

CS & IT ENGINEERING

'C' Programming

Pre Processor Directives

Lecture No.- 01



By- Satya sir

Recap of Previous Lecture



- Structures & Unions

- Assign values to Variables

- Structure vs Union

- Self-Referential Structure

- Limitations of structure/union



Topics to be Covered



- Pre-Processor Directives

- What it is?

- Types

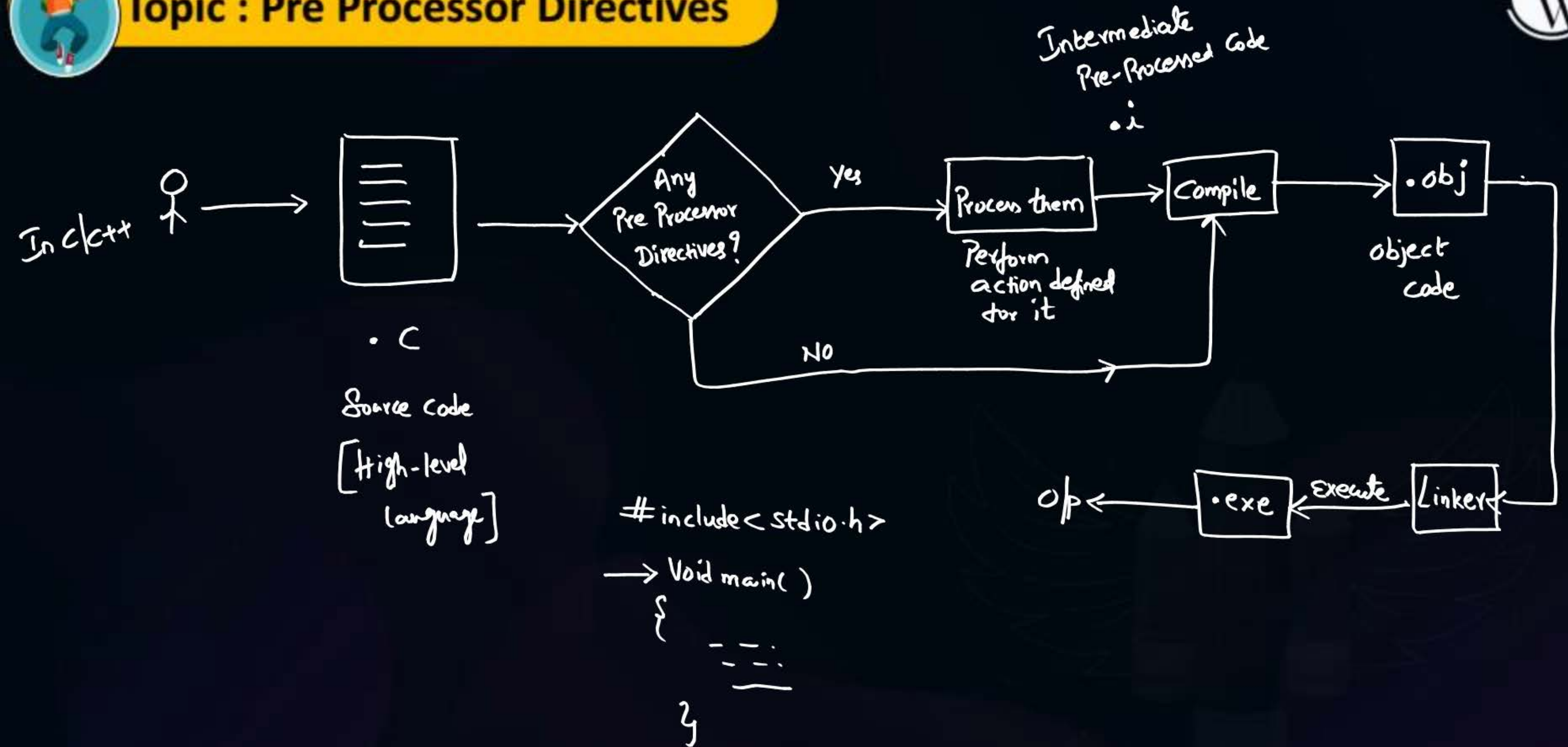
- File inclusion directives

- Macro directives





Topic : Pre Processor Directives





Topic : Pre Processor Directives



Types of Pre-Processor Directives

- ① File Inclusion
- ② Macro Expansion / Macro Substitution
- ③ Conditional Compilation
- ④ Miscellaneous

- All Pre Processor Directives start with # Symbol.



Topic : Pre Processor Directives



File Inclusion Directive

- To include header files in our program for Compilation.

format specifiers

- Header files contain, Pre-defined functions, Prototypes, Definitions, Pre-defined constants, escape sequences,

Ex: printf(), scanf(), sizeof(), malloc(), calloc(), NULL, \n, \t, \b, %d, %f, %s...

- Types of Header Files

① Pre-defined header files

② User-defined header files



Topic : Pre Processor Directives

To include

Pre-defined Header File : `#include < Header File >`

Ex: `#include < stdio.h >`

`#include < conio.h >`

`#include < graphics.h >`

`#include < stdlib.h > - - -`

User-defined Header File :

- 1) open Program, define functions, save it -
 - User directory
 - 'C' Library

with '.h' Extension.

2) User directory : `#include "Header File"`

'C' library : `#include < Header File >`



Topic : Pre Processor Directives

Macro Substitution

- #define

- Define function as macro

- Define object as macro.

→ Ex: #define x 3+5 // True substitution

```
void main()  
{  
    int y;  
    y = x * x;           // 3+5 * 3+5  
                          // 5*3=15  
    printf("%d", y);    // 3+15+5  
                          // = 23  
}
```

o/p: 23

To be Contd...



2 mins Summary



- Pre Processor Directives

- Definition

- Types

- File inclusion



THANK - YOU