**Graph Legend**

**Test Cases and Procedures**

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# Test Cases

## Activate

### Test Case 1

**Test Case ID –** RBC.graph.legend.1

**Test Item –** The *legend activate* command of the *graph* BLT component.

**Input Specification –** A legend element.

**Output Specification –** The legend element should appear on the list of activated elements.

**Special Procedural Requirements –** None

**Inter-case Dependencies –** RBC.graph.element.create.1

### Test Case 6

**Test Case ID –** RBC.graph.legend.6

**Test Item –** The *legend activate* command of the *graph* BLT component.

**Input Specification –** A legend element.

**Output Specification –** The legend element should appear activated in the legend.

**Special Procedural Requirements –** None

**Inter-case Dependencies –** RBC.graph.element.create.1

## Deactivate

### Test Case 2

**Test Case ID –** RBC.graph.legend.2

**Test Item –** The *legend deactivate* command of the *graph* BLT component.

**Input Specification –** A legend element.

**Output Specification –** The legend element should not appear on the list of activated elements.

**Special Procedural Requirements –** None

**Inter-case Dependencies –** RBC.graph.element.create.1, RBC.graph.legend.1

### Test Case 7

**Test Case ID –** RBC.graph.legend.7

**Test Item –** The *legend deactivate* command of the *graph* BLT component.

**Input Specification –** A legend element.

**Output Specification –** The legend element should appear activated in the legend.

**Special Procedural Requirements –** None

**Inter-case Dependencies –** RBC.graph.element.create.1, RBC.graph.legend.1

## Configure

### Test Case 3

**Test Case ID –** RBC.graph.legend.3

**Test Item –** The *legend configure* command of the *graph* BLT component.

**Input Specification –** A valid configuration *option* flag and *value* pair

**Output Specification –** *legend cget* *-option* should return *value*

**Special Procedural Requirements –** None

**Inter-case Dependencies -** RBC.graph.legend.5

### Test Case 8

**Test Case ID –** RBC.graph.legend.8

**Test Item –** The *legend configure* command of the *graph* BLT component.

**Input Specification –** A valid configuration *option* flag and *value* pair

**Output Specification –** The legend and its elements should reflect the new option values.

**Special Procedural Requirements –** None

**Inter-case Dependencies -** RBC.graph.element.1, RBC.graph.legend.6

## Bind

### Test Case 4

**Test Case ID –** RBC.graph.legend.4

**Test Item –** The *legend bind* command of the *graph* BLT component.

**Input Specification –** A legend element or arbitrary tag name, an action sequence, and a command

**Output Specification –** *legend bind* should return the bound actions and commands

**Special Procedural Requirements –** None

**Inter-case Dependencies -** RBC.graph.element.create.1

### Test Case 9

**Test Case ID –** RBC.graph.legend.9

**Test Item –** The *legend bind* command of the *graph* BLT component.

**Input Specification –** A legend element, a sequence, and a command

**Output Specification –** Command is executed when sequence actions are taken on the legend element.

**Special Procedural Requirements –** None

**Inter-case Dependencies -** RBC.graph.element.create.1

## Cget

### Test Case 5

**Test Case ID –** RBC.graph.legend.5

**Test Item –** The *legend cget* command of the *graph* BLT component.

**Input Specification –** A configuration *option* flag

**Output Specification –** The current value for the *option* flag

**Special Procedural Requirements –** None

**Inter-case Dependencies -** RBC.graph.legend.3

# Automated Tests

**Activate (Test Case 1)**

**Test Procedure – Activate All Returns All Activated Elements**

**Purpose –** Ensure that activating all legend elements returns all legend elements.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.1.1

**Test Procedure – Activate Returns Subset of Activated Elements**

**Purpose –** Ensure that activating a subset of legend elements returns only the activated elements.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.1.2

**Test Procedure – Activate Returns All Activated Elements**

**Purpose –** Ensure that activating a legend element returns all active legend elements not only the ones that were just activated.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.1.3

**Bind (Test Case 4)**

**Test Procedure – Bind Legend Element**

**Purpose –** Ensure that bindings can be created for a legend element.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.4.1

**Test Procedure – Bind Query for Sequence and Element**

**Purpose –** Ensure that bindings can be queried for a sequence and legend element.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.4.2

**Test Procedure – Bind Command Append**

**Purpose –** Ensure that bindings can be appended for a sequence and legend element.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.4.3

**Test Procedure – Bind Command Overwrite**

**Purpose –** Ensure that bindings are overwritten for a sequence and legend element.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.4.4

**Test Procedure – Bind Query for Element**

**Purpose –** Ensure that bound sequences can be queried for just a legend element.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.4.5

**Test Procedure – Bind Arbitrary Tag Name**

**Purpose –** Ensure that bindings can be created for an arbitrary tag.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.4.6

**Cget (Test Case 5)**

**Test Procedure – Cget Default Option**

**Purpose –** Ensure that cget works for default values.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.5.1

**Test Procedure – Cget Configured Option**

**Purpose –** Ensure that cget works with an explicitly set option.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.5.2

**Deactivate (Test Case 2)**

**Test Procedure – Deactivate All Elements**

**Purpose –** Ensure that deactivating all legend elements works properly.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.2.1

**Test Procedure – Deactivate Subset of Elements**

**Purpose –** Ensure that deactivating a subset of legend elements deactivates only that subset.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.2.2

**Configure (Test Case 3)**

**Test Procedure – Configure Active Background**

**Purpose –** Ensure that the activebackground configuration works for valid colors.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.1

**Test Procedure – Configure Active Border Width**

**Purpose –** Ensure that the activeborderwidth configuration works for valid widths.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.2

**Test Procedure – Configure Active Foreground**

**Purpose –** Ensure that the activeforeground configuration works for valid colors.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.3

**Test Procedure – Configure Active Relief Raised**

**Purpose –** Ensure that the activerelief configuration works for raised reliefs.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.4

**Test Procedure – Configure Active Relief Flat**

**Purpose –** Ensure that the activerelief configuration works for flat reliefs.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.5

**Test Procedure – Configure Active Relief Grooved**

**Purpose –** Ensure that the activerelief configuration works for grooved reliefs.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.6

**Test Procedure – Configure Active Relief Ridged**

**Purpose –** Ensure that the activerelief configuration works for ridged reliefs.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.7

**Test Procedure – Configure Active Relief Solid**

**Purpose –** Ensure that the activerelief configuration works for solid reliefs.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.8

**Test Procedure – Configure Active Relief Sunken**

**Purpose –** Ensure that the activerelief configuration works for sunken reliefs.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.9

**Test Procedure – Configure Anchor Center**

**Purpose –** Ensure that the anchor configuration works for center anchor.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.10

**Test Procedure – Configure Anchor North**

**Purpose –** Ensure that the anchor configuration works for north anchor.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.11

**Test Procedure – Configure Anchor Northeast**

**Purpose –** Ensure that the anchor configuration works for northeast anchor.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.12

**Test Procedure – Configure Anchor Northwest**

**Purpose –** Ensure that the anchor configuration works for northwest anchor.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.13

**Test Procedure – Configure Anchor South**

**Purpose –** Ensure that the anchor configuration works for south anchor.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.14

**Test Procedure – Configure Anchor Southeast**

**Purpose –** Ensure that the anchor configuration works for southeast anchor.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.15

**Test Procedure – Configure Anchor Southwest**

**Purpose –** Ensure that the anchor configuration works for southwest anchor.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.16

**Test Procedure – Configure Anchor East**

**Purpose –** Ensure that the anchor configuration works for east anchor.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.17

**Test Procedure – Configure Anchor West**

**Purpose –** Ensure that the anchor configuration works for west anchor.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.18

**Test Procedure – Configure No Background**

**Purpose –** Ensure that the background configuration works for no background.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.19

**Test Procedure – Configure Background**

**Purpose –** Ensure that the background configuration works for valid colors.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.20

**Test Procedure – Configure Borderwidth**

**Purpose –** Ensure that the borderwidth configuration works for valid width.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.21

**Test Procedure – Configure Font**

**Purpose –** Ensure that the font configuration works for valid font strings.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.22

**Test Procedure – Configure Foreground**

**Purpose –** Ensure that the foreground configuration works for valid colors.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.23

**Test Procedure – Configure Hidden**

**Purpose –** Ensure that the hide configuration works for true.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.24

**Test Procedure – Configure Not Hidden**

**Purpose –** Ensure that the hide configuration works for false.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.25

**Test Procedure – Configure Ipadx Single**

**Purpose –** Ensure that the ipadx configuration works for a single value.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.26

**Test Procedure – Configure Ipadx Multiple**

**Purpose –** Ensure that the ipadx configuration works for multiple values.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.27

**Test Procedure – Configure Ipady Single**

**Purpose –** Ensure that the ipady configuration works for a single value.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.28

**Test Procedure – Configure Ipady Multiple**

**Purpose –** Ensure that the ipady configuration works for multiple values.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.29

**Test Procedure – Configure Padx Single**

**Purpose –** Ensure that the padx configuration works for a single value.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.30

**Test Procedure – Configure Padx Multiple**

**Purpose –** Ensure that the padx configuration works for multiple values.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.31

**Test Procedure – Configure Pady Single**

**Purpose –** Ensure that the pady configuration works for a single value.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.32

**Test Procedure – Configure Pady Multiple**

**Purpose –** Ensure that the pady configuration works for multiple values.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.33

**Test Procedure – Configure Position Right Margin**

**Purpose –** Ensure that the position configuration works for rightmargin.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.34

**Test Procedure – Configure Position Left Margin**

**Purpose –** Ensure that the position configuration works for leftmargin.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.35

**Test Procedure – Configure Position Top Margin**

**Purpose –** Ensure that the position configuration works for topmargin.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.36

**Test Procedure – Configure Position Bottom Margin**

**Purpose –** Ensure that the position configuration works for bottommargin.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.37

**Test Procedure – Configure Position Plot Area**

**Purpose –** Ensure that the position configuration works for plotarea.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.38

**Test Procedure – Configure Position a Point**

**Purpose –** Ensure that the position configuration works for a point.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.39

**Test Procedure – Configure Raised**

**Purpose –** Ensure that the raised configuration works for true.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.40

**Test Procedure – Configure Not Raised**

**Purpose –** Ensure that the raised configuration works for false.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.41

**Test Procedure – Configure Relief Raised**

**Purpose –** Ensure that the relief configuration works for raised reliefs.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.42

**Test Procedure – Configure Relief Flat**

**Purpose –** Ensure that the relief configuration works for flat reliefs.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.43

**Test Procedure – Configure Relief Grooved**

**Purpose –** Ensure that the relief configuration works for grooved reliefs.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.44

**Test Procedure – Configure Relief Ridged**

**Purpose –** Ensure that the relief configuration works for ridged reliefs.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.45

**Test Procedure – Configure Relief Solid**

**Purpose –** Ensure that the relief configuration works for solid reliefs.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.46

**Test Procedure – Configure Relief Sunken**

**Purpose –** Ensure that the relief configuration works for sunken reliefs.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.47

**Test Procedure – Configure Shadow**

**Purpose –** Ensure that the shadow configuration works for valid colors.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.48

**Test Procedure – Configure Shadow and Depth**

**Purpose –** Ensure that the shadow configuration works for a shadow and a depth.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.49

**Test Procedure – Configure No Shadow**

**Purpose –** Ensure that the shadow configuration works for no shadow.

**Special Requirements –** None

**TclTest –** RBC.graph.legend.3.50

# Manual Tests

**Test Case 6**

**Test Procedure – Activate All**

**Purpose –** Ensure that activating all legend elements works properly.

**Special Requirements –** None

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.6.tcl” file and then call the “graph.legend::RBC.graph.legend.6.1.Setup” Tcl command
* Pre-Condition – A graph with two elements, Line1 and Line2, is showing. The two elements appear deactivated in the legend.
* Body

1. Call the “graph.legend::RBC.graph.legend.6.1.Body” Tcl command

* Post-Condition – In the legend, Line1 and Line2 appear activated (i.e. their color has changed to dark gray).
* Cleanup – Call the “graph.legend::RBC.graph.legend.6.1.Cleanup” command

**Test Procedure – Activate a Subset**

**Purpose –** Ensure that activating a subset of legend elements works properly.

**Special Requirements –** None

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.6.tcl” file and then call the “graph.legend::RBC.graph.legend.6.2.Setup” Tcl command
* Pre-Condition – A graph with two elements, Line1 and Line2, is showing. The two elements appear deactivated in the legend.
* Body

1. Call the “graph.legend::RBC.graph.legend.6.2.Body” Tcl command

* Post-Condition – In the legend, Line1 and only Line1 appears activated (i.e. its color has changed to dark gray).
* Cleanup – Call the “graph.legend::RBC.graph.legend.6.2.Cleanup” command

**Test Case 7**

**Test Procedure – Deactivate All**

**Purpose –** Ensure that deactivating all legend elements works properly.

**Special Requirements –** None

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.7.tcl” file and then call the “graph.legend::RBC.graph.legend.7.1.Setup” Tcl command
* Pre-Condition – A graph with two elements, Line1 and Line2, is showing. The two elements appear activated in the legend.
* Body

1. Call the “graph.legend::RBC.graph.legend.7.1.Body” Tcl command

* Post-Condition – In the legend, Line1 and Line2 appear deactivated (i.e. their color has changed to light gray).
* Cleanup – Call the “graph.legend::RBC.graph.legend.7.1.Cleanup” command

**Test Procedure – Deactivate a Subset**

**Purpose –** Ensure that deactivating a subset of legend elements works properly.

**Special Requirements –** None

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.7.tcl” file and then call the “graph.legend::RBC.graph.legend.7.2.Setup” Tcl command
* Pre-Condition – A graph with two elements, Line1 and Line2, is showing. The two elements appear activated in the legend.
* Body

1. Call the “graph.legend::RBC.graph.legend.7.2.Body” Tcl command

* Post-Condition – In the legend, Line1 and only Line1 appears deactivated (i.e. its color has changed to light gray).
* Cleanup – Call the “graph.legend::RBC.graph.legend.7.2.Cleanup” command

**Test Case 8**

**Test Procedure – Configure Active Background**

**Purpose –** Ensure that deactivating a subset of legend elements works properly.

**Special Requirements –** Legend elements must be able to be activated.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.1.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing and the element in the legend is activated.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.1.Body” Tcl command

* Post-Condition – The legend element’s background is now a salmon color.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.1.Cleanup” command

**Test Procedure – Configure Active Border Width**

**Purpose –** Ensure that the activeborderwidth configuration works for valid widths.

**Special Requirements –** Legend elements must be able to be activated.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.2.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing and the element in the legend is activated.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.2.Body” Tcl command

* Post-Condition – The legend element’s border is at a width of 20 pixels.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.2.Cleanup” command

**Test Procedure – Configure Active Foreground**

**Purpose –** Ensure that the activeforeground configuration works for valid colors.

**Special Requirements –** Legend elements must be able to be activated.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.3.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing and the element in the legend is activated.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.3.Body” Tcl command

* Post-Condition – The legend element’s text is now white.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.3.Cleanup” command

**Test Procedure – Configure Active Relief Raised**

**Purpose –** Ensure that the activerelief configuration works for raised reliefs.

**Special Requirements –** Legend elements must be able to be activated. Activeborderwidth must be able to be set.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.4.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing and the element in the legend is activated. The legend element should also have an active border width of 10.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.4.Body” Tcl command

* Post-Condition – The legend element’s relief is now raised.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.4.Cleanup” command

**Test Procedure – Configure Active Relief Flat**

**Purpose –** Ensure that the activerelief configuration works for flat reliefs.

**Special Requirements –** Legend elements must be able to be activated. Activeborderwidth must be able to be set.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.5.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing and the element in the legend is activated. The legend element should also have active border width of 10.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.5.Body” Tcl command

* Post-Condition – The legend element’s relief is now flat.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.5.Cleanup” command

**Test Procedure – Configure Active Relief Grooved**

**Purpose –** Ensure that the activerelief configuration works for grooved reliefs.

**Special Requirements –** Legend elements must be able to be activated. Activeborderwidth must be able to be set.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.6.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing and the element in the legend is activated. The legend element should also have an active border width of 10.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.6.Body” Tcl command

* Post-Condition – The legend element’s relief is now grooved.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.6.Cleanup” command

**Test Procedure – Configure Active Relief Ridged**

**Purpose –** Ensure that the activerelief configuration works for ridged reliefs.

**Special Requirements –** Legend elements must be able to be activated. Activeborderwidth must be able to be set.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.7.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing and the element in the legend is activated. The legend element should also have an active border width of 10.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.7.Body” Tcl command

* Post-Condition – The legend element’s relief is now ridged.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.7.Cleanup” command

**Test Procedure – Configure Active Relief Solid**

**Purpose –** Ensure that the activerelief configuration works for solid reliefs.

**Special Requirements –** Legend elements must be able to be activated. Activeborderwidth must be able to be set.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.8.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing and the element in the legend is activated. The legend element should also have an active border width of 10.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.8.Body” Tcl command

* Post-Condition – The legend element’s relief is now solid.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.8.Cleanup” command

**Test Procedure – Configure Active Relief Sunken**

**Purpose –** Ensure that the activerelief configuration works for sunken reliefs.

**Special Requirements –** Legend elements must be able to be activated. Activeborderwidth must be able to be set.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.9.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing and the element in the legend is activated. The legend element should also have an active border width of 10.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.9.Body” Tcl command

* Post-Condition – The legend element’s relief is now sunken.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.9.Cleanup” command

**Test Procedure – Configure All Anchors**

**Purpose –** Ensure that the anchor configuration works for all anchors.

**Special Requirements –** The legend must be able to be positioned in the plot area. As the bodies are executed, take note of the position of the legend.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.10.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing. The legend is in the top center of the plot area.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.10.Body1” Tcl command
2. Call the “graph.legend::RBC.graph.legend.8.10.Body2” Tcl command
3. Call the “graph.legend::RBC.graph.legend.8.10.Body3” Tcl command
4. Call the “graph.legend::RBC.graph.legend.8.10.Body4” Tcl command
5. Call the “graph.legend::RBC.graph.legend.8.10.Body5” Tcl command
6. Call the “graph.legend::RBC.graph.legend.8.10.Body6” Tcl command
7. Call the “graph.legend::RBC.graph.legend.8.10.Body7” Tcl command
8. Call the “graph.legend::RBC.graph.legend.8.10.Body8” Tcl command
9. Call the “graph.legend::RBC.graph.legend.8.10.Body9” Tcl command

* Post-Condition – The legend moved around the plot area in the following order:
  + Center
  + North Center
  + Northeast
  + East Center
  + Southeast
  + South Center
  + Southwest
  + West Center
  + Northwest
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.10.Cleanup” command

**Test Procedure – Configure No Background**

**Purpose –** Ensure that the background configuration works for no background.

**Special Requirements –** Legend background must be able to be set for valid colors

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.11.Setup” Tcl command
* Pre-Condition – A graph with a single element is displaying. The graph’s background color is salmon and the legend’s background is gray.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.11.Body” Tcl command

* Post-Condition – The legend’s background is now salmon.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.11.Cleanup” command

**Test Procedure – Configure Valid Background Color**

**Purpose –** Ensure that the background configuration works for valid colors.

**Special Requirements –** None

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.12.Setup” Tcl command
* Pre-Condition – A graph with a single element is displaying. The legend’s background is gray.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.12.Body” Tcl command

* Post-Condition – The legend’s background is now black.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.12.Cleanup” command

**Test Procedure – Configure Border Width**

**Purpose –** Ensure that the borderwidth configuration works for valid widths.

**Special Requirements –** None

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.13.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.13.Body” Tcl command

* Post-Condition – The legend element’s border is at a width of 20 pixels.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.13.Cleanup” command

**Test Procedure – Configure Font**

**Purpose –** Ensure Ensure that the font configuration works for valid font strings.

**Special Requirements –** None

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.14.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.14.Body” Tcl command

* Post-Condition – The legend element’s border is now Arial, bold, 14 point.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.14.Cleanup” command

**Test Procedure – Configure Foreground**

**Purpose –** Ensure that the foreground configuration works for valid colors.

**Special Requirements –** None

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.15.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.15.Body” Tcl command

* Post-Condition – The legend element’s text is now white.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.15.Cleanup” command

**Test Procedure – Configure Hide**

**Purpose –** Ensure that the hide configuration works.

**Special Requirements –** None

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.16.Setup” Tcl command
* Pre-Condition – A graph with a single element and the legend are showing.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.16.Body” Tcl command

* Post-Condition – The legend is now hidden.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.16.Cleanup” command

**Test Procedure – Configure Ipadx**

**Purpose –** Ensure that the ipadx configuration works.

**Special Requirements –** None

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.17.Setup” Tcl command
* Pre-Condition – A graph with a single element and the legend are showing.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.17.Body” Tcl command

* Post-Condition – The legend’s internal padding on the left and right sides is now 5 pixels wide.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.17.Cleanup” command

**Test Procedure – Configure Ipady**

**Purpose –** Ensure that the ipady configuration works.

**Special Requirements –** None

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.18.Setup” Tcl command
* Pre-Condition – A graph with a single element and the legend are showing.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.18.Body” Tcl command

* Post-Condition – The legend’s internal padding on the top and bottom is now 5 pixels wide.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.18.Cleanup” command

**Test Procedure – Configure Padx**

**Purpose –** Ensure that the padx configuration works.

**Special Requirements –** None

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.19.Setup” Tcl command
* Pre-Condition – A graph with a single element and the legend are showing.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.19.Body” Tcl command

* Post-Condition – The legend’s external padding on the left and right sides is now 5 pixels wide.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.19.Cleanup” command

**Test Procedure – Configure Pady**

**Purpose –** Ensure that the pady configuration works.

**Special Requirements –** None

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.20.Setup” Tcl command
* Pre-Condition – A graph with a single element and the legend are showing.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.20.Body” Tcl command

* Post-Condition – The legend’s internal padding on the top and bottom is now 5 pixels wide.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.20.Cleanup” command

**Test Procedure – Configure Relief Raised**

**Purpose –** Ensure that the relief configuration works for raised reliefs.

**Special Requirements –** Borderwidth must be able to be set.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.21.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing. The legend element should also have a border width of 10.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.21.Body” Tcl command

* Post-Condition – The legend element’s relief is now raised.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.21.Cleanup” command

**Test Procedure – Configure Relief Flat**

**Purpose –** Ensure that the relief configuration works for flat reliefs.

**Special Requirements –** Borderwidth must be able to be set.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.22.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing. The legend element should also have border width of 10.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.22.Body” Tcl command

* Post-Condition – The legend element’s relief is now flat.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.22.Cleanup” command

**Test Procedure – Configure Relief Grooved**

**Purpose –** Ensure that the relief configuration works for grooved reliefs.

**Special Requirements –** Borderwidth must be able to be set.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.23.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing. The legend element should also have an border width of 10.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.23.Body” Tcl command

* Post-Condition – The legend element’s relief is now grooved.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.23.Cleanup” command

**Test Procedure – Configure Relief Ridged**

**Purpose –** Ensure that the relief configuration works for ridged reliefs.

**Special Requirements –** Borderwidth must be able to be set.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.24.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing. The legend element should also have an border width of 10.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.24.Body” Tcl command

* Post-Condition – The legend element’s relief is now ridged.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.24.Cleanup” command

**Test Procedure – Configure Relief Solid**

**Purpose –** Ensure that the relief configuration works for solid reliefs.

**Special Requirements –** Borderwidth must be able to be set.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.25.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing. The legend element should also have an border width of 10.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.25.Body” Tcl command

* Post-Condition – The legend element’s relief is now solid.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.25.Cleanup” command

**Test Procedure – Configure Relief Sunken**

**Purpose –** Ensure that the relief configuration works for sunken reliefs.

**Special Requirements –** Borderwidth must be able to be set.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.26.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing. The legend element should also have an border width of 10.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.26.Body” Tcl command

* Post-Condition – The legend element’s relief is now sunken.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.26.Cleanup” command

**Test Procedure – Configure Shadow**

**Purpose –** Ensure that the shadow configuration works for valid colors.

**Special Requirements –** None

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.27.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.27.Body” Tcl command

* Post-Condition – The legend element’s text now has a red shadow.
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.27.Cleanup” command

**Test Procedure – Configure Shadow and Depth**

**Purpose –** Ensure that the shadow configuration works for a shadow and a depth.

**Special Requirements –** None

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.8.tcl” file and then call the “graph.legend::RBC.graph.legend.8.28.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing.
* Body

1. Call the “graph.legend::RBC.graph.legend.8.28.Body” Tcl command

* Post-Condition – The legend element’s text now has a red shadow that is 3 pixels behind the text (i.e. it is offset to the bottom right of the text 3 pixels).
* Cleanup – Call the “graph.legend::RBC.graph.legend.8.28.Cleanup” command

**Test Case 9**

**Test Procedure – Binding Creation**

**Purpose –** Ensure that bindings can be created for a legend element.

**Special Requirements –** Legend elements may be activated and deactivated.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.9.tcl” file and then call the “graph.legend::RBC.graph.legend.9.1.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing and it is deactivated.
* Body

1. Call the “graph.legend::RBC.graph.legend.9.1.Body” Tcl command
2. Double-left-click the legend element.

* Post-Condition – The legend element is now activated.
* Cleanup – Call the “graph.legend::RBC.graph.legend.9.1.Cleanup” command

**Test Procedure – Bind Append**

**Purpose –** Ensure that bindings can be appended for a legend element.

**Special Requirements –** Legend elements may be activated and deactivated.

**Procedural Steps**

* Setup – Run the “RBC.graph.legend.9.tcl” file and then call the “graph.legend::RBC.graph.legend.9.2.Setup” Tcl command
* Pre-Condition – A graph with a single element is showing and it is deactivated.
* Body

1. Call the “graph.legend::RBC.graph.legend.9.2.Body” Tcl command
2. Double-left-click the legend element.
3. Double-right-click the legend element.

* Post-Condition – The legend element is activated when double-left-clicked and deactivated when double-right-click.
* Cleanup – Call the “graph.legend::RBC.graph.legend.9.2.Cleanup” command