_load` will check its cache, but you can override that by setting `nocache` to true.

@list = requires(MODULE);

`requires` can tell you what other modules a particular module requires. This is particularly useful when you're intending to write a module for public release and are listing its prerequisites.

`requires` takes but one argument: the name of a module. It will then first check if it can actually load this module, and return `undef` if it can't. Otherwise, it will return a list of modules and pragmas that would have been loaded on the module's behalf.

Note: The list `require` returns has originated from your current perl and your current install.

Global Variables

The behaviour of `Module::Load::Conditional` can be altered by changing the following global variables:

\$Module::Load::Conditional::VERBOSE

This controls whether `Module::Load::Conditional` will issue warnings and explanations as to why certain things may have failed. If you set it to 0, `Module::Load::Conditional` will not output any warnings. The default is 0;

\$Module::Load::Conditional::FIND_VERSION

This controls whether `Module::Load::Conditional` will try to parse (and eval) the version from the module you're trying to load.

If you don't wish to do this, set this variable to `false`. Understand then that version comparisons are not possible, and `Module::Load::Conditional` can not tell you what module version you have installed. This may be desirable from a security or performance point of view. Note that `$FIND_VERSION` code runs safely under `taint` mode.

The default is 1;

\$Module::Load::Conditional::CHECK_INC_HASH

This controls whether `Module::Load::Conditional` checks your `%INC` hash to see if a module is available. By default, only `@INC` is scanned to see if a module is physically on your filesystem, or available via an `@INC-hook`. Setting this variable to `true` will trust any entries in `%INC` and return them for you.

The default is 0;

\$Module::Load::Conditional::CACHE

This holds the cache of the `can_load` function. If you explicitly want to remove the current cache, you can set this variable to `undef`

\$Module::Load::Conditional::ERROR

This holds a string of the last error that happened during a call to `can_load`. It is useful to inspect this when `can_load` returns `undef`.

\$Module::Load::Conditional::DEPRECATED

This controls whether `Module::Load::Conditional` checks if a dual-life core module has been deprecated. If this is set to `true` `check_install` will return `false` to `uptodate`, if a dual-life module is found to be loaded from `$Config{privlibexp}`

The default is 0;

See Also

`Module::Load`

BUG REPORTS

Please report bugs or other issues to <bug-module-load-conditional@rt.cpan.org>.

AUTHOR

This module by Jos Boumans <kane@cpan.org>.

COPYRIGHT

This library is free software; you may redistribute and/or modify it under the same terms as Perl itself.