

**sx egg**

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Simple X library  
Extension for Chicken Scheme  
Version 1.1

**felix**

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## Table of Contents

<b>1</b>	<b>About this egg .....</b>	<b>1</b>
1.1	Version history .....	1
1.2	Usage .....	1
<b>2</b>	<b>Documentation .....</b>	<b>2</b>
2.1	Procedures .....	2
2.2	Callback signatures .....	4
2.3	Flags .....	4
<b>3</b>	<b>Examples .....</b>	<b>6</b>
<b>4</b>	<b>License .....</b>	<b>7</b>
	<b>Index .....</b>	<b>8</b>

# 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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## Index

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