

JavaScript Scroller

iScroll alternative

Beispiel: ohne großes Framework

Bei meiner Suche nach einer Scroll Komponente bin ich auf alle möglichen Probleme gestoßen. In einigen führte die Anzeige von ImageMaps zu Problemen, sie brauchten zusätzlich noch jQuery und die Länge des Codes war eigentlich auch nicht passabel.

Also zur Sache, die hier gezeigte Komponente unterstützt alle aktuellen Browser. Eine Liste der unterstützten Touch Devices werde ich noch aufführen. Es wird sowohl Touch, Mouse als auch Mousewheel unterstützt. Beim verlassen des Scroll-Objektes endet das Scrollen, bei anderen Komponenten war das nicht so, das hatte mich auch gestört. Es werden keine Wrapper-DIVs benötigt, es muss nur ein Script-Datei eingebunden werden die gerade mal 262 Zeilen lang ist,... den Gummiband-Effekt des Scroll-Balkens der dann entsteht wenn man über das Ende hinaus scrollt könnte man noch realisieren.

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HTML:

[scroll.htm \(/code/scroll.htm?mode=download\)](#) HTML (4,1 kByte) 27.10.2021 23:26

```
<!DOCTYPE html >
<html>
  <head>
    <meta charset="utf-8" />
    <title>scroll</title>
  </head>
  <body>
    <div class="scroll">
      <p>Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet. Lorem ipsum dolor sit amet, consetetur sadipscing elitr, sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat, sed diam voluptua. At vero eos et accusam et justo duo dolores et ea rebum. Stet clita kasd gubergren, no sea takimata sanctus est Lorem ipsum dolor sit amet.</p>
    </div>
  </body>
</html>
```

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</div>

<script src="jsScroll.js"></script>

</body>

</html>

```
function MyScroll() {
    this.object = null;
    this.content = null;
    this.isTouchDevice = false;
    this.start = false;
    this.scrollbar = null;
    this.scroller = null;
    this.startX = 0;
    this.startY = 0;
    this.curX = 0;
    this.curY = 0;
    this.lastMove = null;
}

MyScroll.prototype = {
    touchStart: function (event) {
        if (event.type === 'touchstart') { //touch event
            // check that only one finger is touching the screen
            if (event.touches.length === 1) {
                // get the coordinates of the touch
                this.start = true;
                this.startX = event.touches[0].pageX;
                this.startY = event.touches[0].pageY;
            } else {
                // more than one finger touched so cancel
                this.touchCancel(event);
            }
        } else {
            if (event.button === 0) { // mouse event
                this.start = true;
                this.startX = event.pageX;
                this.startY = event.pageY;
            } else { // old IE mouse event
                this.start = true;
                this.startX = event.clientX + document.body.scrollLeft;
                this.startY = event.clientY + document.body.scrollTop;
            }
        }
    },
    touchMove: function (event) {
        if (this.start) {
            var bScroll = false;
            if (event.type === 'touchmove') { // touch event
                // check that only one finger is touching the screen
                if (event.touches.length === 1) {
                    this.curX = event.touches[0].pageX;
                    this.curY = event.touches[0].pageY;
                    event.preventDefault();
                }
            }
        }
    }
};
```

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        bScroll = true;
    } else {
        // more than one finger touched so cancel
        this.touchCancel(event);
    }
} else if (event.pageX) { // mouse event
    this.curX = event.pageX;
    this.curY = event.pageY;
    bScroll = true;
} else { // old IE mouse event
    this.curX = event.clientX + document.body.scrollLeft;
    this.curY = event.clientY + document.body.scrollTop;
    bScroll = true;
}
}
if (bScroll) {
    var X = (this.startX - this.curX);
    var Y = (this.startY - this.curY);
    this.startX = this.curX;
    this.startY = this.curY;
    this.scroll(X, Y);
}
},
touchEnd: function (event) {
    if (this.start) {
        //this.touchMove(event);
        this.transition();
        this.start = false;
    }
    this.startX = 0;
    this.startY = 0;
    this.curX = 0;
    this.curY = 0;
},
wheel: function(event) { // mouse wheel event
    var X = 0, Y = 0;
    if (event.wheelDeltaX !== undefined) {
        X = event.wheelDeltaX / 6;
        Y = event.wheelDeltaY / 6;
    } else if (event.wheelDelta !== undefined) {
        X = Y = event.wheelDelta / 6;
    } else if (event.detail !== undefined) {
        X = Y = -event.detail * 6;
    } else {
        return;
    }
    this.scroll(0, Y);
},
transition: function() {
    this.content.style.top = (parseInt(this.content.style.top, 10) +

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this.lastMove*10) + 'px';
    this.content.style.transition = "top 1s ease-out";
},
transitionend: function(event) {
    if (parseInt(this.content.style.top, 10) > 0) {
        this.content.style.top = '0px';
    }
    if (Math.abs(parseInt(this.content.style.top, 10)) >
(parseInt(this.content.offsetHeight, 10) -
parseInt(this.object.offsetHeight, 10))) {
        this.content.style.top = - (parseInt(this.content.offsetHeight, 10) -
parseInt(this.object.offsetHeight, 10));
    }
    this.content.style.transition = "none";
},
scroll: function(X, Y) {
    if (this.content.offsetWidth > this.object.offsetWidth) {
        this.content.style.left = parseInt(this.content.style.left, 10) - X +
'px';
    }
    if ((this.content.offsetHeight > this.object.offsetHeight) &&
((Math.abs(parseInt(this.content.style.top, 10)) <
(parseInt(this.content.offsetHeight, 10) -
parseInt(this.object.offsetHeight, 10))) && Y>0) ||
((parseInt(this.content.style.top, 10) < 0) && Y<0))) {
        this.lastMove = parseInt(this.content.style.top, 10);
        this.content.style.top = parseInt(this.content.style.top, 10) - Y +
'px';
        this.lastMove = parseInt(this.content.style.top, 10) - this.lastMove;
    }
    this.scroller.style.top = Math.round((this.scrollbar.offsetHeight ?
this.scrollbar.offsetHeight : this.object.offsetHeight) *
(Math.abs(parseInt(this.content.style.top, 10)) /
parseInt(this.content.offsetHeight, 10))) + "px";
},
resize: function() {
    var offsetHeight = (this.scrollbar.offsetHeight ?
this.scrollbar.offsetHeight : this.object.offsetHeight);
    this.content.style.width = this.object.offsetWidth-10 + "px";
    this.scroller.style.height = Math.min(Math.max(Math.round(offsetHeight *
(this.object.offsetHeight / this.content.offsetHeight)), 8), offsetHeight-6)
+ "px";
    this.scroller.style.top = Math.round(offsetHeight *
(Math.abs(parseInt(this.content.style.top, 10)) /
parseInt(this.content.offsetHeight, 10))) + "px";
    if (this.content.offsetHeight <= this.object.offsetHeight) {
        this.scroller.style.display = "none";
    } else {
        this.scroller.style.display = "block";
    }
}

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},
handle: function(event) {
    event || (event = window.event);
    switch (event.type) {
        case 'mousedown':
        case 'touchstart': this.touchStart(event); break;
        case 'mousemove':
        case 'touchmove': this.touchMove(event); break;
        case 'mouseup':
        case 'touchend':
        case 'mouseout':
        case 'touchcancel': this.touchEnd(event); break;
        case 'mousewheel':
        case 'DOMMouseScroll': this.wheel(event); break;
        case 'transitionend':
        case 'webkitTransitionEnd':
        case 'oTransitionEnd':
        case 'MSTransitionEnd': this.transitionend(event); break;
        case 'onorientationchange':
        case 'resize': this.resize(); break;
    }
    if (event.preventDefault) {
        event.preventDefault();
    }
},
bind: function(ev, el) {
    var self = this;
    if (window.addEventListener !== undefined) { // W3C
        var handler = (el || window).addEventListener(ev,
            function(event) {
                self.handle(event);
            });
    } else if (window.attachEvent) { // old IE
        (el || window).attachEvent('on'+ev, function(event)
{self.handle(event);});
    } else { // fallback
        (el || window)['on'+ev] = function(event) {self.handle(event);};
    }
},

unbind: function (ev, el) {
    if (window.removeEventListener !== undefined) { // W3C
        (el || this.scroller).removeEventListener(ev, this, !!bubble);
    }
},
init: function(scroll) {
    this.object = scroll;
    if (scroll.style.position === "") {
        scroll.style.position = "relative";
    }
}

```

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scroll.style.overflow = "hidden";
this.content = document.createElement("div");
while (scroll.hasChildNodes()) {
    this.content.appendChild(scroll.removeChild(scroll.firstChild));
}
scroll.appendChild(this.content);
this.content.style.position = "absolute";
this.content.style.left = '0px';
this.content.style.top = '0px';
//create scrollbar
this.scrollbar = document.createElement("div");
this.scrollbar.style.position = "absolute";
this.scrollbar.style.width = "7px";
this.scrollbar.style.bottom = "2px";
this.scrollbar.style.top = "2px";
this.scrollbar.style.right = "1px";
this.object.appendChild(this.scrollbar);
this.scroller = document.createElement("div");
this.scroller.style.position = "absolute";
this.scroller.style.backgroundColor = "#7A7A7A";
this.scroller.style.width = "100%";
this.scroller.style.borderRadius = "3px";
this.scroller.style.opacity = 0.5;
this.scrollbar.appendChild(this.scroller);
this.resize();
this.isTouchDevice = (window.ontouchstart !== undefined);
if (this.isTouchDevice) {
    this.bind('touchstart', scroll);
    this.bind('touchmove', scroll);
    this.bind('touchend', scroll);
    this.bind('touchcancel', scroll);
} else {
    this.bind('mousedown', scroll);
    this.bind('mousemove', scroll);
    this.bind('mouseup', scroll);
    this.bind('mouseout', scroll);
    this.bind('mouseover', scroll);
    this.bind('mousewheel');
    this.bind('DOMMouseScroll');
}
var style = document.documentElement.style;
if (style.transition !== undefined) {
    this.bind('transitionend');
}
this.bind('resize');
}
};

var els = document.querySelectorAll('div.scroll');
for(i=0; i<els.length; i++) {

```

```
els[i].style.border = '1px solid #777';
els[i].style.height = '200px';
els[i].style.position = "relative";
els[i].style.overflowY = 'auto';
// change scroll direction
/*var scroll = new MyScroll();
scroll.init(els[i]);*/
}
```

Autor: [Udo Schmal](#) ([#udo.schmal](#)), veröffentlicht: 10.12.2013, letzte Änderung: 06.09.2023

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