# SliderDualActing

INHERITS FROM Slider: Control: View: Responder:

Object

REQUIRES HEADER FILES SliderDualActing.h

**DEFINED IN** Acme Gizmos, version 1.0

#### **CLASS DESCRIPTION**

SliderDualActing is a Control that combines a textField and slider as one logical object, knows how to "undo" itself, synchronize its displays, and validate and reset the slider if the user types in values higher than maxValue or lower than minValue.

#### **INSTANCE VARIABLES**

Inherited from Object Class isa:

Inherited from Responder id nextResponder;

Inherited from View NXRect frame;

NXRect bounds: id superview; id subviews; id window:

struct vFlags vFlags;

Inherited from Control int tag;

cell:

struct conFlags conFlags;

Inherited from Slider (none)

Declared in SliderDualActing id textPal:

> id upTarget; SEL upAction; id undoTarget; undoPosition; int double lastValue;

#### **METHOD TYPES**

Initializing SliderDualActing Factory

+ initialize

Creating and initializing a SliderDualActing

+ newFrame:

setUpTarget:action:

- setUpTarget:action:isContinuous

- setAltStep: whole: default:

- setMax:allowHigher:min:allowLower:

Drone TextField Methods - setFormat:left:right:

- isDecimal

Interface Builder Methods - sendTextAction:

- incrementDecrement:

### Setting SliderDualActing Values

- setIntValue: - seFloatValue:

Undo Methods - undo

setUndoTarget:position

- setLastThing:

Handling Events - mouseDown:

#### **CLASS METHODS**

#### newFrame:

+ newFrame:(const NXRect \*)frameRect

Creates a new SliderDualActing. Does not create the textfield or the button matrix. These must be created in IB and and the textfield connected to the **textPal** outlet. This allows you to set attributes of the textfield in IB, as well as its location, font, and other attributes.

#### initialize

+inialize

This method initializes the subclass of SliderCell used in implementing SliderDualActing. The default is SliderCellFine. Use this when you subclass SliderCellFine to modify the behaviour of a SliderDualActing.

### **INSTANCE METHODS**

#### incrementDecrement:

- incrementDecrement: sender

The matrix of buttons sends this message to the slider. The slider increments or decrements (depending on the button's tag) by the **altStep** instance variable.

#### isDecimal:

isDecimal:(BOOL)flag

Returns whether the SliderDualActing's **textPal** is formatted to show decimal places.

#### mouseDown:

- mouseDown:(NXEvent \*)theEvent

Calls trackMouse:inRect:ofView: on the Slider's cell. Overridden

to set undo variable before changing the slider and to send the **upAction:** when mouse goes up.

#### read:

- read:(NXTypedStream \*)stream

Reads the SliderDualActing from the typed stream stream.

#### sendTextAction:

- sendTextAction:(id)sender

This method is provided for the **textPal** when you connect it to the slider in IB. It sends the **upAction** to the **upTarget**, after validating the entry for exceeding limits.

## setAltStep:whole:default:

- setAltStep:(float)aFloat whole:(BOOL)flag default:
(float)aFloat2

Sets the value by which SliderDualActing increments and decrements, whether the field is an integer value, and the default value to which the slider should be reset when command-clicked. It also initializes the slider's value to the default value.

### setDefault:

- setDefault:(float)aFloat

Sets the default value of the SliderDualActing.

#### setFloatValue:

- **setFloatValue:**(float)*aFloat* 

Sets both the slider and textfield.

# setFormat:left:right:

- **setFormat:**(BOOL)*auto* **left:**(unsigned short)*aShort* **right:** (unsigned short)*aShort* 

Sets the text formatting of the slider's **textPal**. It is a cover method for TextField's

**setFloatingPointFormat:left:right:**, but without peeking inside the object. NOTE: this may need to be called after **appDidInit:**; if the **textPal** is not initialized when the slider gets initialized, your message will not get sent.

#### setIntValue:

- **setIntValue:**(int)*anInt* 

Sets both the slider and textfield to anInt.

# setLastThing:

setLastThing:(int)poundDefinedTag

Caches value of SliderDualActing before it changes. See **Undo**.

## setMaxValue:allowHigher:setMin:allowLower:

- **setMaxValue:**(float)*max* **allowHigher:**(BOOL)*hi* **setMin:** (float)*min* **allowLower:**(BOOL)*lo* 

Sets the maximum and minimum value of the SliderDualActing. Sets the flags which allow user to exceed or not to exceed these values.

## setUndoTarget:tag:

- setUndoTarget:(id)targ tag:(int)tag

Sets the **undoTarget** and the pound-defined tag used by the **undoTarget** if it's sent an **undo** message. By default, we handle the undo, and the tag is 0. See **undo.** 

# setUpAction:

- setUpAction: (SEL) action

Sets the **upAction** which gets sent to the **upTarget** on mouseUp, or if

scfFlags.sendContinuously is YES, continuously.

# setUpTarget:

- setUpTarget:(id)targ

Sets the **upTarget** which will receive the action **upAction** on mouseUp, or if **scfFlags.sendContinuously** is YES, continuously while the slider is dragged.

# setUpTarget:action:

- setUpTarget:(id)targ action:(SEL)action

Sets the **upTarget** and **upAction** of the SliderDualActing. **scfFlags.sendContinuously** is NO.

# setUpTarget:action:isContinuous:

- **setUpTarget:**(id)*targ* **action:**(SEL)*action* **isContinuous:** (BOOL)*flag* 

Sets the **upTarget** and **upAction** of the SliderDualActing. **scfFlags.sendContinuously** is set to flag.

#### textPal

-textPal

Returns the SliderDualActing's textField instance, **textPal**.

#### undo

#### -undo

Restores the SliderDualActing to its previous state. Sends a display method to

the NXApp mainWindow as a default. If the user has set the **undoTarget** variable, the slider will notify this target of an impending change with **setLastThing**:*last\_id* before changing

the value of the slider.

The default is for the undoTarget to be self, in which case we cache the last value and respond to the undo message by restoring **lastValue**'s value.

## write:

- write:(NXTypedStream \*)stream

Writes the receiving SliderDualActing to the typed stream stream.