

C Macros

A macro is a segment of code which is replaced by the value of macro. Macro is defined by `#define` types of macros:

1. Object-like Macros
2. Function-like Macros

Object-like Macros

The object-like macro is an identifier that is replaced by value. It is widely used to represent numerical values.

1. `#define PI 3.14`

Here, PI is the macro name which will be replaced by the value 3.14.

Function-like Macros

The function-like macro looks like function call. For example:

1. `#define MIN(a,b) ((a)<(b)?(a):(b))`

Here, MIN is the macro name.

Visit [#define](#) to see the full example of object-like and function-like macros.

C Predefined Macros

ANSI C defines many predefined macros that can be used in c program.

No.	Macro	Description
1	<code>_DATE_</code>	represents current date in "MMM DD YYYY" format.
2	<code>_TIME_</code>	represents current time in "HH:MM:SS" format.
3	<code>_FILE_</code>	represents current file name.

4	<code>__LINE__</code>	represents current line number.
5	<code>__STDC__</code>	It is defined as 1 when compiler complies with the ANSI standard.

C predefined macros example

File: *simple.c*

```
1. #include<stdio.h>
2. int main(){
3.     printf("File :%s\n", __FILE__ );
4.     printf("Date :%s\n", __DATE__ );
5.     printf("Time :%s\n", __TIME__ );
6.     printf("Line :%d\n", __LINE__ );
7.     printf("STDC :%d\n", __STDC__ );
8.     return 0;
9. }
```

Output:

```
File :simple.c
Date :Dec 6 2015
Time :12:28:46
Line :6
STDC :1
```