

# GFXLIB 2

## Quick Start Guide

(Revision 3 // 9-Mar-2012)

**GFXLIB** is an extensive library of fast (or relatively fast!) assembly language ‘routines’ for drawing and manipulating bitmaps (or ‘sprites’). GFXLIB is primarily geared towards 2D, bitmap-based game creation.

GFXLIB is supplied packaged in a compressed Zip folder named **gfxlib2.zip**. Inside this Zip folder is a folder called **GFXLIB2** which contains the following files and subfolders:

- **GFXLIB2.BBC** - The GFXLIB 2 core library file
- **GFXLIB\_modules** - Folder containing external GFXLIB modules
- **GFXLIB\_media** - Folder containing miscellaneous bitmaps required by example programs in the GFXLIB\_docs folder.
- **GFXLIB\_demos** - Folder containing many demo programs
- **GFXLIB\_docs** - Folder containing documentation and lots of example programs.
- **Games** - Folder containing small / simple games (currently only ‘*Cowboy Shootout*’)
- **GFXD3D9LIB** - Folder containing Michael Hutton's **GFXD3D9LIB** plus an example program.

### Installing the GFXLIB 2 library files

**GFXLIB2.BBC** should be placed in BB4W's **LIB** folder where most of BB4W's standard library files reside.

**GFXD3D9LIB.BBC** should also be placed in BB4W's **LIB** folder.

The **GFXLIB\_modules** and **GFXLIB\_media** folders should also be placed in BB4W's **LIB** folder.

The **GFXLIB\_demos** folder may also be placed in the BB4W **LIB** folder if you wish, but it could equally be placed in almost any other convenient location (such as, for example, the **My Documents** folder).

Likewise, the **GFXLIB\_docs** folder can be placed practically anywhere that you feel is convenient.

## Using GFXLIB 2

The **GFXLIB 2** core library can be **INSTALLED** and initialised using:

```
INSTALL @lib$+"GFXLIB2"  
PROCInitGFXLIB
```

Try this simple example program (copy, then paste into the BB4W IDE, then run it):

```
MODE 8  
INSTALL @lib$ + "GFXLIB2"  
PROCInitGFXLIB  
SYS GFXLIB_Clr%, dispVars{}, FNrgb(180, 90, 0)  
FOR I%=1 TO 100  
  SYS GFXLIB_Plot%, dispVars{}, bm32%, 64, 64, RND(640), RND(512)  
NEXT I%  
PROCdisplay
```

Upon running the program, you should see a load of colourful solid discs scattered randomly over a plain dark orange background.

Note that the routine **GFXLIB\_Plot** (whose calling address is contained in the variable `GFXLIB_Plot%`) is a standard *core* routine, defined upon initialising **GFXLIB 2**. You'll probably use this bitmap plotting routine more than any other!

**bm32%** contains the address of a predefined 64x64 bitmap which is created upon initialising GFXLIB 2. The '32' part of the variable name refers to the colour depth of the bitmap (i.e. 32 bits-per-pixel), and not its dimensions.

**FNrgb** is one of the functions defined in GFXLIB2.BBC.

**PROCdisplay** is another subroutine defined in GFXLIB2.BBC.

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Run and study the many **example programs**, and read the accompanying **Info** files (where they exist!) in the **GFXLIB\_docs** folder.

Also, study the demo programs in **GFXLIB\_demos** (although some of these, in their current state, are rather cryptic). These demos were originally written for **GFXLIB 1**, but were subsequently modified to work with **GFXLIB 2**. As such, the programs may contain some peculiar-looking code, or code that does not make use of additional features made available in **GFXLIB 2**.

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## **Any questions regarding the use of GFXLIB ?**

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