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***Rocky Enterprise Linux 9.2 Manual Pages on command 'Type::Tiny::Manual.3pm'***

***\$ man Type::Tiny::Manual.3pm***

Type::Tiny::Manual(3pm)      User Contributed Perl Documentation      Type::Tiny::Manual(3pm)

NAME

Type::Tiny::Manual - an overview of Type::Tiny

SYNOPSIS

Type::Tiny is a small Perl <http://www.perl.org/> class for writing type constraints, inspired by Moose's type constraint API and MooseX::Types. It has only one non-core dependency (and even that is simply a module that was previously distributed as part of Type::Tiny but has since been spun off), and can be used with Moose, Mouse, or Moo (or none of the above).

Type::Tiny is used by over 800 Perl distributions on the CPAN (Comprehensive Perl Archive Network) and can be considered a stable and mature framework for efficiently and reliably enforcing data types.

Type::Tiny is bundled with Type::Library a framework for organizing type constraints into collections. Also bundled is Types::Standard, a Moose-inspired library of useful type constraints. Type::Params is also provided, to allow very fast checking and coercion of function and method parameters.

The following example gives you an idea of some of the features of these modules. If you don't understand it all, that's fine; that's what the rest of the manual is for. Although the example uses Moo, the "use Moo" could be changed to "use Moose" or "use Mouse" and it would still work.

```
use v5.12;
```

```
use strict;
```

```
use warnings;
```

```

package Horse {
  use Moo;
  use Types::Standard qw( Str Int Enum ArrayRef InstanceOf );
  use Type::Params qw( compile );
  use namespace::autoclean;

  has name => (
    is    => 'ro',
    isa   => Str,
    required => 1,
  );

  has gender => (
    is    => 'ro',
    isa   => Enum[qw( f m )],
  );

  has age => (
    is    => 'rw',
    isa   => Int->where( '$_ >= 0' ),
  );

  has children => (
    is    => 'ro',
    isa   => ArrayRef[ InstanceOf['Horse'] ],
    default => sub { return [] },
  );

  sub add_child {
    # method signature
    state $check = compile( InstanceOf['Horse'], InstanceOf['Horse'] );
    my ($self, $child) = $check->(@_); # unpack @_
    push @{$self->children}, $child;
    return $self;
  }
}

package main;
my $boldruler = Horse->new(

```

```

name => "Bold Ruler",
gender => 'm',
age => 16,
);
my $secretariat = Horse->new(
    name => "Secretariat",
    gender => 'm',
    age => 0,
);
$boldruler->add_child( $secretariat );
use Types::Standard qw( is_Object assert_Object );
# is_Object will return a boolean
#
if ( is_Object($boldruler) ) {
    say $boldruler->name;
}
# assert_Object will return $secretariat or die
#
say assert_Object($secretariat)->name;

```

## MANUAL

Even if you are using `Type::Tiny` with other object-oriented programming toolkits (such as `Moose` or `Mouse`), you should start with the `Moo` sections of the manual. Most of the information is directly transferrable and the `Moose` and `Mouse` sections of the manual list the minor differences between using `Type::Tiny` with `Moo` and with them.

In general, this manual assumes you use Perl 5.12 or above and may use examples that do not work on older versions of Perl. `Type::Tiny` does work on earlier versions of Perl, but not all the examples and features in the manual will run without adjustment. (For instance, you may need to replace "state" variables with lexical variables, avoid the "package NAME { BLOCK }" syntax, etc.)

### ? `Type::Tiny::Manual::Installation`

How to install `Type::Tiny`. If `Type::Tiny` is already installed, you can skip this.

### ? `Type::Tiny::Manual::UsingWithMoo`

Basic use of `Type::Tiny` with `Moo`, including attribute type constraints, parameterized

type constraints, coercions, and method parameter checking.

? [Type::Tiny::Manual::UsingWithMoo2](#)

Advanced use of `Type::Tiny` with `Moo`, including unions and intersections, "stringifies\_to", "numifies\_to", "with\_attribute\_values", and "where".

? [Type::Tiny::Manual::UsingWithMoo3](#)

There's more than one way to do it! Alternative ways of using `Type::Tiny`, including type registries, exported functions, and "dwim\_type".

? [Type::Tiny::Manual::Libraries](#)

Defining your own type libraries, including extending existing libraries, defining new types, adding coercions, defining parameterizable types, and the declarative style.

? [Type::Tiny::Manual::UsingWithMoose](#)

How to use `Type::Tiny` with `Moose`, including the advantages of `Type::Tiny` over built-in type constraints, and `Moose`-specific features.

? [Type::Tiny::Manual::UsingWithMouse](#)

How to use `Type::Tiny` with `Mouse`, including the advantages of `Type::Tiny` over built-in type constraints, and `Mouse`-specific features.

? [Type::Tiny::Manual::UsingWithClassTiny](#)

Including how to `Type::Tiny` in your object's "BUILD" method, and third-party shims between `Type::Tiny` and `Class::Tiny`.

? [Type::Tiny::Manual::UsingWithOther](#)

Using `Type::Tiny` with `Class::InsideOut`, `Params::Check`, and `Object::Accessor`.

? [Type::Tiny::Manual::UsingWithTestMore](#)

`Type::Tiny` for test suites.

? [Type::Tiny::Manual::Params](#)

Advanced information on `Type::Params`, and using `Type::Tiny` with other signature modules like `Function::Parameters` and `Kavorka`.

? [Type::Tiny::Manual::NonOO](#)

`Type::Tiny` in non-object-oriented code.

? [Type::Tiny::Manual::Optimization](#)

Squeeze the most out of your CPU.

? [Type::Tiny::Manual::Coercions](#)

Advanced information on coercions.

? [Type::Tiny::Manual::AllTypes](#)

An alphabetical list of all type constraints bundled with Type::Tiny.

? Type::Tiny::Manual::Policies

Policies related to Type::Tiny development.

? Type::Tiny::Manual::Contributing

Contributing to Type::Tiny development.

## BUGS

Please report any bugs to <<https://github.com/tobyink/p5-type-tiny/issues>>.

## SEE ALSO

The Type::Tiny homepage <<https://typetiny.toby.ink/>>.

## AUTHOR

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