Building a User Facing Service (UFS)

9 July 2002

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Agenda

• Application Registration Metadata and portal configuration.
• Code examples of UFS that generate Reference, External Content, and Content Integration Portlets.
  – Application Metadata for each type
  – HTML examples for each type
  – XML example for Content Integration
  – “View Source” as a learning tool
Application Registration Metadata

- Registration and configuration metadata needs to be provided for each UFS.
- The developer needs an understanding of the metadata options and its relation to the application configuration.
- The metadata is used to configure your UFS in the portal.
- Only the subset of metadata that relates to UFS development is presented here.
- The N.E.D. developers have provided a minimum configuration for each integration type. There are many other possible implementations, be creative!
### Application and Service Registration Metadata

<table>
<thead>
<tr>
<th><strong>Service Name</strong></th>
<th>A short, concise name that logically describes the Service</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Description</strong></td>
<td>A brief description of the functionality and/or information provided by the Service.</td>
</tr>
<tr>
<td><strong>Version</strong></td>
<td>The version of the Service that is deployed on the host application\web server.</td>
</tr>
<tr>
<td><strong>Binding Type</strong></td>
<td>Describes the type of binding the Portal uses to communicate with the Service. Select from: HTTP or WSDL</td>
</tr>
<tr>
<td><strong>HTTP Access Point URL</strong></td>
<td>If the Binding Type is HTTP, the Service owner must submit the fully qualified URL to the entry point of the Service.</td>
</tr>
<tr>
<td><strong>WSDL URL</strong></td>
<td>If the Binding Type is WSDL, the Service owner must submit the fully qualified URL to the WSDL that describes the Web Service</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Send PRI</td>
<td>Flag indicating whether or not the PRI data is added to the request sent to the service. The method used to pass the PRI data is dependent upon the type of invocation used. The PRI data message is attached to the HTTP header for standard HTTP calls and if SOAP is used, is embedded in a SOAP header.</td>
</tr>
<tr>
<td>Send Identity</td>
<td>Flag indicating whether the Portal passes the HTTP authentication header from the original client request to the service being called.</td>
</tr>
<tr>
<td>Insert Style</td>
<td>Flag indicating whether the Portal inserts the appropriate Portal CSS into the HTML return stream, thus automatically handling the Portal Look and Feel.</td>
</tr>
<tr>
<td>Rewrite URLs</td>
<td>Flag indicating whether the Portal attempts to rewrite URL references in the return stream to proxy all requests back through the portal.</td>
</tr>
<tr>
<td>Content Mime Type</td>
<td>Optional. The MIME Type of the content being returned to the portal from the Service. Specifying the mime-type on this parameter can increase efficiency as the logic that attempts to determine the mime-type can be avoided.</td>
</tr>
<tr>
<td>Render XML</td>
<td>Optional. Flag indicating whether the Portal attempts to render XML using an XSLT style sheet reference embedded in the XML document. Setting this to N allows a service to pass the raw XML to the client to support client side rendering.</td>
</tr>
</tbody>
</table>
N.E.D. Reference Integration Approach

• Does not modify existing N.E.D. application
• Build a simple HTML-based UFS that references the existing N.E.D. application.
• Use a downsized N.E.D. graphic logo to better fit in small portlet windows.
# Application and Service Registration Metadata

<table>
<thead>
<tr>
<th>Service Name</th>
<th>Navy Enterprise Dictionary (Reference Integration)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Description</td>
<td>A dictionary of common words.</td>
</tr>
<tr>
<td>Version</td>
<td>1.0</td>
</tr>
<tr>
<td>Binding Type</td>
<td>HTTP</td>
</tr>
<tr>
<td>WSDL URL</td>
<td>n/a</td>
</tr>
<tr>
<td>Send PRI</td>
<td>No</td>
</tr>
<tr>
<td>Send Identity</td>
<td>No</td>
</tr>
<tr>
<td>Insert Style</td>
<td>No</td>
</tr>
<tr>
<td>Rewrite URLs</td>
<td>No</td>
</tr>
<tr>
<td>Content Mime Type</td>
<td>n/a</td>
</tr>
<tr>
<td>Render XML</td>
<td>n/a</td>
</tr>
<tr>
<td>Required Parameters</td>
<td>None</td>
</tr>
</tbody>
</table>
N.E.D. Reference Integration
“View Source”
N.E.D. External Content Integration Approach

- Build a UFS with HTML output.
- The UFS is a modified version of the N.E.D application.
- Use a downsized N.E.D. graphic logo to better fit in small portlet windows.
- Modify text output for small portlet display area.
  - Minimize content scrolling
  - Portlets show top-level information. Use drill-down links, pop-up, or detached, windows to display lengthy or detailed information
- Allow the portal to rewrite URLs.
## N.E.D. External Content Integration Metadata

### Application and Service Registration Metadata

<table>
<thead>
<tr>
<th>Service Name</th>
<th>Navy Enterprise Dictionary (External Content Integration)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Description</td>
<td>A dictionary of common words.</td>
</tr>
<tr>
<td>Version</td>
<td>2.0</td>
</tr>
<tr>
<td>Binding Type</td>
<td>HTTP</td>
</tr>
<tr>
<td>HTTP Access Point URL</td>
<td><a href="https://ned.spawar.navy.mil/ext_content">https://ned.spawar.navy.mil/ext_content</a></td>
</tr>
<tr>
<td>WSDL URL</td>
<td>n/a</td>
</tr>
<tr>
<td>Send PRI</td>
<td>No</td>
</tr>
<tr>
<td>Send Identity</td>
<td>No</td>
</tr>
<tr>
<td>Insert Style</td>
<td>No</td>
</tr>
<tr>
<td>Rewrite URLs</td>
<td>Yes</td>
</tr>
<tr>
<td>Content Mime Type</td>
<td>n/a</td>
</tr>
<tr>
<td>Render XML</td>
<td>n/a</td>
</tr>
<tr>
<td>Required Parameters</td>
<td>None</td>
</tr>
</tbody>
</table>
• Same approach as External Content Integration, except:
  – Integrate N.E.D with the portal look-and-feel
    • Add Portal CSS reference
    • Remove <font> tags
    • Create N.E.D. specific CSS
  – Implement using Active Server Pages (ASP)
# Application and Service Registration Metadata

<table>
<thead>
<tr>
<th>Service Name</th>
<th>Navy Enterprise Dictionary (Content Integration Portlet, HTML)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Description</td>
<td>A dictionary of common words.</td>
</tr>
<tr>
<td>Version</td>
<td>3.0</td>
</tr>
<tr>
<td>Binding Type</td>
<td>HTTP</td>
</tr>
<tr>
<td>HTTP Access Point URL</td>
<td><a href="https://ned.spawar.navy.mil/content_integration">https://ned.spawar.navy.mil/content_integration</a></td>
</tr>
<tr>
<td>WSDL URL</td>
<td>n/a</td>
</tr>
<tr>
<td>Send PRI</td>
<td>Yes</td>
</tr>
<tr>
<td>Send Identity</td>
<td>No</td>
</tr>
<tr>
<td>Insert Style</td>
<td>No</td>
</tr>
<tr>
<td>Rewrite URLs</td>
<td>Yes</td>
</tr>
<tr>
<td>Content Mime Type</td>
<td>n/a</td>
</tr>
<tr>
<td>Render XML</td>
<td>n/a</td>
</tr>
<tr>
<td>Required Parameters</td>
<td>None</td>
</tr>
</tbody>
</table>
N.E.D. Content Integration (HTML)

File URL: https://ned.spawar.navy.mil/content_integration/ned_top.asp
N.E.D. Content Integration (HTML)

<!DOCTYPE html>
<html><head><title>NED Header</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">
LINK REL="STYLESHEET" TYPE="TEXT/CSS" HREF="https://www.homeport.navy.mil:443/servlet/PortalConnector/template=0/sendPRI=Y@https://www.homeport.navy.mil/servlet/media/templates/0/styles.css"/>
!--- NED Specific Styles -->
<style type="text/css">
  .NEDTitle {
    COLOR: #0000FF; FONT-FAMILY: Georgia, Times New Roman, Times, serif; FONT-SIZE: 14pt
  }
</style>
</head>
<body><div align="center">
<table width="100%" border="0" cellspacing="0" cellpadding="0">
<tr>
  <td width="21%" height="92">
    <div align="center">
      <img src="https://www.homeport.navy.mil:443/servlet/PortalConnector/template=0/sendPRI=Y@https://ned.spawar.navy.mil/content_integration/NED-Logo.gif" width="125" height="130" align="middle">
    </div>
  </td>
  <td width="76%" height="92">
    <p align="center" class="NEDTitle">Naval Enterprise Dictionary (N.E.D.)</p>
    </td>
</tr>
</table>
</body></html>

File URL (as reported by browser):
https://www.homeport.navy.mil/servlet/PortalConnector/template=0/sendPRI=Y@https://ned.spawar.navy.mil/content_integration/ned_top.asp

mil/content_integration/wb1913_z.asp" target="bottomFrame">Z</a></p>
N.E.D. Content Integration (XML) Approach

• Same approach as ASP/HTML example except:
  – Build a UFS with XML/XSL output.
  – Implement using Java Server Pages (JSP)
  – Further simplify the portlet with a search form and minimal text output.
N.E.D. Content Integration (XML)

Naval Enterprise Dictionary (N.E.D.) Search
- Integration (n.): The act or process of making whole or entire.
- Integration (n.): The operation of finding the primitive function which has a given function for its differential coefficient. See Integral.
- Integration (n.): In the theory of evolution: The process by which the manifold is compacted into the relatively simple and permanent. It is supposed to alternate with differentiation as an agent in development.

Dictionary Lookup: Integration  Lookup
## Application and Service Registration Metadata

<table>
<thead>
<tr>
<th><strong>Service Name</strong></th>
<th>Navy Enterprise Dictionary (Content Integration Portlet, XML/XSL)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Description</strong></td>
<td>A dictionary of common words.</td>
</tr>
<tr>
<td><strong>Version</strong></td>
<td>4.0</td>
</tr>
<tr>
<td><strong>Binding Type</strong></td>
<td>HTTP</td>
</tr>
<tr>
<td><strong>HTTP Access Point URL</strong></td>
<td><a href="https://ned.spawar.navy.mil/content_integration_xml/dictionary.jsp">https://ned.spawar.navy.mil/content_integration_xml/dictionary.jsp</a></td>
</tr>
<tr>
<td><strong>WSDL URL</strong></td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Send PRI</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Send Identity</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Insert Style</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Rewrite URLs</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Content Mime Type</strong></td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Render XML</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Required Parameters</strong></td>
<td>None</td>
</tr>
</tbody>
</table>
...omitted lines...
// ===================================================================== //
// Get search word parameter and choose which base xml file to load
// ===================================================================== //
    response.setContentType("text/xml");
    String searchpar = request.getParameter("word");
    String xmlfile;
    if (searchpar != null && !searchpar.equals(""))
        xmlfile = "wb1913_" + searchpar.charAt(0) + ".xml";
    else
        // xml files per letter
        {
            xmlfile = "wb1913_n.xml";
            // if no word, use the word 'nothing'
            searchpar = "nothing";
        }
    searchpar = new String(Character.toUpperCase(searchpar.charAt(0))
                           + searchpar.substring(1).toLowerCase());
// =================================================================== //
// Load the xml files (base xml file + extra 'newwords' xml file)
// =================================================================== //
...omitted lines...
    ParseFile pf = new ParseFile(basedir + xmlfile);
    if (searchpar == null)
        searchpar = "";
    pf.replace("##SearchPar##", searchpar);
    if (tfw_style == null)
        tfw_style = "";
    pf.replace("##tfw_style##", tfw_style);
    String str;
    sb.append(pf.toString());

...omitted lines...

File URL: https://ned.spawar.navy.mil/content_integration_xml/dictionary.jsp
<?xml version="1.0" encoding="UTF-8"?>
<DICTIONARY>
<HEADER>
<CLIENTSTYLE>##tfw_style##</CLIENTSTYLE>
<SEARCHPARAM>##SearchPar##</SEARCHPARAM>
</HEADER>
<ENTRY><WORD>N</WORD><TYPE></TYPE>
<TEXT>the fourteenth letter of English alphabet, is a vocal consonent, and, in allusion to its mode of formation, is called the dentinasal or linguanasal consonent. Its commoner sound is that heard in ran, done; but when immediately followed in the same word by the sound of g hard or k (as in single, sink, conquer), it usually represents the same sound as the digraph ng in sing, bring, etc. This is a simple but related sound, and is called the guttur-o-nasal consonent. See Guide to Pronunciation, // 243-246.</TEXT>
</ENTRY>
<ENTRY><WORD>N</WORD><TYPE>n.</TYPE>
<TEXT>A measure of space equal to half an M (or em); an en.</TEXT>
</ENTRY>
<ENTRY><WORD>Nosology</WORD><TYPE>n.</TYPE>
<TEXT>That branch of medical science which treats of diseases, or of the classification of diseases.</TEXT>
</ENTRY>
</DICTIONARY>

File URL: https://ned.spawar.navy.mil/content_integration_xml/wb1913_a.xml
<?xml version='1.0'?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
  <xsl:output method="html"/>
  <xsl:variable name="searchpar"><xsl:value-of select="DICTIONARY/HEADER/SEARCHPARAM"/></xsl:variable>
  <html>
    <head>
      <meta http-equiv="Content-Type" content="text/html; charset=UTF-8"/>
      <base href="https://ned.spawar.navy.mil/"/>
      <title>Naval Enterprise Dictionary(N.E.D.)</title>
      <meta content="text/html; charset=iso-8859-1" http-equiv="Content-Type"/>
      <xsl:value-of select="DICTIONARY/HEADER/CLIENTSTYLE"/>
    </head>
    <body leftmargin="0" topmargin="0" marginwidth="0" marginheight="0">
      <table cellpadding="0" cellspacing="0" border="0">
        <tr>
          <th valign="middle" align="left" height="22" colspan="2">
            Naval Enterprise Dictionary(N.E.D.) Search
          </th>
        </tr>
        <tr valign="top" align="left">
          <td id="BlackCell" height="100%" colspan="2">
            <table>
              <xsl:apply-templates select="DICTIONARY/ENTRY[WORD=$searchpar]"/>
            </table>
          </td>
        </tr>
      </table>
    </body>
  </html>
</xsl:stylesheet>
Integration (n.): The act or process of making whole or entire.