SDL2 references for eForth Windows

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Autor

- Marc PETREMANN

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SDL2

CreateRenderer   window index flag -- render

Create a 2D rendering context for a window.

Parameters:

- **window** the window where rendering is displayed
- **index** the index of the rendering driver to initialize, or -1 to initialize the first one supporting the requested flags
- flags 0, or one or more SDL_RendererFlags OR'd together.

```
variable WIN0

z" My first window with SDL2"
    X0_SCREEN_POSITION Y0_SCREEN_POSITION SCREEN_WIDTH SCREEN_HEIGHT
    SDL_WINDOW_SHOWN   SDL.CreateWindow  WIN0 !

variable REN0

WIN0 @ -1 0 CreateRenderer  REN0 !
```

CreateWindow   zstr x y w h fl -- win

Create a window with the specified position, dimensions, and flags.

```
\ define size and position for SDL window
800 constant SCREEN_WIDTH
400 constant SCREEN_HEIGHT
200 constant X0_SCREEN_POSITION
 50 constant Y0_SCREEN_POSITION

z" My first window with SDL2"
    X0_SCREEN_POSITION Y0_SCREEN_POSITION
    SCREEN_WIDTH SCREEN_HEIGHT
    SDL_WINDOW_SHOWN CreateWindow
    value WIN0
```

DestroyRenderer   render -- fl

Destroy the rendering context for a window and free associated textures.

```
\ free ressources, end renderer and window
: freeRessources ( -- )
    REN0 DestroyRenderer drop
    WIN0 DestroyWindow   drop
    Quit
  ;
```

DestroyWindow   win -- fl

Destroy a window.

```
\ WIN0 must be declared by value and set by CreateWindow
WIN0 DestroyWindow
```

GetError   -- n

Retrieve a message about the last error that occurred on the current thread.

Init   n -- n

Initialize the SDL library.

n must be one of

SDL_INIT_TIMER \ timer subsystem

SDL_INIT_AUDIO \ audio subsystem

SDL_INIT_VIDEO \ video subsystem; automatically initializes the events subsystem

SDL_INIT_JOYSTICK \ joystick subsystem; automatically initializes the events subsystem

SDL_INIT_HAPTIC \ haptic (force feedback) subsystem

SDL_INIT_GAMECONTROLLER \ controller subsystem; automatically initializes the joystick subsystem

SDL_INIT_EVENTS \ events subsystem

SDL_INIT_SENSOR

Returns 0 on success or a negative error code on failure. Call `GetError` for more information.

```
\ Initialize SDL with error management
: SDL.init ( n -- )
    Init
    if
        ." SDl could not intialize! SDL_Error: " getError .
    then
  ;
SDL_INIT_VIDEO SDL.init
```

Quit --

Clean up all initialized subsystems.

RenderClear render -- 0|err

Clear the current rendering target with the drawing color.

```
\ REN0 is a value previsously initialized with CreateRenderer
REN0 RenderClear
```

RenderPresent render --

Update the screen with any rendering performed since the previous call.

SDL_INIT_VIDEO -- n

Constant. Tells the SDL that you want to initialize the video subsystem.

```
SDL_INIT_VIDEO SDL.Init
```

SetRenderDrawColor renderer r g b a -- fl

Set the color used for drawing operations (Rect, Line and Clear)

Parameters

- **renderer** the rendering context
- **r** the red value used to draw on the rendering target
- **g** the green value used to draw on the rendering target
- **b** the blue value used to draw on the rendering target
- **a** the alpha value used to draw on the rendering target; usually `SDL_ALPHA_OPAQUE` (255). Use `SetRenderDrawBlendMode` to specify how the alpha channel is used