



```
/* this is demo */  
#include <stdio.h>
```

```
void main()  
{  
    printf("hello");  
}
```

Program.c



Pre-processing



Code of stdio.h

```
Void main()  
{  
    printf("hello");  
}
```

Program.i

Code of stdio.h

```
Void main()  
{  
    printf("hello");  
}
```

Program.i



Compiler



```
push ebp  
mov ebp,esp  
and esp, -16  
sub esp,16  
mov eax,OFFSET  
FLAT: LCO  
mov DWORD PTR  
[esp], eax  
call printf  
leave  
ret
```

Program.a
(Assembly code)

```
push ebp
mov ebp,esp
and esp, -16
sub esp,16
mov eax,OFFSET
FLAT: LCO
mov DWORD PTR
[esp], eax
call printf
leave
ret
```

Program.a
(Assembly code)



Assembler



```
0000101110101000000000
1000010000011111000000
0000100001111000000000
1010010000100101001001
0111110100010101001000
1001001000101010000000
1001000010010101001010
0101001001010010101010
0001001010001010101010
0100101010100101010100
```

Program.o
(Object code)

