



	MGT-MDE-3-003		
	V1.02		
			2024-12-12

---

# 1

## 1.1

Mc5000, Mc5100

CPU

MC

Mc280

## 1.2

	Pl c( )
M:5000, M:5100	
M:Greator	MC5000 MU
	M:Greator

# 2

## 2.1

LD

LD

LD

LD

LD

M:5x00 Pl c

1>

C

C

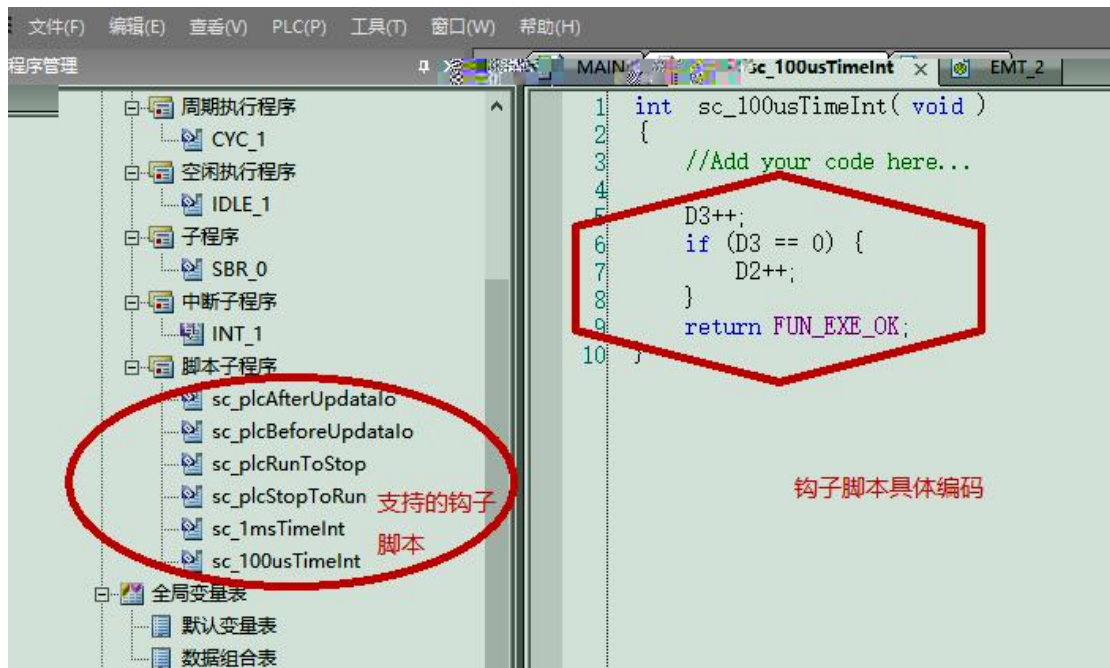
2>

Pl c

X, Y, M, S, SM, T, C,

D, R, SD, Z, F





3

## 2.3

LD

C

pl c

export_nodule.h	Pl c
user_common.c	
user_common.h	

# 3

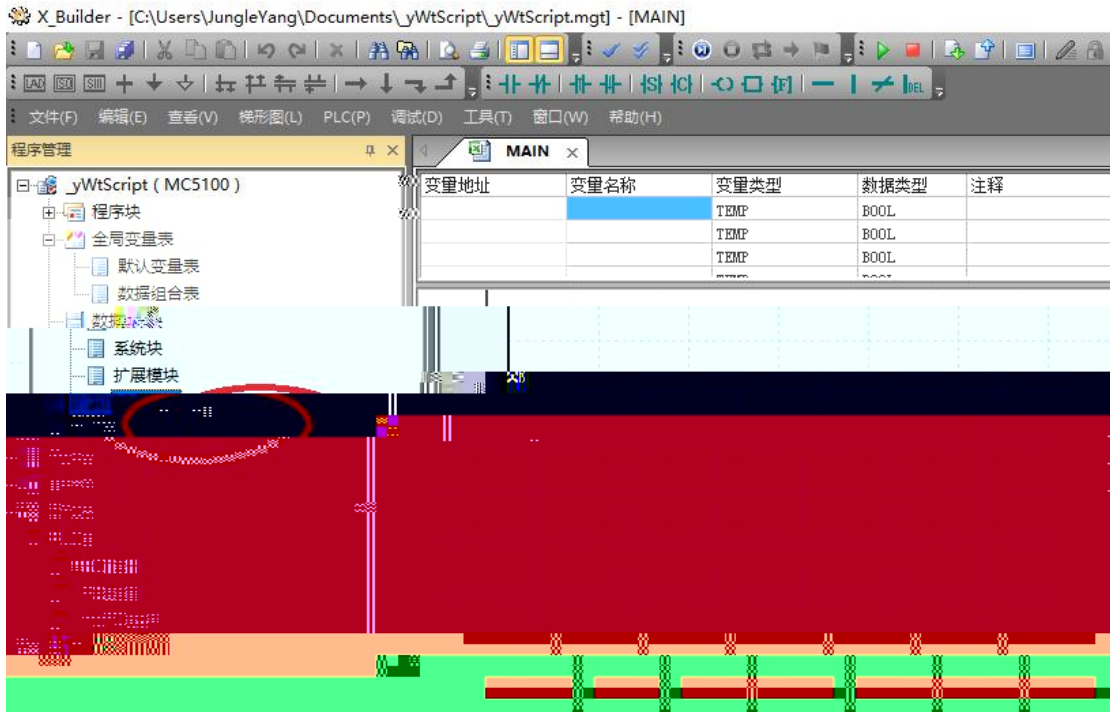
xBuild

C

D996( )      D1000      20000      D998( )

## 3.1

" " , " " " "

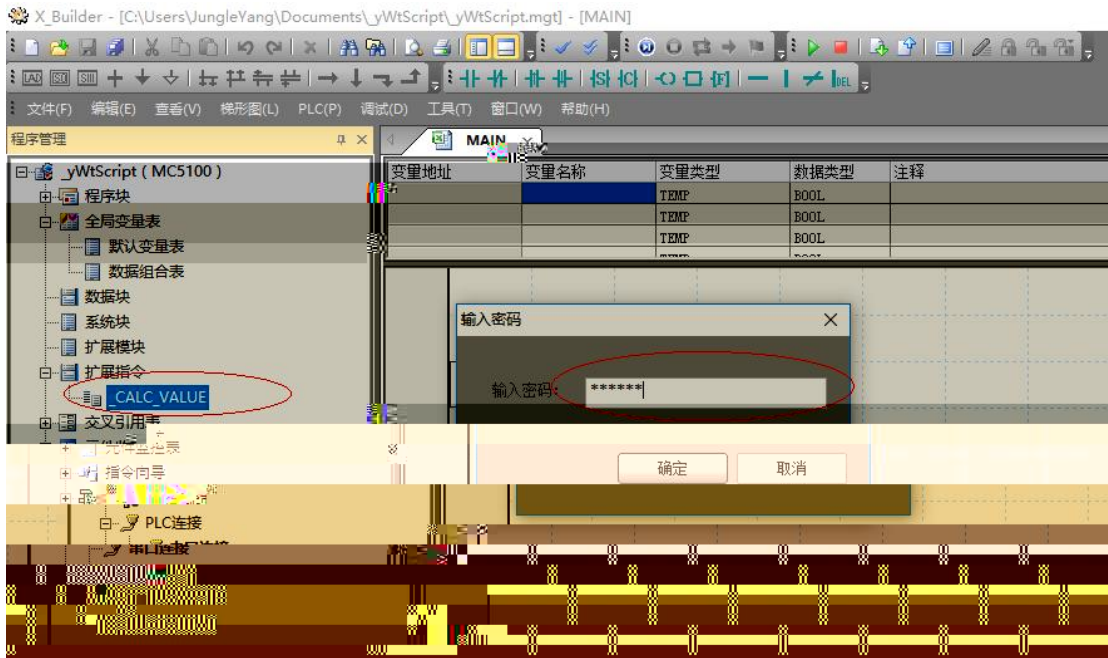


---

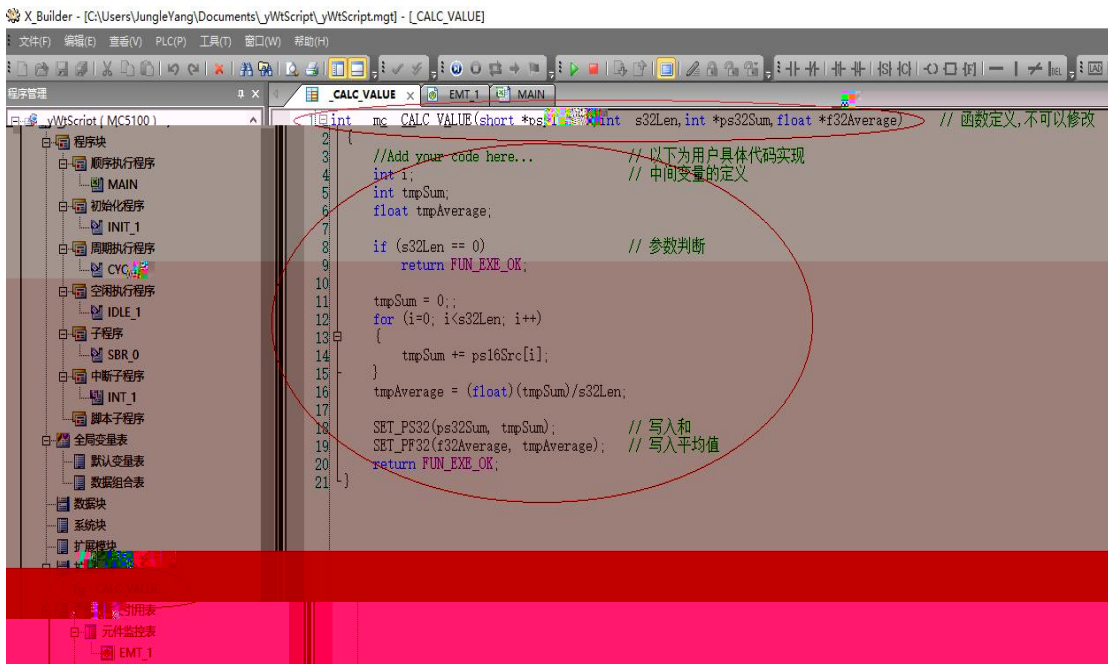
## 3. 6

### 3.3

”\_CALC\_VALUE”



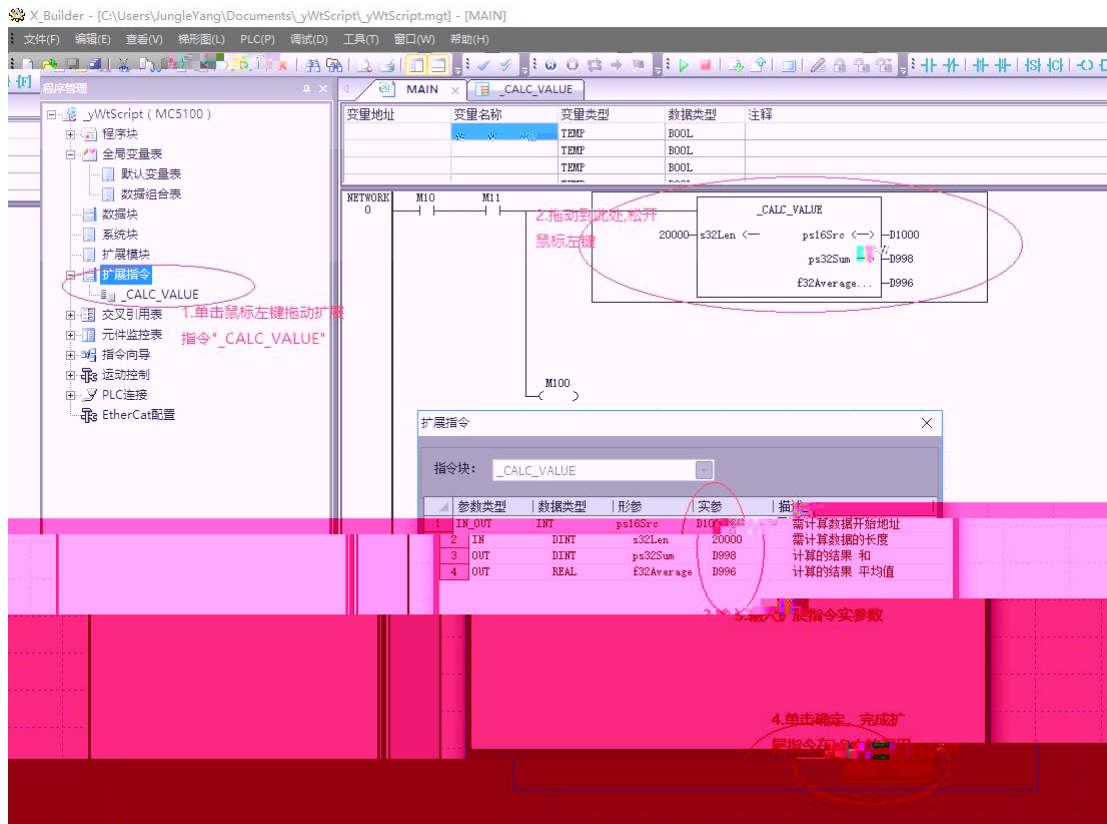
6



7

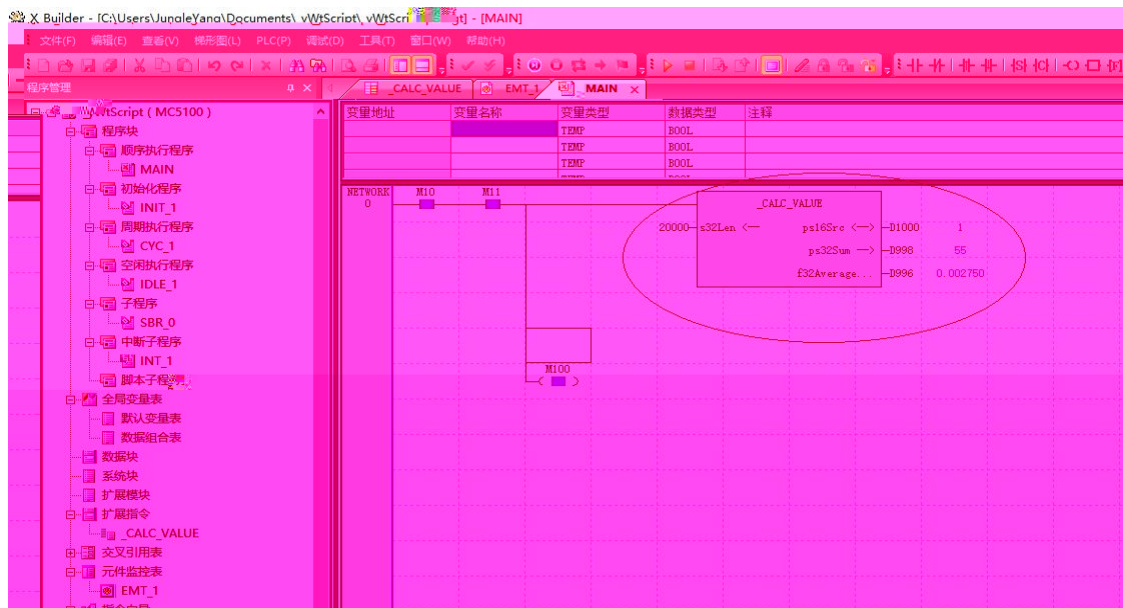
”C ”

### 3.4



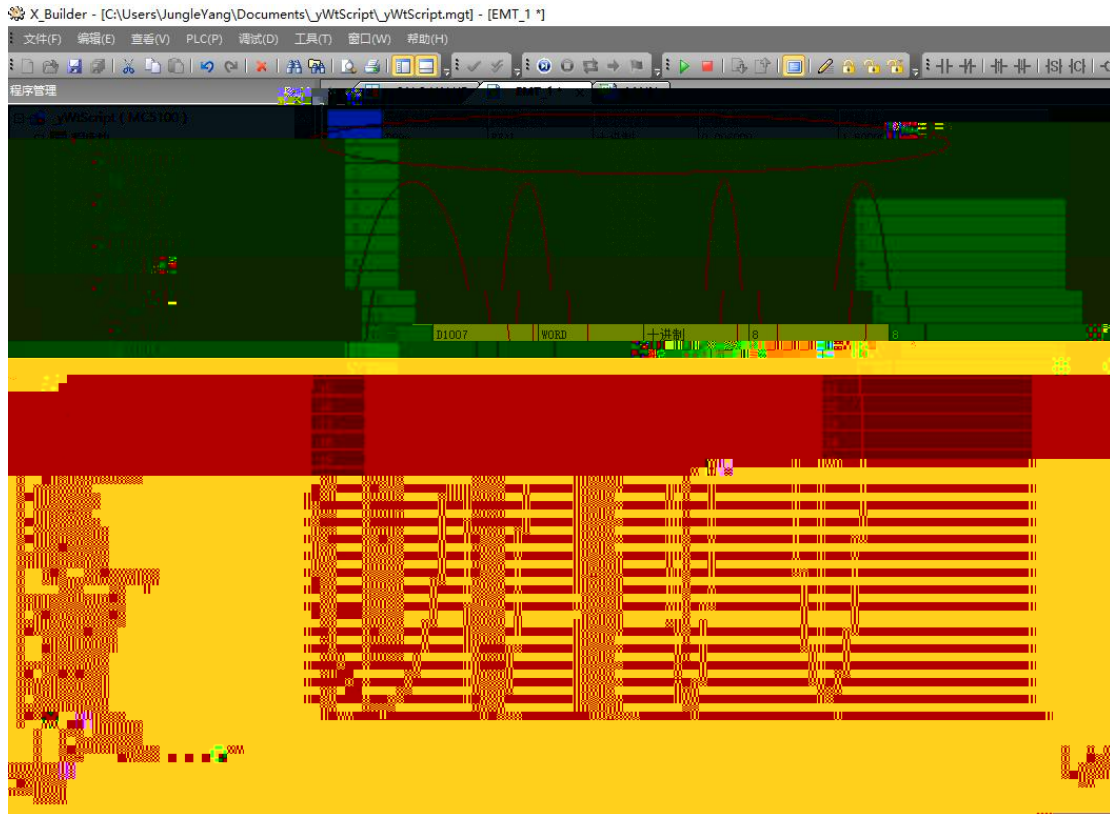
8

M10 M11 On ”\_CALC\_VALUE” \_CALC\_VALUE  
D1000 20000 D998( ) D996( )



9

## 3.5



10

## 4

### 4.1

#### 4.1.1 X

	X
	PLC
	X0 ~ X7777
	Bit
	8 , 'X'

```

int _mc_BitOp()
{
    //Add your code here...
    if ( X4 )
    {
        Y10 = 1;
    }
}

```

8进制编号

### 4.1.2 Y

	Y
	PLC
	Y0 ~ Y7777
	Bit
	8 , 'Y'

```

int _mc_BitOp()
{
    //Add your code here...
    if ( X4 )
    {
        Y10 = 1;
    }
}

```

Y位元件输入, 编号位8进制

### 4.1.3 SM

	SM
	PLC SM
	SM0 ~ SM4095
	Bit
	10 , 'SM'

```

int _mc_BitOp()
{
    //Add your code here...
    if ( X4 )
    {
        SM[40]=1;
        SM[41]=1;
    }
}

```

SM位元件支持SMxx及SM[x]

## 4.1.4 S

	S
	PLC S
	S0 ~ S4095
	Bit
	10 , 'S'

```

int _mc_BitOp()
{
    //Add your code here...
    if ( X4 )
    {
        S[100]=1;
        S101 = 1;
    }
}

```

S位元件支持Sxx及S[xx]输入，编号为十进制

## 4.1.5 T

	T
	PLC T
	T0 ~ T4095
	Bit
	10 , 'T'

```

int _mc_BitOp()
{
    //Add your code here...
    if (T10)
    {
        D[102] =20;
    }
}

```

T元件位变量，支持Ixx及I[xx]输入，十进制编号

## 4.1.6 C

	C
	PLC C
	C0 ~ C4095
	Bit
	10 , 'C'

```

int _mc_BitOp()
{
    //Add your code here...
    if (C10)
    {
        D[102] =20;
    }
}

```

C位元件输入格式支持Cxx及C[xx],十进制编号

## 4.1.7 M

	C
	PLC M
	M0 ~ M65535
	Bit
	10 , 'M'

```
int _mc_BitOp()
```

```
{
    //Add your code here...
```

```
if ( X4 )
```

```
{
```

```
    M0 = 1;
```

```
    M1 = 1;
```

M位元件支持Mx及M[x]格式，半字节编号

## 4.1.8 SD

	SD
	PLC SD
	SD0 ~ SD4095
	signed short
	10 , 'SD'

```
int _mc_BitOp()
```

```
{
    //Add your code here...
```

```
if ( X4 )
```

```
{
```

```
    D110 = SD101;
```

```
    D[111] = SD[102];
```

SD支持SDxx及SD[xx]

## 4.1.9 Z

	Z
	PLC Z
	Z0 ~ Z4095
	signed short
	10 , 'Z'

```
int _mc_BitOp()
```

```
{
    //Add your code here...
```

```
if ( X4 )
```

```
{
```

```
    Z110 = 10;
```

```
    Z[4095] = 100;
```

Z元件支持Zxx及Z[xx]读写操作

## 4. 1. 10 D

	D
	PLC D
	D0 ~ D65535
	signed short
	10 , 'D'

```
int _mc_BitOp()
{
    //Add your code here...
    if ( X4 )
    {
        D110 = SD101;
        D[111] = SD [102];
    }
}
```

D字单元直接读写支持Dxx及D[xx]

## 4. 1. 11 R

	R
	PLC R
	R0 ~ R65535
	signed short
	10 , 'R'

```
int _mc_BitOp()
{
    //Add your code here...
    if ( X4 )
    {
        R110 = RD101;
        R[111] = RD [102];
    }
}
```

R字变量支持Rxx及R[xx]直接读写操作

## 4. 2

MC5000

PLC

32

### 4. 2. 1

	int GET_DD(unsigned short stNum)
	" D"
	stNum D
	int,

--	--

```
int _mc_BitOp()
{
  //Add your code here...
  if ( X4 )
  {
    long tmp;
    tmp = GET_DD(1000);
```

← 读取D1000长整型数据到tmp

### 4.2.2

	void SET_DD(unsigned short stNum int val)
	" D"
	stNum: D
	val :

```
int _mc_BitUp()
{
  //Add your code here...
  if ( X4 )
  {
    long tmp;
    tmp = GET_DD(1000);
```

← 将tmp的值写入到长整数D150中

### 4.2.3

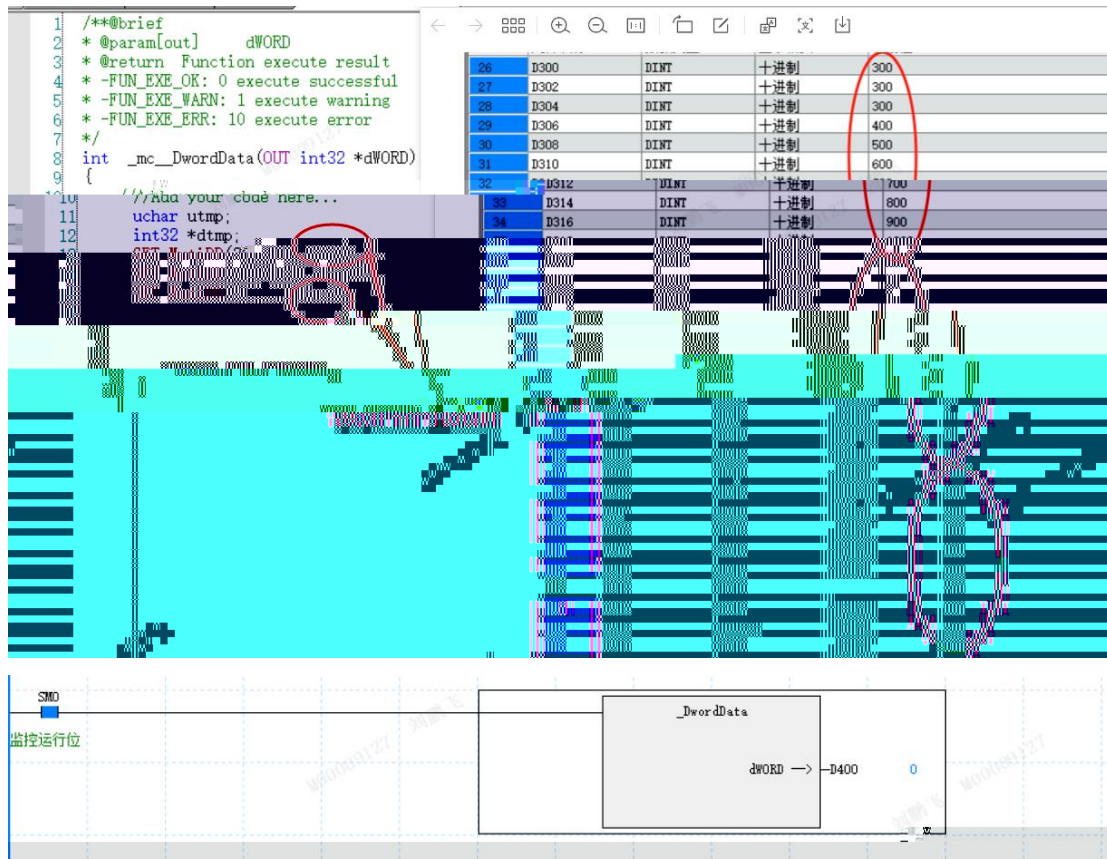
	int GET_Multi DD(int stNum int len, int *ps32Dsc)
	" D"
	stNum: D
	Len :
	ps32Dsc:
	0 ,

### 4.2.4

### 4.2.4

	int SET_Multi DD(int stNum int len, int *ps32Src)
	" D"
	stNum: D
	Len :

	ps32Dsc:	D
	0	,



```

1          GET_Miti DD(int stNum int len, int *ps32Dsc)
SET_Miti DD(int stNum int len, int *ps32Src)          D
              dWORD      D400          D400      10

2          int *ps32Dsc  int *ps32Src
  
```

#### 4.2.5

	float GET_FD(unsigned short stNum)
	" D"
	stNum D
	float,

#### 4.2.6

## 4.2.6

	void SET_FD(unsigned short stNum, float val)
	" D"
	stNum: D
	val :

```
int _mc_DwordData(OUT int32 *dWORD)
{
    //Add your code here...
    uchar utmp;
    int32 *dtmp;
    float fTmp, *pfTmp;
    fTmp = GET_FD(600);
    SET_FD(700, fTmp);
```

读取d600内浮点数存入变量fTmp中

将浮点数fTmp的值写入D700中

## 4.2.7

	int GET_MultiFD(int stNum, int len, float *pf32Dsc)
	" D"
	stNum: D
	Len :
	ps32Dsc:
	0 ,

4.2.8

## 4.2.8

	int SET_MultiFD(int stNum, int len, float *pf32Src)
	" D"
	stNum: D
	Len :
	ps32Dsc: D
	0 ,



## 4.2.12

	int SET_MultiDR(int stNum, int len, int *ps32Src)
	" R"
	stNum: R
	Len :
	ps32Dsc: R
	0 ,

## 4.2.13

	float GET_FR(unsigned short stNum)
	" R"
	stNum R
	float,

## 4.2.14

	void SET_FR(unsigned short stNum, float val)
	" R"
	stNum: R
	val :

## 4.2.15

	int GET_MultiFR(int stNum, int len, float *pf32Dsc)
	" R"
	stNum: R
	Len :
	ps32Dsc:

	0	,

#### 4. 2. 16

	int SET_Miti FR(int stNum, int len, float *pf32Src)	
	" R"	
	stNum: R	
	len :	
	ps32Dsc: R	
	0	,

#### 4. 2. 17

	int GET_DF(int stNum)
	" F"
	stNum F
	int,

4.2.34 F0~F9

#### 4. 2. 18

	void SET_DF(int stNum, int val)
	" F"
	stNum: F
	val :

4.2.34 F0~F9

#### 4. 2. 19

	int GET_Miti DF(int stNum, int len, int *ps32Dsc)
	" F"

	stNum: F
	Len :
	ps32Dsc:
	0 ,

4.2.34 F0~F9

## 4. 2. 20

	int SET_MitIDF(int stNum, int len, int *ps32Src)
	" F"
	stNum: F
	Len :
	ps32Dsc: F
	0 ,

4.2.34 F0~F9

## 4. 2. 21

	float GET_FF(unsigned short stNum)
	" F"
	stNum F
	float,

4.2.34 F0~F9

## 4. 2. 22

	void SET_FF(unsigned short stNum, float val)
	" F"
	stNum: F
	val :

4.2.34 F0~F9

## 4. 2. 23

	int GET_Miti FF(int stNum, int len, float *pf32Dsc)
	" F"
	stNum: F
	Len :
	ps32Dsc:
	0 ,

4.2.34 F0~F9

## 4. 2. 24

	int SET_Miti FF(int stNum, int len, float *pf32Src)
	" F"
	stNum: F
	Len :
	ps32Dsc: F
	0 ,

4.2.34 F0~F9

## 4. 2. 25

	int GET_DFO(int stNum)
	int GET_DF1(int stNum)
	int GET_DF2(int stNum)
	int GET_DF3(int stNum)
	int GET_DF4(int stNum)
	int GET_DF5(int stNum)
	int GET_DF6(int stNum)
	int GET_DF7(int stNum)
	int GET_DF8(int stNum)
	int GET_DF9(int stNum)
	" Fx"
	stNum Fx
	int,

4.2.34 F0~F9

## 4. 2. 26

	void SET_DF0(int stNum, int val)
	void SET_DF1(int stNum, int val)
	void SET_DF2(int stNum, int val)
	void SET_DF3(int stNum, int val)
	void SET_DF4(int stNum, int val)
	void SET_DF5(int stNum, int val)
	void SET_DF6(int stNum, int val)
	void SET_DF7(int stNum, int val)
	void SET_DF8(int stNum, int val)
	void SET_DF9(int stNum, int val)
	" Fx"
	stNum: Fx
	val :

4.2.34 F0~F9

## 4. 2. 27

	int GET_MitiDF0(int stNum, int len, int *ps32Dsc)
	int GET_MitiDF1(int stNum, int len, int *ps32Dsc)
	int GET_MitiDF2(int stNum, int len, int *ps32Dsc)
	int GET_MitiDF3(int stNum, int len, int *ps32Dsc)
	int GET_MitiDF4(int stNum, int len, int *ps32Dsc)
	int GET_MitiDF5(int stNum, int len, int *ps32Dsc)
	int GET_MitiDF6(int stNum, int len, int *ps32Dsc)
	int GET_MitiDF7(int stNum, int len, int *ps32Dsc)
	int GET_MitiDF8(int stNum, int len, int *ps32Dsc)
	int GET_MitiDF9(int stNum, int len, int *ps32Dsc)
	" Fx"
	stNum: Fx
	Len :
	ps32Dsc:
	0 ,

4.2.34 F0~F9

## 4. 2. 28

	int SET_MitIDF0(int stNum, int len, int *ps32Src)
	int SET_MitIDF1(int stNum, int len, int *ps32Src)
	int SET_MitIDF2(int stNum, int len, int *ps32Src)
	int SET_MitIDF3(int stNum, int len, int *ps32Src)
	int SET_MitIDF4(int stNum, int len, int *ps32Src)
	int SET_MitIDF5(int stNum, int len, int *ps32Src)
	int SET_MitIDF6(int stNum, int len, int *ps32Src)
	int SET_MitIDF7(int stNum, int len, int *ps32Src)
	int SET_MitIDF8(int stNum, int len, int *ps32Src)
	int SET_MitIDF9(int stNum, int len, int *ps32Src)
	" F"
	stNum:            F
	Len :
	ps32Dsc:                    F
	0 ,

4.2.34 F0~F9

## 4. 2. 29

	float GET_FF0(unsigned short stNum)
	float GET_FF1(unsigned short stNum)
	float GET_FF2(unsigned short stNum)
	float GET_FF3(unsigned short stNum)
	float GET_FF4(unsigned short stNum)
	float GET_FF5(unsigned short stNum)
	float GET_FF6(unsigned short stNum)
	float GET_FF7(unsigned short stNum)
	float GET_FF8(unsigned short stNum)
	float GET_FF9(unsigned short stNum)
	" Fx"
	stNum    Fx
	float,

4.2.34 F0~F9

## 4. 2. 30

	void SET_FF0(unsigned short stNum, float val)
	void SET_FF1(unsigned short stNum, float val)
	void SET_FF2(unsigned short stNum, float val)
	void SET_FF3(unsigned short stNum, float val)
	void SET_FF4(unsigned short stNum, float val)
	void SET_FF5(unsigned short stNum, float val)
	void SET_FF6(unsigned short stNum, float val)
	void SET_FF7(unsigned short stNum, float val)
	void SET_FF8(unsigned short stNum, float val)
	void SET_FF9(unsigned short stNum, float val)
	" Fx"
	stNum: Fx
	val :

4.2.34 F0~F9

## 4. 2. 31

```

int GET_MitiFF0(int stNum, int len, float *pf32Dsc)
int GET_MitiFF1(int stNum, int len, float *pf32Dsc)
int GET_MitiFF2(int stNum, int len, float *pf32Dsc)
int GET_MitiFF3(int stNum, int len, float *pf32Dsc)
int GET_MitiFF4(int stNum, int len, float *pf32Dsc)
int GET_MitiFF5(int stNum, int len, float *pf32Dsc)
int GET_MitiFF6(int stNum, int len, float *pf32Dsc)
int GET_MitiFF7(int stNum, int len, float *pf32Dsc)
int GET_MitiFF8(int stNum, int len, float *pf32Dsc)
int GET_MitiFF9(int stNum, int len, float *pf32Dsc)
" Fx"
t

```

<http://www.megmeec.com/>



## 4. 2. 34

	void SET_F0(int stNum, signed short val)
	void SET_F1(int stNum, signed short val)
	void SET_F2(int stNum, signed short val)
	void SET_F3(int stNum, signed short val)
	void SET_F4(int stNum, signed short val)
	void SET_F5(int stNum, signed short val)
	void SET_F6(int stNum, signed short val)
	void SET_F7(int stNum, signed short val)
	void SET_F8(int stNum, signed short val)
	void SET_F9(int stNum, signed short val)
	" Fx"
	stNum: Fx
	val :

F0~F9

```

//Add your code here...
int iTemp, iTemp1;
int iAdr= 400, iAdr1=800;
float fData= 90.12;
int *piData;
char *S;

SET_DF(400, iTemp1);
iTemp1 = GET_DF9(iAdr); //F9地址数据写不进去，自己变动

SET_FF4(iAdr, 40.12);
SET_FF5(iAdr, 50.12);
SET_FF6(iAdr, 60.12);
SET_FF7(iAdr, 70.12);
SET_FF8(iAdr, fData*10);
SET_FF9(iAdr, i0_data);

```

长整数多个进位与参数传为字节序显示

各个进位地址和地址的函数使用的计数器

## 4. 2. 35

	void SET_PS32(int *ps32Dsc, int s32Src)
	s32Src ps32Dsc
	s32Src:
	ps32Dsc:

```

#define IOPrA *(int32 *)&D
#define FD *(float *)&D
#define DR *(int32 *)&R
int _mc_pointerOP(IN int32 InPra, IN_OUT uint16 *IOPra, OUT uint16 *OPra)
{
    //Add your code here...

    int *Adr1,*Adr2,Adr3 = 620;
    long dInt1;

    float fData1,*fData2;
    float fTemp = 568.12;
    long DTemp = 654321;
    long temp;

    Adr1 = &D600;
    Adr2 = &R550;
}

```

写入目标位指针指向的地址  
被写数据为立即数

Adr1     D600    Adr2

R550

### 4. 2. 36

	int GET_PS32(int *ps32Src)
	int
	ps32Src:

```

#define IOPrA *(int32 *)&D
#define FD *(float *)&D
#define DR *(int32 *)&R
int _mc_pointerOP(IN int32 InPra, IN_OUT uint16 *IOPra, OUT uint16 *OPra)
{
    //Add your code here...

    int *Adr1,*Adr2,Adr3 = 620;
    long dInt1,*dInt2;

    float fData1,*fData2;
    float fTemp = 568.12;
    long DTemp = 654321;
    long temp;

    Adr1 = &D600;
    Adr2 = &R550;

    *IOPra = Adr1;
    *IOPra = Adr2;

    SET_PS32(Adr1+1, dInt1); //将dInt1的值经大小端调整后赋给指针（Adr1+1）指向的地址
}

```

操作数与指向地址的指针

IOPra

### 4. 2. 37

	int GET_S32(int s32Src)
	int                    32
	s32Src:







---

# 5

## 5.1.1

	unsigned short _ycrcModbus(unsigned char *data, unsigned int length)
	<b>Modbus crc</b>
	data:            Crc
	Length:          Crc
	<b>Crc</b>

## 5.1.2

	unsigned short _ycrcCrc16(unsigned char *ptr, unsigned int len)
	<b>ccitt</b>
	data:            Crc
	Length:          Crc
	<b>Crc</b>

# 6

:

