

$$\text{default_step} = \frac{|cw * dy| + |ch * dx|}{(dx^2 + dy^2)^{1/2}}$$

For extra space

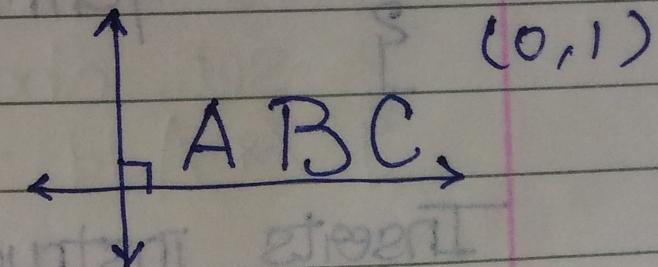
$$twe_step = \text{default_step} (1 + \text{char_sep})$$

$$xchrsp = twe_step \left(\frac{dy}{(dx^2 + dy^2)^{1/2}} \right)$$

$$ychrsp = twe_step \left(\frac{-dx}{(dx^2 + dy^2)^{1/2}} \right)$$

$$\text{if } cw = 0.1, ch = 0.1$$

$$\text{default_step} = \underline{(0.1 * 1) + 0}$$



setcharup(dx, dy)

{

$$s = \sqrt{pow(dx, 2) + pow(dy, 2)}$$

if ($s < round off$) then

Error : "Very small value"

$$o/s = (abs(cw * dy) + abs(ch * dx)) / s$$

$$ts = o/s * (1 + charsep)$$

$$\text{Global: } xchrsp = ts * (dy/s)$$

$$ychrsp = ts * (-dx/s)$$

{

Inserts instruction into display file

Text(String)

{

$$len = strlen(string);$$

$$x = df_penx;$$

$$y = df_peny;$$

for (i = 1 to len)

$$chr = string[i]$$

$$op = chr$$

$$op = -op$$

dis_file_enter(op);

$$df_penx += xchrsp$$

$$df_peny += ychrsp$$

move_abs(x, y)

{

To fetch instructions

Interpret(start, count)

for(n = start to count)

{
 getpoint(n, op, x, y);
 if(op < -31 || op > -127) Then

 dochar(op, x, y);

 else if(op == 1)
 domove(x, y);

 else if(op == 2)
 doLine(x, y);

 else

 " Opcode Error "

}

Draw the character.

dochar(op, x, y)

frame-penx = max(ws, min(we, x * w + ws))

frame-peny = max(hs, min(he, y * h + hs))

op = -op

chr = op

switch(chr)

{

 case 'h' :

 genhl(frame-penx, frame-peny);

 case 'e' :

```
genel frame-penx, frame-peny);
```

Initializes Variables

```
Initialize()
```

```
ch=0.1, cw=0.1, char_sep=0;
```

```
set_charup(1,0)/(0,1);
```

```
/*Add this to old Initialize()*/.
```

```
main()
```

```
char string[5] = { 'h', 'e', 'l', 'l', 'o', '\0' };
```

```
initialize();
```

```
new_frame();
```

```
text(string);
```

```
make_picture_current();
```