

## NAME

XS::APItest - Test the perl C API

## SYNOPSIS

```
use XS::APItest;
print_double(4);
```

## ABSTRACT

This module tests the perl C API. Currently tests that `printf` works correctly.

## DESCRIPTION

This module can be used to check that the perl C API is behaving correctly. This module provides test functions and an associated test script that verifies the output.

This module is not meant to be installed.

## EXPORT

Exports all the test functions:

### **print\_double**

Test that a double-precision floating point number is formatted correctly by `printf`.

```
print_double( $val );
```

Output is sent to STDOUT.

### **print\_long\_double**

Test that a `long double` is formatted correctly by `printf`. Takes no arguments - the test value is hard-wired into the function (as "7").

```
print_long_double();
```

Output is sent to STDOUT.

### **have\_long\_double**

Determine whether a `long double` is supported by Perl. This should be used to determine whether to test `print_long_double`.

```
print_long_double() if have_long_double;
```

### **print\_nv**

Test that an `NV` is formatted correctly by `printf`.

```
print_nv( $val );
```

Output is sent to STDOUT.

### **print\_iv**

Test that an `IV` is formatted correctly by `printf`.

```
print_iv( $val );
```

Output is sent to STDOUT.

### **print\_uv**

Test that an `UV` is formatted correctly by `printf`.

```
print_uv( $val );
```

Output is sent to STDOUT.

#### **print\_int**

Test that an `int` is formatted correctly by `printf`.

```
print_int( $val );
```

Output is sent to STDOUT.

#### **print\_long**

Test that a `long` is formatted correctly by `printf`.

```
print_long( $val );
```

Output is sent to STDOUT.

#### **print\_float**

Test that a single-precision floating point number is formatted correctly by `printf`.

```
print_float( $val );
```

Output is sent to STDOUT.

#### **call\_sv, call\_pv, call\_method**

These exercise the C calls of the same names. Everything after the `flags` arg is passed as the args to the called function. They return whatever the C function itself pushed onto the stack, plus the return value from the function; for example

```
call_sv( sub { @_, 'c' }, G_ARRAY, 'a', 'b'); # returns 'a',  
'b', 'c', 3  
call_sv( sub { @_ }, G_SCALAR, 'a', 'b'); # returns 'b', 1
```

#### **eval\_sv**

Evaluates the passed SV. Result handling is done the same as for `call_sv()` etc.

#### **eval\_pv**

Exercises the C function of the same name in scalar context. Returns the same SV that the C function returns.

#### **require\_pv**

Exercises the C function of the same name. Returns nothing.

## **SEE ALSO**

*XS::Typemap*, *perlapi*.

## **AUTHORS**

Tim Jenness, <t.jenness@jach.hawaii.edu>, Christian Soeller, <csoelle@mph.auckland.ac.nz>, Hugo van der Sanden <hv@crypt.compulink.co.uk>

## **COPYRIGHT AND LICENSE**

Copyright (C) 2002,2004 Tim Jenness, Christian Soeller, Hugo van der Sanden. All Rights Reserved.

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