

sx egg

Simple X library
Extension for Chicken Scheme
Version 1.1

felix

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1 About this egg

1.1 Version history

- 1.1 Adapted to SRFI-69 compatible hash-tables
- 1.0 Initial release

1.2 Usage

Load this egg like so:

```
(require-extension sx)
```

2 Documentation

A wrapper for ‘The Simple X library’ by Dominic Giampaolo. You must have the [libsx](#) library installed in order to build and use this extension.

2.1 Procedures

```
(sx:add-time-out UNSIGNED-LONG TOPROC)
(sx:attach-edge SXWIDGET INT INT)
(sx:author) -> C-STRING
(sx:beep)
(sx:change-scroll-list SXWIDGET STRINGLIST)
(sx:check-for-event)
(sx:clear-draw-area)
(sx:close-window)
(sx:draw-arc INT INT INT INT INT INT)
(sx:draw-bitmap (POINTER VOID) INT INT INT INT)
(sx:draw-box INT INT INT INT)
(sx:draw-filled-arc INT INT INT INT INT INT)
(sx:draw-filled-box INT INT INT INT)
(sx:draw-filled-polygon S16VECTOR INT)
(sx:draw-image (POINTER VOID) INT INT INT INT)
(sx:draw-line INT INT INT INT)
(sx:draw-pixel INT INT)
(sx:draw-polyline S16VECTOR INT)
(sx:draw-text C-STRING INT INT)
(sx:exit-main-loop)
(sx:font-height (POINTER "XFONTSTRUCT")) -> INT
(sx:free-all-colors)
(sx:free-font SXFONT)
(sx:free-private-color INT)
(sx:free-standard-colors)
(sx:get-all-colors) -> BOOL
(sx:get-bg-color SXWIDGET) -> INT
(sx:get-current-list-item SXWIDGET) -> INT
(sx:get-draw-area-size S32VECTOR S32VECTOR)
(sx:get-fg-color SXWIDGET) -> INT
(sx:get-file C-STRING C-STRING FREQPROC) -> C-STRING
(sx:get-font C-STRING) -> SXFONT
(sx:get-form) -> SXWIDGET
(sx:get-image (POINTER VOID) INT INT INT INT)
(sx:get-long-string C-STRING C-STRING INT) -> C-STRING
(sx:get-menu-item-checked SXWIDGET) -> BOOL
(sx:get-named-color C-STRING) -> INT
(sx:get-okay C-STRING) -> BOOL
(sx:get-pixel INT INT) -> INT
(sx:get-private-color) -> INT
```

```
(sx:get-rgbcolor INT INT INT) -> INT
(sx:get-standard-colors)
(sx:get-string C-STRING C-STRING) -> C-STRING
(sx:get-string-entry SXWIDGET) -> C-STRING
(sx:get-text C-STRING C-STRING INT INT) -> C-STRING
(sx:get-text-widget-text SXWIDGET) -> C-STRING
(sx:get-toggle-state SXWIDGET) -> BOOL
(sx:get-top-widget SXWIDGET) -> SXWIDGET
(sx:get-tri-state C-STRING) -> INT
(sx:get-widget-font SXWIDGET) -> SXFONT
(sx:get-widget-state SXWIDGET) -> BOOL
(sx:get-yes-no C-STRING) -> BOOL
(sx:grab-pixel C-STRING) -> C-STRING
(sx:lib-version) -> C-STRING
(sx:main-loop)
(sx:make-button C-STRING BUTTONPROC) -> SXWIDGET
(sx:make-draw-area INT INT REDISPLAYPROC) -> SXWIDGET
(sx:make-form SXWIDGET) -> SXWIDGET
(sx:make-horiz-scrollbar INT SCROLLPROC) -> SXWIDGET
(sx:make-label C-STRING) -> SXWIDGET
(sx:make-menu C-STRING) -> SXWIDGET
(sx:make-menu-item SXWIDGET C-STRING BUTTONPROC) -> SXWIDGET
(sx:make-scroll-list STRINGLIST INT INT SCROLLPROC) -> SXWIDGET
(sx:make-string-entry C-STRING INT STRINGPROC) -> SXWIDGET
(sx:make-stringlist SCHEME-OBJECT) -> (POINTER (POINTER CHAR))
(sx:make-text-widget C-STRING BOOL BOOL INT INT) -> SXWIDGET
(sx:make-toggle C-STRING BOOL SXWIDGET BUTTONPROC) -> SXWIDGET
(sx:make-vert-scrollbar INT SCROLLPROC) -> SXWIDGET
(sx:make-window C-STRING C-STRING BOOL) -> SXWIDGET
(sx:open-display INT (POINTER (POINTER CHAR))) -> INT
(sx:read-locale C-STRING)
(sx:scroll-draw-area INT INT INT INT INT INT)
(sx:set-bg-color SXWIDGET INT)
(sx:set-border-color SXWIDGET INT)
(sx:set-button-down-cb SXWIDGET BUTTONPROC)
(sx:set-button-up-cb SXWIDGET BUTTONPROC)
(sx:set-color INT)
(sx:set-color-map INT)
(sx:set-current-list-item SXWIDGET INT)
(sx:set-current-window SXWIDGET)
(sx:set-draw-area SXWIDGET)
(sx:set-draw-mode INT)
(sx:set-enter-cb SXWIDGET ENTERPROC)
(sx:set-fg-color SXWIDGET INT)
(sx:set-form SXWIDGET)
(sx:set-freq-filter C-STRING)
(sx:set-icon-title C-STRING)
```

```

(sx:set-keypress-cb SXWIDGET KEYPROC)
(sx:set-label SXWIDGET C-STRING)
(sx:set-leave-cb SXWIDGET LEAVEPROC)
(sx:set-line-style INT)
(sx:set-line-width INT)
(sx:set-menu-item-checked SXWIDGET BOOL)
(sx:set-mouse-motion-cb SXWIDGET MOTIONPROC)
(sx:set-my-color-map INT U8VECTOR U8VECTOR U8VECTOR)
(sx:set-private-color INT INT INT INT)
(sx:set-scrollbar SXWIDGET FLOAT FLOAT FLOAT)
(sx:set-scrollbar-direction FLOAT)
(sx:set-scrollbar-step SXWIDGET FLOAT)
(sx:set-string-entry SXWIDGET C-STRING)
(sx:set-text-editable SXWIDGET BOOL)
(sx:set-text-widget-position SXWIDGET INT)
(sx:set-text-widget-text SXWIDGET C-STRING BOOL)
(sx:set-thumb-bitmap SXWIDGET C-STRING INT INT)
(sx:set-toggle-state SXWIDGET BOOL)
(sx:set-widget-bitmap SXWIDGET (POINTER VOID) INT INT)
(sx:set-widget-font SXWIDGET SXFONT)
(sx:set-widget-pixmap SXWIDGET (POINTER (POINTER VOID)))
(sx:set-widget-pos SXWIDGET INT SXWIDGET [INT SXWIDGET])
(sx:set-widget-size SXWIDGET INT INT)
(sx:set-widget-state SXWIDGET BOOL)
(sx:set-window-title C-STRING)
(sx:show-display)
(sx:sync-display)
(sx:text-width SXFONT C-STRING) -> INT
(sx:turn-on-backing-store SXWIDGET) -> INT

```

2.2 Callback signatures

```

TOPPROC =      (lambda () ...)
FREQPROC =     (lambda (directory file) ...)
BUTTONPROC =   (lambda () ...)
REDISPLAYPROC = (lambda (width height) ...)
STRINGPROC =   (lambda (string) ...)
SCROLLPROC =   (lambda (float-val) ...)
ENTERPPROC =   (lambda (x y) ...)
LEAVEPROC =    (lambda (x y) ...)
KEYPROC =      (lambda (inputstring up?) ...)

```

2.3 Flags

```

sx:attach-bottom
sx:attach-left
sx:attach-right
sx:attach-top

```

sx:black
sx:blue
sx:bottom-edge
sx:buttonbg
sx:can-modify
sx:colsel-dial
sx:edit-file
sx:edit-string
sx:exclusive-window
sx:freq-dial
sx:green
sx:grey-scale-1
sx:grey-scale-2
sx:highlight
sx:inputbg
sx:left-edge
sx:main-dial
sx:no-care
sx:no-modify
sx:nonexclusive-window
sx:num-dial
sx:place-right
sx:place-under
sx:popup-dial
sx:rainbow-1
sx:rainbow-2
sx:red
sx:right-edge
sx:sane-xor
sx:top-edge
sx:white
sx:yellow

3 Examples

A simple ‘Hello world’ example:

```
(require-extension sx)

(sx:make-label "Hello, world!")
(sx:main-loop)

  Show current directory in scroll-list:
(require-extension sx posix (srfi 1))

(define (button)
  (sx:change-scroll-list sl (directory ".") )

(define (scroll s i)
  (print "current: " s " \t" i) )

(define b (sx:make-button "Update" button))
(define sl (sx:make-scroll-list (directory ".") 200 300 scroll))

(sx:set-widget-pos sl sx:place-under b)

(sx:main-loop)
```

4 License

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