

# DRAGGING AND DROPPING ELEMENTS

One of more powerful effects of event handling is allowing the user to drag and drop elements around the display screen. The mouseup, mousedown and mousemove events can be used implement this. By changing the left and top properties, element can be move from one place to another. To illustrate drag and drop, we develop an example that allows the user to drag and drop a rectangle box. In this first we create a box that is to be moved around in document display. There three different handlers for mouseup, mousedown and mousemove events. The mousedown event handler mouseD, takes the event as its parameter. It gets the element to be moved and puts it in global variable so that it is available to the other handlers. Then it determines the coordinates of the current position of the element to be moved and computes the difference between them and the coordinates of the position of the mouse cursor. These two differences , which are used by the handler for mousemove to actually move the element.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html>
<head>
<meta http-equiv="content-type" content="text/html; charset=utf-8" />
<title>Drag and drop</title>
<style type="text/css">
body {
background-color: #fff;
margin: 0;
}
p {
margin: 80px 0 0 100px;
}
#dObject {
border: 2px solid;
```

```
border-color: #6c0 #170 #170 #6c0;
background-color: red;
width: 40px;
height: 40px;
padding: 0.5em 0.8em;
position: absolute;
text-align: center;
display: none;
cursor: default;
}
</style>
```

```
<script type="text/javascript">
```

```
var dragObject, offsetX, offsetY, isDragging=false;
window.onload = init;
document.onmousemove = mouseM;
document.onmouseup = mouseU;
```

```
function init() {
  var ob = document.getElementById("dObject");
```

```
  ob.style.left="100px";
  ob.style.top="100px";
  41
  ob.style.display="block";
}
```

```
function mouseD(ob,e) {
  dragObject = ob;
  if (window.event) e=window.event;
```

```
  var dragX = parseInt(dragObject.style.left);
  var dragY = parseInt(dragObject.style.top);
  var mouseX = e.clientX;
  var mouseY = e.clientY;
```

```
  offsetX = mouseX - dragX;
  offsetY = mouseY - dragY;
  isDragging = true;
```

```
return false;
}
```

```
function mouseU() {
if (!isDragging) return;
isDragging = false;
return false;
}
```

```
function mouseM(e) {
if (!isDragging) return;

if (window.event) e=window.event;

var newX = e.clientX - offsetX;
var newY = e.clientY - offsetY;

dragObject.style.left = newX + "px";
dragObject.style.top = newY + "px";

return false;
}
```

```
</script>
</head>
<body>
<p style="position:absolute;left:300px"> Drag and Drop the Box </p>
<div id="dObject" onmousedown="mouseD(this,event)"></div>
</body>
</html>
```

Source : <http://elearningatria.files.wordpress.com/2013/10/cse-vii-programming-the-web-10cs73-notes.pdf>