

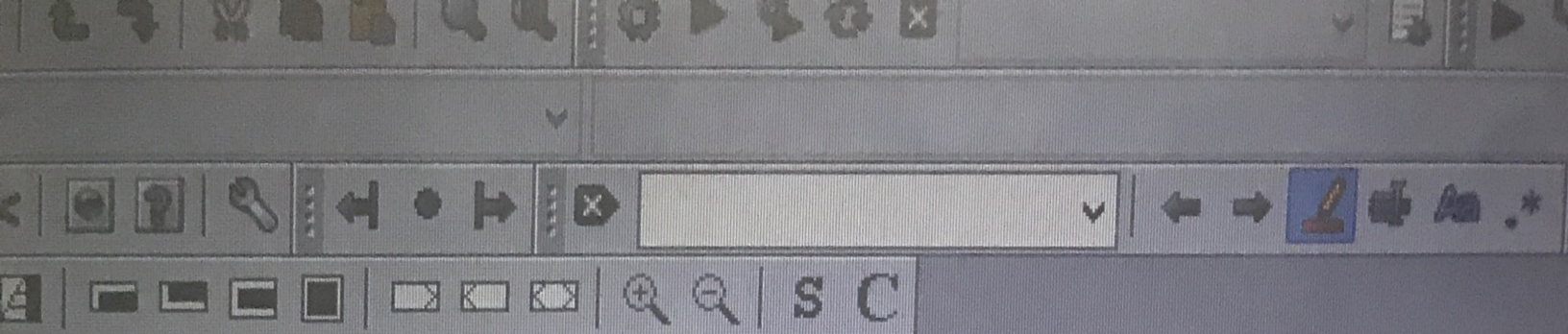
Management X Start here X *ds.c X

Projects

View:

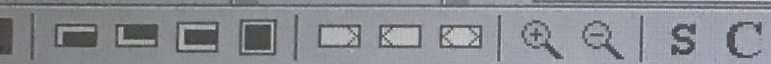
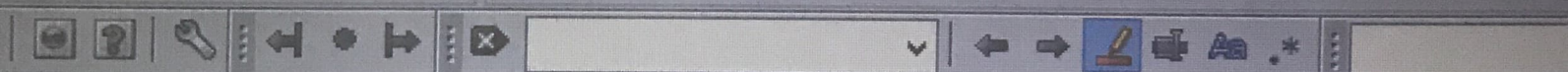
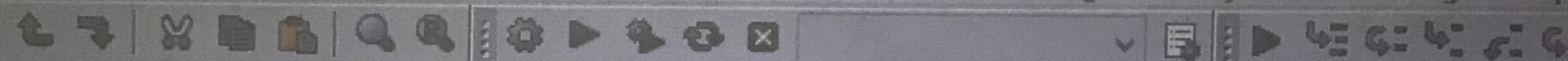
Search:

```
1  #include<stdio.h>
2  #include<string.h>
3  #include<process.h>
4  int F(char symbol)
5  {
6      switch(symbol)
7      {
8          case '+':
9          case '-':return 2;
10         case '*':
11         case '/':return 4;
12         case '^':
13         case '$':return 5;
14         case '(':return 0;
15         case '#':return -1;
16         default:return 8;
17     }
18 }
19 int G(char symbol)
20 {
21     switch(symbol)
22     {
23         case '+':
24         case '-':return 1;
25         case '*':
26         case '/':return 3;
27         case '^':
28         case '$':return 6;
29         case '(':return 9;
```

Start here X *ds.c X

```
21     switch(symbol)
22     {
23     case '+':
24     case '-': return 1;
25     case '*':
26     case '/': return 3;
27     case '^':
28     case '$': return 6;
29     case '(': return 9;
30     case ')': return 0;
31     default: return 7;
32     }
33 }
34 void infix_postfix(char infix[], char postfix[])
35 {
36     int top, i, j;
37     char s[30], symbol;
38     top = -1;
39     s[++top] = '#';
40     j = 0;
41     for(i = 0; i < strlen(infix); i++)
42     {
43         symbol = infix[i];
44         while(F(s[top]) > G(symbol))
45         {
46             postfix[j] = s[top--];
47             j++;
48         }
49         if(F(s[top]) != G(symbol))
```

Start here X *ds.c X

```
41     for(i=0;i<strlen(infix);i++)
42     {
43         symbol=infix[i];
44         while(F(s[top])>G(symbol))
45         {
46             postfix[j]=s[top--];
47             j++;
48         }
49         if(F(s[top])!=G(symbol))
50             s[++top]=symbol;
51         else
52             top--;
53     }
54     while(s[top]!='#')
55     {
56         postfix[j++]=s[top--];
57     }
58     postfix[j]='\0';
59 }
60 void main()
61 {
62     char infix[20];
63     char postfix[20];
64     printf("enter valid infix expression:\n");
65     scanf("%s",infix);
66     infix_postfix(infix,postfix);
67     printf("the postfix exp is:\n");
68     printf("%s\n",postfix);
69 }
```




enter valid infix expression:

a\$b*c-d+e/f/(g+h)

the postfix exp is:

ab\$c*d-ef/gh+/+

Process returned 0 (0x0) execution time : 566.395 s

Press any key to continue.

Lab-2 pgm

Conversion from Infix to post fix expression:

```
#include <stdio.h>
#include <string.h>
#include <process.h>
int F(char symbol)
{
    switch (symbol)
    {
        case '+':
        case '-': return 2;
        case '*':
        case '/': return 4;
        case '^':
        case '$': return 5;
        case '(': return 0;
        case '#': return -1;
        default: return 8;
    }
}

int G(char symbol)
{
    switch (symbol)
    {
        case '+':
        case '-': return 1;
        case '*':
        case '/': return 3;
        case '^':
        case '$': return 6;
        case '(': return 9;
```

```

case ')': return 0;
default : return 7;
}
}

```

```

void infix-postfix (char infix[], char postfix[])

```

```

{ int top, i, j;
  char s[30], symbol;

```

```

  top = -1;

```

```

  s[++top] = '#';

```

```

  j = 0;

```

```

  for (i = 0; i < strlen(infix); i++)

```

```

  { symbol = infix[i];

```

```

    while (F(s[top]) > G(symbol))

```

```

    { postfix[j] = s[top--];

```

```

      j++;
    }

```

```

    if (F(s[top]) < G(symbol))

```

```

      s[++top] = symbol;

```

```

    else

```

```

      top--;
    }

```

```

  while (s[top] != '#')

```

```

  { postfix[j++] = s[top--];

```

```

  }

```

```

  postfix[j] = '\0';
}

```

```

void main()

```

```

{ char infix[20], postfix[20];

```

```

  printf("Enter valid infix exp: \n");

```

```

  scanf("%s", infix);

```

```

  infix-postfix(infix, postfix);

```

```

  printf("The postfix exp is: \n");

```

```

  printf("%s \n", postfix);
}

```