RFID Printer

ZMPCL DLLDEMO

Version: 1.0.1.9

Guangdong ELFDAY Intelligent Technology Co., LTD

use

This API function library uses DEMO to provide a set of functions for the users of barcode label printer of Guangdong LingtianIntelligent Technology Co., Ltd. to facilitate the writing of applications based on Windows9X, NT, 2000, XP,WIN7, WIN8,WIN10 and other operating systems.

This API function library uses DEMO only to support our products.

目录

use 2
一.Common functions, including: text (dot matrix and truetype fonts), bar codes, pictures and other printing cases. 4
The third step, label printing content: including text, bar code, graphics, boxes, lines, etc 5
Step 4: Start printing 7
Step 5: Close the port to end the printing process. 7
Note: When printing multiple loops, you only need to open and end the port once.。 7
二.UHF RFID(write only) print case 8
Step 1: Open the USB port 8
The second step, label format: including label width, height, gap size, blackness, speed, etc; 8
The third step, UHF RFID data writing, decryption, encryption and other operations 9
Step 4: Label printing contents, including: text, bar code, graphics, boxes, lines, etc 10
Step 5: Start printing 10
Step 6: Close the port to end the printing process. 10
三.UHF RFID(Read TID/EPC Print) Demo 11
Step 1， Read TID 11
Step 2: Open the USB port 11
Step 3: Label format: label width, height, gap size, blackness, speed, etc; 11
The fourth step, UHF RFID data writing, decryption, encryption and other operations 12
The fifth step, label printing content: including text, bar code, graphics, boxes, lines, etc 13
Step 6: Start printing 14
Step 7: Close the port to end the printing process. 14
四.Network printing Case 14
Step 1: Connect to the printer over the network 14
Step 2: Label format: includes label width, height, gap size, blackness, and speed; 14
Step 3, Label content: contains characters, bar codes, graphics, frames, and lines 15
Step 4: Start printing 16
Step 5: Close the network connection and end the printing process.. 16

一.Common functions, including: text (dot matrix and truetype fonts), bar codes, pictures and other printing cases.

Step 1: Open the USB port

```
//step1，When only one ZM printer is connected to your computer, you can open the USB port without installing the printer driver

     //To change the port, see the Dynamic Link library manual;
    errorcode = OpenPort(255);
    if (errorcode!=0)
    {
       //An error message is displayed indicating that the port is opened incorrectly.
    }

//step2. Clearing the Printer Cache
    errorcode=ZM_ClearBuffer();
```

The second step, label format: including label width, height, gap size, blackness, speed, etc

```
//step3. Set the label height and row gap size；1mm=8dot(200dpi), 1mm=12dot(300dpi)
errorcode = ZM_SetLabelHeight (600,16);
// For continuous paper, the second parameter is set to 0
if(errorcode != 0)
{
        //Error message failed to set the label height parameter.
}

// Set the width of the label, in dot；
errorcode = ZM_SetLabelWidth (800);      // 1mm=8dot(200dpi), 1mm=12dot(300dpi)
if(errorcode != 0)
{
        //Error message failed to set the label width parameter.
}

// Set the printer printing temperature;
```

```
errorcode = ZM_SetDarkness( 10 );
if(errorcode != 0)
{
        //An error message is displayed indicating that the print blackness parameter is
incorrectly set.
}

// Set the printing speed of the printer;
errorcode = ZM_SetPrintSpeed( 5 );
if(errorcode != 0)
{
        //An error message is displayed indicating that the print speed parameter is
incorrectly set.
}
```

The third step, label printing content: including text, bar code, graphics, boxes, lines, etc

```
// TrueType Font for WINDWOS;
errorcode = ZM_DrawTextTrueTypeW (80, 120, 40, 0, "Arial", 1, 400, 0, 0, 0, "A1", "TrueType Font");
 if(errorcode != 0)
{
   //Error message printed truetype font operation error;
}


// Print WINDWOS TrueType Font (rotated 90 degrees);
errorcode = ZM_DrawTextTrueTypeW(420, 102, 22, 0, "Arial", 2, 400, 0, 0, 0, "A2", "www.ZM.com.cn");
 if(errorcode != 0)
{
   //Error message printed truetype font operation error;
}

// Print built-in font dot matrix text
errorcode = ZM_DrawText(80, 168, 0, 3, 1, 1, 'N', "Internal Font");
 if(errorcode != 0)
{
   //Error message The printer built-in font operation error;
}
```

```
// Print a 128 Auto bar code;
 errorcode = ZM_DrawBarcode(80, 208, 0, "1", 2, 2, 50, 'B', "123456789");
 if(errorcode != 0)
 {
   //Error message Error Drawing rectangle operation;
 }

 // Print the PDF417 barcode
 errorcode = ZM_DrawBar2D_Pdf417(80,300,400,300,0,0,3,7,10,2,0,0,"123456789");
 if(errorcode != 0)
 {
   //Error message Printing PDF bar code operation error;
 }


 // Print the QR code
 errorcode = ZM_DrawBar2D_QR(360,30,180,180,0,3,2,0,0, "ZM Printer");
 if(errorcode != 0)
 {
   //Error message Printing PDF bar code operation error;
 }

 // Print PCX graphic process, a total of 3 small steps
//PCX_step1.Mainly used for circular printing, delete the previous printer built-in PCX graphics data.
 errorcode = ZM_PcxGraphicsDel("PCX");
 if(errorcode != 0)
 {
   //Error message to delete printer internal name PCX graphics operation error;
 }

//PCX_step2. Mainly used for circular printing, delete the previous printer built-in PCX graphics data.
 // Download the pic.pcx file from the current directory to the printer memory and name it PCX;
 errorcode = ZM_PcxGraphicsDownload("PCX","pic.pcx");
 if(errorcode != 0)
 {
  //An error message is displayed. Download the graphics operation error named pic.pcx;
 }

//PCX_step3. Load the PCX graph downloaded above to label X=80,Y=30 and print it。
```

```
 errorcode = ZM_DrawPcxGraphics(80,30,"PCX");
 if(errorcode != 0)
{
//Error message Printed PCX graphics operation error;
}


// Draw the table dividers
errorcode = ZM_DrawLineOr(60,108,402,3);
 if(errorcode != 0)
{
   //Error message An error occurred during the marking operation;
}


// Draw a rectangular
errorcode = ZM_DrawRectangle(50,10,3,460,340);
if(errorcode != 0)
{
   //Error message Error Drawing rectangle operation;
}
```

Step 4: Start printing

```
 errorcode=ZM_PrintLabel(1,1);
 if(errorcode != 0)
{
   //Error message Print operation error;
}
```

Step 5: Close the port to end the printing process.

```
ClosePort();
```

Note: When printing multiple loops, you only need to open and end the port once.。

二.UHF RFID(write only) print case

Step 1: Open the USB port

```
//step1，When only one ZM printer is connected to your computer, you can open the USB port without installing the printer driver
    errorcode = OpenPort(255);
     //Change the port please see the dynamic link library manual;
    if (errorcode!=0)
    {
       //An error message is displayed indicating that the port is opened incorrectly;
    }

//step2. Clearing the Printer Cache
    errorcode=ZM_ClearBuffer();
```

The second step, label format: including label width, height, gap size, blackness, speed, etc;

```
//step3. Set the label height and row gap size；1mm=8dot(200dpi), 1mm=12dot(300dpi)
errorcode = ZM_SetLabelHeight (600,16);          // For continuous paper, the second parameter is set to 0
if(errorcode != 0)
{
        //Error message failed to set the label height parameter.
}

// Set the width of the label, in dot；
errorcode = ZM_SetLabelWidth (800);     // 1mm=8dot(200dpi), 1mm=12dot(300dpi)
if(errorcode != 0)
{
        //Error message Failed to set the label width parameter;
}

// Set the printing temperature of the printer;
errorcode = ZM_SetDarkness( 10 );
if(errorcode != 0)
{
        //An error message is displayed indicating that the print blackness parameter is incorrectly set;
```

```
}

// Set the printing speed of the printer;
errorcode = ZM_SetPrintSpeed( 5 );
if(errorcode != 0)
{
        //Error message Failed to set the print speed parameter;
}
```

The third step, UHF RFID data writing, decryption, encryption and other operations

```
// Unlock EPC zone, password: 12345678(HEX format)
 errorcode = ZM_SetRFTagPassWLock(0,2,"12345678" );
if (errorcode!=0 )
{
      //Stop the program with a prompt to unlock the EPC zone error;
}


//Data in hexadecimal format is written to the EPC area. A total of 8 bytes of data is
written：//"3130303337313630"，
errorcode = ZM_RW_RfidFormat(1,0,0,8,1,"3130303337313630");
if (errorcode!=0 )
{
      //Stop the program with an error writing EPC data;
}

//Set the lock password to 12345678(in HEX format) and lock the EPC area：
180105 add
 errorcode = ZM_SetRFTagPassWLock(1,2,"12345678" );
if (errorcode!=0 )
{
      //Stop the program with a message indicating that the lock password is incorrect;
}
```

Note: If you do not need to set a password, just execute the above yellow code to write EPC data.

Step 4: Label printing contents, including: text, bar code, graphics, boxes, lines, etc

```
// Print WINDWOS TrueType Font;
errorcode = ZM_DrawTextTrueTypeW (80, 120, 40, 0, "Arial", 1, 400, 0, 0, 0, "A1", "TrueType Font");
 if(errorcode != 0)
{
   //Error message printed truetype font operation error;
}

// Print built-in font dot matrix text
errorcode = ZM_DrawText(80, 168, 0, 3, 1, 1, 'N', "Internal Font");
 if(errorcode != 0)
{
   //Error message The printer built-in font operation error;
}

// Print a 128 Auto bar code;
 errorcode = ZM_DrawBarcode(80, 208, 0, "1", 2, 2, 50, 'B', "123456789");
 if(errorcode != 0)
 {
   //Error message Drawing rectangle operation error;
 }
```

Step 5: Start printing

```
 errorcode=ZM_PrintLabel(1,1);
 if(errorcode != 0)
{
   //Error message Print operation error;
}
```

Step 6: Close the port to end the printing process.

```
ClosePort();
```

Note: When printing multiple loops, you only need to open and end the port once.

三.UHF RFID(Read TID/EPC Print) Demo

Step 1， Read TID

```
// Read TID data from USB port (default: 255) at 10dBm power to GetData cache with a
    timeout time of 3000ms;
errorcode = ZM_ReadRFTagDataUSB(255,0,15,0,GetData,3000);
if(errorcode != 0 )    //Failed to open the USB port. Procedure
{
     //Stop the program with error "Failed to open USB port"
}
else  if(GetData[0] == 'X')
{
    // Read error: "TID data of tag not read, or tag corrupted"
}
```

Step 2: Open the USB port

```
//step1，When only one ZM printer is connected to your computer, you can open the USB port without installing the printer driver
    errorcode = OpenPort(255);          //To change the port, see the Dynamic Link library manual;
    if (errorcode!=0)
    {
       //An error message is displayed indicating that the port failed to be opened;
    }

//step2. Clearing the Printer Cache
    errorcode=ZM_ClearBuffer();
```

Step 3: Label format: label width, height, gap size, blackness, speed, etc;

```
//step3. Set the label height and row gap size；1mm=8dot(200dpi), 1mm=12dot(300dpi)
errorcode = ZM_SetLabelHeight (600,16);
// For continuous paper, the second parameter is set to 0
if(errorcode != 0)
```

```
{
        //Error message Failed to set the label height parameter;
}

// Sets the width of the label, in units dot：
errorcode = ZM_SetLabelWidth (800);      // 1mm=8dot(200dpi), 1mm=12dot(300dpi)
if(errorcode != 0)
{
        //Error message Failed to set the label width parameter;
}

// Set the printing temperature of the printer;
errorcode = ZM_SetDarkness( 10 );
if(errorcode != 0)
{
        //An error message is displayed indicating that the print blackness parameter is
incorrectly set;
}

// Set the printing speed of the printer;
errorcode = ZM_SetPrintSpeed( 5 );
if(errorcode != 0)
{
        //Error message Failed to set the print speed parameter;
}
```

The fourth step, UHF RFID data writing, decryption, encryption and other operations

```
//Unlock EPC zone with password 12345678(HEX format)
 errorcode = ZM_SetRFTagPassWLock(0,2,"12345678" );
if (errorcode!=0 )
{
      //Stop the program with a prompt to unlock the EPC zone error;
}


//Data in hexadecimal format is written to the EPC area. A total of 8 bytes of data is
written："3130303337313630"，
errorcode = ZM_RW_RfidFormat(1,0,0,8,1,"3130303337313630");
```

```
if (errorcode!=0 )
{
      //Stop the program with an error writing EPC data;
}
```

```
//Set the lock password to 12345678(in HEX format) and lock the EPC area：
180105 add
 errorcode = ZM_SetRFTagPassWLock(1,2,"12345678" );
if (errorcode!=0 )
{
      //Stop the program with a message indicating that the lock password is incorrect;
}
```

Note: If you do not need to set a password, just execute the above yellow code to write EPC data.

The fifth step, label printing content: including text, bar code, graphics, boxes, lines, etc

```
// Print WINDWOS TrueType Font, read TID data taken out in the first step；
errorcode = ZM_DrawTextTrueTypeW (80, 120, 40, 0, "Arial", 1, 400, 0, 0, 0, "A1", GetData);
 if(errorcode != 0)
{
   //Error message printed truetype font operation error;
}

// Print the built-in font dot matrix text and read the TID data taken out in the first step；
errorcode = ZM_DrawText(80, 168, 0, 3, 1, 1, 'N', GetData);
 if(errorcode != 0)
{
   //Error message The printer built-in font operation error;
}
// Print a 128 Auto barcode and read the TID data taken out in the first link;
 errorcode = ZM_DrawBarcode(80, 208, 0, "1", 2, 2, 50, 'B', GetData);
 if(errorcode != 0)
 {
   //Error message Error Drawing rectangle operation;
 }
```

Step 6: Start printing

```
errorcode = ZM_PrintLabel_R(1,1);
if(errorcode != 0)
{
   //Error message Print operation error;
}
```

Step 7: Close the port to end the printing process.

```
ClosePort();
```

四.Network printing Case

Step 1: Connect to the printer over the network

```
/*step1. CONNECT Printer*/
errorcode = ZM_NetConnect(IPAddress, PrinterPort);

if(errorcode != 0) //Connection error
 {
    ZM_NetCloseConnect(); //Close the connection
   //Stop printing and exit the printing process;
}
//step2. Clearing the Printer Cache
errorcode=ZM_ClearBuffer();
```

Step 2: Label format: includes label width, height, gap size, blackness, and speed;

```
//step3. Set the label height and row gap size：1mm=8dot(200dpi), 1mm=12dot(300dpi)
errorcode = ZM_SetLabelHeight (600,16);
// For continuous paper, the second parameter is set to0
if(errorcode != 0)
{
      //Error message Failed to set the label height parameter;
}
```

```
// Sets the width of the label, in units dot；
errorcode = ZM_SetLabelWidth (800);      // 1mm=8dot(200dpi), 1mm=12dot(300dpi)
if(errorcode != 0)
{
        //Error message Failed to set the label width parameter;
}

// Set the printing temperature of the printer;
errorcode = ZM_SetDarkness( 10 );
if(errorcode != 0)
{
        //An error message is displayed indicating that the print blackness parameter is
incorrectly set;
}

// Set the printing speed of the printer;
errorcode = ZM_SetPrintSpeed( 5 );
if(errorcode != 0)
{
        //An error message is displayed indicating that the print speed parameter is
incorrectly set;
}
```

Step 3, Label content: contains characters, bar codes, graphics, frames, and lines

```
// Print WINDWOS TrueType Font;
errorcode = ZM_DrawTextTrueTypeW (80, 120, 40, 0, "Arial", 1, 400, 0, 0, 0, "A1", "TrueType Font");
 if(errorcode != 0)
{
   //Error message printed truetype font operation error;
}


// Print WINDWOS TrueType Font (rotated 90 degrees);
errorcode = ZM_DrawTextTrueTypeW(420, 102, 22, 0, "Arial", 2, 400, 0, 0, 0, "A2", "www.ZM.com.cn");
 if(errorcode != 0)
{
   //Error message printed truetype font operation error;
}

// Print built-in font dot matrix text
errorcode = ZM_DrawText(80, 168, 0, 3, 1, 1, 'N', "Internal Font");
```

```
 if(errorcode != 0)
{
   //Error message The printer built-in font operation error.
}
```

Step 4: Start printing

```
 errorcode = ZM_PrintLabel (1,1);
 if(errorcode != 0)
{
   //An error message is displayed indicating a print operation error.
}
```

Step 5: Close the network connection and end the printing process..

```
ZM_NetCloseConnect(); //Close the connection
```