

Y! YUI Library: Animation

2006-07-13b **v0.11**

Simple Use Case

```
myAnimObj = new YAHOO.util.Anim("myDiv", {width:
    {to: 100}, height: {to: 100}});
myAnimObj.animate();
```

Makes the HTML element whose id attribute is "myDiv" resize to a height and width of 100 pixels.

Constructor (YAHOO.util.Anim, ColorAnim, etc.)

```
YAHOO.util.Anim(str | element target, obj
    attributes[, num duration, obj easing]);
```

Arguments:

- (1) **Element id or reference:** HTML ID or element reference for the element being animated.
- (2) **Attributes object:** Defines the qualities being animated; see below.
- (3) **Duration:** Approximate, in seconds.
- (4) **Easing:** Reference to an easing effect, member of YAHOO.util.Easing.

Attributes Object

```
animAttributes = {
    animatedProperty: {
        by: 100, //start at current, change by this much
        to: 100, //start at current, go to this
        from: 100, //ignore current; start from this
        unit: 'em' //can be any legal numeric unit
    }
}
```

Note: Do not include `to` and `by` for the same animation property.

Animation Properties

Use Animation to apply gradual transitions to these properties*:

borderWidth	height
bottom	margin
fontSize	opacity
left	lineHeight
right	padding
top	width

*or to any other member of an element's style object that takes a numeric value

Dependencies

Animation requires the YAHOO object, DOM, and Event.

Interesting Moments in Animation

Event	Fires...	Arguments
onStart	...when anim begins	
onTween	...on every frame	
onComplete	...when anim ends	[0] fps; [1] duration
These are Custom Event members of YAHOO.util.Anim; use these by subscribing: <code>myAnimInstance.onComplete.subscribe(myOnCompleteHandler);</code>		

Using the Motion Subclass

Use the Motion subclass to define animations to/from a specific point, using (optional) bezier control points.

```
var attributes = {
    points: {
        to: [250, 450],
        control: [[100, 800], [-100, 200], [500, 500]]};
var anim = new YAHOO.util.Motion(element,
    attributes, 1, YAHOO.util.Easing.easeIn);
```

Using the ColorAnim Subclass

Use the ColorAnim subclass to background, text or border colors.

```
var myAnim = new YAHOO.util.ColorAnim(element, {back
    groundColor: { to: '#dcdcdc' } });
myAnim.animate();
```

Using the Scroll Subclass

Use the Scroll subclass to animate horizontal or vertical scrolling of an overflowing page element.

```
var attributes = {
    scroll: { to: [220, 0] }
};
var anim = new YAHOO.util.Scroll(element,
    attributes, 1, YAHOO.util.Easing.easeOut);
```

Solutions

Subscribe to an API method:

```
myAnimObj = new YAHOO.util.Anim(element, {width:
    {to: 100}, height: {to: 100}});
myHandler = function(type, args) {
    someDiv.innerHTML = args[0].fps; //gets frames-
    per-second from the onComplete event
}
myAnimObj.onComplete.subscribe(myHandler);
myAnimObj.animate();
```

YAHOO.util.Anim: Properties

attributes (obj)
currentFrame (int)
defaultUnit (str)
defaultUnits (obj)
duration (num)
totalFrames (int)
useSeconds (b)

YAHOO.util.Anim: Methods

animate()
getEl()
getStartTime()
isAnimated()
stop()

Easing Effects

Members of YAHOO.util.Easing

backBoth
backIn
backOut
bounceBoth
bounceIn
bounceOut
easeBoth
easeBothStrong
easeIn
easeInStrong
easeNone default; no easing
easeOut
easeOutStrong
elasticBoth
elasticIn
elasticOut