

# Keyword Reference

	Keyword	Arguments	Description
Structure	deck		Begin a deck; end with "edeck"
	def	name args...	Define a function; end with "edef"
	for	x=begin end [increment]	Begin loop; end with "efor"
	if	condition...[else]...eif	Conditional; one of: a==b, a!=b, a>b, a<b, a>=b, a<=b, a<>b
	import	"file"	import function found in a file
	include	"file"	Include the contents of a file
	slide	[bgcolor] [fgcolor]	Begin a slide; end with "eslide"
	edeck		End the deck
	edef		End the defintion
	efor		End the for loop
Utility	eif		End the conditional
	else		Begin the else clause
	canvas	width height	Define with dimensions of the canvas
	content	"scheme://file"	Embed content
	dump	[name]	Dump variables
	grid	"file" x y hspace vspace edge	Define a content grid
	ruler	[increment] [color]	draw a (x,y) ruler
Graphics	acircle	x y w [color] [opacity]	Circle with sized based on area
	arc	x y w h a1 a2 [lw] [color] [opacity]	Ellipical arc centered at (x,y), dimensions (w,h) between angles a1 and a2
	circle	x y w [color] [opacity]	Circle centered at (x,y), diameter w
	curve	bx by cx cy ex ey [lw] [color] [opacity]	Quadratic Bezier Curve begin (bx,by), control (cx, cy), end (ex,ey)
	ellipse	x y w h [color] [opacity]	Ellipse centered at (x,y), dimension (w,h)
	hline	x y w [lw] [color] [opacity]	Horizontal line begin at (x,y), length w
	line	x1 y1 x2 y2 [lw] [color] [opacity]	Line between (x1,y1) and (x2,y2)
	pill	x y w h [color]	Pill shape beginning at (x,y), dimensions (w,h)
	polygon	"x1 x2 x3...." "y1 y2 y3..." [color] [opacity]	Polygon with specified x, y coordinates
	polyline	"x1 x2 x3...." "y1 y2 y3..." [lw] [color] [opacity]	Polyline with specified x, y coordinates
	rect	x y w h [color] [opacity]	Rectangle centered at (x,y), dimensions (w,h)
	rrect	x y w h r [color] [opacity]	Rounded rectangle centered at (x,y), dimensions (w,h), corner radius r
	square	x y w [color] [opacity]	Square centered at (x,y), size w
	star	x y sides inner outer [color] [opacity]	Star centered at (x,y), with sides, innner and outer sizes
	vline	x y h [lw] [color] [opacity]	Vertical line beginning at (x,y), h high

	Keyword	Arguments	Description
Text	<b>arctext</b>	"string" x y radius a1 a2 fontsize [font] [color] [opacity] [link]	Text on an arc, at fontsize, center (x,y), radius r, between a1. a2
	<b>btext</b>	"string" x y fontsize [font] [color] [opacity] [link]	Text beginning at (x,y), at fontsize
	<b>ctext</b>	"string" x y fontsize [font] [color] [opacity] [link]	Centered text beginning at (x,y), at fontsize
	<b>etext</b>	"string" x y fontsize [font] [color] [opacity] [link]	End-aligned text at (x,y), at fontsize
	<b>rtext</b>	"string" x y angle fontsize [font] [color] [opacity] [link]	Rotated text centered at x,y), at angle and fontsize
	<b>text</b>	"string" x y fontsize [font] [color] [opacity] [link]	Text beginning at (x,y), at fontsize
	<b>textblock</b>	"string" x y w fontsize [font] [color] [opacity] [link]	Block of text beginning at (x,y), at fontsize, with width w
	<b>textblockfile</b>	"file" x y w fontsize [font] [color] [opacity] [link]	Block of text read for a file, beginning at (x,y), at fontsize, with width w
	<b>textcode</b>	"file" x y w fontsize [font] [color] [opacity]	Lines of code, read from a file, upper right corner at (x,y), margin at w
Lists	<b>textfile</b>	"file" x y fontsize [font] [color] [opacity] [spacing]	Contents of a text file pper right corner at (x,y)
	<b>blist</b>	x y fontsize [font] [color] [opacity] [spacing]	Bulleted list starting at (x,y), at fontsize
	<b>clist</b>	x y fontsize [font] [color] [opacity] [spacing]	Centered list starting at (x,y), at fontsize
	<b>list</b>	x y fontsize [font] [color] [opacity] [spacing]	List starting at (x,y), at fontsize
	<b>nlist</b>	x y fontsize [font] [color] [opacity] [spacing]	Numbered list starting at (x,y), at fontsize
	<b>li</b>	"item" [font] [color] [opacity]	List item
Images	<b>elist</b>		End the list
	<b>cimage</b>	"file" "caption" x y w h [scale] [link] capsize	Captioned image; center (x,y), dimensions (w,h) (h=0, w is % of canvas width)
	<b>image</b>	"file" x y w h [scale] [link]	Image center at (x,y), dimensions (w,h) (h=0, w is % of canvas width)
Braces/ Brackets	<b>dbrace</b>	x y w bw bh [lw] [color] [opacity]	Downward pointing brace
	<b>dbracket</b>	x y w h [lw] [color] [opacity]	Downward pointing bracket
	<b>lbrace</b>	x y h bw bh [lw] [color] [opacity]	Left pointing brace
	<b>lbracket</b>	x y w h [lw] [color] [opacity]	Left pointing bracket
	<b>rbrace</b>	x y h bw bh [lw] [color] [opacity]	Right pointing brace
	<b>rbracket</b>	x y w h [lw] [color] [opacity]	Right pointing bracket
	<b>ubrace</b>	x y w bw bh [lw] [color] [opacity]	Upward facing brace
	<b>ubracket</b>	x y w h [lw] [color] [opacity]	Upward facing bracket

	Keyword	Arguments	Description
Arrows	<b>arrow</b>	x1 y1 x2 y2 [lw] [aw] [ah] [color] [opacity]	Arrow starting at (x1,y1), ending at (x2,y2), aw=width, ah=height
	<b>darrow</b>	bx by bx xy ex ey [lw] [aw] [ah] [color] [opacity]	Downward curved arrow; curve specified by (bx,by), (cx,cy), (ex,ey)
	<b>larrow</b>	bx by bx xy ex ey [lw] [aw] [ah] [color] [opacity]	Left curved arrow; curve specified by (bx,by), (cx,cy), (ex,ey)
	<b>rarrow</b>	bx by bx xy ex ey [lw] [aw] [ah] [color] [opacity]	Right curved arrow; curve specified by (bx,by), (cx,cy), (ex,ey)
	<b>uarrow</b>	bx by bx xy ex ey [lw] [aw] [ah] [color] [opacity]	Upward curved arrow; curve specified by (bx,by), (cx,cy), (ex,ey)
Charts	<b>dchart</b>	options...	Chart with specified options
	<b>legend</b>	"string" x y fontsize font color	Chart legend
Built-ins	<b>x=area</b>	expression	Assign an area
	<b>x=format</b>	"fmt" expr... (up to 5)	Assign formatting to expressions
	<b>x=polar</b>	x y radius angle	Assign polar coordinate centered at (x,y) at radius and angle (0-360)
	<b>x=polarx</b>	x y radius angle	Assign X-polar coordinate centered at (x,y) at radius and angle (0-360)
	<b>x=polary</b>	x y radius angle	Assign Y-polar coordinate centered at (x,y) at radius and angle (0-360)
	<b>x=random</b>	min max	Assign a random number between two values
	<b>x=substr</b>	"string" begin end	Assign a substring
	<b>x=vmap</b>	data min1 max1 min2 max2	Assign a value mapped to two ranges
Math	<b>x=cosine</b>	expression	Assign the cosine of expression
	<b>x=sine</b>	expression	Assign the sine of expression
	<b>x=sqrt</b>	expression	Assign the square root of expression
	<b>x=tangent</b>	expression	Assign the tangent of expression
Geographic	<b>geoarc</b>	"p1" "p2" [lw] [color] [opacity]	Draw arcs between points
	<b>geoborder</b>	"file" [lw] [color] [opacity]	Reads KML data from the specified file and renders the map borders
	<b>geoimage</b>	"loc" width height	Place an image at a geographical location
	<b>geolabel</b>	"loc" [size] [font] [color] [opacity]	Reads data from the specified file or location and renders the map labels
	<b>geoloc</b>	"loc" [align] [size] [font] [color] [opacity]	Reads data from the specified file or location and a make map point and labels
	<b>geomark</b>	"loc" [size] [color] [opacity]	Reads data from the specified file or location and renders map points
	<b>geopath</b>	"p1" "p2" [lw] [color] [opacity]	Draw line between points
	<b>geopathfile</b>	"file" [lw] [color] [opacity]	Reads data from the specified file and a make lines between points
	<b>georegion</b>	"file" [color] [opacity]	Reads KML data from the specified file and renders the map regions