# [C Preprocessors]

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The Preprocessor is a program invoked by the compiler that modifies the source code before the actual composition takes place.

The following section lists all Preprocessor directives:

| Category | Directive | Description |
|---|---|---|
| Macro substitution division | #include | File include |
| | #define #undif | Macro define, Macro undefine |
| | #ifdef #ifndef | If macro defined, If macro not defined |
| File inclusion division | #if #elif #else #endif | If, Else, ifElse, End if |
| Compiler control division | #line #error #pragma | Set line number, Abort compilation, Set compiler option |

# C Preprocessor Examples

<span style="color:red">Syntax:</span>

```c
#include <stdio.h>

/* #define macro_name character_sequence */

#define LIMIT 10

int main()

{

    int counter;

    for(counter =1; counter <=LIMIT; counter++)

    {

        printf("%d\n",counter);

    }

return 0;

}
```

```c
#include <stdio.h>

#include "header.h"
```

#include <stdio.h> tell the compiler to add stdio.h file from System Libraries to the current source file, and #include "header.h" tells the compiler to get header.h from the local directory.

**#undef**  **LIMIT**

**#define**  **LIMIT 20**

**This tells the compiler to undefine existing LIMIT and set it as 20.**

**#ifndef LIMIT**

   **#define LIMIT 50**

**#endif**

**#ifdef LIMIT**

   /* Your statements here */#endif

This tells the compiler to do the process the statements enclosed if LIMIT is defined.