Calculating the distance between two locations in Symbian Web Runtime

This code snippet demonstrates how to calculate the distance between two locations on Symbian Web Runtime using the Location Service API.

Source: widget.xhtml

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
    "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8"/>
        <link rel="StyleSheet" href="style/general.css" type="text/css" />
        <script type="text/javascript" src="script/script.js" />
        <title>WRT Application</title>
    </head>
    <body>
        <div id="bodyContent" class="bodyContent">
            <input type="button" value="Display distance"
                onclick="displayDistance();" />
        </div>
    </body>
</html>
```

Source: script.js

```
var serviceObj = null;
var distanceCriteria = null;

window.onload = init;

// Initializes the widget
function init() {
    // Obtain the Location service object
    try {
        serviceObj = device.getServiceObject("Service.Location", "ILocation");
    } catch (ex) {
        alert("Service object cannot be found.");
        return;
    }

    // Initialize the criteria for the service object
    criteria = new Object();
    criteria.LocationInformationClass = "BasicLocationInformation";

    distanceCriteria = new Object();
    distanceCriteria.MathRequest = "FindDistance";
}

function displayDistance() {
    if (serviceObj == null) {
        alert("Service object has not been initialized.");
        return;
    }

    // Obtain the location information (asynchronous)
    try {
        var result = serviceObj.ILocation.GetLocation(criteria,
            locationDataReady);
    } catch (ex) {
        alert(ex);
        return;
    }
}

// Called when the location data has been obtained
function locationDataReady(transId, eventCode, result) {
    // On error situation, display the error message
    if (eventCode == 4) {
        alert("Error " + result.ErrorCode + ": " + result.ErrorMessage);
        return;
    }

    // The source location is where the device now is
    var srcLocation = new Object();
    srcLocation.Latitude = result.ReturnValue.Latitude;
    srcLocation.Longitude = result.ReturnValue.Longitude;
    srcLocation.Altitude = result.ReturnValue.Altitude;

    // The destination location is initialized to specific coordinates
    var destLocation = new Object();
    destLocation.Latitude = 61.0;
    destLocation.Longitude = 24.0;
    destLocation.Altitude = 0;

    // Calculate the distance between the source and the destination
    var distance = calculateDistance(srcLocation, destLocation);
    // Display the distance rounded to two decimals
    alert(distance.toFixed(2) + " m");
}

// Calculates the distance from the source location to the destination location
function calculateDistance(srcLocation, destLocation) {
    var distance = 0.0;
    distanceCriteria.DistanceParamSource = srcLocation;
    distanceCriteria.DistanceParamDestination = destLocation;
    try {
        var distResult = serviceObj.ILocation.Calculate(distanceCriteria);
```

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```
        distance = distResult.ReturnValue;
    } catch (ex) {
        alert(ex);
        distance = undefined;
    }
    return distance;
}
```

Postconditions

The distance between two locations is displayed.

See also

- Obtaining location information using Symbian Web Runtime
- Web Developer's Library: JavaScript Location Service API

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