OCCI User Interface (XHTML5)

2009-10-21

Overview

XHTML5 is an XML-based “concrete syntax” of the HTML5 “abstract language” (the “World Wide Web's markup language”). It is served using the `application/xhtml+xml` Internet media type.HTML5

XHTML5

XHTML5 is used to describe a user-friendly rendering of the object, optionally with images, icons, javascript, etc. embedded. It is also marked up with RDFa attributes so as it is also machine readable.

Pages are typically either lists of resources (e.g. `<ul>`, `<ol>`, `<tr>` etc.) or a rendering of an individual resource.

Example

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
  "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">
<head>
  <title>OCCI: My Virtual Machine</title>
</head>

<body xmlns:dc="http://purl.org/dc/elements/1.1/" xmlns:occi="http://purl.org/o

<h1 property="occi:title">My Virtual Machine</h1>
<span property="occi:summary">A simple sample virtual machine</span>

Console:
<a href="/myvm/console.png" rel="http://purl.org/occi/compute#console" type="ima

Attributes:
<ul>
  <li>ID: <span property="occi:id">urn:uuid:164a3064-1176-4de3-b24e-e16dc8c2d4e
  <li>Cores: <span property="occi:compute.cores">2</span></li>
  <li>Memory: <span property="occi:compute.memory">2048</span></li>
</ul>

Actions:
<form class="action" method="POST" action="/myvm;start"><input type="image" src=
<form class="action" method="POST" action="/myvm;stop"><input type="image" src=
<form class="action" method="POST" action="/myvm;restart"><input type="image" s

Download
<a href="/myvm.ovf" rel="alternate" type="application/ovf+xml"><img src="ovf-lo
<a href="/myvm.xen" rel="alternate" type="application/xen+xml"><img src="xen-lo

</body>
</html>
```

Collections

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1//EN"
  "http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">
<head>
  <title>OCCI: My Cloud</title>
</head>

<body xmlns:dc="http://purl.org/dc/elements/1.1/" xmlns:occi="http://purl.org/o
<h1>My Cloud</h1>

Compute Resources:
<table>
  <th>
    <td>Console</td>
    <td>ID</td>
    <td>Cores</td>
    <td>Memory</td>
    <td>Actions</td>
    <td>Formats</td>
  </th>
  <tr typeof="occi:compute" about="/myvm">
    <td><a href="/myvm/console.png" rel="alternate http://purl.org/occi/compute
    <td property="occi:title">urn:uuid:164a3064-1176-4de3-b24e-e16dc8c2d4ed</td
    <td>
      <span property="occi:title">My Virtual Machine</span><br />
      <span property="occi:summary">A simple sample virtual machine</span><br /
    </td>
    <td property="occi:compute.cores">2</td>
    <td property="occi:compute.memory">2048</td>
    <td>
      <form class="action" method="POST" action="/myvm;start"><input type="imag
      <form class="action" method="POST" action="/myvm;stop"><input type="image
      <form class="action" method="POST" action="/myvm;restart"><input type="im
    </td>
    <td>
      <a href="/myvm.ovf" rel="alternate" type="application/ovf+xml"><img src="
      <a href="/myvm.xen" rel="alternate" type="application/xen+xml"><img src="
    </td>
  </tr>
</table>

</body>
</html>
```

Javascript

Asynchronous Javascript may be used to deliver interactivity without having to reload the page.

Example

```
var OCCIclient = {};

OCCIclient.URI = document.location.href;
```

```
OCCIclient.XHR = null;

if (window.XMLHttpRequest) {
  // code for Firefox, Mozilla, IE7, etc.
  OCCIclient.XHR = new XMLHttpRequest();
} else if (window.ActiveXObject) {
  // code for IE6, IE5
  OCCIclient.XHR = new ActiveXObject("Microsoft.XMLHTTP");
}

if (OCCIclient.XHR!=null) {
  OCCIclient.XHR.onreadystatechange = function() {
    if(OCCIclient.XHR.readyState == 4) {
      x = OCCIclient.XHR.getAllResponseHeaders();
      document.getElementById("header").innerHTML = x;
    }
  }
  OCCIclient.XHR.open("HEAD",OCCIclient.URI, true);
  OCCIclient.XHR.send();
} else {
  alert("Your browser does not support XMLHTTP.");
}
```

Bibliography

Normative References

[HTML5] *HTML 5*. http://www.w3.org/TR/html5/ [http://tools.ietf.org/html/rfc4287]. Ian Hickson. David Hyatt. World Wide Web Consortium (W3C) 2009-08-25.

[RDFa] *RDFa*. . . World Wide Web Consortium (W3C) .

Informative References

[http-article] *Is HTTP the HTTP of cloud computing?*. http://samj.net/2009/05/is-http-http-of-cloud-computing.html [http://samj.net/2009/05/is-atompub-already-http-of-cloud.html]. Sam Johnston. Australian Online Solutions 2009-05-25.

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