

# Using local::lib

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# Age old problem

- You need [to install] a new module
- You don't have root access
- `local::lib` fixes this!
- (yes, there's `PERL5LIB` but it's not the whole story)



# But first, diversions

- @INC
- Perl Install Locations
- %INC



# @INC

- Where Perl looks for library files
- Simple set of paths
  - ...or is it? No, this is Perl.
- You can unshift things onto it
- Displayed at the end of perl -V

# @INC example

@INC:

```
/etc/perl  
/usr/local/lib/perl/5.10.0  
/usr/local/share/perl/5.10.0  
/usr/lib/perl5  
/usr/share/perl5  
/usr/lib/perl/5.10  
/usr/share/perl/5.10  
/usr/local/lib/site_perl  
.
```

# Perl Install Locations

- <http://use.perl.org/~schwern/journal/39246>
- Site: what the user installs (CPAN shell)
- Vendor: what your package manager installs
- Core: what ships with Perl itself
- Broken order (core first) until Perl 5.12 ☹
- Fixed in Debian and now also Red Hat

# Another @INC

@INC:

```
/usr/lib/perl5/site_perl/5.8.8/i386-linux-thread-multi  
/usr/lib/perl5/site_perl/5.8.8  
/usr/lib/perl5/site_perl  
/usr/lib/perl5/vendor_perl/5.8.8/i386-linux-thread-multi  
/usr/lib/perl5/vendor_perl/5.8.8  
/usr/lib/perl5/vendor_perl  
/usr/lib/perl5/5.8.8/i386-linux-thread-multi  
/usr/lib/perl5/5.8.8  
.
```

# Import Hooks

- `@INC` can also contain:
  - subroutine ref, array ref, object (ref)
- See `perldoc -f require`
- It descends into pretty sick flexibility
  - Essentially, the sub returns the file content
- Popularly used for sniffing module loads
  - See Perl Hacks



# %INC

- Used by require to determine whether something is already loaded
- Important, e.g. to prevent [fatal] warnings from re-importing of symbols

# Tricking %INC

- Dynamic languages are so much fun to use
- Create packages on the fly
  - (monkeypatching bad, mkay?)
- Let other code know the package is loaded

# Back to local::lib

@INC:

```
/home/oliver/perl5/lib/perl5  
/usr/lib/perl5/site_perl/5.8.8/i386-linux-thread-multi  
/usr/lib/perl5/site_perl/5.8.8  
/usr/lib/perl5/site_perl  
/usr/lib/perl5/vendor_perl/5.8.8/i386-linux-thread-multi  
/usr/lib/perl5/vendor_perl/5.8.8  
/usr/lib/perl5/vendor_perl  
/usr/lib/perl5/5.8.8/i386-linux-thread-multi  
/usr/lib/perl5/5.8.8  
.
```

# Things you will forget

- MODULEBUILDRC
- PERL\_MM\_OPT
- PERL5LIB
- and, appends to PATH
  - why? for script/bin files.



# Installation

- RTFM, it's easy (see: bootstrap...)
- I tend to leave it at that
  - Perhaps flip `~/perl5` on and off
  - Perhaps use a per-project directory

# Usage

- Inside the Perl program
  - Load a `local::lib` at a specified location
- New `--self-contained` option
  - Installs all non-core dependencies

# Key take-aways

- Solves a small but annoying problem
- Simple and easy to install/use



# Fin

- **my little 80s pony by merwing♣little dear**
- **! danger elephants at Knowsley Safari Park? by Adam Foster | Codefor**
- **a fork stuck in the road by darren131**
- **Slice of Pizza! by su-lin**