



Graphics Composer





4D Systems

MicroLCD

PROPRIETARY INFORMATION

The information contained in this document is the property of 4D Systems Pty. Ltd., and may be the subject of patents pending or granted, and must not be copied or disclosed without prior written permission. It should not be used for commercial purposes without prior agreement in writing.

4D Systems Pty. Ltd. Endeavors to ensure that the information in this document is correct and fairly stated but does not accept liability for any error or omission. The development of 4D Systems products and services is continuous and published information may not be up to date. It is important to check the current position with 4D Systems.

Contact details are available from the company web site at www.4dsystems.com.au

All trademarks recognized and acknowledged.

Copyright 4D Systems Pty. Ltd. 2000-2006



4D Systems



Introduction

The Graphics Composer is a software tool to compose a text and image display presentation on the “micro-LCD (μ LCD)” Graphics Display Module.

The tool permits a number of editable presentation files to be prepared and each containing a list of text and images, defining the sequence and duration of each of these display items. A presentation is downloaded via the 2 wire serial interface or the micro-USB port to the μ LCD Display Module where it is saved in non-volatile Flash memory. The μ LCD Module can then be disconnected from the application and play this presentation continually.

This application is developed for the μ LCD-MkII model.

System Requirements

1. Net Framework.
2. Windows Operating System supporting .Net framework.

Installation

.Net Framework.

Download and install “Microsoft .NET Framework Version 1.1 Redistributable Package” from Microsoft internet site. URL =

www.microsoft.com/downloads/details.aspx?FamilyID=262d25e3-f589-4842-8157-034d1e7cf3a3&displaylang=en

Application Files

Place executable and DLL files in a folder. Create shortcut of executable and place on desktop.

If the micro-USB module is used, this emulates a serial port on the computer when the μ LCD Module is connected. The allocated serial port can be identified, by its automatic allocation/de-allocation when the Display Module is reconnected.



4D Systems

MicroLCD

User Manual

Quick Start

The following sequence describes creating a simple presentation and downloading it to the μ LCD module.

1. Invoke the application.
2. Create a new presentation by selecting menu option **File/New**.
3. Add first item (text) by pressing **Add Text** button.
4. On middle of screen enter text to be displayed eg "hello world"
5. Use fields **Top** and **Left** to position text. Note: Formatted Display approximates how the configured text will be displayed.
6. Select **Delay** 5000 msec for the time the text is to be displayed.
7. Set **Clear Display** to make screen clear before displaying text.
8. Add second item (image) by pressing **Add Image** button.
9. Press **Select Image** button to browse for jpg file on your computer.
10. Use **Top**, **Left**, **Delay** and **Clear Display** as previously.
11. Use **Width** to modify the size of the image.
12. Save presentation by selecting menu option **File/Save As**.
13. To configure communication with μ LCD module select menu **Configuration** and view **Comm Port**
14. Identify the Serial port by plugging in and out μ LCD module Serial/USB cable, whilst refreshing available port list.
15. Configure **Comm Port** with identified serial port and **Save** configuration.
16. **Status bar** on bottom left should indicate that connection is established.
17. Download presentation by selecting menu **Display/Download All**.
18. Status bar on bottom right should indicate **Downloading** with the first 10 second displaying **Bulk Erase**.
19. The μ LCD module will automatically start displaying the presentation



4D Systems



Menus

File

New	Create a new presentation
Open	Open an existing presentation
Reopen	Open a previous presentation
Save	Save a presentation to disk.
Save As	Rename presentation
Close	Close presentation

Display

Download All	Download presentation to μ LCD module Flash memory.
Download Selected	Download current item to display on the μ LCD module.
Run Internal	Instruct μ LCD module to play.
Stop Internal	Instruct μ LCD module to stop.

Configuration

Invoke Configuration form.

Note 1: Presentation files only contain references to image files. The original file must be available.

Status Bar

The bottom line of the application form is the status bar

- Left – communication status with Display Module.
- Middle – last error condition
- Right – While not downloading display expected memory usage for presentation. While downloading presents download progress.

Configuration Form

- Comm. Port. Displays list of available serial ports. The Display Module appears as a serial port. This port only exists while the Display module is connected to the computer.
- Device Memory. The Display Module may be optioned with different size of non-volatile memory. This needs to be configured, to provide the user with expected memory usage status. Re Status Bar.



4D Systems



- Enable Advanced Editing. Enables the following editing features
 - Location.
 - Sequence.
- Mapping Address Format. Options for displaying location of each object in the flash memory. (Hexadecimal, Decimal)

Display Grid

Displays a list of items that have been selected for the presentation. Normally, they are listed in sequence order, unless the advanced editing has been selected.

Items may be added or deleted using the following buttons

- Add Text
- Add Image
- Delete

Item Configuration (Right half of Screen)

For the currently selected item on the Display Grid, its configurations are displayed for editing. Depending on the item type the following configurations are available

- **Common**
 - Location Top, Left. Defines the position that the item is located on display.
 - Loop. Provides a mechanism for looping flow control of the items within the presentation. Each Loop-Start must be matched with a Loop-End. The count defines the number of times the loop is executed. Loops within loops may be defined.
 - Clear Display. Forces the display to clear itself after completing the current item.
 - Delay. Defines in Mills Seconds how long the item is displayed
 - Formatted Display. An attempt to approximate how the item will be displayed
- **Text Item**
 - Large Font. Two font sizes are available
 - Colour. Selection of the text colour.



4D Systems

MicroLCD

- **Image Item**

- Width. Permits resizing of the image.
- Colour Quality. There is a huge saving in non-volatile memory usage if Pixel8 format is selected, often with little loss of display quality.
- Original. Displays a stretched display of the selected image
- Select Image. Provides a browse to select an image from the computer.