

## General

**console** - Control the console on systems without a real console

console **title** ?string?

console **hide**

console **show**

console **eval** script

**destroy** - Destroy one or more windows

destroy ?window window ...?

**tk** - Manipulate Tk internal state

tk **appName** ?newName?

tk **caret** window ?-x x? ?-y y? ?-height height?

tk **scaling** ?-displayof window? ?number?

tk **useinputmethods** ?-displayof window? ?boolean?

tk **windowingsystem**

**tkerror** - Command invoked to process background errors

tkerror message

**tkwait** - Wait for variable to change or window to be destroyed

tkwait **variable** name

tkwait **visibility** name

tkwait **window** name

**winfo** - Return window-related information

winfo **atom** ?-displayof window? name winfo **reqwidth** window

winfo **atomname** ?-displayof window? winfo **rgb** window color

id winfo **rootx** window

winfo **cells** window winfo **rooty** window

winfo **children** window winfo **screen** window

winfo **class** window winfo **screencells** window

winfo **colormapfull** window winfo **screendepth** window

winfo **containing** ?-displayof window? winfo **screenheight** window

rootX rootY winfo **screenmmheight** window

winfo **depth** window winfo **screenmmwidth** window

winfo **exists** window winfo **screenvisual** window

winfo **fpixels** window number winfo **screenwidth** window

winfo **geometry** window winfo **server** window

winfo **height** window winfo **toplevel** window

winfo **id** window winfo **viewable** window

winfo **interps** ?-displayof window? winfo **visual** window

winfo **ismapped** window winfo **visualid** window

winfo **manager** window winfo **visuavailable** window

winfo **name** window ?includeids?

winfo **parent** window winfo **vrootheight** window

winfo **pathname** ?-displayof window? winfo **vrootwidth** window

id winfo **vrootx** window

winfo **pixels** window number winfo **vrooty** window

winfo **pointerx** window winfo **width** window

winfo **pointerxy** window winfo **x** window

winfo **pointery** window winfo **y** window

winfo **reqheight** window

**wish** - Simple windowing shell

wish ?fileName arg arg ...?

OPTIONS:  
**-colormap** new **-sync**  
**-display** display **-use** id  
**-geometry** geometry **-visual** visual  
**-name** name - -

**wm** - Communicate with window manager

wm **aspect** window ?minNumer wwm **group** window ?pathname?

minDenom maxNumer wwm **iconbitmap** window ?bitmap?

maxDenom? wwm **iconify** window

wm **attributes** window wwm **iconmask** window ?bitmap?

wm **attributes** window ?option? wwm **iconname** window ?newName?

wm **attributes** window ?option value wwm **iconposition** window ?x y?

option value...? wwm **iconwindow** window ?pathname?

wm **client** window ?name? wwm **maxsize** window ?width height?

wm **colormapwindows** window wwm **minsize** window ?width height?

?windowList? wwm **overrideredirect** window ?boolean?

wm **command** window ?value? wwm **positionfrom** window ?who?

wm **deiconify** window wwm **protocol** window ?name?

wm **focusmodel** window ?command?

?active|passive? wwm **resizable** window ?width height?

wm **frame** window wwm **sizefrom** window ?who?

wm **geometry** window ?newGeometry? wwm **stackorder** window

wm **grid** window ?baseWidth baseHeight ?isabove|isbelow window?

widthInc heightInc? wwm **state** window ?newstate?

wm **title** window ?string?

wm **withdraw** window

wm **transient** window ?master?

## Resources and Options

**colors** - symbolic color names recognized by Tk (see separate quickcard)

colormap #RGB #RRGGBB #RRRGGGBB #RRRRGGGGBBB

**cursors** - mouse cursors available in Tk (see separate quickcard)

general: arrow crosshair ibeam watch xterm

**font** - Create and inspect fonts.

font **actual** font ?-displayof window? ?option?

font **configure** fontname ?option? ?value option value ...?

font **create** ?fontname? ?option value ...?

font **delete** fontname ?fontname ...?

font **families** ?-displayof window?

font **measure** font ?-displayof window? text

font **metrics** font ?-displayof window? ?option?

font **names**

FONT OPTIONS: **-family** name **-size** size **-weight** weight **-slant** slant

**-underline** boolean **-overstrike** boolean

FONT METRICS: **-ascent** **-descent** **-linespace** **-fixed**

FONT DESCRIPTION:

[1] fontname

[2] systemfont

[3] family ?size? ?style? ?style ...?

[4] X-font names (XLFID)

[5] option value ?option value ...?

MS Windows: system ansi device systemfixed ansifixed oemfixed

Macintosh: system application

**image** - Create and manipulate images

image **create** type ?name? image **inuse** name

?option value ...?

image **names**

types: **bitmap** | **photo**

image **type** name

image **delete** ?name name ...?

image **types**

image **height** name

image **width** name

**image bitmap – options** - Images that display two colors

**-background** color **-foreground** color

**-data** string **-maskdata** string

**-file** name **-maskfile** name

**image photo – options** - Full-color images

**-data** string **-height** number

**-format** format-name **-palette** palette-spec

**-file** name **-width** number

**-gamma** value

COMMANDS:

imageName **blank** imageName **put** data ?option value

imageName **cget** option (s) ...?

imageName **configure** ?option? ? **-format** format-name

value option value ...? **-to** x1 y1 ?x2 y2?

imageName **copy** sourceImage ? **imageName read** filename ?option

option value(s) ...? value(s) ...?

**-from** x1 y1 x2 y2 **-format** format-name

**-to** x1 y1 x2 y2 **-from** x1 y1 x2 y2

**-shrink** **-shrink**

**-zoom** x y **-to** x y

**-subsample** x y **imageName redither**

**-compositingrule** rule imageName **transparency get** x y

imageName **data** ?option value(s) ...? imageName **transparency set** x y

**-background** color boolean

**-format** format-name

imageName **write** filename ?option

value(s) ...? value(s) ...?

**-background** color

**-format** format-name

**-from** x1 y1 x2 y2

**-grayscale** **-grayscale**

**keysyms** - keysyms recognized by Tk (separate quickcard)

Return, space, BackSpace, Escape, Prior, Next, F1, ... F10, ...

**option** - Add/retrieve window options to/from the option database

option **add** pattern value ?priority?

option **clear**

option **get** window name class

option **readfile** fileName ?priority?

PRIORITY: widgetDefault startupFile userDefault interactive

**tk\_setPalette** - Modify the Tk color palette

**tk\_setPalette** background

**tk\_setPalette** name value ?name value ...?

name: activeBackground foreground selectColor activeForeground highlightBackground

selectBackground background highlightColor selectForeground disabledForeground

insertBackground troughColor

**tk\_bisque**

## Widgets

**button** - Create and manipulate button widgets

WIDGET-SPECIFIC OPTIONS

-command, command, Command -overrelief, overRelief, OverRelief

-compound, compound, Compound -state, state, State

-default, default, Default -width, width, Width

-height, height, Height

WIDGET COMMAND

pathName **flash**

pathName **invoke**

**canvas** - Create and manipulate canvas widgets

**checkboxbutton** - Create and manipulate checkbox widgets

WIDGET-SPECIFIC OPTIONS

-command, command, Command -overrelief, overRelief, OverRelief

-height, height, Height -selectcolor, selectColor, Background

-indicatoron, indicatorOn, IndicatorOn -selectimage, selectImage, SelectImage

-offrelief, offRelief, OffRelief -state, state, State

-offvalue, offValue, Value -variable, variable, Variable

-onvalue, onValue, Value -width, width, Width

WIDGET COMMAND

pathName **deselect**

pathName **flash**

pathName **invoke**

pathName **select**

pathName **toggle**

**entry** - Create and manipulate entry widgets

**frame** - Create and manipulate frame widgets

WIDGET-SPECIFIC OPTIONS

-background, background, Background -height, height, Height

-class, class, Class -visual, visual, Visual

-colormap, colormap, Colormap -width, width, Width

-container, container, Container

**label** - Create and manipulate label widgets

WIDGET-SPECIFIC OPTIONS

-compound, compound, Compound -state, state, State

-height, height, Height -width, width, Width

**labelframe** - Create and manipulate labelframe widgets

**listbox** - Create and manipulate listbox widgets

**menu** - Create and manipulate menu widgets

**menubutton** - Create and manipulate menubutton widgets

**message** - Create and manipulate message widgets

**tk\_optionMenu** - Create an option menubutton and its menu

**panedwindow** - Create and manipulate panedwindow widgets

**radiobutton** - Create and manipulate radiobutton widgets

**scale** - Create and manipulate scale widgets

**scrollbar** - Create and manipulate scrollbar widgets

**spinbox** - Create and manipulate spinbox widgets

**text** - Create and manipulate text widgets

## Dialogs and toplevels

**tk\_chooseColor** - pops up a dialog box for the user to select a color.

**tk\_chooseDirectory** - pops up a dialog box for the user to select a directory.

**tk\_dialog** - Create modal dialog and wait for response

**tk\_getOpenFile** - pop up a dialog box for the user to select a file to open or save.

**tk\_messageBox** - pops up a message window and waits for user response.

**tk\_popup** - Post a popup menu

**toplevel** - Create and manipulate toplevel widgets

## Geometry management

**gm – general gm commands (grid, pack, place)**

gm **forget** window

gm **info** window

gm **slaves** window

**grid** - Geometry manager that arranges widgets in a grid

grid **slave** ?slave ...? ?options?

grid **bbox** master ?column row? ?column2 row2?

grid **columnconfigure** master index ?-option value...?

grid **configure** slave ?slave ...? ?options?

<b>-column</b> n	<b>-padx</b> amount
<b>-columnspan</b> n	<b>-pady</b> amount
<b>-in</b> other	<b>-row</b> n
<b>-ipadx</b> amount	<b>-rowspan</b> n
<b>-ipady</b> amount	<b>-sticky</b> style

grid **location** master x y

grid **propagate** master ?boolean?

grid **rowconfigure** master index ?-option value...?

grid **remove** slave ?slave ...?

grid **size** master

**pack** - Geometry manager that packs around edges of cavity

**pack slave** ?slave ...? ?options?

**pack configure** slave ?slave ...? ?options?

<b>-after</b> other	<b>-ipadx</b> amount
<b>-anchor</b> anchor	<b>-ipady</b> amount
<b>-before</b> other	<b>-padx</b> amount
<b>-expand</b> boolean	<b>-pady</b> amount
<b>-fill</b> none x y both	<b>-side</b> side
<b>-in</b> other	

**pack propagate** master ?boolean?

**place** - Geometry manager for fixed or rubber-sheet placement

place **window** option value ?option value ...?

place **configure** window ?option? ?value option value ...?

<b>-anchor</b> where	<b>-relx</b> location
<b>-bordermode</b> mode	<b>-rely</b> location
<b>-height</b> size	<b>-width</b> size
<b>-in</b> master	<b>-x</b> location
<b>-relheight</b> size	<b>-y</b> location
<b>-relwidth</b> size	

**lower** window ?belowThis? - Change a window's position in the stacking order

**raise** window ?aboveThis? - Change a window's position in the stacking order

## Events and bindings

**bind** - Arrange for X events to invoke Tcl scripts

bind tag ?sequence ??+?script??

Event: <modifier-modifier-type-detail> <<named>>

Modifiers: Control Mod2/M2 Shift Mod3/M3 Lock Mod4/M4 Button1/B1 Mod5/M5 Button2/B2

Meta/M Button3/B3 Alt Button4/B4 Double Button5/B5 Triple Mod1/M1 Quadruple

Even types: Activate, Destroy Map, ButtonPress/Button, Enter, MapRequest, ButtonRelease,

Expose, Motion, Circulate, FocusIn, MouseWheel, CirculateRequest, FocusOut, Property,

Colormap, Gravity, Reparent, Configure, KeyPress/Key, ResizeRequest,

ConfigureRequest, KeyRelease, Unmap, Create, Leave, Visibility, Deactivate

Substitutions: %# %# %a %b %c %d %f %h %i %k %m %o %p %s %t %w %x %y %A

%B %D %E %K %N %R %S %T %W %X %Y

**bindtags** window ?tagList? - Determine which bindings apply to a

window, and order of evaluation

**event** - Miscellaneous event facilities: define virtual events and generate events

event **add** <<virtual>> sequence ?sequence ...?

event **delete** <<virtual>> ?sequence sequence ...?

event **generate** window event ?option value option value ...?

event **info** ?<<virtual>>?

EVENT FIELDS: **-above** window **-borderwidth** size **-button** number

**-count** number **-delta** number **-detail** detail **-focus** boolean

**-height** size **-keycode** number **-keysym** name **-mode** notify

**-override** boolean **-place** where **-root** window **-rootx** coord

**-rooty** coord **-sendevent** boolean **-serial** number **-state** state

**-subwindow** window **-time** integer **-warp** boolean **-width** size

**-when now|tail|head|mark** **-x** coord **-y** coord

**focus** - Manage the input focus

focus

focus ?-**displayof|force|lastfor**? window

tk **focusNext** window

tk **focusPrev** window

tk **focusFollowsMouse**

**grab** - Confine pointer and keyboard events to a window sub-tree

grab ?-**global**? window

grab **current** ?window?

grab **release** window

grab **set** ?-**global**? window

grab **status** window

## Inter-client Communication

**bell** - Ring a display's bell

**clipboard** - Manipulate Tk clipboard

**selection** - Manipulate the X selection

**send** - Execute a command in a different application

# Tk 8.4.6

<http://www.tcl.tk/>

quickcard ver. 0.1 by

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## VARIABLES

### tk\_library

This variable holds the file name for a directory containing a library of Tcl scripts related to Tk. These scripts include an initialization file that is normally processed whenever a Tk application starts up, plus other files containing procedures that implement default behaviors for widgets. The initial value of tk\_library is set when Tk is added to an interpreter; this is done by searching several different directories until one is found that contains an appropriate Tk startup script. If the TK\_LIBRARY environment variable exists, then the directory it names is checked first. If TK\_LIBRARY isn't set or doesn't refer to an appropriate directory, then Tk checks several other directories based on a compiled-in default location, the location of the Tcl library directory, the location of the binary containing the application, and the current working directory. The variable can be modified by an application to switch to a different library.

### tk\_patchLevel

Contains a decimal integer giving the current patch level for Tk. The patch level is incremented for each new release or patch, and it uniquely identifies an official version of Tk.

### tk::Priv

This variable is an array containing several pieces of information that are private to Tk. The elements of tk::Priv are used by Tk library procedures and default bindings. They should not be accessed by any code outside Tk.

### tk\_strictMotif

This variable is set to zero by default. If an application sets it to one, then Tk attempts to adhere as closely as possible to Motif look-and-feel standards. For example, active elements such as buttons and scrollbar sliders will not change color when the pointer passes over them.

### tk\_textRedraw

### tk\_textRelayout

These variables are set by text widgets when they have debugging turned on. The values written to these variables can be used to test or debug text widget operations. These variables are mostly used by TK's test suite.

### tk\_version

Tk sets this variable in the interpreter for each application. The variable holds the current version number of the Tk library in the form major.minor. Major and minor are integers. The major version number increases in any Tk release that includes changes that are not backward compatible (i.e. whenever existing Tk applications and scripts may have to change to work with the new release). The minor version number increases with each new release of Tk, except that it resets to zero whenever the major version number changes.

### geometry

If the -geometry option is specified, wish copies its value into this variable. If the variable still exists after fileName has been evaluated, wish uses the value of the variable in a wm geometry command to set the main window's geometry.

## Standard options

-activebackground, activeBackground, Foreground	-insertwidth, insertWidth, InsertWidth
-activeborderwidth, activeBorderWidth,	-jump, jump, Jump
BorderWidth	-justify, justify, Justify
-activeforeground, activeForeground, Background	-orient, orient, Orient
-anchor, anchor, Anchor	-padx, padx, Pad
-background or -bg, background, Background	-pady, pady, Pad
-bitmap, bitmap, Bitmap	-relief, relief, Relief
-borderwidth or -bd, borderWidth, BorderWidth	-repeatdelay, repeatDelay, RepeatDelay
-cursor, cursor, Cursor	-repeatinterval, repeatInterval, RepeatInterval
-disabledforeground, disabledForeground,	-selectbackground, selectBackground, Foreground
DisabledForeground	-selectborderwidth, selectBorderWidth,
-exportselection, exportSelection, ExportSelection	BorderWidth
-font, font, Font	-selectforeground, selectForeground, Background
-foreground or -fg, foreground, Foreground	-setgrid, setGrid, SetGrid
-highlightbackground, highlightBackground,	-takefocus, takeFocus, TakeFocus
HighlightBackground	-text, text, Text
-highlightcolor, highlightColor, HighlightColor	-textvariable, textVariable, Variable
-highlightthickness, highlightThickness,	-troughcolor, troughColor, Background
HighlightThickness	-underline, underline, Underline
-image, image, Image	-wraplength, wrapLength, WrapLength
-insertbackground, insertBackground, Foreground	-xscrollcommand, xScrollCommand,
-insertborderwidth, insertBorderWidth,	ScrollCommand
BorderWidth	-yscrollcommand, yScrollCommand,
-insertofftime, insertOffTime, OffTime	ScrollCommand
-insertontime, insertOnTime, OnTime	