

NAME

Type::Registry – a glorified hashref for looking up type constraints

SYNOPSIS

```
package Foo::Bar;

use Type::Registry;

my $reg = "Type::Registry"->for_me; # a registry for Foo::Bar

# Register all types from Types::Standard
$reg->add_types(-Standard);

# Register just one type from Types::XSD
$reg->add_types(-XSD => ["NonNegativeInteger"]);

# Register all types from MyApp::Types
$reg->add_types("MyApp::Types");

# Create a type alias
$reg->alias_type("NonNegativeInteger" => "Count");

# Look up a type constraint
my $type = $reg->lookup("ArrayRef[Count]");

$type->check([1, 2, 3.14159]); # croaks
```

Alternatively:

```
package Foo::Bar;

use Type::Registry qw( t );

# Register all types from Types::Standard
t->add_types(-Standard);

# Register just one type from Types::XSD
t->add_types(-XSD => ["NonNegativeInteger"]);

# Register all types from MyApp::Types
t->add_types("MyApp::Types");

# Create a type alias
t->alias_type("NonNegativeInteger" => "Count");

# Look up a type constraint
my $type = t("ArrayRef[Count]");

$type->check([1, 2, 3.14159]); # croaks
```

STATUS

This module is covered by the Type-Tiny stability policy.

DESCRIPTION

A type registry is basically just a hashref mapping type names to type constraint objects.

Constructors`new`

Create a new glorified hashref.

`for_class($class)`

Create or return the existing glorified hashref associated with the given class.

Note that any type constraint you have imported from Type::Library-based type libraries will be automatically available in your class' registry.

`for_me`

Create or return the existing glorified hashref associated with the caller.

Methods`add_types(@libraries)`

The libraries list is treated as an “optlist” (a la Data::OptList).

Strings are the names of type libraries; if the first character is a hyphen, it is expanded to the “Types::” prefix. If followed by an arrayref, this is the list of types to import from that library. Otherwise, imports all types from the library.

```
use Type::Registry qw(t);
```

```
t->add_types(-Standard); # OR: t->add_types("Types::Standard");
```

```
t->add_types(
    -TypeTiny => ['HashLike'],
    -Standard => ['HashRef' => { -as => 'RealHash' }],
);
```

MooseX::Types (and experimentally, MouseX::Types) libraries can also be added this way, but *cannot be followed by an arrayref of types to import*.

`add_type($type, $name)`

The long-awaited singular form of `add_types`. Given a type constraint object, adds it to the registry with a given name. The name may be omitted, in which case `$type->name` is called, and Type::Registry will throw an error if `$type` is anonymous. If a name is explicitly given, Type::Registry cares not one wit whether the type constraint is anonymous.

This method can even add MooseX::Types and MouseX::Types type constraints; indeed anything that can be handled by Types::TypeTiny's `to_TypeTiny` function. (Bear in mind that `to_TypeTiny` *always* results in an anonymous type constraint, so `$name` will be required.)

`alias_type($oldname, $newname)`

Create an alias for an existing type.

`simple_lookup($name)`

Look up a type in the registry by name.

Returns undef if not found.

`foreign_lookup($name)`

Like `simple_lookup`, but if the type name contains “::”, will attempt to load it from a type library. (And will attempt to load that module.)

`lookup($name)`

Look up by name, with a DSL.

```
t->lookup("Int|ArrayRef[Int] ")
```

The DSL can be summed up as:

X	type from this registry
My::Lib::X	type from a type library
~X	complementary type
X Y	union
X & Y	intersection
X[...]	parameterized type
slurpy X	slurpy type
Foo::Bar::	class type

Croaks if not found.

```
make_union(@constraints),           make_intersection(@constraints),
make_class_type($class), make_role_type($role)
```

Convenience methods for creating certain common type constraints.

AUTOLOAD

Overloaded to call lookup.

```
$registry->Str; # like $registry->lookup("Str")
```

Functions

```
t This class can export a function t which acts like
"Type::Registry"->for_class($importing_class).
```

BUGS

Please report any bugs to <<http://rt.cpan.org/Dist/Display.html?Queue=Type-Tiny>>.

SEE ALSO

Type::Library.

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