Checking network state in Symbian Web Runtime

This code example shows how to obtain information (network name, signal strength, and network registration status) about the currently available network on Symbian Web Runtime.

Overview

The example uses the SystemInfo Service API. There are two versions of this particular API, one for WRT 1.0 and one for WRT 1.1. This snippet demonstrates both versions.

Note: The SystemInfo Service API for WRT 1.1 is only available from S60 5th Edition onwards. The API for WRT 1.0 is supported from S60 3rd Edition, Feature Pack 2 onwards and also in selected S60 3rd Edition, Feature Pack 1 devices or their newest firmware versions (for example, Nokia E90 Communicator, from v.210.34.75 onwards).

Source (WRT 1.0)

Embed the SystemInfo widget into the document:

```
<body>
    <embed type="application/x-systeminfo-widget" hidden="yes" />
</body>
```

Add also the components into which the information is printed:

```
<table>
    <tr><td>Signal strength:</td><td id="signalStrength"></td></tr>
    <tr><td>Network name:</td><td id="networkName"></td></tr>
    <tr><td>Network state:</td><td id="networkState"></td></tr>
</table>
```

After that, the information can be obtained:

```
var sysInfo = null;

window.onload = init;

function init() {
    // Obtain the SystemInfo object
    try {
        sysInfo = document.embeds[0];
    } catch (ex) {
        alert("SystemInfo object cannot be found.");
        return;
    }
    // Update network information every half second
    setInterval(updateNetworkData, 500);
}

function updateNetworkData() {
    // Get signal strength
    var signalStrength = sysInfo.signalbars;
    document.getElementById("signalStrength").innerHTML = signalStrength;

    // Get network name
    var networkName = sysInfo.networkname;
    document.getElementById("networkName").innerHTML = networkName;

    // Get network registration status of the device
    var networkRegistrationStatus = sysInfo.networkregistrationstatus;
    var statusText = "";
    switch (networkRegistrationStatus) {
    case 0:
        statusText = "Unknown";
        break;
    case 1:
    case 2:
    case 3:
        statusText = "Not registered";
        break;
    case 4:
        statusText = "Registered, network busy";
        break;
    case 5:
        statusText = "Registered on home network";
        break;
    case 6:
        statusText = "Registration denied";
        break;
    case 7:
        statusText = "Registered on visited network (roaming)";
        break;
    default:
        statusText = "Unknown";
        break;
    }

    document.getElementById("networkState").innerHTML = statusText;
}
```

Source (WRT 1.1)

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```
var serviceObj = null;

window.onload = init;

function init() {
    // Obtain the SystemInfo service object
    try {
        serviceObj = device.getServiceObject("Service.SysInfo", "ISysInfo");
    } catch (ex) {
        alert("Service object cannot be found.");
        return;
    }
    // Update network information every half second
    setInterval(updateNetworkData, 500);
}

function updateNetworkData() {
    // Initialize the criteria for the service object and obtain the
    // information
    var criteria = new Object();
    criteria.Entity = "Network";

    // Get signal strength
    criteria.Key = "SignalStrength";
    try {
        var result = serviceObj.ISysInfo.GetInfo(criteria,
            displaySignalStrength);
    } catch (ex) {
        alert(ex);
        return;
    }

    // Get network name
    criteria.Key = "CurrentNetwork";
    try {
        var result = serviceObj.ISysInfo.GetInfo(criteria,
            displayNetworkName);
    } catch (ex) {
        alert(ex);
        return;
    }

    // Get network registration status of the device
    criteria.Key = "RegistrationStatus";
    try {
        var result = serviceObj.ISysInfo.GetInfo(criteria);
        displayRegistrationStatus(result);
    } catch (ex) {
        alert(ex);
        return;
    }
}

function displaySignalStrength(transId, eventCode, result) {
    // On error situation, display the error message
    if (eventCode == 4) {
        alert("Error " + result.ErrorCode + ": " + result.ErrorMessage);
        return;
    }

    var signalStrength = result.ReturnValue.Status;
    document.getElementById("signalStrength").innerHTML =
        signalStrength + " dB";
}

function displayNetworkName(transId, eventCode, result) {
    // On error situation, display the error message
    if (eventCode == 4) {
        alert("Error " + result.ErrorCode + ": " + result.ErrorMessage);
        return;
    }

    var networkName = result.ReturnValue.NetworkName;
    document.getElementById("networkName").innerHTML = networkName;
}

function displayRegistrationStatus(result) {
    var networkRegistrationStatus = result.ReturnValue.Status;
    document.getElementById("networkState").innerHTML =
        networkRegistrationStatus;
}
```

Postconditions

Information about the current network is obtained.

Supplementary material

You can view the source file and executable application in the attached ZIP archive. The archive is available for download at Media:Checking network state in WRT.zip.

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