



Windows Scripting Host and XML

Introduction

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The Windows Scripting Host (WSH) is an important part of recent versions of the various Microsoft Operating Systems, including Windows 2000 and Windows XP. WSH makes it possible to 'drive' almost any ActiveX object on the system.

The Exercise

For this exercise, you will write a small script to 'drive' the MSXML parser object. In the script you will use the DOM to perform a simple conversion on an XML-formatted dataset.

Setting Up

Make a new directory for this exercise. Call this directory *WSH*. For example:

```
C:\> mkdir WSH
C:\> cd WSH
```

All the files that you subsequently create as you do this exercise should be contained in this directory.

Create a simple XML Dataset

Create the file *fahrenheit.xml* as follows:

```
<?xml version="1.0"?>
<readings>
  <temp id="1" scale="fahrenheit">85.4</temp>
  <temp id="2" scale="fahrenheit">24.5</temp>
  <temp id="3" scale="fahrenheit">5.7</temp>
  <temp id="4" scale="fahrenheit">212.0</temp>
</readings>
```

Create the Processing Script

Create the file *Convert.js* and ensure that it contains the following:

```
var srcXML = WSH.Arguments.item(0);
var destXML = WSH.Arguments.item(1);

WScript.echo("Converting nodes in " + srcXML + " to " + destXML + "...");
var fahrDoc = new ActiveXObject("Msxml.DOMDocument");
fahrDoc.load(srcXML);
var tempNodes = fahrDoc.documentElement.selectNodes("/readings/temp");
for (var i = 0; i < tempNodes.length; i++)
{
  var item = tempNodes.item(i);
  item.removeAttribute("scale");
  item.setAttribute("scale", "celcius");
  item.text = toCelcius(item.text);
}
fahrDoc.save(destXML);
WScript.echo("done.");

function toCelcius(x)
{
  return (new Number((x - 32.0) * (5.0/9.0)).toFixed(2));
}
```

Execute the Application

Executing the application is easy!

Open a Command Prompt window and issue the following command sequence:



```
> C:\ cd WSH
> cscript /nologo Convert.js fahrenheit.xml celcius.xml
> type celcius.xml
```

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You should see that the new file celcius.xml now contains data converted from the source file fahrenheit.xml.

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