

## PtrNumberLine

INHERITS FROM

NumberLine : View : Responder : Object

DECLARED IN

PtrNumberLine.h

### CLASS DESCRIPTION

A PtrNumberLine displays a horizontal number line and an arrow which can be dragged along the line by the user to choose particular values. An action message can be sent to a designated target as the arrow is dragged, or the PtrNumberLine can be queried for the current value.

## INSTANCE VARIABLES

*Inherited from Object*

Class

isa;

*Inherited from Responder*

id

nextResponder;

*Inherited from View*

CGRect

frame;

CGRect

bounds;

id superview;

id subviews;

id window;

struct \_\_vFlags

vFlags;

*Inherited from NumberLine*

int

orientation;

int labelPosition;

float

linePosition;

float

backgroundGray;

float

lineGray;

float

labelGray;

*Defined in PtrNumberLine*

x

pointerRect

pointerNXImage

target

action

```
float                borderWidth;  
struct __tickInfo   tickInfo;  
id  numberLineImage;
```

```
float                x;  
NXRect              pointerRect;  
id  pointerNXImage;  
id  target;  
SEL                action;
```

The value on the number line at which the pointer is pointing.

The rectangle, in current coordinates, for the pointer.

An NXImage containing the drawing of the pointer.

Will receive action messages as the arrow is dragged.

The message sent to the target as the arrow is dragged.

## METHOD TYPES

Initializing a new PtrNumberLine

- initWithFrame:

Moving the Arrow

- mouseDown:
- x
- setX:
- acceptsFirstMouse

Target and Action

- setAction:
- action
- setTarget:
- target

Drawing the NumberLine

- drawSelf::
- pointerNXImage
- pointerLocation

## INSTANCE METHODS

### **acceptsFirstMouse**

- (BOOL)**acceptsFirstMouse**

Calculates the tick marks and labels for the current number line. This method updates all the values of the structure *tickInfo*. It doesn't do any drawing into either the *numberLineNXImage* or the View. This method is invoked whenever the bounds change. You will not need to invoke it yourself.

### **action**

- **action**

Returns the current center point of the number line.

See also: - **setCenter**, - **setMin:max:**

### **drawSelf::**

- **drawSelf:**(const NXRect \*)*rects* :(int)*rectCount*

Composites the contents of *numberLineNXImage* onto the NumberLine.

**initFrame:**

- **initFrame:**(const NXRect \*)*frameRect*

Initializes a new NumberLine object. The number line will display the range -10 to 10 and will be set at *linePosition* 30. If *frameRect.size.height* is greater than *frameRect.size.width*, the number line will be vertical; otherwise, it will be horizontal. Labels will be below a horizontal number line or to the left of a vertical one.

**mouseDown:**

- **mouseDown:**(NXEvent \*)*theEvent*

Returns one of the constants BELOWLEFT or ABOVERIGHT to indicate the position where the tick mark labels will be drawn. The default is below a horizontal number line or to the left of a vertical number line.

See also: - **setLabelPosition:**

**pointerLocation**

- (NXPoint)**pointerLocation**

Returns the position, in default coordinates, at which the number line will be drawn within the view. The position is measured from the bottom in case of a horizontal number line and from the right in case of a vertical number line. The default position is 30.

See also: - **setLinePosition:**

**pointerNXImage**

- **pointerNXImage**

Returns the current rightmost or topmost endpoint of the number line. Redraws only if `autodisplay` is on. Returns **self**.

See also: - **min**, - **setMin:max:**, - **setCenter:**, - **slide:**, - **zoomIn:**, - **zoomOut:**

**setAction:**

- **setAction:**(SEL)*anAction*

Returns the current leftmost or bottommost endpoint of the number line. Redraws only if

autodisplay is on. Returns **self**.

See also: - **max**, - **setMin:max:**, - **setCenter:**, - **slide:**, - **zoomIn:**, - **zoomOut:**

### **setTarget:**

- **setTarget:***anObject*

Returns the NXImage containing the drawing of the number line. This allows, with autodisplay off, other objects to do their own compositing in order to increase drawing speed. Returns **self**.

See also: - **setAutodisplay:** (View)

### **setX:**

- **setX:**(float)*newValue*

Returns one of the constants HORIZONTAL or VERTICAL, indicating whether the number line is horizontal or vertical. It will be VERTICAL if and only if the NumberLine is taller than it is wide.



## **target**

### **- target**

Sets the background gray for the NumberLine. The background will be transparent, and the default gray is NX\_WHITE. Does not redraw. Returns **self**.

## **x**

### **- (float)x**

Indicates whether or not a black border should be drawn around the NumberLine and, if so, its width in unscaled (default) coordinates. If *shouldHaveBorder* is NO, *width* will be ignored. Does not redraw. Returns **self**.