



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

1

1.1

1.2

	Pl c()
M:5000, M:5100	
M:EGreator	M:5000 M
	M:EGreator

2

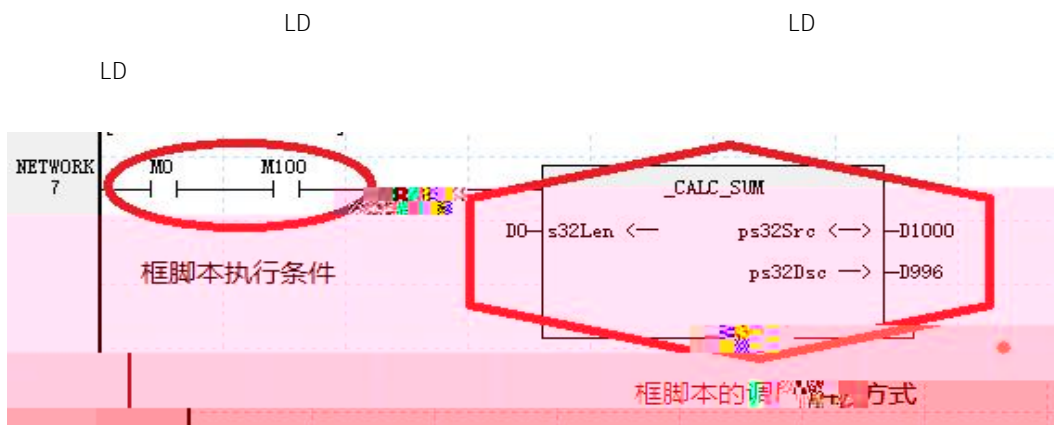
2.1

- M:5x00 Pl c
- 1> C C ,
- 2> Pl c , X, Y, M S, SM T, C D, R SD , Z, F

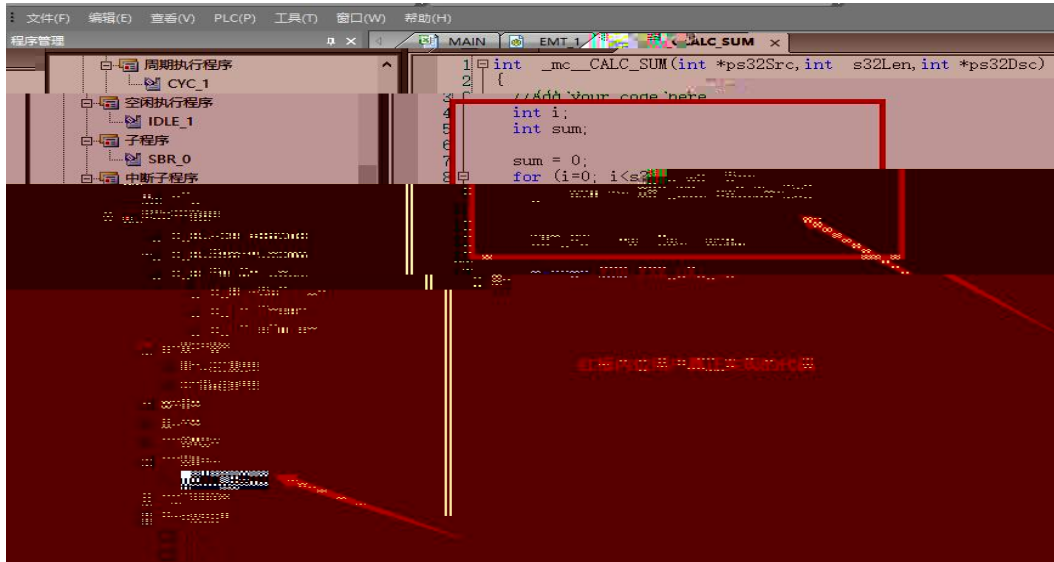
- 3> X , D
- 4> ANSI C , C
- 5> C ;
- 6>

2.2

1>

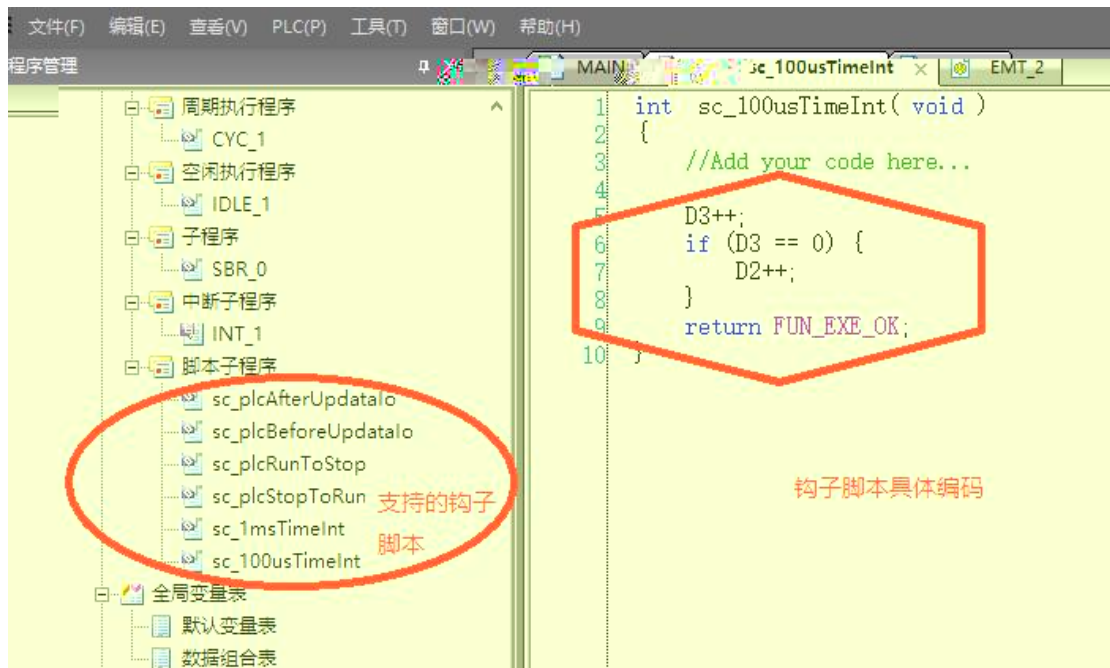


1



2

1>



3

2.3

C

pl c

export_nodule.h	Pl c
user_common.c	
user_common.h	

3

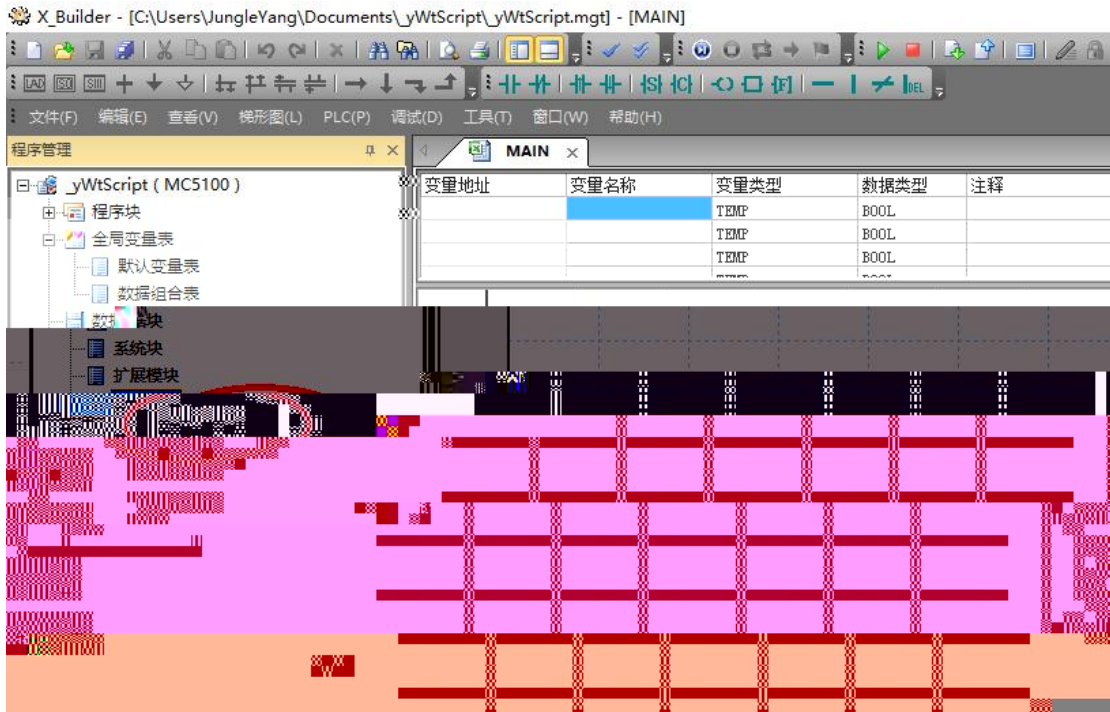
xBuild

C

D996() D1000 20000 D998()

3.1

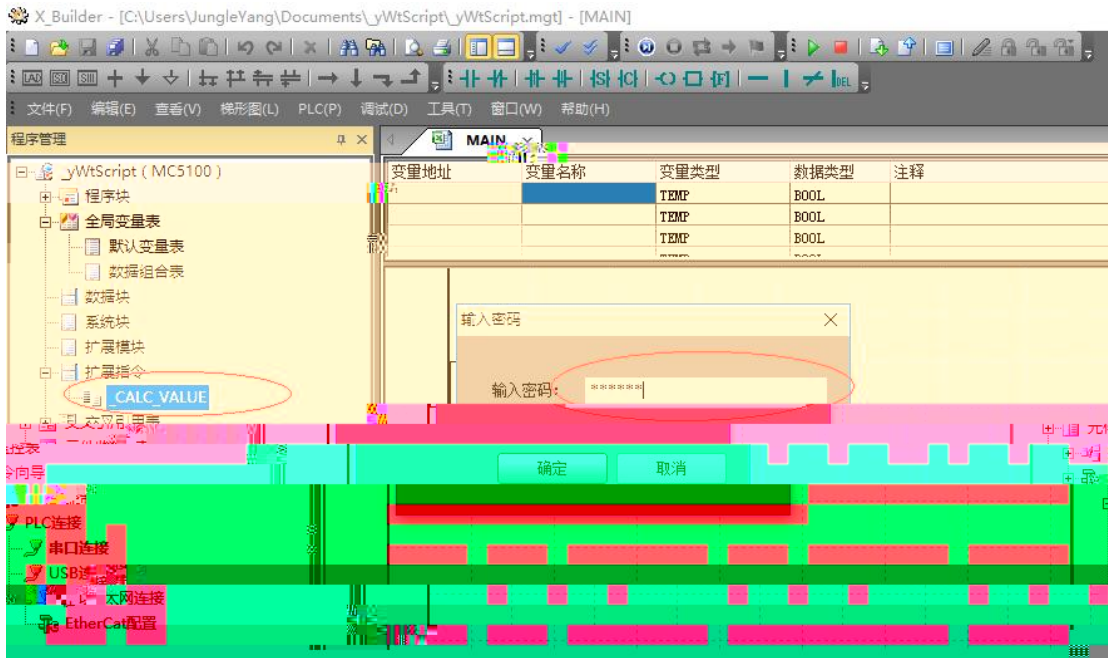
" " , " " " "



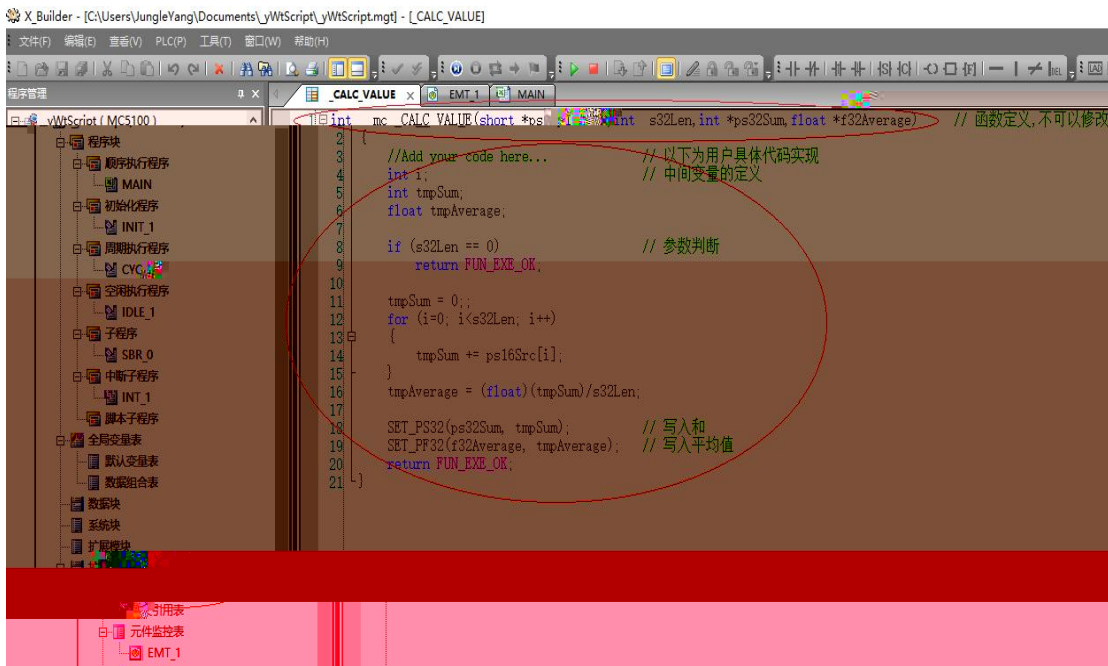
3.6

3.3

”_CALC_VALUE”



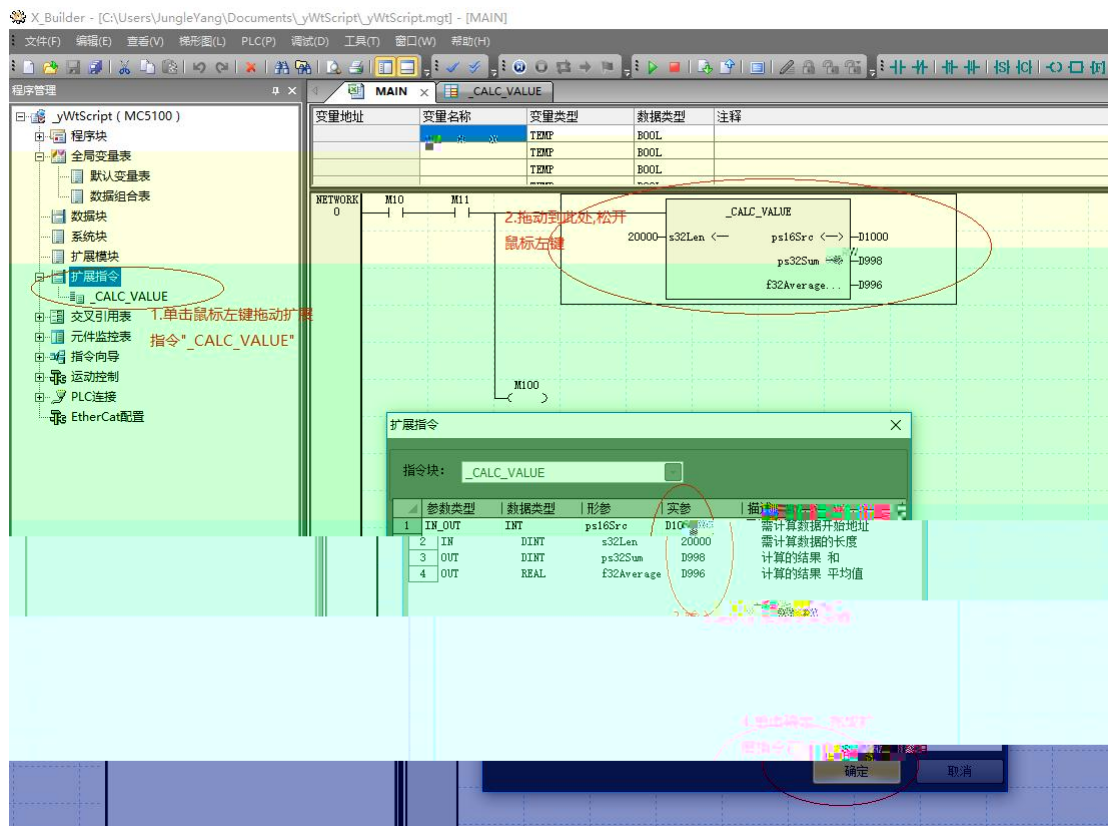
6



7

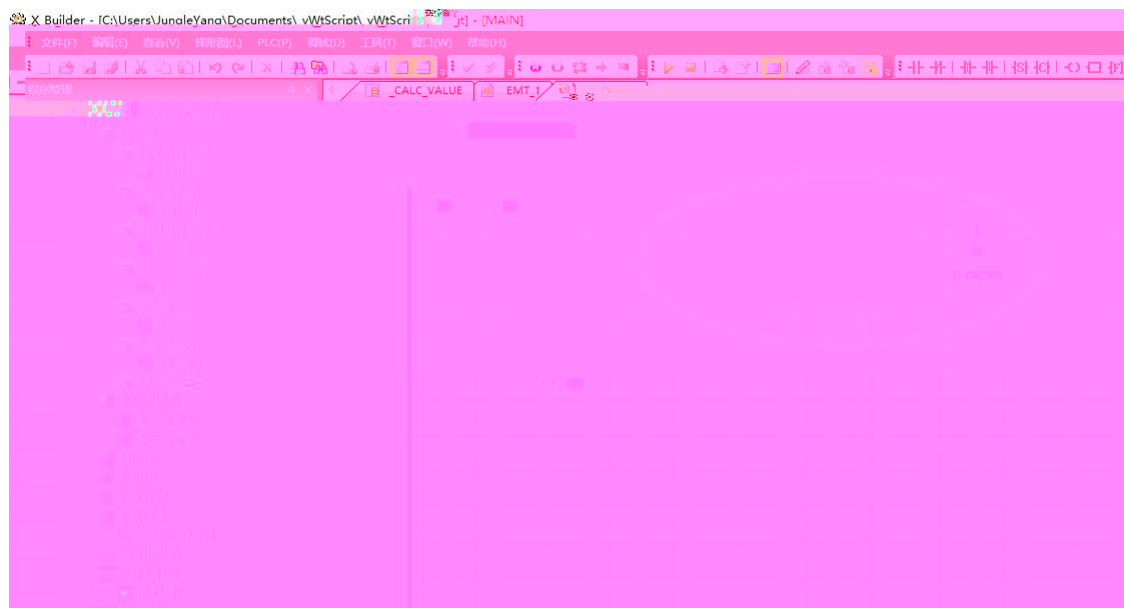
”C ”

3.4



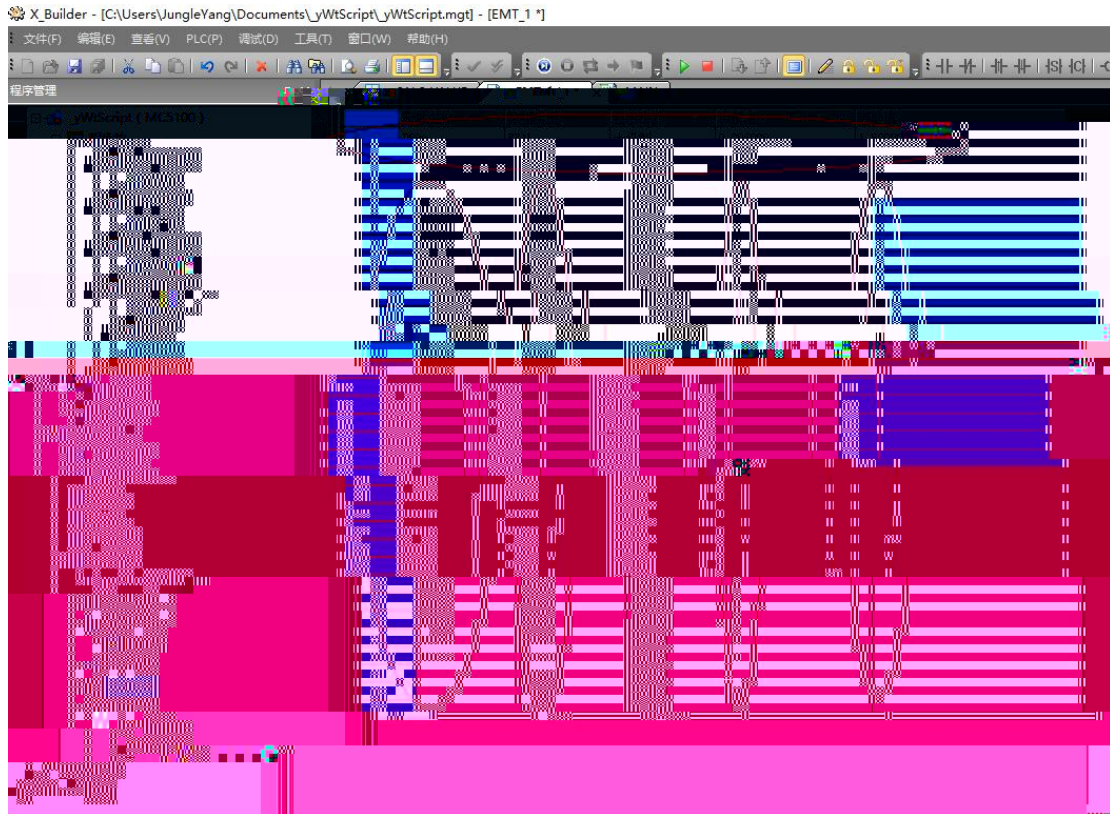
8

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 )
    0 = 1;
}

```

X[10]

X[XX]

4.1.2 Y

	Y
	PLC
	Y0 ~ Y7777
	Bit
	8 , 'Y'

```

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

```

Y[15]

Y[XX]

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

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...
```



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]

32 SD

16 SD

32

4.1.9 Z

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

```
int _mc_BitOp()
{
    //Add your code here...
```

```
if ( X4 )
{
```

7字元件支持Zxx及Z[xx]读写编址

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 )
    {
        R[4095] = 100;
    }
}
```

R字变量支持Rxx及R[xx]直接读写操作

4. 2

MC5000

PLC

32

4. 2. 1 D

	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 D

	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值写入到长整数D150中

4.2.3 D

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

4.2.4

4.2.4 D

	int SET_MultiDD(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 D

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

4.2.6

4.2.6

D

	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

D

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

4.2.8

4.2.8

D

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

4. 2. 12

R

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

4. 2. 13

R

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

4. 2. 14

R

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

4. 2. 15

R

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

	0	,

4.2.16

R

	int SET_MitiFR(int stNum, int len, float *ps32Src)	
	" R"	
	stNum: R	
	len :	
	ps32Dsc: R	
	0	,

4.2.17

F

F0 ~ F9

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

4.2.34 F0~F9

4.2.18

F

F0 ~ F9

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

4.2.34 F0~F9

4.2.19

F

F0 ~ F9

	int GET_MitiDF(int stNum, int len, int *ps32Dsc)
	" F"

	stNum: F
	Len :
	ps32Dsc:
	0 ,

4.2.34 F0~F9

4. 2. 20

F

F0 ~ F9

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

4.2.34 F0~F9

4. 2. 21

F

F0 ~ F9

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

4.2.34 F0~F9

4. 2. 22

F

F0 ~ F9

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

4.2.34 F0~F9

4. 2. 23

F

F0 ~ F9

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

4.2.34 F0~F9

4. 2. 24

F

F0 ~ F9

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

4.2.34 F0~F9

4. 2. 25

F_x

F0 ... F9

	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)
	" F _x "
	stNum F _x
	int,

4.2.34 F0~F9

4. 2. 26

Fx

F0 ... F9

	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

Fx

F0 ... F9

	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

Fx

F0 ... F9

	int SET_MultiDF0(int stNum, int len, int *ps32Src)
	int SET_MultiDF1(int stNum, int len, int *ps32Src)
	int SET_MultiDF2(int stNum, int len, int *ps32Src)
	int SET_MultiDF3(int stNum, int len, int *ps32Src)
	int SET_MultiDF4(int stNum, int len, int *ps32Src)
	int SET_MultiDF5(int stNum, int len, int *ps32Src)
	int SET_MultiDF6(int stNum, int len, int *ps32Src)
	int SET_MultiDF7(int stNum, int len, int *ps32Src)
	int SET_MultiDF8(int stNum, int len, int *ps32Src)
	int SET_MultiDF9(int stNum, int len, int *ps32Src)
	" F"
	stNum: F
	Len :
	ps32Dsc: F
	0 ,

4.2.34 F0~F9

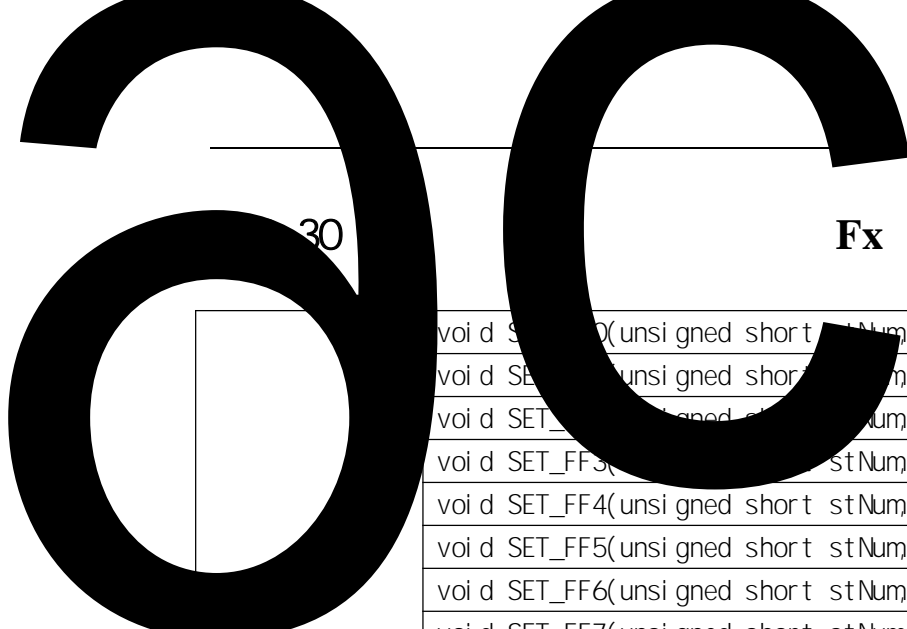
4. 2. 29

Fx

F0 ... F9

	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



30

Fx

F0 ... F9

	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

Fx

F0 ... F9

```

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"

```



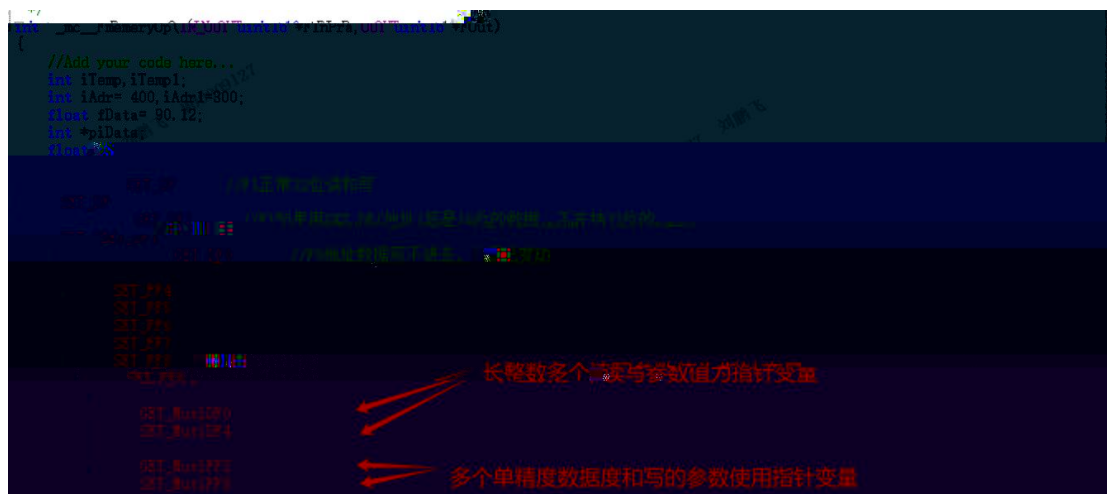

4. 2. 34

Fx

F0 ... F9

	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



4. 2. 35

int

()

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

```

#define INDR *(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;
}

```

写入目标地址的偏移量
被写数据为立即数

Adr1 D600 Adr2

R550

4.2.36 int ()

	int GET_PS32(int *ps32Src)
	int
	ps32Src:

```

#define INDR *(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;

    SET_PS32(Adr1, DTemp); //Adr1为指针，将长整数DTemp的值写入Adr1指向的地址（大小端调整）
    dInt1 = GET_PS32(IOPra); //将指针IOPra指向的地址的值读出来，赋给dInt1
    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
}

```

操作数为指向地址的指针

IOPra

4.2.37 int ()

	int GET_S32(int s32Src)
	int 32
	s32Src:

	PLC

*1

```

#define DD *(int32 *)&D
#define FD *(float *)&D
#define dInt1 *(int32 *)IOPr

//将IOPr指向的地址的值读出来，赋给dInt1
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
dInt1 += -654321;
*pu32Dsc = *(int32 *)IOPr; //将长整数dInt的值经大小端调整后赋给变量Ter

```

4. 2. 38 **unsigned int** ()

	void SET_PU32(unsigned int *pu32Dsc, unsigned int u32Src)
	u32Src pu32Dsc
	u32Src:
	pu32Dsc:

4.4.23

4. 2. 39 **unsigned int** ()

	unsigned int GET_PU32(unsigned int *pu32Src)
	int
	pu32Src:

4.4.23

5

5.1.1 **modbus crc**

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

5.1.2 **ccitt crc**

	unsigned short _ycrcCci tt(unsigned char *ptr, unsigned int len)
	ccitt
	data: Crc
	Length: Crc
	Crc

6

:

