

Introduction

Introduction

TODO

Graphics

Graphics

Provides graphics operations, such as for drawing pixels and images on the screen.

Configuration

GFX_SET_GRID

Enables or disables a visual grid delimiting the screen pixels.

output (switch) GFX_SET_GRID

- Parameters:
 - **switch**: new state
 - * **on**: enables the grid
 - * **off**: disables the grid

The ratio between the real and logical dimensions set with **WINDOW_SET_SIZE** must be greater then one.

GFX_SET_RGB

Changes the color of all subsequent drawing operations.

output (number,number,number) GFX_SET_RGB

- Parameters:
 - **number**: new red component
 - **number**: new green component
 - **number**: new blue component

GFX_SET_TEXT_CURSOR

Changes the cursor position for drawing text.

output (number,number) GFX_SET_TEXT_CURSOR

- Parameters:
 - **number**: new position in the **x-axis**
 - **number**: new position in the **y-axis**

GFX_SET_TEXT_FONT

Changes the font for drawing text.

output (text,number) GFX_SET_TEXT_FONT

- Parameters:
 - **text**: path for the **.ttf** font filename
 - **number**: height of the new font in pixels

Drawing Operations

GFX_CLEAR

Clears the screen.

output (none) GFX_CLEAR

- Parameters:
 - **none**: no parameters

The clear color is specified with **GFX_SET_RGB**.

GFX_DRAW_BMP

Draws a bitmap image on the screen.

output (text,number,number) GFX_DRAW_BMP

- Parameters:
 - **text**: path for the **.bmp** image filename
 - **number**: drawing position in the **x-axis**
 - **number**: drawing position in the **y-axis**

GFX_DRAW_PIXEL

Draws a pixel on the screen.

output (number,number) GFX_DRAW_PIXEL

- Parameters:
 - **number**: drawing position in the **x-axis**
 - **number**: drawing position in the **y-axis**

The drawing color is specified with **GFX_SET_RGB**.

GFX_DRAW_RECT

Draws a rectangle on the screen.

output (number,number,number,number) GFX_DRAW_RECT

- Parameters:
 - **number**: drawing position in the x-axis
 - **number**: drawing position in the y-axis
 - **number**: rectangle width
 - **number**: rectangle height

The drawing color is specified with **GFX_SET_RGB**.

GFX_DRAW_TEXT

Draws a text on the screen.

output (text) GFX_DRAW_TEXT

- Parameters:
 - **text**: text to draw

The drawing position is first specified with **GFX_SET_TEXT_CURSOR**. The cursor advances automatically for the position after the text. The drawing font is specified with **GFX_SET_TEXT_FONT**. The drawing color is specified with **GFX_SET_RGB**.

GFX_DRAW_TEXTLN

Draws a line of text on the screen.

output (text) GFX_DRAW_TEXTLN

The drawing position is first specified with **GFX_SET_TEXT_CURSOR**. The cursor advances automatically for the next line after the text, at the same initial position. The drawing font is specified with **GFX_SET_TEXT_FONT**. The drawing color is specified with **GFX_SET_RGB**.

Other

GFX_SCREENSHOT

Takes a screen shot.

output (text) GFX_SCREENSHOT

- Parameters:
 - **text**: path for the .bmp image filename to generate

Input Devices

Input Devices

Provides input handling, such as for keyboard and mouse.

Keyboard

KEY_PRESS

input (switch,number) KEY_PRESS

- Occurrences:
 - whenever a keyboard key is pressed or released
- Payload:
 - **switch**: new key state
 - * **on**: key is now pressed
 - * **off**: key is now released
 - **number**: numeric key code

TODO: key codes

Mouse

MOUSE_CLICK

input (switch,number,number,number) MOUSE_CLICK

- Occurrences:
 - whenever a mouse button is pressed or released
- Payload:
 - **switch**: new button state
 - * **on**: button is now pressed
 - * **off**: button is now released
 - **number**: numeric button code (TODO: left, middle, right?)
 - **number**: current mouse position in the x-axis
 - **number**: current mouse position in the y-axis

MOUSE_MOVE

input (number,number) MOUSE_MOVE

- Occurrences:
 - whenever the mouse moves
- Payload:
 - **number**: current mouse position in the x-axis

- **number**: current mouse position in the y-axis

Frame Management

Frame Management

Manages the game frames, such as for updating animations and redrawing the screen.

Configuration

FRAMES_SET

Enables or disables the generation of periodic **FRAMES_UPDATE** and **FRAMES_REDRAW** inputs to the application.

output (switch) **FRAMES_SET**

- Parameters:
 - **switch**: new state
 - * **on**: enables the generation of frames
 - * **off**: disables the generation of frames

FRAMES_SET_CLEAR_RGB

Changes the redrawing background color.

output (number,number,number) **FRAMES_SET_CLEAR_RGB**

- Parameters:
 - **number**: new red component
 - **number**: new green component
 - **number**: new blue component

On every frame before **FRAMES_REDRAW**, the screen is cleared with the background color.

The default color is black.

Update

FRAMES_UPDATE

input (number) **FRAMES_UPDATE**

- Occurrences:
 - on every frame, before **FRAMES_REDRAW**

- Payload:
 - **number**: the number of elapsed milliseconds since the previous frame

Redraw

FRAMES_REDRAW

input (none) FRAMES_REDRAW

- Occurrences:
 - on every frame, after FRAMES_UPDATE
- Parameters:
 - **none**: no parameters

Before the input occurs, the screen is cleared with the color set with FRAMES_SET_CLEAR_RGB.

Window Management

Window Management

Manages the application window.

Configuration

WINDOW_SET_SIZE

Changes the real and logical sizes of the window.

output (number,number,number,number) WINDOW_SET_SIZE

- Parameters:
 - **number**: new real width
 - **number**: new real height
 - **number**: new logical width
 - **number**: new logical height

The arithmetic division between the real and logical dimensions must be exact.

WINDOW_SET_TITLE

Changes the title of the window.

output (text) WINDOW_SET_TITLE

- Parameters:
 - **text**: new window title

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