

Component Reference

This section gives you the complete lists of all components available with AppletVIEW, and a detailed list of the properties for each one.

About the Data Types

Every component has a *default property*. This is the property which is normally manipulated by a user interacting with the component, or by an instrumentation system sending an update to the component.

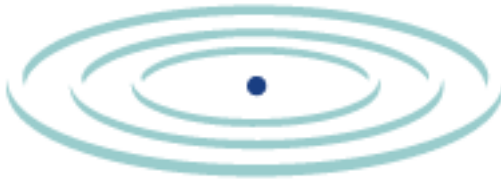
Note: In the tables below, the default property is shaded.

The default property has a specific data type. It's important to know this data type so that LabVIEW and LabWindows can handle the communication with the applet correctly. The default properties belong to one of these four data types, which have the corresponding LabVIEW and C data type:

AppletVIEW Data type	LabVIEW data type icon	C data type
Int32 (32-bit integer)		int
SGL (32-bit, single-precision floating point number, IEEE standard)		float
String (8-bit ASCII)		char *
Boolean		char

About the Data Flow

Data flow refers to how a component can behave from the point of view of the instrumentation server (LabVIEW, LabWindows, etc.). Most components are both readable and writable, but some are read-only or write-only.



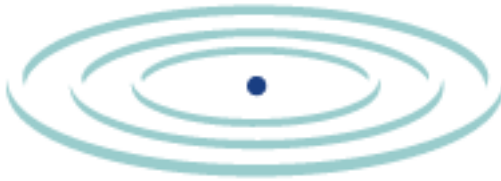
Border

Data type Not Applicable

Data flow Read-only

Properties **Note:** The default property (*visible*) is set programmatically; it cannot be edited through the AppletBuilder.

Property Name	Property Index	Meaning	Type	Default Value
size	1	size in pixels	(x,y) point	100,100
location	2	location, in pixels, relative to the (top, left) corner of the applet	(x,y) point	
background	4	border edge color	RGB color	(178, 178, 178)
foreground	5	border edge color	RGB color	white (255, 255, 255)
visible	6	if true, border is displayed	Boolean	true
edge	17	type of border: 1 = etched in 2 = etched out 3 = bevelled in 4 = bevelled out	Integer	3
edgeThickness	18	number of pixels to determine thickness of border edges	Integer	2
moatThickness	19	number of pixels to determine thickness of moat between border edges	Integer	0
baseColor	20	color used to fill inside of border if border does not have a transparent interior	RGB color	white
matteColor	21	color used to calculate highlight and shadow colors for bevels	RGB color	white
fill	22	if true, border does not have a transparent interior	Boolean	false



configuration	23	allows automatic configuration of several predefined types of borders 0 = no edge 1 = 1px line edge 2 = 1px bevel in 3 = 1 px bevel out 4 = 2px line 5 = 2px bevel in 6 = 2 px bevel out 7 = 1px etched in 8 = 1px etched out 9 = 3px line 10 = 3px bevel in 11 = 3px bevel out 12 = 1px etched in with 1px in groove 13 = 1px etched out with 1px in edge	Integer	-1
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Button

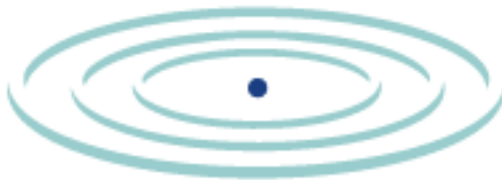
Data type Boolean

Note: Buttons are a little different than the rest of the components. Buttons are “stateless” since they always spring back (unlike switches). However, whenever a button is pressed, a Boolean TRUE is sent over the network. Polling the button, however, will always yield a value of FALSE.

Data flow Read-only

Properties

Property name	Property Index	Meaning	Type	Default Value
size	1	size in pixels	(x,y) point	70,30
location	2	location, in pixels, relative to the (top,left) corner of the applet	(x,y) point	n/a
background	4	inside color	RGB color	light gray (192, 192, 192)
foreground	5	not used	RGB color	black (0, 0, 0)
font	9	font size, style, and type for label	Font	Dialog, plain, size 12



label	13	label on button	String	
state	17	is button up (false) or down (true)	Boolean	False

Chart

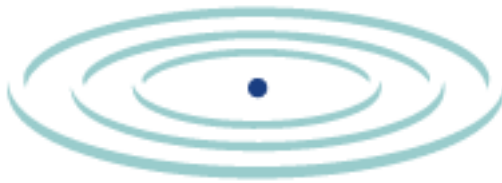
Description Plots points with varying Y value but with constant X increment

Data type SGL

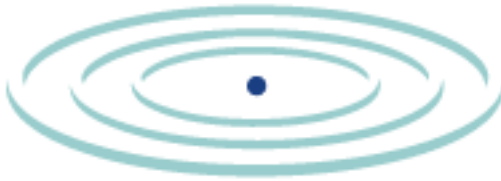
Data flow Write-only

Properties **Note:** The default property (*newPoints*) is set programmatically; it cannot be edited through the AppletBuilder.

Property name	Property Index	Meaning	Type	Default Value
size	1	size in pixels	(x,y) point	300,200
location	2	location, in pixels, relative to the (top,left) corner of the applet	(x,y) point	n/a
background	4	background color of axes area	RGB color	white (255,255,255)
foreground	5	plot area color	RGB color	black (0, 0, 0)
font	9	font size, style, and type for label	Font	Dialog, plain, size 12
plotMinX	18	x-axis minimum value	SGL	0.0
plotMaxX	19	x-axis maximum value	SGL	50.0
plotMinY	20	y-axis minimum value	SGL	-100.0
plotMaxY	21	y-axis maximum value	SGL	100.0
gridWidthX	22	if non-zero, sets the value between each tick mark on the x-axis; if zero, the y-axis marks autoscale	SGL	0.0
gridWidthY	23	if non-zero, sets the value between each tick mark on the y-axis; if zero, the y-axis marks autoscale	SGL	0.0
increment	26	the x-increment between each incoming point	SGL	1.0



pointColor	27	plot and point color	RGB color	red (255, 0,0)
scaleColor	28	color of axes	RGB color	black (0, 0, 0)
connected	29	whether to connect the plot points with lines	Boolean	true
drawPoints	30	whether incoming values are plotted with "thick points" to distinguish them from the connecting lines	Boolean	false
autoScale	31	if true, the y-axis autoscales to new values; if false, values outside the set y-axis range are cropped	Boolean	false
plotColor-Scheme	33	for multiple plots, determines default colors: 0 = determined dynamically 1 = rainbow colors 2 = blue gradient colors	Integer	0.0
scaleMarginY	34	number of pixels between X scale and chart	Integer	0.0
scaleMarginX	36	number of pixels between Y scale and chart	Integer	0.0
gridMinor-WidthX	37	logical space between minor ticks on X scale	Float	5.0
gridMinor-WidthY	38	logical space between minor ticks on Y scale	Float	10.0
drawScaleLine	41	if true, a line is drawn perpendicular to the ticks connecting them	Boolean	n/a
transparent	42	if true, the chart background is transparent	Boolean	n/a
textColor	43	color used to draw scale numerical values	RGB color	n/a
borderType	44	border type drawn around component. Links to the border "configuration" property.	Integer	0
borderColor	45	matteColor for chart border	RGB color	n/a
borderMargin	46	number of pixels of space inside chart border	Integer	0



scaleUnitsX	50	format of X scale numbers 0 = default decimal format 1 = exponential format 2 = integer format 3 = hours24:minutes format 4 = hours24:minutes:seconds format 5 = minutes:seconds:milliseconds format	Integer	0
scaleUnitsY	51	format of Y scale numbers: 0 = default decimal format 1 = exponential format 2 = integer format 3 = hours24:minutes format 4 = hours24"minutes:seconds format 5 = minutes:seconds:milliseconds format	Integer	0
scaleTypeX	52	type of scaling for X scale 0 = do not draw scale 1 = draw scale	Integer	1
scaleTypeY	53	type of scaling for Y scale 0 = do not draw scale 1 = draw scale	Integer	1
replacePoints	60	if true, new data will replace old data. otherwise, new data is appended to existing data.	Boolean	n/a

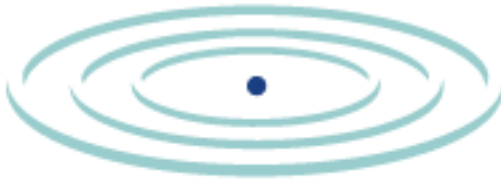
ChatBox

Data type String

Data flow Read/Write

Properties **Note:** The default property (*text*) is set programmatically; it cannot be edited through the AppletBuilder.

Property name	Property Index	Meaning	Type	Default Value
size	1	size in pixels	(x,y) point	150,150
location	2	location, in pixels, relative to the (top,left) corner of the applet	(x,y) point	n/a
background	4	background (trough) color	RGB color	white (255, 255, 255)



foreground	5	switch color	RGB color	black (0, 0, 0)
font	9	font size, style, and type for labels	Font	Dialog, plain, size 12
defaultText	24	initial contents of chat log	String	
textBackground	25	background color of text areas	RGB color	light gray (192, 192, 192)
textForeground	26	foreground color of text areas	RGB color	black (0, 0, 0)
textFont	27	font size, style, and type of text areas	Font	Dialog, plain, size 12
label1	28	title of the chat log area	String	Chat Log:
label2	29	title of the signature area	String	Sig:
label3	30	title of the input area	String	Enter Comments:

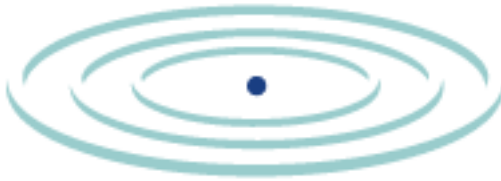
Checkbox

Data type Boolean

Data flow Read/Write

Properties

Property name	Property Index	Meaning	Type	Default Value
size	1	size in pixels	(x,y) point	100,30
location	2	location, in pixels, relative to the (top,left) corner of the applet	(x,y) point	
background	4	background color	RGB color	white (255, 255, 255)
foreground	5	not used	RGB color	black (0, 0, 0)
font	9	font size, style, and type for label	Font	Dialog, plain, size 12
label	13	text by check box	String	
state	17	checked or unchecked	Boolean	False



Choice Menu

Data type Integer

Data flow Read/Write

Properties

Property name	Property Index	Meaning	Type	Default Value
size	1	size in pixels	(x,y) point	100,21
location	2	location, in pixels, relative to the (top,left) corner of the applet	(x,y) point	n/a
background	4	background (trough) color	RGB color	white (255, 255, 255)
foreground	5	switch color	RGB color	black (0, 0, 0)
font	9	font size, style, and type for choices	Font	Dialog, plain, size 12
choice	17	Current value, [0 - (n-1)]	Integer	0
commaListItems	19	List of choices separated by commas	String	apples, oranges, bananas
defaultItem	20	Initially selected choice, [0 - (n-1)]	Integer	0

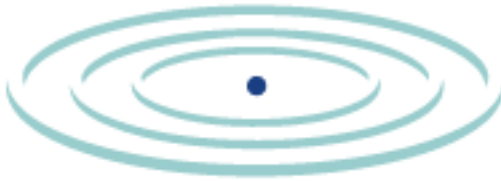
Digital Data type

SGL

Data flow Read/Write

Properties

Property name	Property Index	Meaning	Type	Default Value
size	1	size in pixels	(x,y) point	50,20
location	2	location, in pixels, relative to the (top,left) corner of the applet	(x,y) point	n/a



background	4	background color	RGB color	white (255,255,255)
foreground	5	button color	RGB Color	black (0,0,0)
font	9	font size, style, and type for choices	Font	Dialog, plain, size 12
value	17	current value of component	Float	0.0
representation	18	how to format value 0 = as float 1 = as integer	Integer	1
precision	19	if representation = 0, the number of decimal points to show	Integer	1
minimum	20	minimum allowed value	Float	0.0
maximum	21	maximum allowed value	Float	100.0
intValue	22	value as integer	Integer	0
floatValue	23	value as float	Float	0.0
stringValue	24	value as string	String	0.0
increment	25	amount to increment value with each button push	Float	1.0

Graph

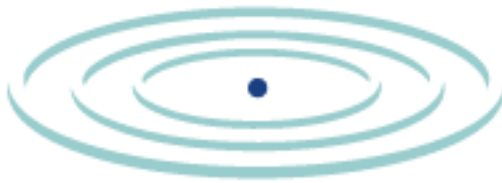
Description Plots [X,Y] points (both values must be given for every point)

Data type SGL Array

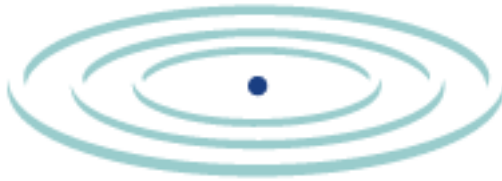
Data flow Write-only

Properties **Note:** The default property (*newPoints*) is set programmatically; it cannot be edited through the AppletBuilder.

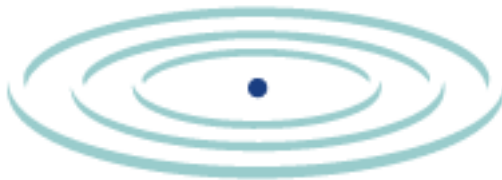
Property name	Property Index	Meaning	Type	Default Value
size	1	size in pixels	(x,y) point	300,200
location	2	location, in pixels, relative to the (top,left) corner of the applet	(x,y) point	n/a



background	4	background (trough) color	RGB color	white (255, 255, 255)
foreground	5	switch color	RGB color	black (0, 0, 0)
font	9	Font size, style, and type for labels	Font	Dialog, plain, size 12
plotMinX	18	x-axis minimum value	SGL	-10.0
plotMaxX	19	x-axis maximum value	SGL	10.0
plotMinY	20	y-axis minimum value	SGL	-10.0
plotMaxY	21	y-axis maximum value	SGL	10.0
gridWidthX	22	if non-zero, sets the value between each tick mark on the x-axis; if zero, the y-axis marks autoscale	SGL	5.0
gridWidthY	23	if non-zero, sets the value between each tick mark on the y-axis; if zero, the y-axis marks autoscale	SGL	5.0
pointColor	26	plot and point color	RGB color	red (255, 0, 0)
scaleColor	27	color of axes	RGB color	black (0, 0, 0)
connected	28	whether to connect the plot points with lines	Boolean	true
drawPoints	29	whether incoming values are plotted with "thick points" to distinguish them from the connecting lines	Boolean	false
autoScale	30	if true, the y-axis autoscales to new values; if false, values outside the set y-axis range are cropped	Boolean	false
plotColor-Scheme	31	for multiple plots, determines default colors: 0 = determined dynamically 1 = rainbow colors 2 = blue gradient colors	Integer	0
scaleMarginY	32	number of pixels between Y scale and chart	Integer	0
scaleMarginX	33	number of pixels between X scale and chart	Integer	0



gridMinor-WidthX	34	logical space between minor ticks on X scale	Float	1.0
gridMinor-WidthY	35	logical space between minor ticks on Y scale	Float	1.0
gridMinorDivisionsX	36	the number of minor ticks on X scale. Only one of gridMinorWidthX and gridMinorDivisionsX should be set	Integer	automatic
gridMinorDivisionsY	37	the number of minor ticks on Y scale. Only one of gridMinorWidthY and gridMinorDivisionsY should be set	Integer	automatic
drawScaleLine	38	if true, a line is drawn perpendicular to the ticks connecting them	Boolean	false
transparent	39	if true, the chart background is transparent	Boolean	false
textColor	40	color used to draw scale numerical values	RGB Color	black (0, 0, 0)
borderType	41	border type drawn around component. Links to the Border "configuration" property.	Integer	0
borderColor	42	matteColor for chart border	RGB Color	white
borderMargin	43	number of pixels of space inside chart border	Integer	0
plotBorderType	44	border type drawn around plot area. Links to the border "configuration" property	Integer	0
plotBorderColor	45	matteColor for the border drawn around plot area	RGB color	white (0, 0, 0)
plotBorderMargin	46	number of pixels of space inside the border around the plot area	Integer	0
scaleUnitxX	47	format of X scale numbers 0 = default decimal point 1 = exponential format 2 = integer format 3 = hours24:minutes format 4 = hours24:minutes:seconds format 5 = hours"seconds:milliseconds format	Integer	0



scaleUnitsY	48	format of Y scale numbers 0 = default decimal point 1 = exponential format 2 = integer format 3 = hours24:minutes format 4 = hours24:minutes:seconds format 5 = hours"seconds:milliseconds format	Integer	0
scaleTypeX	49	type of scaling for X scale 0= do not draw scale 1 = draw scale	Integer	1
scaleTypeY	50	type of scaling for Y scale 0= do not draw scale 1 = draw scale	Integer	1

Image The image component is a special type of component that behaves a little differently than most. In LabVIEW, you should use the Applet Image VIs to communicate with this component. With the image component, you can read and write at run-time many of its properties, not just the value.

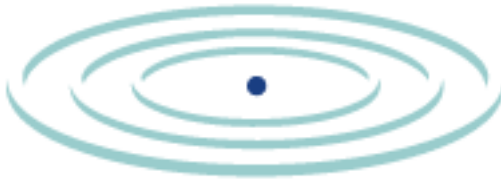
Data type The “value” of an image depends on the mouse behavior:

- If the image was clicked on without dragging, it returns a Boolean TRUE
- If the image was clicked and dragged, it returns an Int32 with the new XY location (X is the upper 16 bits, Y is the lower 16 bits).

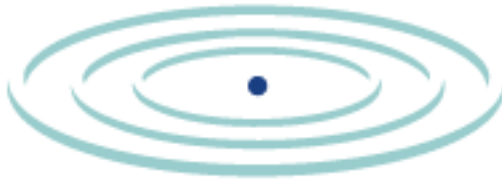
Data flow Read/Write

Properties

Property name	Property Index	Meaning	Type	Default Value
size	1	size in pixels	(x,y) point	32,32 (but defaults to the actual image size after an imageURL is given)
location	2	location, in pixels, relative to the (top,left) corner of the applet	(x,y) point	n/a
foreground	5		RGB color	black (0, 0, 0)



moveable	19	whether the image can be dragged with the mouse at run-time	Boolean	false
limitMinX	20	constrains the image dragging to this X position, in pixels, relative to the applet's top-left corner	int16	-2147483648
limitMinY	21	constrains the image dragging to this Y position, in pixels, relative to the applet's top-left corner	int16	-2147483648
limitMaxX	22	constrains the image dragging to this X position, in pixels, relative to the applet's top-left corner	int16	2147483647
limitMaxY	23	constrains the image dragging to this Y position, in pixels, relative to the applet's top-left corner	int16	2147483647
actionType	24	This property is ignored if no "minorimageURL" was specified; otherwise it defines the image button behavior 0: swaps out images when mouse is released on image. Both "TRUE" and "FALSE" events are sent over the network. 1: swaps out images when mouse is clicked on image. Both "TRUE" and "FALSE" events are sent over the network. 2: swaps image momentarily when mouse clicks. Only a "TRUE" event is sent over the network (behaves like Button component).	Integer	0
sendDragEvents	25	specifies whether to send the location over the network while the image is being dragged	Boolean	false

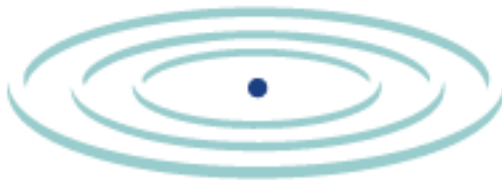


maxEventsPerSecond	26	specifies how many values per second are sent over the network (used only used if "sendDragEvents" is true)	Integer	10
state	27	false: show imageURL true: show minorimageURL	Boolean	false
upImageUrl	31	location of image to show when state property is false	String	n/a
upImage-MaskURL	32	location of greyscale image mask to use with upImage	String	n/a
downImageUrl	33	location of image to use when state property is true	String	
downImage-MaskURL	34	location of greyscale image mask to use with downImage	String	
mouseOverUpImageURL	35	location of image to use when mouse passes over and state property is false	String	
mouseOverUpImageMaskURL	36	location of greyscale mask to use with mouseOverUpImage	String	
mouseOverDownImageURL	37	location of image to use when mouse passes over and state property is true	String	
mouseoverDownImageMaskURL	38	location of greyscale mask to use with mouseOverDownImage	String	
mouseClickUpImageURL	39	location of image to use when mouse is pressed on comonent	String	
mouseClickUPImageMaskURL	40	location of greyscale mask to use with mouseClick-UpImage	String	
imageRefreshInterval	43	if non-zero, number of milliseconds to wait between reloading images from URLs.	Integer	0

Knob

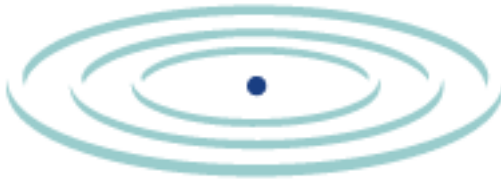
Data type SGL

Data flow Read/Write



Properties

Property name	Property Index	Meaning	Type	Default Value
size	1	size in pixels	(x,y) point	90,90
location	2	location, in pixels, relative to the (top,left) corner of the applet	(x,y) point	
background	4	background color around knob	RGB color	white (255, 255, 255)
foreground	5	font color (value)	RGB color	black (0, 0, 0)
font	9	font size, style, and type for knob value	Font	Dialog, plain, size 12
value	17	current value on knob	SGL	0.0
minimum	18	minimum value for knob	SGL	0.0
maximum	19	minimum value for knob	SGL	100.0
increment	20	increment value when turning knob	SGL	1.0
decimalPlaces	21	precision to display	Integer	1
knobColor	22	color of knob	RGB color	(180, 180, 180)
indicatorColor	23	color of knob indicator (needle)	RGB color	(200, 200, 200)
indicatorWidth	24	width of indicator	SGL	4.0
indicatorLength	25	length of indicator, relative to knob radius	SGL	0.6
sendDragEvents	27	specifies whether to send values over the network while the image is being turned	Boolean	false
maxEventsPer Second	28	specifies how many values per second are sent over the network (used only used if "send DragEvents" is true)	Integer	10
indicatorType	29	type of pointer to draw knob (not implemented)	Integer	0
knobBevelType	30	type of shadow to draw (not implemented)	Integer	2
gridMajorDivisions	32	logical space between large ticks in scale around knob (not implemented)	Float	0
scaleMargin	34	number of pixels of space to put between scale and knob bevel (not implemented)	Integer	0



gridMinorDivisions	36	logical space between small ticks in scale around knob (not implemented)	Integer	0
drawScaleLine	37	if true, draw line connecting ticks (not implemented)	Boolean	False
transparent	38	if true, exterior of knob is transparent	Boolean	False
fillKnob	39	if true, interior of knob is not transparent	Boolean	True
scaleUnits	41	how to draw scale numbers (not implemented)	Integer	0
scaleType	42	how to draw scale ticks (not implemented)	Integer	0

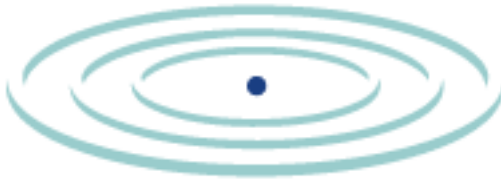
Label

Data type String

Data flow Read/Write

Properties

Property name	Property Index	Meaning	Type	Default Value
size	1	size in pixels	(x,y) point	100,30
location	2	location, in pixels, relative to the (top,left) corner of the applet	(x,y) point	n/a
background	4	background color	RGB color	white (255, 255, 255)
foreground	5	Font color	RGB color	black (0, 0, 0)
font	9	font size, style, and type for text	Font	Dialog, plain, size 12
text	17	text on label	String	label
horizontalAlignment	18	0: left-justified 1: center-justified 2: right-justified	Integer	1
verticalAlignment	19	0: top-justified 1: center-justified 2: bottom-justified	Integer	1



marginWidth	20	number of pixels to put between label text and left and right edges of label	Integer	3
marginHeight	21	number of pixels to put between label text and top and bottom edges of label	Integer	3
pixelLineSpacing	22	number of pixels to use between consecutive lines if label has more than one line	Integer	0

LED

Data type Boolean

Data flow Read/Write

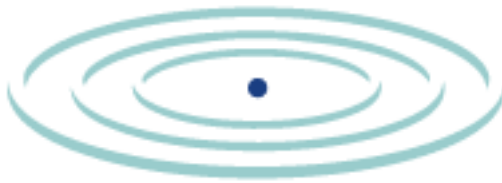
Properties

Property name	Property Index	Meaning	Type	Default Value
size	1	size in pixels	(x,y) point	20,20
location	2	location, in pixels, relative to the (top,left) corner of the applet	(x,y) point	n/a
background	4	color for LED OFF	RGB color	white (255, 255, 255)
foreground	5	LED border color	RGB color	black (0, 0, 0)
font	9	font size, style, and type	Font	Dialog, plain, size 12
on	17	is the LED on or off	Boolean	false
shape	18	0: square 1: round	Integer	1
ledColor	19	color for LED ON	RGB color	red (230, 50, 50)

Slider

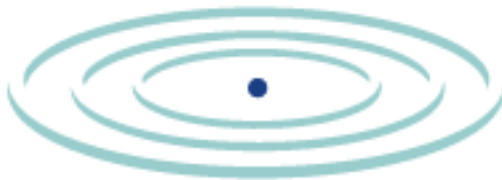
Data type SGL

Data flow Read/Write



Properties

Property name	Property Index	Meaning	Type	Default Value
size	1	size in pixels	(x,y) point	60, 140
location	2	location, in pixels, relative to the (top,left) corner of the applet	(x,y) point	n/a
background	4	background color around slider	RGB color	white (255, 255, 255)
foreground	5	font color (value)	RGB color	black (0, 0, 0)
font	9	font size, style, and type for slider value	Font	Dialog, plain, size 12
value	17	value of slider	SGL	0.0
minimum	18	minimum value for slider	SGL	0.0
maximum	19	minimum value for slider	SGL	100.0
increment	20	increment value when dragging slider	SGL	1.0
decimalPlaces	21	precision to display	Integer	1
orientation	22	true: vertical false: horizontal	Boolean	true
sliderSize	23	size of slider element, relative to slider length	SGL	0.1
minMaxVisible	25	whether to show the min and max limits	Boolean	true
valueVisible	26	whether to show the value	Boolean	true
labelSide	27	0: left or bottom 1: right or top	Integer	1
troughColor	28	color of the trough	RGB Color	light gray (192,192,192)
sliderColor	29	slider element color	RGB Color	red (230,50,50)
sendDragEvents	30	specifies whether to send values over the network while the image is being turned	Boolean	false
maxEventsPerSecond	31	specifies how many values per second are sent over the network (used only used if "sendDragEvents" is true)	Integer	10
troughEdgeColor	32	matteColor to use for shading of slider trough	RGB Color	



Switch

Data type Boolean

Data flow Read/Write

Properties

Property name	Property Index	Meaning	Type	Default Value
size	1	size in pixels	(x,y) point	15,30
location	2	location, in pixels, relative to the (top,left) corner of the applet	(x,y) point	n/a
background	4	background (trough) color	RGB color	gray (128, 128, 128)
foreground	5	switch color	RGB color	light gray (192, 192, 192)
font	9	Font size, style, and type for labels	Font	Dialog, plain, size 12
state	17	is the switch on or off	Boolean	false
orientation	18	true: vertical false: horizontal	Boolean	true

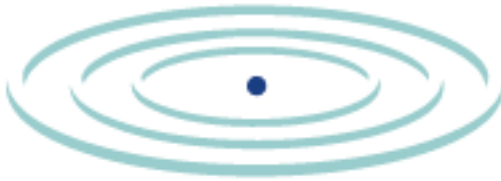
Text Area

Data type String

Data flow Read/Write

Properties

Property name	Property Index	Meaning	Type	Default Value
size	1	size in pixels	(x,y) point	150,80
location	2	location, in pixels, relative to the (top,left) corner of the applet	(x,y) point	n/a
background	4	background (trough) color	RGB color	light gray (192, 192, 192)
foreground	5	switch color	RGB color	black (0, 0, 0)



font	9	Font size, style, and type for text	Font	Dialog, plain, size 12
text	17	text in the text area	String	n/a
editable	18	Can the user change it?	Boolean	false
continuousUpdate	24	if true, every key press causes an event to be sent to server	Boolean	false

TextField

Data type String

Data flow Read/Write

Properties

Property name	Property Index	Meaning	Type	Default Value
size	1	size in pixels	(x,y) point	100,30
location	2	location, in pixels, relative to the (top,left) corner of the applet	(x,y) point	n/a
background	4	background color	RGB color	white (255, 255, 255)
foreground	5	font color	RGB color	black (0, 0, 0)
font	9	font size, style, and type for text	Font	Dialog, plain, size 12
text	17	text in the text field	String	n/a
editable	18	false: user cannot input text-true: user can type text	Boolean	true