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u8g\_bitmap.c

Universal 8bit Graphics Library

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#include "u8g.h"

void u8g\_DrawHBitmap(u8g\_t \*u8g, u8g\_uint\_t x, u8g\_uint\_t y, u8g\_uint\_t cnt, const uint8\_t \*bitmap)

{

while( cnt > 0 )

{

u8g\_Draw8Pixel(u8g, x, y, 0, \*bitmap);

bitmap++;

cnt--;

x+=8;

}

}

void u8g\_DrawBitmap(u8g\_t \*u8g, u8g\_uint\_t x, u8g\_uint\_t y, u8g\_uint\_t cnt, u8g\_uint\_t h, const uint8\_t \*bitmap)

{

if ( u8g\_IsBBXIntersection(u8g, x, y, cnt\*8, h) == 0 )

return;

while( h > 0 )

{

u8g\_DrawHBitmap(u8g, x, y, cnt, bitmap);

bitmap += cnt;

y++;

h--;

}

}

void u8g\_DrawHBitmapP(u8g\_t \*u8g, u8g\_uint\_t x, u8g\_uint\_t y, u8g\_uint\_t cnt, const u8g\_pgm\_uint8\_t \*bitmap)

{

while( cnt > 0 )

{

u8g\_Draw8Pixel(u8g, x, y, 0, u8g\_pgm\_read(bitmap));

bitmap++;

cnt--;

x+=8;

}

}

void u8g\_DrawBitmapP(u8g\_t \*u8g, u8g\_uint\_t x, u8g\_uint\_t y, u8g\_uint\_t cnt, u8g\_uint\_t h, const u8g\_pgm\_uint8\_t \*bitmap)

{

if ( u8g\_IsBBXIntersection(u8g, x, y, cnt\*8, h) == 0 )

return;

while( h > 0 )

{

u8g\_DrawHBitmapP(u8g, x, y, cnt, bitmap);

bitmap += cnt;

y++;

h--;

}

}

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static void u8g\_DrawHXBM(u8g\_t \*u8g, u8g\_uint\_t x, u8g\_uint\_t y, u8g\_uint\_t w, const uint8\_t \*bitmap)

{

uint8\_t d;

x+=7;

while( w >= 8 )

{

u8g\_Draw8Pixel(u8g, x, y, 2, \*bitmap);

bitmap++;

w-= 8;

x+=8;

}

if ( w > 0 )

{

d = \*bitmap;

x -= 7;

do

{

if ( d & 1 )

u8g\_DrawPixel(u8g, x, y);

x++;

w--;

d >>= 1;

} while ( w > 0 );

}

}

void u8g\_DrawXBM(u8g\_t \*u8g, u8g\_uint\_t x, u8g\_uint\_t y, u8g\_uint\_t w, u8g\_uint\_t h, const uint8\_t \*bitmap)

{

u8g\_uint\_t b;

b = w;

b += 7;

b >>= 3;

if ( u8g\_IsBBXIntersection(u8g, x, y, w, h) == 0 )

return;

while( h > 0 )

{

u8g\_DrawHXBM(u8g, x, y, w, bitmap);

bitmap += b;

y++;

h--;

}

}

static void u8g\_DrawHXBMP(u8g\_t \*u8g, u8g\_uint\_t x, u8g\_uint\_t y, u8g\_uint\_t w, const u8g\_pgm\_uint8\_t \*bitmap)

{

uint8\_t d;

x+=7;

while( w >= 8 )

{

u8g\_Draw8Pixel(u8g, x, y, 2, u8g\_pgm\_read(bitmap));

bitmap++;

w-= 8;

x+=8;

}

if ( w > 0 )

{

d = u8g\_pgm\_read(bitmap);

x -= 7;

do

{

if ( d & 1 )

u8g\_DrawPixel(u8g, x, y);

x++;

w--;

d >>= 1;

} while ( w > 0 );

}

}

void u8g\_DrawXBMP(u8g\_t \*u8g, u8g\_uint\_t x, u8g\_uint\_t y, u8g\_uint\_t w, u8g\_uint\_t h, const u8g\_pgm\_uint8\_t \*bitmap)

{

u8g\_uint\_t b;

b = w;

b += 7;

b >>= 3;

if ( u8g\_IsBBXIntersection(u8g, x, y, w, h) == 0 )

return;

while( h > 0 )

{

u8g\_DrawHXBMP(u8g, x, y, w, bitmap);

bitmap += b;

y++;

h--;

}

}