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Rocky Enterprise Linux 9.2 Manual Pages on command 'ExtUtils::ParseXS::Utilities.3perl'

\$ man ExtUtils::ParseXS::Utilities.3perl

ExtUtils::ParseXS::Utilities(3perPerl Programmers Reference GuExtUtils::ParseXS::Utilities(3perl)

NAME

ExtUtils::ParseXS::Utilities - Subroutines used with ExtUtils::ParseXS

SYNOPSIS

```
use ExtUtils::ParseXS::Utilities qw(  
    standard_tymemap_locations  
    trim_whitespace  
    C_string  
    valid_proto_string  
    process_tymemaps  
    map_type  
    standard_XS_defs  
    assign_func_args  
    analyze_preprocessor_statements  
    set_cond  
    Warn  
    blurt  
    death  
    check_conditional_preprocessor_statements  
    escape_file_for_line_directive  
    report_tymemap_failure  
);
```

SUBROUTINES

The following functions are not considered to be part of the public interface. They are documented here for the benefit of future maintainers of this module.

"standard_typemap_locations()"

? Purpose

Provide a list of filepaths where typemap files may be found. The filepaths -- relative paths to files (not just directory paths) -- appear in this list in lowest-to-highest priority.

The highest priority is to look in the current directory.

'typemap'

The second and third highest priorities are to look in the parent of the current directory and a directory called lib/ExtUtils underneath the parent directory.

'../typemap',

'../lib/ExtUtils/typemap',

The fourth through ninth highest priorities are to look in the corresponding grandparent, great-grandparent and great-great-grandparent directories.

'../../typemap',

'../../lib/ExtUtils/typemap',

'../../typemap',

'../../lib/ExtUtils/typemap',

'../../../../typemap',

'../../../../lib/ExtUtils/typemap',

The tenth and subsequent priorities are to look in directories named ExtUtils which are subdirectories of directories found in @INC -- provided a file named typemap actually exists in such a directory. Example:

'/usr/local/lib/perl5/5.10.1/ExtUtils/typemap',

However, these filepaths appear in the list returned by "standard_typemap_locations()" in reverse order, i.e., lowest-to-highest.

'/usr/local/lib/perl5/5.10.1/ExtUtils/typemap',

'../../../../lib/ExtUtils/typemap',

'../../../../typemap',

'../../lib/ExtUtils/typemap',

'../../typemap',

'../lib/ExtUtils/typemap',

'../typemap',

'../lib/ExtUtils/typemap',

'../typemap',

'typemap'

? Arguments

my @stl = standard_typemap_locations(\@INC);

Reference to @INC.

? Return Value

Array holding list of directories to be searched for typemap files.

"trim_whitespace()"

? Purpose

Perform an in-place trimming of leading and trailing whitespace from the first argument provided to the function.

? Argument

trim_whitespace(\$arg);

? Return Value

None. Remember: this is an in-place modification of the argument.

"C_string()"

? Purpose

Escape backslashes ("\") in prototype strings.

? Arguments

\$ProtoThisXSUB = C_string(\$_);

String needing escaping.

? Return Value

Properly escaped string.

"valid_proto_string()"

? Purpose

Validate prototype string.

? Arguments

String needing checking.

? Return Value

Upon success, returns the same string passed as argument.

Upon failure, returns 0.

"process_typemaps()"

? Purpose

Process all typemap files.

? Arguments

```
my $typemaps_object = process_typemaps( $args{typemap}, $pwd );
```

List of two elements: "typemap" element from %args; current working directory.

? Return Value

Upon success, returns an ExtUtils::Typemaps object.

"map_type()"

? Purpose

Performs a mapping at several places inside "PARAGRAPH" loop.

? Arguments

```
$type = map_type($self, $type, $varname);
```

List of three arguments.

? Return Value

String holding augmented version of second argument.

"standard_XS_defs()"

? Purpose

Writes to the ".c" output file certain preprocessor directives and function headers needed in all such files.

? Arguments

None.

? Return Value

Returns true.

"assign_func_args()"

? Purpose

Perform assignment to the "func_args" attribute.

? Arguments

```
$string = assign_func_args($self, $argsref, $class);
```

List of three elements. Second is an array reference; third is a string.

? Return Value

String.

"analyze_preprocessor_statements()"

? Purpose

Within each function inside each Xsub, print to the .c output file certain preprocessor statements.

? Arguments

```
( $self, $XSS_work_idx, $BootCode_ref ) =  
analyze_preprocessor_statements(  
$self, $statement, $XSS_work_idx, $BootCode_ref  
);
```

List of four elements.

? Return Value

Modified values of three of the arguments passed to the function. In particular, the "XSStack" and "InitFileCode" attributes are modified.

"set_cond()"

? Purpose

? Arguments

? Return Value

"current_line_number()"

? Purpose

Figures out the current line number in the XS file.

? Arguments

\$self

? Return Value

The current line number.

"Warn()"

? Purpose

? Arguments

? Return Value

"blurt()"

? Purpose

? Arguments

? Return Value

"death()"

? Purpose

? Arguments

? Return Value

"check_conditional_preprocessor_statements()"

? Purpose

? Arguments

? Return Value

"escape_file_for_line_directive()"

? Purpose

Escapes a given code source name (typically a file name but can also be a command that was read from) so that double-quotes and backslashes are escaped.

? Arguments

A string.

? Return Value

A string with escapes for double-quotes and backslashes.

"report_typemap_failure"

? Purpose

Do error reporting for missing typemaps.

? Arguments

The "ExtUtils::ParseXS" object.

An "ExtUtils::Typemaps" object.

The string that represents the C type that was not found in the typemap.

Optionally, the string "death" or "blurt" to choose whether the error is immediately fatal or not. Default: "blurt"

? Return Value

Returns nothing. Depending on the arguments, this may call "death" or "blurt", the former of which is fatal.