

C Language: #elif Directive

This C tutorial explains how to use the #elif preprocessor directive in the C language.

Description

In the C Programming Language, the #elif provides an alternate action when used with the [#if](#), [#ifdef](#), or [#ifndef](#) directives. The preprocessor will include the C source code that follows the #elif statement when the condition of the preceding #if, #ifdef or #ifndef directive evaluates to false and the #elif condition evaluates to true.

The #elif directive can be thought of as #else if.

Syntax

The syntax for the #elif directive in the C language is:

```
#elif conditional_expression
```

conditional_expression

Expression that must evaluate to true for the preprocessor to include the C source code into the compiled application.

Note

- The #elif directive must be closed by an [#endif directive](#).

Example

The following example shows how to use the #elif directive in the C language:

```
/* Example using #elif directive by TechOnTheNet.com */  
  
#include <stdio.h>  
  
#define YEARS_OLD 12  
  
int main()
```

```
{
    #if YEARS_OLD <= 10
    printf("TechOnTheNet is a great resource.\n");
    #elif YEARS_OLD > 10
    printf("TechOnTheNet is over %d years old.\n", YEARS_OLD);
    #endif

    return 0;
}
```

In this example, YEARS_OLD has a value of 12 so the statement **#if YEARS_OLD <=10** evaluates to false. As a result, processing is passed to the **#elif YEARS_OLD > 10** statement which evaluates to true. The C source code following the **#elif** statement is then compiled into the application.

Here is the output of the executable program:

```
TechOnTheNet is over 12 years old.
```

C Language: #if Directive

This C tutorial explains how to use the #if preprocessor directive in the C language.

Description

In the C Programming Language, the #if directive allows for conditional compilation. The preprocessor evaluates an expression provided with the #if directive to determine if the subsequent code should be included in the compilation process.

Syntax

The syntax for the #if directive in the C language is:

```
#if conditional_expression
```

conditional_expression

Expression that the preprocessor will evaluate to determine if the C source code that follows the #if directive will be included into the final compiled application.

Note

- The #if directive must be closed by an [#endif directive](#).

Example

The following example shows how to use the #if directive in the C language:

```
/* Example using #if directive by TechOnTheNet.com */

#include <stdio.h>

#define WINDOWS 1

int main()
{
    printf("TechOnTheNet is a great ");

    #if WINDOWS
    printf("Windows ");
    #endif

    printf("resource.\n");

    return 0;
}
```

Here is the output of the executable program:

```
TechOnTheNet is a great Windows resource.
```