

UHShape

INHERITS FROM

View:Responder:Object

DECLARED IN

UHShape.h

AUTHOR Department of Electrical Engineering

University of Houston, Houston, TX 77204

uhoop@uh.edu

CLASS DESCRIPTION

The UHShape is an abstract class that provides many of the attributes and methods for general drawing shapes to be placed into windows in Interface Builder. Subclasses of UHShape can draw specific shapes such as rectangles, ellipses, and lines. Each shape can be resized by the mouse in IB, and colors, line width, fill, etc., can be set via the IB inspector.

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;

Declared in UHShape

NXColor

lineColor;

NXColor

fillColor;

int tag

int choice;

BOOL

isBordered;

BOOL

isFilled

float

lineWidth;

METHOD TYPES

Initializing the View Frame Rectangle

- initWithFrame:

Setting the attributes of the shapes

- setLineWidth:
- lineWidth
- setLineColor:
- lineColor
- setChoice:
- choice
- setFillColor:
- fillColor
- setBordered:
- isBordered
- setFilled:
- isFilled
- setTag:
- tag

Archiving

- read
- write

INSTANCE METHODS

choice

- (int)**choice**

Returns the value of the instance variable *choice* which indicates the type of shape chosen from the inspector. The specific values of *choice* are defined in subclasses of UHShape.

fillColor

-(NXColor)**fillColor**

Returns the fill color of the shape.

isBordered

-(BOOL)**isBordered**

Returns a flag indicating whether the shape is bordered.

isFilled

-(BOOL)**isFilled**

Returns a flag indicating whether the shape is filled.

initWithFrame:

- **initWithFrame:**(const NXRect *)*frameRect*

Initializes the object, which must be a newly allocated UHShape instance. The View's frame rectangle is made equivalent to that pointed to by *frameRect*. It also initializes the line width, line color, fill color, border, and fill of the shape. Returns **self**.

lineColor

-(NXColor)**lineColor**

Returns the color used for line portions of the shape.

lineWidth

-(float)**lineWidth**

Returns the line width (or border width) of the shape.

read:

- **read:**(NXTypedStream *)*stream*

Reads the UHShape from the typed stream *stream*.

setBordered:

- **setBordered:**(int)*flag*

Sets the value of the instance variable *isBordered* which is a flag used to check whether the shape is to have a border around it. Calls **display** and returns **self**.

setChoice:

- **setChoice:**(int)*value*

Sets the value of the instance variable *choice* indicating the type of the shape. Specific values for *choice* are defined in subclasses of UHShape. Returns **self**.

setFillColor:

- **setFillColor:**(NXColor)*aColor*

Sets the fill color of the shape. Returns **self**.

setFilled:

- **setFilled:**(int)*flag*

Sets the value of the instance variable *isFilled* which is a flag used to check whether the shape is to be filled. Calls **display** and returns **self**.

setLineColor:

-setLineColor:(NXColor)*aColor*

Sets the color used for line (or border) portions of the shape. Returns **self**.

setLineWidth:

-setLineWidth:(float)*value*

Sets the line width used for line (or border) portions of the shape. Returns **self**.

setTag:

- setTag:(int)*value*

Sets the value of the instance variable tag. Returns **self**.

tag

-(int)tag

Returns the value of the tag.

write

- **write**:(NXTypedStream *)*stream*

Writes the UHShape to the typed stream *stream*.