V5 07 05 Betas Info.txt V5.07.05b1 - 22/5/22

Fixes bug in PIO READ

Allows a single integer variable to be used when nbr=1 in PIO READ Implements DRAW3D command and function (VGA version only) Implements FRAMEBUFFER command (VGA version only)

See this thread and related doc for details of the 3D capabilities. The implementation is identical to the CMM2 Another demo

The Framebuffer command allow you to allocate some of the variable memory to either a framebuffer, a second display layer, or both and then use these in interesting ways to both avoid tearing artefacts and/or play graphics objects over the background display.

## Commands:

FRAMEBUFFER CREATE 'allocates 38400 bytes to a framebuffer

FRAMEBUFFER LAYER 'allocates 38400 bytes to a second display layer. This layer sits on top of the main display. Any pixel set in this layer to something other than black will display on top of the main display. Pixels in this layer are fully opaque

NB: This command is only available when the CPU speed is set to  $252 \mathrm{MHz}$  (OPTION CPUSPEED 252000)

FRAMEBUFFER WRITE fb' selects the buffer which all subsequent graphics commands will write to. Valid values for fb are:

N - the main display (N for Normal)

F - the framebuffer

L - the layer buffer

In the event that a framebuffer or a layer hasn't been created the command will be ignored and commands will continue to write to the main display

## FRAMEBUFFER COPY s, d [,b]

Copies one framebuffer to another

Valid values for a and d are:

 $\ensuremath{\text{N}}$  - the main display

F - the framebuffer

 ${\tt L}$  - the layer buffer

In the event that a framebuffer or a layer hasn't been created the command will be ignored.

The optional parameter B tells the copy to wait for the next frame blanking before starting the copy. If this is specified the copy will compete in frame blanking and no display artefacts will be seeen.

## FRAMEBUFFER CLOSE [fb]

Closes one or more framebuffers and frees up the memory.

Valid values for fb are:

 ${\tt F}$  - the framebuffer

L - the layer buffer

If fb is not specified both the framebuffer and layer buffer are closed. In the event that a framebuffer or a layer hasn't been created the command will be ignored.

## FRAMEBUFFER WAIT

Pauses processing until the start of the next frame blanking period

If you Ctrl-C out of a program while the FRAMEBUFFER WRITE is set to the  ${\sf FRAMEBUFFER}$  then you will need to execute  ${\sf FRAMEBUFFER}$  CLOSE to get you cursor back.

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V5.07.05b2 - VGA only

fixes issue on some Pico in VGA mode 1 output at 126MHz

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V5.07.05b3

Fixes bug in BITBANG LCD CMD and BITBANG LCD DATA

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V5.07.05b6

Re-engineering of PORT command to allow simultaneous update Implementation of sprite command and function Use EDIT 1 to edit in mode 1, Use EDIT 2 to edit in mode 2, Use EDIT to edit in current mode Change timing of PAGE COPY ,,B to avoid screen artefacts

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PicoMite V5.07.05b7

Fixed bug in PWM n,OFF requiring spurious extra parameter Fixed bug in sound command overdriving the PWM when > 2 channels are used and the volume isn't explicitly specified

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PicoMite V5.07.05b8

Fixes crashing bug if edit is used after running a program with IR input Removes support for the GDEH029A1 display as this controller is now obsolete Reduces available RAM for VGA version from  $108 \, \mathrm{Kb}$  to  $104 \, \mathrm{Kb}$  to solve memory corruption issue.

\*\*\* Warning: this version will erase all flash and options - backup saved programs as required \*\*\*

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PicoMite V5.07.05b9

Fixes bug in SDK that caused SPI clock to set to wrong level before first transaction  $\ \ \,$ 

Improved error checking of SETPIN command to avoid crashes SETPIN for PWM no longer needs to specify the channel and port e.g. "SETPIN 1,PWM" is now accepted

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PicoMite V5.07.05b11

Fixes bug when using "ON KEY int" command Enables operation up to 378MHz Maximum program sizes now 100Kb(PicoMiteVGA) and 124Kb(PicoMite)

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PicoMite V5.07.05b13

Adds beta support for the  $480 \times 320$  IPS ILI9341 display (use code ILI9341N) Page 2

V5 07 05 Betas Info.txt Modifies the port function to read all pins simultaneously Updates SDK to V1.4 Updates Compiler to version 11.2.1

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