Font table structure V1.2

First part---1 byte character

The font table consists of three parts:

1. Font number: font numbers in the table
2. Font offset table: (4 bytes for each character)

   the address offset of each character in the font table

3. Character matrix for each character:

description	Data length (BYTE)	备注
Byte width	1	W
Pixel width	1	
Pixel height	1	H
Data	W * H	**Attention!!** **1-off, 0-on**

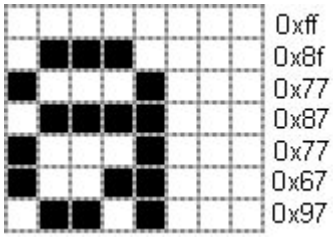
For example, the character as below:

Byte width = 1

Pixel width = 5

Pixel height = 7

Data = {0xff, 0x8f, 0x77, 0x87, 0x77, 0x67, 0x97}



For example, there are two characters (two 'a' like the picture above) in the font table, the font table will be like below:

Data	Description	
0x02	Font number = 2	
0x00, 0x00, 0x00, 0x00	Offset of the first 'a'	
0x00, 0x00, 0x00, 0x0a	Offset of the 2nd 'a'	
0x01	Byte width of 'a'	All the data of the 1st 'a'
0x05	Pixel width of 'a'	
0x07	Pixel height of 'a'	
0xff, 0x8f, 0x77, 0x87, 0x77, 0x67, 0x97	Data of the 2nd 'a'	
0x01	Byte width of 'a'	All the data of the 2nd 'a'
0x05	Pixel width of 'a'	
0x07	Pixel height of 'a'	
0xff, 0x8f, 0x77, 0x87, 0x77, 0x67, 0x97	Data of the 2nd 'a'	

Second part---2 byte character (big 'a')

The data structure of 2-byte character is the same as 1-byte character, i.e. number of characters, offset table and data of characters.

description	Data length (BYTE)	备注
Byte width	2	W

Pixel width	12	
Pixel height	20	H
Data	W * H=40	**1-off, 0-on**

For example, the character as below:

Byte width = 2

Pixel width =12

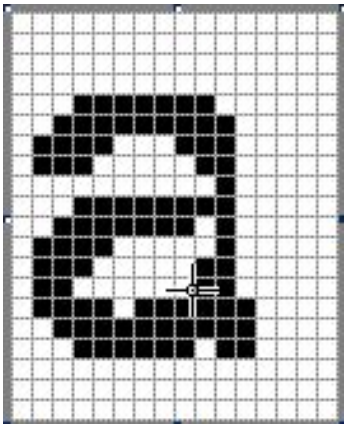
Pixel height = 20

Data = {

0xff, 0xff, 0xff, 0xff, 0xff, 0xff, 0xff, 0xff, 0xe0, 0x3f, 0xc0, 0x1f, 0x87, 0x1f, 0x8f, 0x9f,

0xff, 0xdf, 0xe0, 0x1f, 0xc0, 0x5f, 0x87, 0xdf, 0x8f, 0x09f, 0x9f, 0x9f, 0x84, 0x0f, 0xc0,

0x0f, 0xe0, 0x4f, 0xff, 0xff, 0xff, 0xff, 0xff, 0xff }



0xe0,0x3f
0xc0,0x1f
0x87,0x1f
0x8f,0x9f
0xff,0xdf
0xe0,0x1f
0xc0,0x5f
0x87,0xdf
0x8f,0x9f
0x9f,0x9f
0x84,0x0f
0xc0,0x0f
0xe0,0x4f

For example, there are two characters (two ‘a’ like the picture above) in the font table, the font table will be like below:

Data	**Description**
0x02	Font number = 2
0x00, 0x00, 0x00, 0x00	Offset of the first ‘a’

0x00, 0x00, 0x00, 0x2b	Offset of the 2nd 'a'	
0x02	Byte width of 'a'	
0x0c	Pixel width of 'a'	
0x14	Pixel height of 'a'	
0xff, 0xff, 0xff, 0xff, 0xff, 0xff, 0xff, 0xff, 0xe0, 0x3f, 0xc0, 0x1f, 0x87, 0x1f, 0x8f, 0x9f, 0xff, 0xdf, 0xe0, 0x1f, 0xc0, 0x5f, 0x87, 0xdf, 0x8f, 0x09f, 0x9f, 0x9f, 0x84, 0x0f, 0xc0, 0x0f, 0xe0, 0x4f, 0xff, 0xff, 0xff, 0xff, 0xff, 0xff	Data of the 2nd 'a'	All the data of the 1st 'a'
0x02	Byte width of 'a'	
0x0c	Pixel width of 'a'	
0x14	Pixel height of 'a'	
0xff, 0xff, 0xff, 0xff, 0xff, 0xff, 0xff, 0xff, 0xe0, 0x3f, 0xc0, 0x1f, 0x87, 0x1f, 0x8f, 0x9f, 0xff, 0xdf, 0xe0, 0x1f, 0xc0, 0x5f, 0x87, 0xdf, 0x8f, 0x09f, 0x9f, 0x9f, 0x84, 0x0f, 0xc0, 0x0f, 0xe0, 0x4f, 0xff, 0xff, 0xff, 0xff, 0xff, 0xff	Data of the 2nd 'a'	All the data of the 2nd 'a'