

Oracle® Documaker

Introduction to Enterprise Web Processing Services

version 1.2

Part number: E57338-01

January 2015

Copyright © 2009, 2015, Oracle and/or its affiliates. All rights reserved.

The Programs (which include both the software and documentation) contain proprietary information; they are provided under a license agreement containing restrictions on use and disclosure and are also protected by copyright, patent, and other intellectual and industrial property laws. Reverse engineering, disassembly, or decompilation of the Programs, except to the extent required to obtain interoperability with other independently created software or as specified by law, is prohibited.

The information contained in this document is subject to change without notice. If you find any problems in the documentation, please report them to us in writing. This document is not warranted to be error-free. Except as may be expressly permitted in your license agreement for these Programs, no part of these Programs may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose.

If the Programs are delivered to the United States Government or anyone licensing or using the Programs on behalf of the United States Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS

Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the Programs, including documentation and technical data, shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement, and, to the extent applicable, the additional rights set forth in FAR 52.227-19, Commercial Computer Software--Restricted Rights (June 1987). Oracle

USA, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

The Programs are not intended for use in any nuclear, aviation, mass transit, medical, or other inherently dangerous applications. It shall be the licensee's responsibility to take all appropriate fail-safe, backup, redundancy and other measures to ensure the safe use of such applications if the Programs are used for such purposes, and we disclaim liability for any damages caused by such use of the Programs.

The Programs may provide links to Web sites and access to content, products, and services from third parties. Oracle is not responsible for the availability of, or any content provided on, third-party Web sites. You bear all risks associated with the use of such content. If you choose to purchase any products or services from a third party, the relationship is directly between you and the third party. Oracle is not responsible for: (a) the quality of third-party products or services; or (b) fulfilling any of the terms of the agreement with the third party, including delivery of products or services and warranty obligations related to purchased products or services. Oracle is not responsible for any loss or damage of any sort that you may incur from dealing with any third party. Oracle, JD Edwards, and PeopleSoft are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

THIRD PARTY SOFTWARE NOTICES

This product includes software developed by Apache Software Foundation (<http://www.apache.org/>).

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright © 2000-2009 The Apache Software Foundation. All rights reserved.

This product includes software distributed via the Berkeley Software Distribution (BSD) and licensed for binary distribution under the Generic BSD license.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright © 2009, Berkeley Software Distribution (BSD)

This product includes software developed by the JDOM Project (<http://www.jdom.org/>).

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE JDOM AUTHORS OR THE PROJECT CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright (C) 2000-2004 Jason Hunter & Brett McLaughlin. All rights reserved.

This product includes software developed by the Massachusetts Institute of Technology (MIT).

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Copyright © 2009 MIT

This product includes software developed by Jean-loup Gailly and Mark Adler. This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software.

Copyright (c) 1995-2005 Jean-loup Gailly and Mark Adler

This software is based in part on the work of the Independent JPEG Group (<http://www.ijg.org/>).

This product includes software developed by the Dojo Foundation (<http://dojotoolkit.org>).

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright (c) 2005-2009, The Dojo Foundation. All rights reserved.

This product includes software developed by W3C.

Copyright © 2009 World Wide Web Consortium, (Massachusetts Institute of Technology, Institut National de Recherche en Informatique et en Automatique, Keio University). All Rights Reserved. (<http://www.w3.org/Consortium/Legal/>)

This product includes software developed by Mathew R. Miller (<http://www.bluecreststudios.com>).

Copyright (c) 1999-2002 ComputerSmarts. All rights reserved.

This product includes software developed by Shaun Wilde and distributed via Code Project Open License (<http://www.codeproject.com>).

THIS WORK IS PROVIDED "AS IS", "WHERE IS" AND "AS AVAILABLE", WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES OR CONDITIONS OR GUARANTEES. YOU, THE USER, ASSUME ALL RISK IN ITS USE, INCLUDING COPYRIGHT INFRINGEMENT, PATENT INFRINGEMENT, SUITABILITY, ETC. AUTHOR EXPRESSLY DISCLAIMS ALL EXPRESS, IMPLIED OR STATUTORY WARRANTIES OR CONDITIONS, INCLUDING WITHOUT LIMITATION, WARRANTIES OR CONDITIONS OF MERCHANTABILITY, MERCHANTABLE QUALITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF TITLE OR NON-INFRINGEMENT, OR THAT THE WORK (OR ANY PORTION THEREOF) IS CORRECT, USEFUL, BUG-FREE OR FREE OF VIRUSES. YOU MUST PASS THIS DISCLAIMER ON WHENEVER YOU DISTRIBUTE THE WORK OR DERIVATIVE WORKS.

This product includes software developed by Chris Maunder and distributed via Code Project Open License (<http://www.codeproject.com>).

THIS WORK IS PROVIDED "AS IS", "WHERE IS" AND "AS AVAILABLE", WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES OR CONDITIONS OR GUARANTEES. YOU, THE USER, ASSUME ALL RISK IN ITS USE, INCLUDING COPYRIGHT INFRINGEMENT, PATENT INFRINGEMENT, SUITABILITY, ETC. AUTHOR EXPRESSLY DISCLAIMS ALL EXPRESS, IMPLIED OR STATUTORY WARRANTIES OR CONDITIONS, INCLUDING WITHOUT LIMITATION, WARRANTIES OR CONDITIONS OF MERCHANTABILITY, MERCHANTABLE QUALITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF TITLE OR NON-INFRINGEMENT, OR THAT THE WORK (OR ANY PORTION THEREOF) IS CORRECT, USEFUL, BUG-FREE OR FREE OF VIRUSES. YOU MUST PASS THIS DISCLAIMER ON WHENEVER YOU DISTRIBUTE THE WORK OR DERIVATIVE WORKS.

This product includes software developed by PJ Arends and distributed via Code Project Open License (<http://www.codeproject.com>).

THIS WORK IS PROVIDED "AS IS", "WHERE IS" AND "AS AVAILABLE", WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES OR CONDITIONS OR GUARANTEES. YOU, THE USER, ASSUME ALL RISK IN ITS USE, INCLUDING COPYRIGHT INFRINGEMENT, PATENT INFRINGEMENT, SUITABILITY, ETC. AUTHOR EXPRESSLY DISCLAIMS ALL EXPRESS, IMPLIED OR STATUTORY WARRANTIES OR CONDITIONS, INCLUDING WITHOUT LIMITATION, WARRANTIES OR CONDITIONS OF MERCHANTABILITY, MERCHANTABLE QUALITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF TITLE OR NON-INFRINGEMENT, OR THAT THE WORK (OR ANY PORTION THEREOF) IS CORRECT, USEFUL, BUG-FREE OR FREE OF VIRUSES. YOU MUST PASS THIS DISCLAIMER ON WHENEVER YOU DISTRIBUTE THE WORK OR DERIVATIVE WORKS.

This product includes software developed by Erwin Tratar. This source code and all accompanying material is copyright (c) 1998-1999 Erwin Tratar. All rights reserved.

THIS SOFTWARE IS PROVIDED "AS IS" WITHOUT EXPRESS OR IMPLIED WARRANTY. USE IT AT YOUR OWN RISK! THE AUTHOR ACCEPTS NO LIABILITY FOR ANY DAMAGE/LOSS OF BUSINESS THAT THIS PRODUCT MAY CAUSE.

This product includes software developed by Sam Leffler of Silicon Graphics.

THE SOFTWARE IS PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL SAM LEFFLER OR SILICON GRAPHICS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER OR NOT ADVISED OF THE POSSIBILITY OF DAMAGE, AND ON ANY THEORY OF LIABILITY, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE

Copyright (c) 1988-1997 Sam Leffler

Copyright (c) 1991-1997 Silicon Graphics, Inc.

This product includes software developed by Guy Eric Schalnat, Andreas Dilger, Glenn Randers-Pehrson (current maintainer), and others. (<http://www.libpng.org>)

The PNG Reference Library is supplied "AS IS". The Contributing Authors and Group 42, Inc. disclaim all warranties, expressed or implied, including, without limitation, the warranties of merchantability and of fitness for any purpose. The Contributing Authors and Group 42, Inc. assume no liability for direct, indirect, incidental, special, exemplary, or consequential damages, which may result from the use of the PNG Reference Library, even if advised of the possibility of such damage.

This product includes software components distributed by the Cryptix Foundation.

THIS SOFTWARE IS PROVIDED BY THE CRYPTIX FOUNDATION LIMITED AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE CRYPTIX FOUNDATION LIMITED OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE

Copyright © 1995-2005 The Cryptix Foundation Limited. All rights reserved.

This product includes software components distributed by Sun Microsystems.

This software is provided "AS IS," without a warranty of any kind. ALLEXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE HEREBY EXCLUDED. SUN AND ITS LICENSORS SHALL NOT BE LIABLE FOR ANY DAMAGES SUFFERED BY LICENSEE AS A RESULT OF USING, MODIFYING OR DISTRIBUTING THE SOFTWARE OR ITS DERIVATIVES. IN NO EVENT WILL SUN OR ITS LICENSORS BE LIABLE FOR ANY LOST REVENUE, PROFIT OR DATA, OR FOR DIRECT, INDIRECT, SPECIAL, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, HOWEVER CAUSED AND REGARDLESS OF THE THEORY OF LIABILITY, ARISING OUT OF THE USE OF OR INABILITY TO USE SOFTWARE, EVEN IF SUN HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Copyright (c) 1998 Sun Microsystems, Inc. All Rights Reserved.

This product includes software components distributed by Dennis M. Sosnoski.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright © 2003-2007 Dennis M. Sosnoski. All Rights Reserved

It also includes materials licensed under Apache 1.1 and the following XPP3 license

THIS SOFTWARE IS PROVIDED "AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright © 2002 Extreme! Lab, Indiana University. All Rights Reserved

This product includes software components distributed by CodeProject. This software contains material that is © 1994-2005 The Ultimate Toolbox, all rights reserved.

This product includes software components distributed by Geir Landro.

Copyright © 2001-2003 Geir Landro (drop@destroydrop.com) JavaScript Tree - [www.destroydrop.com/hjavadscripts/tree/version 0.96](http://www.destroydrop.com/hjavadscripts/tree/version0.96)

This product includes software components distributed by the Hypersonic SQL Group.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE

Copyright © 1995-2000 by the Hypersonic SQL Group. All Rights Reserved

This product includes software components distributed by the International Business Machines Corporation and others.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Copyright (c) 1995-2009 International Business Machines Corporation and others. All rights reserved.

This product includes software components distributed by the University of Coimbra.

University of Coimbra distributes this software in the hope that it will be useful but DISCLAIMS ALL WARRANTIES WITH REGARD TO IT, including all implied warranties of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. In no event shall University of Coimbra be liable for any special, indirect or consequential damages (or any damages whatsoever) resulting from loss of use, data or profits, whether in an action of contract, negligence or other tortious action, arising out of or in connection with the use or performance of this software.

Copyright (c) 2000 University of Coimbra, Portugal. All Rights Reserved.

This product includes software components distributed by Steve Souza.

THIS SOFTWARE IS PROVIDED BY THE AUTHOR AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT OWNER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Copyright © 2002, Steve Souza (admin@jamonapi.com). All Rights Reserved.

This product includes software developed by the OpenSymphony Group (<http://www.opensymphony.com/>.)"

Copyright © 2001-2004 The OpenSymphony Group. All Rights Reserved.

PANTONE (R) Colors displayed in the software application or in the user documentation may not match PANTONE-identified standards. Consult current PANTONE Color Publications for accurate color. PANTONE(R) and other Pantone LLC trademarks are the property of Pantone LLC. (C) Pantone LLC, 2011.

Pantone LLC is the copyright owner of color data and/or software which are licensed to Oracle to distribute for use only in combination with Oracle Documaker. PANTONE Color Data and/or Software shall not be copied onto another disk or into memory unless part of the execution of Oracle Documaker.

This product includes software components distributed by SourceForge.net, specifically (<http://sourceforge.net/projects/cjson>)

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Copyright (c) 2009 Dave Gamble

Contents

Overview 12

Choosing the Right Web Services 13

Introduction to EWPS 14

Available Services and Methods of Use 15

Using SOAP 17

Using JSON 19

Choosing Between SOAP and JSON 21

Common Schema Types 24

LibraryList 25

BusUnitsList 26

TemplateList 27

RecipientList 28

ComposeData 29

Props 30

CoreProperties 31

ImportFileType 32

Errors 33

ResponseGroup 34

DistributionOptions 35

DistributionResults 37

Business Scenarios 40

Publishing a Quote Form from a Rating Application 41

Option 1: Mapping the Data Using Oracle Insurance Tools 42

Option 2: Resolving the Data Mapping Before the doPublish Request 44

Initiating an Issuance Process from a Rating Application 49

Option 1: Mapping the Data using Oracle Insurance Tools 50

Option 2: Resolving the Data Mapping Before the doPublish Request 52

Available Web Services 56

Configuring the Provider 76

Returning a PDF File in a doPublish Response 78

Accessing a Workspace Definition File via a Web Service 79

Additional Resources 82

SOAP 83

Web Services 84

References and Projects 84

Web Services Standards and Specifications 85

Other Resources 85

Web Services Description Language 86

Using the XML Configuration File 87

90

Using the Jmeter Test Script to Test EWPS 90

What is Jmeter 91

Using Jmeter 92

Running the Jmeter Test Script 95

Chapter 1

Overview

The need to produce customer information 24 hours a day, seven days a week has shifted a large percentage of publishing volume away from traditional batch processing to a real-time, customer-driven, business model.

Moreover, companies increasingly want to leverage the web to reach their customers and prospects, resulting in new requirements for scalability and reliability.

At Oracle Insurance, we recognize that organizations are changing how they do business, and we have come to the marketplace with technology and architecture in keeping with this significant market shift.

This chapter discusses the following topics:

- [Choosing the Right Web Services on page 13](#)
- [Introduction to EWPS on page 14](#)
- [Available Services and Methods of Use on page 15](#)

CHOOSING THE RIGHT WEB SERVICES

Oracle Documaker offers two different web services applications:

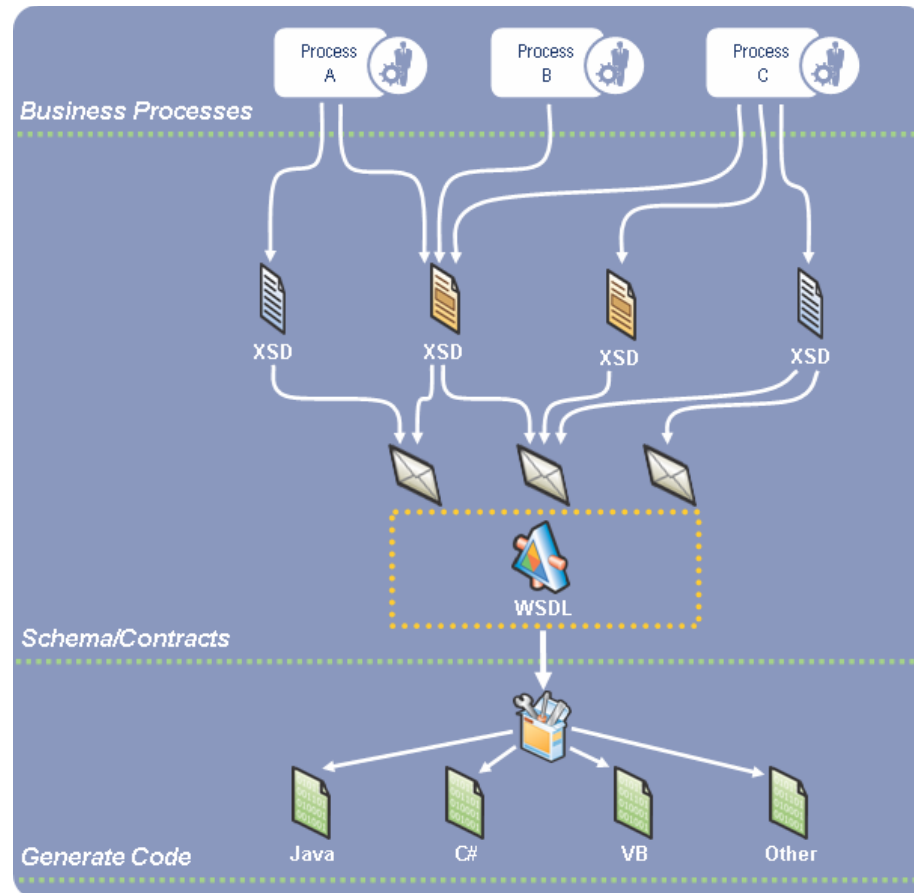
- Enterprise Web Publishing Services (EWPS)
- Documaker Web Services (DWS)

Use this table to determine which web services to use:

Use	To interact with Oracle Documaker...
EWPS	<p>Library resources or transactions in a state of publishing by Documaker Server.</p> <p>These web service methods offer a number of ways to gather information about the MRL, locate documents or field information, and retrieve a form during transaction processing.</p> <p>EWPS also lets you update a document in WIP, publish a document from an extract file or publish a document stored in WIP.</p>
DWS	<p>Document Factory.</p> <p>These web services, introduced in Documaker version 12.0, let you submit a job that tells the system to publish a document from an input or extract file. DWS also provides a generic web service method, doCallIDS, that lets you work with Docupresentation (DS) using specific request types.</p> <p>Because of Documaker Web Services' concrete schema, you should use the doCallIDS method with the Business Process Execution Language (BPEL) to facilitate workflow within the iDocumaker application. This method can also be used by BPEL outside of iDocumaker or by other web service clients to make specific requests to IDS or Documaker and should be used if your request needs to be asynchronous.</p> <p>See the Documaker Enterprise Administration Guide for information about the methods offered with DWS.</p>

INTRODUCTION TO EWPS

The Enterprise Web Processing Services (EWPS) framework offers functionality via a set of established and interoperable standards such as XML and web services. This allows a multitude of enterprise applications — including policy production and claims correspondence — to be designed and developed around a core functional infrastructure.



Oracle Insurance's contract-first approach to design

So, what exactly is *WSDL*? *WSDL* stands for *Web Services Description Language*. *WSDL* is kind of an XML grammar for describing web services interfaces (available functions).

WSDL leverages XML schema to describe the basic types used by a web service and provides all sorts of additional information that frame the *contract* of the interface, including things like ports, bindings, and so on.

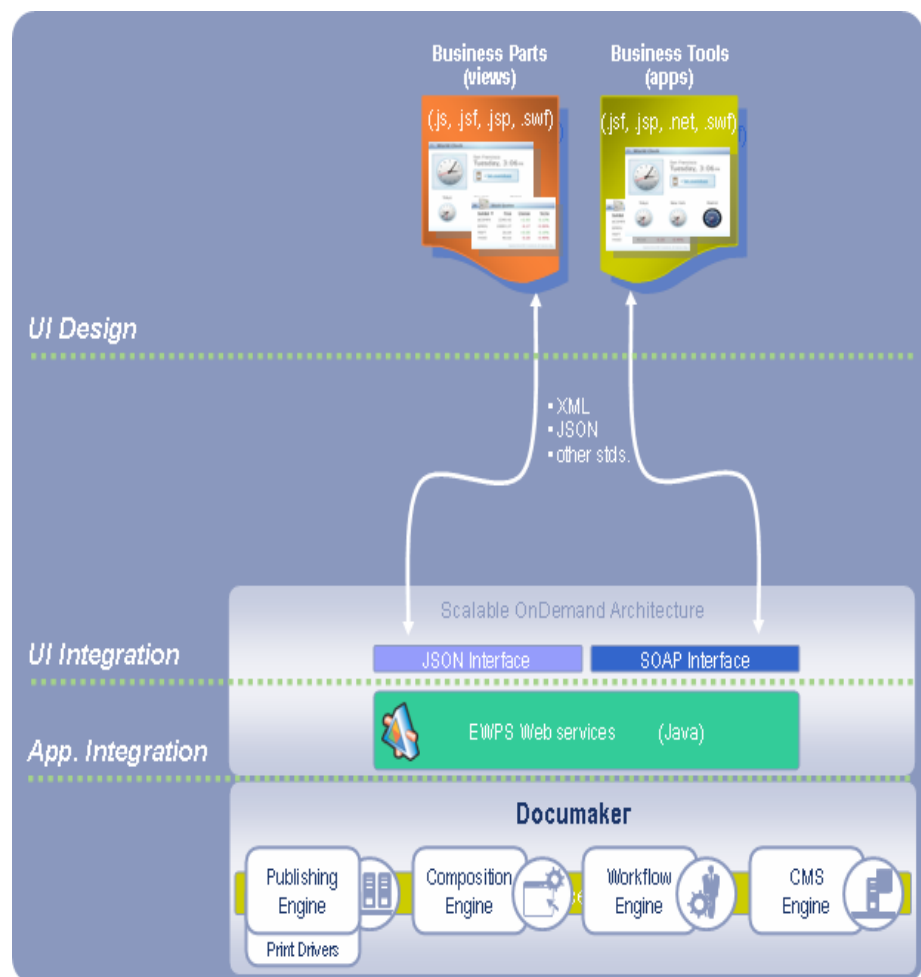
NOTE: For more information about *WSDL*, see [Web Services Description Language on page 86](#).

AVAILABLE SERVICES AND METHODS OF USE

EWPS provides access to the Oracle Insurance suite of publishing, composition, workflow, and content management engines. It enables third-party applications to build custom applications, tools, and services that leverage the full breadth of Oracle Insurance functionality.

EWPS emphasizes business value throughout the whole web services technology stack. This self-service model means you can use a multitude of essential mechanisms — WS-I SOAP interfaces for application integration, JSON for UI integration, or pre-packaged *business parts* for design-time integration — in any sort solution.

EWPS is available in an Apache Axis2 package for J2EE and designed to be hosted under most popular application servers such as Apache Tomcat (Java), IBM WebSphere (Java), and BEA WebLogic (Java).



Strategic opportunities for integration with EWPS

Typical EWPS-enabled applications include:

- Self-service publishing solutions
- Document search utilities
- Composition and workflow systems
- Systems that embed publishing artifacts in their web pages
- Applications that assist users in creating various types of documents and forms

An EWPS-enabled application can present data in ways that best meet the needs of a particular business scenario.

EWPS supports these protocols:

- SOAP (Simple Object Access Protocol). See [Using SOAP on page 17](#) for more information.
- JSON (JavaScript Object Notation) See [Using JSON on page 19](#) for more information.

USING SOAP

With the SOAP API, the request interface (called a proxy) contains business-object interfaces and stubs generated directly from a WSDL document that specifies the EWPS schema and service address.

The third-party application works with data in the form of object properties. It sends and receives the data by calling object methods. The auto-generated SOAP proxy handles the details of serializing/de-serializing the SOAP request from EWPS into objects that are easy to work with.

NOTE: The SOAP API is built on open standards like SOAP and WSDL. These standards are supported by a wide-range of development tools on a variety of platforms. For more information, see [SOAP on page 83](#).

Request:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Body>
    <doGetTemplateListRequest xmlns="http://
webservices.docucorp.com/ewps/schema/2005-12-01">
      <AuthUser>string</AuthUser>
      <LibraryId>string</LibraryId>
      <BusUnitsList>
        <Key1 id="string" package="string">
          <Key2 id="string" />
          <Key2 id="string" />
        </Key1>
        <Key1 id="string" package="string">
          <Key2 id="string" />
          <Key2 id="string" />
        </Key1>
      </BusUnitsList>
      <EffectiveDate>string</EffectiveDate>
      <Start>integer</Start>
      <MaxResults>integer</MaxResults>
      <NameQuery>string</NameQuery>
      <DescQuery>string</DescQuery>
      <SortBy>string</SortBy>
      <ResponseGroup>
        <Response>string</Response>
        <Response>string</Response>
      </ResponseGroup>
    </doGetTemplateListRequest>
  </soap:Body>
</soap:Envelope>
```

Response:

```
<?xml version="1.0" encoding="utf-8"?>
```

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/
envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <soap:Body>
    <doGetTemplateListResponse xmlns="http://
webservices.docucorp.com/ewps/schema/2005-12-01">
      <Result>Success</Result>
    <TemplateList>
      <Story StoryName="string" id="string">
        <Key1 id="string" package="string">
          <Key2 id="string"/>
        </Key1>
        <Description>string</Description>
        <Props>
          <Prop name="string">string</Prop>
        </Props>
      </Story>
      <Story StoryName="string" id="string">
        <Key1 id="string" package="string">
          <Key2 id="string"/>
        </Key1>
        <Required>boolean</Required>
        <Description>string</Description>
        <Props>
          <Prop name="string">string</Prop>
        </Props>
      </Story>
    </TemplateList>
    <RecipientList>
      <Recipient name="string">
        <Copies>integer</Copies>
        <Story StoryName="string" id="string"/>
      </Recipient>
      <Recipient name="string">
        <Copies>integer</Copies>
        <Story StoryName="string" id="string"/>
      </Recipient>
    </RecipientList>
    <StartIndex>integer</StartIndex>
    <EndIndex>integer</EndIndex>
    <TotalResults>integer</TotalResults>
    <SearchTime>string</SearchTime>
  </doGetTemplateListResponse>
</soap:Body>
</soap:Envelope>

```

Sample SOAP request and response template

USING JSON

The JSON API works just like the SOAP API, except requests and responses are handled in JSON rather than XML. JSON is a lightweight data-interchange format based upon a subset of the JavaScript language.

NOTE: For an overview of JSON, including the various tools and techniques for working with JSON, go to this web site: <http://www.json.org>.

Request: (using JavaScript - actual request is an HTTP POST)

```
var request = {
  "LibraryId": "string",
  "Start": integer,
  "MaxResults": integer,
  "BusUnitsList":
  [{
    "Key2":
    [{
      "id": "string"
    }],
    "id": "string",
    "package": "string"
  }]
};
```

```
http://server/EWPS/DocumentService/<request.toJSONString()>
```

Response:

```
{
  "TemplateList":
  [{
    "Key1":
    {
      "Key2":
      [{
        "id": "string"
      }],
      "id": "string",
      "package": "string"
    },
    "Required": boolean,
    "Description": "string",
    "Props":
    [{
      "name": "string",
      "Value": "string"
    }],
    "StoryName": "string",
    "id": "string",
    "alias": "string"
  }],
  {
    "Key1":
```

```
{
  "Key2":
  [{
    "id":"string"
  }],
  "id":"string",
  "package":"string"
},
"Required":boolean,
"Description":"string",
"Props":
[
  [
    "name":"string",
    "Value":"string"
  ]
],
"StoryName":"string",
"id":"string",
"alias":string
},
"RecipientList":
[
  [
    "Copies":"string",
    "Story":
    [
      [
        "extracopies":integer,
        "StoryName":"string",
        "id":"string",
        "alias":"string"
      ],
      {
        "extracopies":integer,
        "StoryName":"string",
        "id":"string",
        "alias":"string"
      }
    ]
  ],
  "name":"string"
],
"startIndex":integer,
"endIndex":integer,
"totalResults":integer,
"searchTime":"0.031",
"result":integer
}
```

Sample JSON request and response template

CHOOSING BETWEEN SOAP AND JSON

Both the SOAP API and JSON API share the same underlying schema, so the basic format of the input and output data is the same regardless of the API being used — both access the same EWPS functionality and data. As a result, you can use one or the other or both. It just depends on whichever approach works best for your situation.

Here is a complete listing of available services and a general overview of what they are used for:

Service	An operation used to...	Expanded terminology
doGetLibraries	Get a list of the possible form libraries available for collaborative authoring, composition, or publishing services.	Form Library – Config, MRL
doGetBusUnits	Get a list of candidate business-unit selection criteria for a particular library. This helps refine the document-selection process.	
doGetTemplatelist	Get a list of candidate forms available for collaborative authoring, composition, or publishing services.	
doGetTemplateListData	Get the schema for a given template list, including details pertaining to the Story, StoryFragments and Field information for the template list selection.	For Documaker publishing, think of a <i>story</i> as a form and a <i>story fragment</i> as a section
doCreateFolder (ComposeData)	Create a remote folder for composition, collaborative authoring, or publishing from a list of story templates and field data (ComposeData).	For Documaker publishing, think of a <i>folder</i> as a WIP item, Future use for Documanager Archive Folders.
doCreateFolder (Import)	Create a remote folder for composition, collaborative authoring, or publishing from an extract file (Import) used with a set of pre-defined rules.	
doGetFolderList	Get a list of Folders for a specific owner, search criteria, or both.	Think of <i>owners</i> as a specific user
doGetFolder	Retrieve the contents of a folder.	
doModifyFolder	Add, remove, re-arrange, and generally modify the templates/data (ComposeData) and/or CoreProperties of a folder.	
doDeleteFolder	Delete a folder from the application.	

Service	An operation used to...	Expanded terminology
doPublish (FolderId)	Publish a document from a pre-existing folder (FolderId). See DistributionOptions on page 35 for information pertaining to the various publishing and distribution options.	
doPublish (ComposeData)	Publish a document from a list of story templates and field data (ComposeData). See DistributionOptions on page 35 for information pertaining to the various publishing and distribution options.	
doPublish (Import)	Publish a document from an extract file (Import) with a set of pre-defined rules. See DistributionOptions on page 35 for information pertaining to the various publishing and distribution options.	

Chapter 2

Common Schema Types

Here are the common schema types used throughout Oracle Insurance's Enterprise Web Processing Solution (EWPS).

These schema may be part of a message contract in one or more instances:

- [LibraryList on page 25](#)
- [BusUnitsList on page 26](#)
- [TemplateList on page 27](#)
- [RecipientList on page 28](#)
- [ComposeData on page 29](#)
- [Props on page 30](#)
- [CoreProperties on page 31](#)
- [ImportFileType on page 32](#)
- [Errors on page 33](#)
- [ResponseGroup on page 34](#)
- [DistributionOptions on page 35](#)
- [DistributionResults on page 37](#)

LIBRARYLIST

The LibraryList group provides information about libraries and their respective publishing services.

Here is a sample group:

```
<LibraryList>
  <Library id="Amergen">
    <Service type="Entry" name="Entry"/>
    <Service type="WIP" name="Work in Process"/>
    <Service type="Archive" name="Archive"/>
  </Library>
  <Library id="DOCC">
    <Service type="Entry" name="Entry"/>
  </Library>
</LibraryList>
```

Item	Description
Library	A library the provider supports.

BUSUNITSLIST

The BusUnitsList group provides information about business units that you can use to refine and filter the document selection process. Additional business unit refinement appears as nested lists of *Key* criteria (Key1, Key2, Key3, and so on).

Here is a sample group:

```
<BusUnitsList>
  <Key1 id="AMERGEN PACKAGE" package="AMERGEN PACKAGE">
    <Key2 id="CRIME"/>
    <Key2 id="INLAND MARINE"/>
    <Key2 id="LIABILITY"/>
    <Key2 id="PROPERTY"/>
    <Key2 id="MOTOR TRUCK CARGO"/>
  </Key1>
  <Key1 id="AMERGEN GL" package="GENERAL LIABILITY">
    <Key2 id="LIABILITY"/>
  </Key1>
  <Key1 id="AMERGEN PROPERTY" package="COMM'L PROPERTY">
    <Key2 id="PROPERTY"/>
  </Key1>
  <Key1 id="AMERGEN IM">
    <Key2 id="INLAND MARINE"/>
  </Key1>
  <Key1 id="AMERGEN MTC">
    <Key2 id="MOTOR TRUCK CARGO"/>
  </Key1>
  <Key1 id="AMERGEN AUTO">
    <Key2 id="AUTO"/>
  </Key1>
  <Key1 id="AMERGEN IM">
    <Key2 id="INLAND MARINE;PWC"></Key2>
    <Key2 id="INLAND MARINE;OTHER"></Key2>
  </Key1>
</BusUnitsList>
```

Item	Description
Key1	A company available for the library ID provided in the request payload.
Key2	A line of business available for Key1

TEMPLATELIST

The TemplateList group provides information about candidate templates (story) returned from a query or when filtering requests for a library.

Here is a sample group:

```
<TemplateList>
  <Story StoryName="Letter" id="1" alias="">
    <Required>Yes</Required>
    <Description>Customer Letter</Description>
  </Story>
  <Story StoryName="Bill Letter" id="2" alias="">
    <Required>No</Required>
    <Description>Bill Letter</Description>
  </Story>
  <Story StoryName="Bill Letter" id="2.1" alias="">
    <Required>No</Required>
    <Description>Bill Letter Duplicate</Description>
  </Story>
</TemplateList>
```

Item	Description
Story	A provider form.

NOTE: For a Documaker implementation, a *story* can be limited in scope and be considered to be roughly equivalent to a *form*. As part of a broader schema for future growth and functionality, a story can extend across multiple pages, and several stories can share a single page.

A story can encompass the entire contents of a document package, or it may include an individual block of content. Additionally, a story could be quite dynamic; appearing in blocks throughout a document. such as the first part on page 1, the second part on page 5, and so on.

RECIPIENTLIST

The RecipientList group provides a way to associate recipients with story templates. The RecipientList is exclusive to composition services such as doGetTemplateList and the folder-oriented services.

Here is a sample group:

```
<RecipientList>
  <Recipient name="AGENT">
    <Story StoryName="Letter" id="1" alias="" extracopies="1"/>
    <Story StoryName="Bill Letter" id="2" alias="" extracopies="0"/>
  </Recipient>
  <Recipient name="HOME OFFICE">
    <Story StoryName="Letter" id="1" alias="" extracopies="0"/>
    <Story StoryName="Bill Letter" id="2" alias="" extracopies="0"/>
  </Recipient>
  <Recipient name="INSURED">
    <Story StoryName="Letter" id="1" alias="" extracopies="0"/>
    <Story StoryName="Bill Letter" id="2" alias="" extracopies="0"/>
  </Recipient>
</RecipientList>
```

Item	Description
Recipient	A recipient listing the Story elements that it will receive for a document.

COMPOSEDATA

The ComposeData group (requests only) provides information about the user-entered data on a particular page of a document composition to be saved for stateful requests.

NOTE: Schema for FIELD attributes are primarily driven by the type of View that is returned, mostly via the attributes found at the field (such as INPUT) level.

Here is a sample group:

```
<ComposeData>
  <Field name="GlobalField" type="" required="True">data</Field>
  <Story StoryName="Letter" id="1" alias="">
    <Field name="StoryFieldField" type="">data</Field>
    <StoryFragments>
      <StoryFragment FragmentName="CPADR">
        <Field name="StoryFragmentField1" type="">Bob</Field>
        <Field name=" StoryFragmentField2" type="">Main</Field>
        <Remark datestamp="06/06/2005, 11:44">Review</Remark>
      </StoryFragment>
      <StoryFragment FragmentName="CPBODY">
        <Field name="StoryFragmentField3" required="True">text
here</Field>
      </StoryFragment>
    </StoryFragments>
  </Story>
</ComposeData>
```

Item	Description
Field	A global, Story, or StoryFragment level field.
Story	A form containing one or more StoryFragment elements.

NOTE: For a Documaker implementation, a *StoryFragment* can be considered to be similar to a section or image.

PROPS

The Props group provides a generic structure for extended properties that are not native to base schema objects.

For example, a recipient might have extended property information for distribution addresses or a folder could have extended property information with its CoreProperties to handle application-specific attributes.

The following schema objects can have extended properties:

- Story
- Recipient
- Folder (CoreProperties)

Here is a sample group:

```
<Props>
  <Prop name="propertyname1">propertyvalue1</Prop>
  <Prop name="propertyname2">propertyvalue2</Prop>
  <Prop name="propertyname3">propertyvalue3</Prop>
  <Prop name="propertyname4">propertyvalue4</Prop>
  ...
</Props>
```

COREPROPERTIES

The CoreProperties group provides information about the core properties of a document or folder.

Here is a sample group:

```
<CoreProperties>
  <Library id="DOCUCORP"/>
  <Description>Past Due Notification</Description>
  <DocumentId>90125</DocumentId>
  <DocumentType>NB</DocumentType>
  <StatusCode>N</StatusCode>
  <EffectiveDate>2005-12-01</EffectiveDate>
  <Key1 id="AMERGEN PACKAGE" package="AMERGEN PACKAGE">
    <Key2 id="CRIME"/>
    <Key2 id="INLAND MARINE"/>
    <Key2 id="LIABILITY"/>
    <Key2 id="PROPERTY"/>
    <Key2 id="MOTOR TRUCK CARGO"/>
  </Key1>
  <Props>
    <Prop name="RECNUM">66421AER7</Prop>
  </Props>
</CoreProperties>
```

Item	Description
Library	The library for the document.
Description	The description for the document.
DocumentId	The Key ID for the document.
DocumentType	The transaction or document type for the document.
StatusCode	The status code for the document, such as <i>W</i> for Work in Progress.
EffectiveDate	The effective date for the document.
Key1	The company value for the document.
Key2	The line of business for the document.
Props	A set of properties that correspond to the fields in the index for the document.

IMPORTFILETYPE

The ImportFileType provides a generic structure for passing a chunk (file) of opaque data to a service as a base64Binary element. Note that data can be referenced as in-line data (location="ATTACH") or via a URL (location="URL").

Here is a sample group:

```
<Import>
  <ImportFile location="ATTACH" p5:contentType="text/xml"
xmlns:p5="http://www.w3.org/2005/05/
xmlmime">PD94bWwgdmVyc2lrbj0iMS4wIiB1bmNvZGluZz0iVVRGLT...
  </ImportFile>
  <ImportFile location="URL" p5:contentType="text/xml"
xmlns:p5="http://www.w3.org/2005/05/xmlmime"> file:///1.1.1.1/
38ED0A22842449A49D921B7542D09EC0.XML
  </ImportFile>
</Import>
```

Oracle Insurance supports different contentType definitions, which you can use to provide EWPS with information about the type of file being sent. Here are the supported contentTypes and their meaning:

contentType	Tells the system to treat the referenced file as
application/vnd.docucorp+xml	Oracle Insurance XML format
application/vnd.docucorp+v2	Oracle Insurance V2 format (PPS import)
application/vnd.docucorp+extract	A raw extract file.

ERRORS

The Errors group provides information about any errors or problems that occurred during a request.

Here is a sample group:

```
<Errors>
  <Error>
    <ErrorCode>String</ErrorCode>
    <DetailedMessage>String</DetailedMessage>
    <ErrorSource>String</ErrorSource>
    <Severity>Warning</Severity>
    <Remedy>String</Remedy>
    <Trace>String</Trace>
  </Error>
  <Error>
    <ErrorCode>String</ErrorCode>
    <DetailedMessage>String</DetailedMessage>
    <ErrorSource>String</ErrorSource>
    <Severity>Warning</Severity>
    <Remedy>String</Remedy>
    <Trace>String</Trace>
  </Error>
</Errors>
```

RESPONSEGROUP

The ResponseGroup group, only used for web service requests, provides a way to specify one or more optional response groups as part of an overall web service response.

NOTE: This group is reserved for future use.

Here is a sample group:

```
<ResponseGroup>
  <Response>Group1</Response>
  <Response>Group2</Response>
  <Response>Group3</Response>
</ResponseGroup>
```

DISTRIBUTIONOPTIONS

The DistributionOptions group provides information about publishing channels and the recipient-specific distribution options contained therein. You can handle each recipient differently with specific options (sample A) or bundled together as a group (sample B).

Here is a discussion of the parameters you can use:

Parameter	Description
Copies	(Optional) Determines the number of copies desired for each recipient type. The default is one copy.
DocucorpArchive	(Optional) Determines if the transaction should be archived into the Docucorp Smart Archive.
Distribution Source	(Optional) Determines the source of the information driving the distribution. You can choose from Ad Hoc or Predefined. The default is Ad Hoc.
Priority	<p>(Optional) Determines the publishing priority of the document.</p> <p>DEFERRED means that a true batch system handles all distribution and publish type specifications. Basically, the system saves the transaction to WIP with a <i>Batch</i> status code for the nightly process to pick it up and print it.</p> <p>For DEFERRED, a generic DistributionResults is returned stating the status was <i>Sent</i>.</p> <p>REALTIME means the publishing system will be executed immediately and will tell you what happened during the print process.</p> <p>If REALTIME is used, a detailed listing of the output is returned via the DistributionResults complex type.</p> <p>The default is REALTIME.</p>
PublishType	<p>(Optional) Determines the type of document.</p> <ul style="list-style-type: none"> • XER (Metacode) • AFP • PCL • PXL (PCL6) • PDF • RTF • HTML • PST (PostScript) • BPD (TIFF or other bitmap) • TXT (line print) • GDI (Windows print) • XMP (XML output) • VIPP (Xerox flavor of PostScript) • V2 (Standard Export File) <p>The default is PDF.</p>

Parameter	Description
DistributionType	(Optional) Determines channel of distribution. The default is Immediate Print. Not valid if the Distribution Source is Predefined. <ul style="list-style-type: none"> Immediate Print Deferred Print (a scheduled or nightly batch)
Disposition	(Optional) Determines how the document should be returned. You can choose from: <ul style="list-style-type: none"> URL (for a file location) ATTACH (for an attachment) See table below for defaults for each distribution type.
Preview	(Optional) Determines if the document should be generated as a <i>Print</i> or <i>Template</i> preview.
Storys	(Optional) Used to determine which story parts and extra copies are published for each recipient. Not valid with a distribution type of <i>Batch</i> . The default is all story parts.
Recipient	(Optional) Describes the recipients requested for print. To let the form set/extract and publishing system handle all default recipients, do not specify any recipients in this structure. When you use a predefined distribution source, you can use a specific recipient to override the disposition generated from the predefined system.

Here is sample group A — a simple example with Predefined source:

```
<DistributionOptions source="PREDEFINED">
  <Priority>REALTIME</Priority>
</DistributionOptions>
```

Here is sample group B — a simple example with Ad Hoc source:

```
<DistributionOptions source="ADHOC">
  <Channel>
    <Recipient name="ALLRECIPS"/>
  </Channel>
</DistributionOptions>
```

Here is sample group C — a simple example for Preview:

```
<DistributionOptions source="ADHOC">
  <Channel>
    <Recipient name="RECIP"/>
    <Preview>True</Preview>
  </Channel>
</DistributionOptions>
```

DISTRIBUTIONRESULTS

The DistributionResults group provides read-only information about the recipient-specific published document results. You can handle each recipient differently with specific options (sample A), bundle them as a group (sample B), or group them in any combination.

This group includes these parameters:

Parameter	Description
Story	This is the list of story templates that contains data (fields and StoryFragments) that comprise the forms.
PublishType	(Optional) Determines type of document. The default is PDF.
Documents	A listing of published documents as base64Binary elements or URL references to external files.
DocumentStatus	This indicates the status of the resulting document: <ul style="list-style-type: none">• Failure - The document had some failure and detailed information can be found in the Error object.• Sent - Indicates the Document was sent to the DistributionType of Deferred Print, FAX, or Email.• URL - A URL reference to the document.• ATTACH - Indicates that the published document will be sent back as a 64-bit code encryption. These are the same encryptions found in Docupresentation send/receive message files. You must use a base-64 decoder to view the attachment.

Here is sample group A — a simple example with a pre-defined source:

```
<DistributionResults source="PREDEFINED">
  <Channel>
    <Recipient name="RECIP" id="1">
      <Props>
        <Prop name="RECIP_NAME1">Andy Jones</Prop>
      </Props>
    </Recipient>
    <PublishType>PDF</PublishType>
    <DistributionType>Immediate Print</DistributionType>
    <Documents>
      <Document status="URL">file://
\\myserver\documents\23480283423408098.pdf</Document>
    </Documents>
  </Channel>
  <Channel>
    <Recipient name="RECIP" id="2">
      <Props>
        <Prop name="RECIP_NAME1">Don Rogers</Prop>
      </Props>
    </Recipient>
    <PublishType>PDF</PublishType>
    <DistributionType>Immediate Print</DistributionType>
    <Documents>
```

```

        <Document status="URL">file://
\\myserver\documents\8798uoi79iuyiuyi.pdf</Document>
    </Documents>
</Channel>
<Channel>
    <Recipient name="RECIPIENT" id="3">
        <Props>
            <Prop name="RECIPIENT_NAME1">Don Abbot</Prop>
        </Props>
    </Recipient>
    <DistributionType>Deferred Print</DistributionType>
    <Documents>
        <Document status="sent"/>
    </Documents>
</Channel>
<Channel>
    <Recipient name="RECIPIENT" id="4">
        <Props>
            <Prop name="RECIPIENT_NAME1">Andy Jones</Prop>
        </Props>
    </Recipient>
    <PublishType>TIFF</PublishType>
    <DistributionType>Immediate Print</DistributionType>
    <Documents>
        <Document status="URL">ftp://client.docucorp.com/ewps/spool/
8205243jlkj345903823.tiff</Document>
    </Documents>
</Channel>
</DistributionResults>

```

Here is sample group B — a simple example with Ad Hoc source:

```

<DistributionResults source="ADHOC">
    <Channel>
        <Recipient name="ALLRECIPIENTS"/>
        <PublishType>PDF</PublishType>
        <DistributionType>Immediate Print</DistributionType>
        <Documents>
            <Document status="ATTACH" p5:contentType="application/pdf"
xmlns:p5="http://www.w3.org/2005/05/
xmlmime">PD94bWwgdmVyc2lrbj0iMS4wIiBlbmNvZGluZz0iVVRGLT...</Document>
        </Documents>
    </Channel>
</DistributionResults>

```

Here is sample group C — a simple example for Preview:

```

<DistributionResults source="ADHOC">
    <Channel>
        <Recipient name="RECIPIENT" id="1"/>
        <PublishType>PDF</PublishType>
        <Documents>
            <Document status="ATTACH" p5:contentType="application/pdf"
xmlns:p5="http://www.w3.org/2005/05/
xmlmime">PD94bWwgdmVyc2lrbj0iMS4wIiBlbmNvZGluZz0iVVRGLT...</Document>
        </Documents>
    </Channel>
</DistributionResults>

```

NOTE: Distribution options must be configured in the Documaker system to properly product the distribution channels provided in the request. See the [Documaker Administration Guide](#) for more information.

Chapter 3

Business Scenarios

As mentioned earlier, Enterprise Web Processing Services (EWPS) provides set of well-defined services that have been designed from the standpoint of functionality and business-use.

Here are some typical business scenarios and how you can use Enterprise Web Processing Services to address them:

- [Publishing a Quote Form from a Rating Application on page 41](#)
- [Initiating an Issuance Process from a Rating Application on page 49](#)

PUBLISHING A QUOTE FORM FROM A RATING APPLICATION

Suppose a carrier wants to use Oracle Insurance to produce a real-time quote form from their rating application. Some carriers may host an online rating application as an added benefit to their agents. Since an agent is providing sufficient data to get a quote, this data can be used to populate and publish the quote form.

How do you map the rating application data to the actual quote form? Should the customer be responsible for resolving all mapping prior to the web service call or should you use Oracle Insurance tools for mapping?

Using EWPS, you can accomplish this task using the doPublish web service two ways:

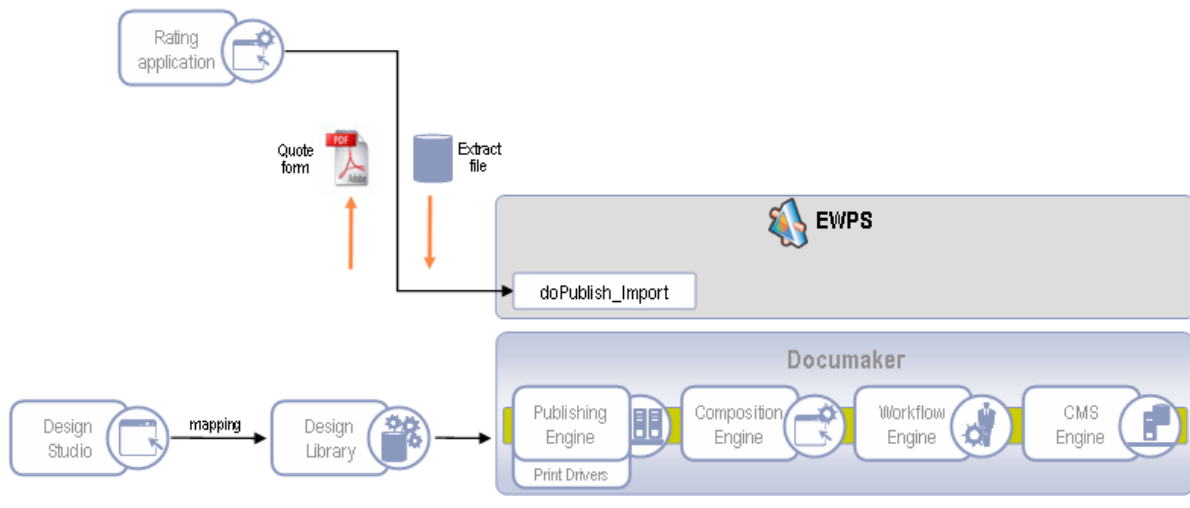
- Use Oracle Insurance tools to do the mapping — The carrier produces an Oracle Insurance standard XML or data extract file to be used as an import file.

See [Option 1: Mapping the Data Using Oracle Insurance Tools on page 42](#) for more information.
- Mapping resolved prior to the doPublish request — The carrier can get schema for the quote form via the doGetTemplateListData web service and then provide a ComposeData structure populated with data.

See [Option 2: Resolving the Data Mapping Before the doPublish Request on page 44](#) for more information.

OPTION 1: MAPPING THE DATA USING ORACLE INSURANCE TOOLS

- ▶ Rating data is mapped to the quote form.
- ▶ Rating engine generates a standardized extract with data.
- ▶ Rating engine calls EWPS doPublish Web service with extract.
- ▶ Carrier disburses the quote form as necessary.



Process flow diagram

- Step 1 **MAPPING.** The rating data is mapped to the quote form using Oracle Insurance tools. A layout or copy-book of the extract feed is provided as a reference point.
- Step 2 **EXTRACT.** The rating engine generates a standardized extract file with data for the quote form.
- Step 3 **DOPUBLISH.** The rating engine calls the EWPS doPublish web service with the extract data. For example, here is a sample request:

```
<doPublishRequest xsi:type="doPublishReq_Import"
xmlns="http://webservices.docucorp.com/ewps/schema/2005-12-01">
  <LibraryId>100AIC</LibraryId>
  <DistributionOptions xsi:type="DistributionOptions_ADHOC"
source="ADHOC">
    <Priority>REALTIME</Priority>
    <Channel xsi:type="Channel_IMMEDIATE">
      <PublishType>PDF</PublishType>
      <DistributionType>IMMEDIATE</DistributionType>
      <Disposition location="ATTACH"/>
      <Recipient name="INSURED">
        <Props/>
        <Copies>1</Copies>
      </Recipient>
    </Channel>
  </DistributionOptions>
  <SourceType>IMPORT</SourceType>
  <Import>
    <ImportFile xsi:type="ImportFile_ATTACH"
d5pl:contentType="" location=""
xmlns:d5pl="http://www.w3.org/2005/05/xmlmime">PD94bUwgdMvYc2lVbj0iM
S4wIiBlbmNvZGluZz0iVVRGLTgiPz4NCjxETONVTUVVOVCBUWVBFPSJSUFdJUCI
gVvkVSU
01PTj0iMTEuMyI+DQo8RE9DU0VUIE5BTUU9IiI+DQo8Rk1FTEQgTkFNRT0iUE
9MSUNZI
j5BSUM5MDkwQTWvRk1FTEQ+DQo8Rk1FTEQgTkFNRT0iSU5TTkFNIj5CaWxsIFMh
bXBsZ
TwvRk1FTEQ+DQo8Rk1FTEQgTkFNRT0iSU5TUQUxIj4xMjMgTWFpbiBTdHJlZXQ8
LOZJR
UxEPgOKPEZJRUXEIE5BTUU9Ik1OUONUWSI+QXRsYW50YTWvRk1FTEQ+DQo8Rk1
FTEQgT
kFNRT0iSU5TU1QiPkdBPC9GSUVMRD4NCjxGSUVMRCB0QU1FPSJJTlNaSVAiPj
SUPgOK<
/ImportFile>
    </Import>
  </doPublishRequest>
```

...and the response:

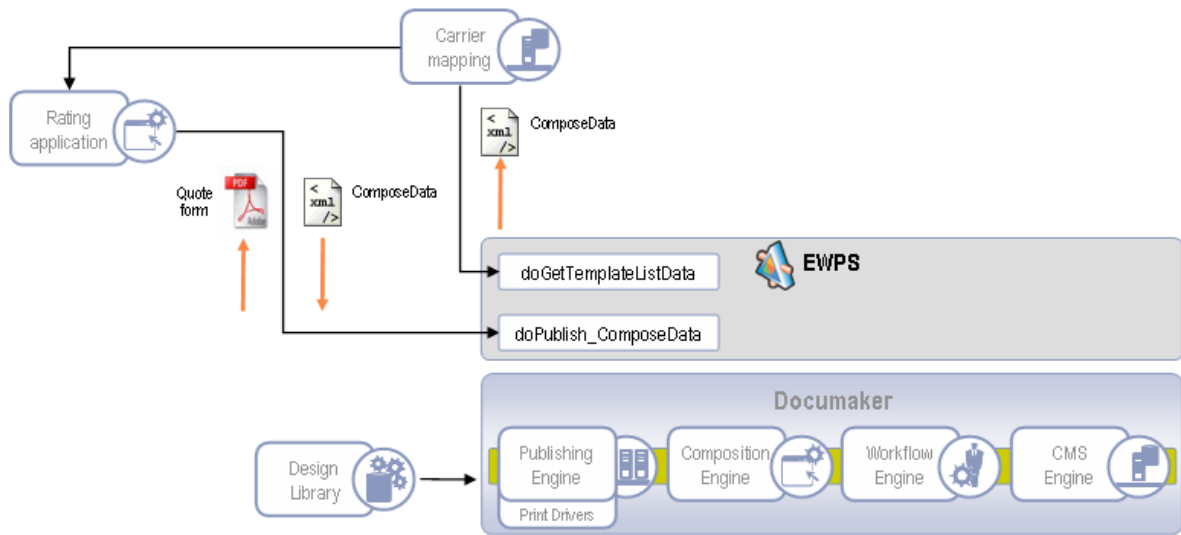
```
<doPublishResponse
xmlns="http://webservices.docucorp.com/ewps/schema/2005-12-01">
  <Result>Success</Result>
  <DistributionResults source="ADHOC">
    <Channel>
      <PublishType>PDF</PublishType>
      <DistributionType>IMMEDIATE</DistributionType>
      <Documents>
        <Document xsi:type="DocumentFile_ATTACH"
d7pl:contentType="application/pdf" status="Success"
location="ATTACH"
xmlns:d7pl="http://www.w3.org/2005/05/xmlmime">JVBERi0xLjMNJeLjz9MNC
jEOMiAwIG9iag08PC9MaW51YXJpemVkdEduMDAvTCAMjY4MDcgICAgL0ggWyAlMzEgI
CAgICAgIDMyMyAgICAgICBdL08gMTQ0ICAgICAgIC9FIDU4MTEgICAgICAvTiAzMSAgI
CAgICAgLlQgMTIzOTE5ICAgID4+DWWuZG9VPRgOK</Document>
      </Documents>
    </Channel>
  </DistributionResults>
</doPublishResponse>
```

Step 4 **DISTRIBUTION.** The carrier distributes the quote form as necessary.

OPTION 2: RESOLVING THE DATA MAPPING BEFORE THE DO PUBLISH REQUEST

Option 2: Carrier maps using internal tools

- ▶ Carrier can use doGetTemplateListData Web service to obtain field-level data for mapping purposes.
- ▶ Rating engine calls EWPS doPublish Web service with ComposeData.
- ▶ Carrier disburses the quote form as necessary.



Process flow diagram

Step 1 **MAPPING.** The carrier uses the doGetTemplateListData web service to get field-level information for mapping purposes. For example, here is a sample request:

```
<doGetTemplateListDataRequest
xmlns="http://webservices.docucorp.com/ewps/schema/2005-12-01">
  <AuthUser />
  <LibraryId>100AIC</LibraryId>
  <TemplateList>
    <Story StoryName="Quote Form" id="35">
      <Key1 id="AMERGEN">
        <Key2 id="QUOTE" />
      </Key1>
      <Description>Quote form</Description>
      <Props>
        <Prop name="OPTIONS">N</Prop>
      </Props>
    </Story>
  </TemplateList>
  <EffectiveDate />
  <ResponseGroup>
    <Response />
  </ResponseGroup>
</doGetTemplateListDataRequest>
```

...and the response:

```

<doGetTemplateListDataResponse
xmlns="http://webservices.docucorp.com/ewps/schema/2005-12-01">
  <Result>Success</Result>
  <ComposeData>
    <Field name="QUOTATION" />
    <Field name="POLICY" />
    <Field name="TO:" />
    <Field name="FROM:" />
    <Field name="BIND" />
    <Field name="INSNAM" />
    <Field name="INSAD1" />
    <Field name="INSAD2" />
    <Field name="INSCTY" />
    <Field name="INSST" />
    <Field name="INSZIP" />
    <Field name="COMPANY LINE 1" />
    <Field name="EFFDTE" />
    <Field name="EXPDTE" />
    <!-- More fields omitted for brevity-->
    <Story StoryName="Quote Form" id="35">
      <Key1 id="AMERGEN">
        <Key2 id="QUOTE" />
      </Key1>
      <Description>Quote form</Description>
      <Props>
        <Prop name="OPTIONS">N</Prop>
      </Props>
      <StoryFragments>
        <StoryFragment FragmentName="quote">
          <Field name="TODAYS DATE" />
          <Field name="VOICE #" />
          <Field name="FAX #" />
          <Field name="COVERAGE" />
          <Field name="NOTES" />
          <Field name="NOTES #002" />
        </StoryFragment>
      </StoryFragments>
    </Story>
  </ComposeData>
</doGetTemplateListDataResponse>

```

Step 2 **DOPUBLISH.** The rating engine calls the EWPS doPublish web service with ComposeData. For example, here is a sample request:

```
<doPublishRequest xsi:type="doPublishReq_ComposeData"
xmlns="http://webservices.docucorp.com/ewps/schema/2005-12-01">
  <LibraryId>100AIC</LibraryId>
  <DistributionOptions xsi:type="DistributionOptions_ADHOC"
source="ADHOC">
    <Priority>REALTIME</Priority>
    <Channel xsi:type="Channel_IMMEDIATE">
      <PublishType>PDF</PublishType>
      <DistributionType>IMMEDIATE</DistributionType>
      <Disposition location="ATTACH" />
      <Recipient name="INSURED">
        <Props/>
        <Copies>1</Copies>
      </Recipient>
    </Channel>
  </DistributionOptions>
  <SourceType>COMPOSEDATA</SourceType>
  <ComposeData>
    <Field name="QUOTATION">sample</Field>
    <Field name="POLICY">213422</Field>
    <Field name="TO:">A.D. Kent</Field>
    <Field name="FROM:">John Doe </Field>
    <Field name="BIND" />
    <Field name="INSNAM">Insured Name</Field>
    <Field name="INSAD1">Addr 1</Field>
    <Field name="INSAD2">Addr 2</Field>
    <Field name="INSAD3">Addr 3</Field>
    <Field name="INSCTY">City</Field>
    <Field name="INSST">State</Field>
    <Field name="INSZIP">00000</Field>
    <Field name="EFFDTE">07/04/2007</Field>
    <Field name="EXPDTE">07/03/2008</Field>
    <!-- More fields omitted for brevity-->
    <Story StoryName="Quote Form" id="35">
      <Key1 id="AMERGEN">
        <Key2 id="QUOTE" />
      </Key1>
      <Description>Quote form</Description>
      <Props>
        <Prop name="OPTIONS">N</Prop>
      </Props>
      <StoryFragments>
        <StoryFragment FragmentName="quote">
          <Field name="TODAYS DATE">06/14/2007</Field>
          <Field name="VOICE #">770-555-5555</Field>
          <Field name="COVERAGE" />
          <Field name="NOTES">some notes here</Field>
        </StoryFragment>
      </StoryFragments>
    </Story>
  </ComposeData>
</doPublishRequest>
```

...and the response:

```

<doPublishResponse
xmlns="http://webservices.docucorp.com/ewps/schema/2005-12-01">
  <Result>Success</Result>
  <DistributionResults source="ADHOC">
    <Channel>
      <PublishType>PDF</PublishType>
      <DistributionType>IMMEDIATE</DistributionType>
      <Documents>
        <Document xsi:type="DocumentFile_ATTACH"
d7pl:contentType="application/pdf" status="Success"
location="ATTACH"
xmlns:d7pl="http://www.w3.org/2005/05/xmlmime">JVBERi0xLjMNJeLjz9MNC
jEOMiAwIG9iaG08PC9MaW5lYXJpemVkIDEuMDAvTCxMjY4MDcgICAgL0ggWyAlMzEgI
CAgICAgIDMyMyAgICAgICBdL08gMTQ0ICAgICAgIC9FIDU4MTEgICAgICAvTiAzMSAgI
CAgICAgLlQgMTIzOTE5ICAgID4+DWWuZG9VPRgOK</Document>
        </Documents>
      </Channel>
    </DistributionResults>
  </doPublishResponse>

```

Step 3 **DISTRIBUTION.** The carrier distributes the quote form as necessary.

INITIATING AN ISSUANCE PROCESS FROM A RATING APPLICATION

Once a quote has been bound, an underwriter initiates the issuance process. Typically, the assigned underwriter produces the quote and will know when the time is right to issue the policy, which means some human intervention is required for issuance.

So how do you know what forms are needed to issue the policy and how do you know how to map the data? Can the carrier manage the job of mapping/triggering the policy forms based on the type of quote and the data (using `doGetTemplateListData`) or do you use Oracle Insurance tools for mapping and form triggering?

You can accomplish this business scenario using multiple steps — use the EWPS `doCreateFolder` web service to create the transaction and use another application, such as a policy administration system or iDocumaker/iPPS to complete the issuance process.

Using EWPS, you can accomplish the task of creating the transaction using the `doCreateFolder` web service one of two ways:

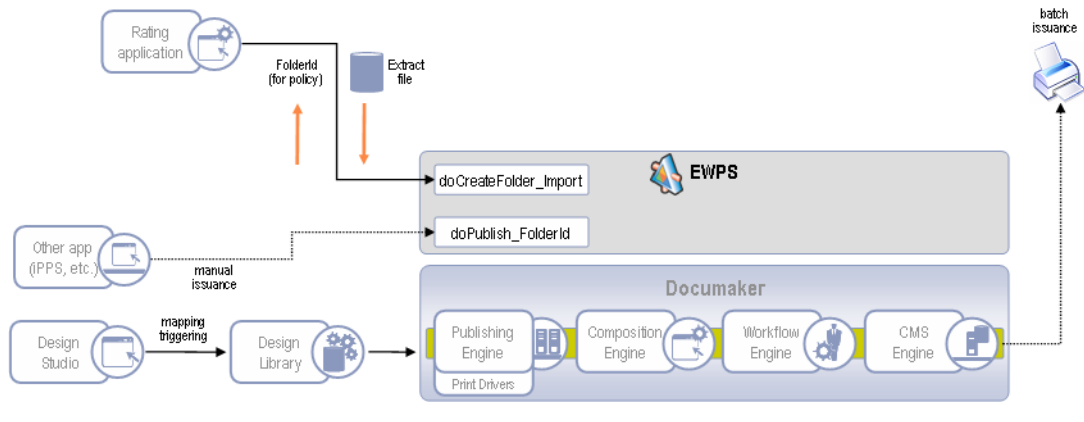
- Using Oracle Insurance tools to map the data — The carrier produces an Oracle Insurance standard XML or data extract file to be used as an import file.
See [Option 1: Mapping the Data using Oracle Insurance Tools on page 50](#) for more information.
- Mapping resolved prior to `doCreateFolder` request — The carrier can get schema for the quote form via the `doGetTemplateListData` web service and then provide a `ComposeData` structure populated with data.

See [Option 2: Resolving the Data Mapping Before the `doPublish` Request on page 52](#) for more information.

OPTION 1: MAPPING THE DATA USING ORACLE INSURANCE TOOLS

Option 1: Mapping/triggering

- ▶ Policy forms and rating data are triggered/mapped to the policy.
- ▶ Rating engine generates a standardized extract with data.
- ▶ Rating engine calls EWPS doCreateFolder Web service with extract.
- ▶ Agent/underwriter completes the issuance process as desired (doPublish can be used for manual issuance).



Process flow diagram

- Step 1 **MAPPING.** The rating data is mapped to the policy forms using Oracle Insurance tools. A layout or copy-book of the extract feed is provided as a reference point for mapping and triggering.
- Step 2 **EXTRACT.** The rating engine generates a standardized extract file with data for the quote form.
- Step 3 **DOPUBLISH.** The rating engine calls the EWPS doCreateFolder web service with the extract data. For example, here is a sample request:

```

<doCreateFolderRequest xsi:type="doCreateFolder_Import"
xmlns="http://webservices.docucorp.com/ewps/schema/2005-12-01">
  <Owner>DEM01</Owner>
  <CoreProperties>
    <LibraryId>100AIC</LibraryId>
    <DocumentId>AIC9090M</DocumentId>
    <Key1 id="AMERGEN">
      <Key2 id="INTERLINE" />
    </Key1>
    <Description>Policy From Webservice</Description>
    <Props>
      <Prop name="LOCID">100</Prop>
      <Prop name="SUBLOCID">0</Prop>
      <Prop name="JURISDICTN">AL</Prop>
      <Prop name="TRNNAME">Bill Sample</Prop>
    </Props>
  </CoreProperties>
  <ImportFile xsi:type="ImportFile_ATTACH"
d5pl:contentType="" location=""
xmlns:d5pl="http://www.w3.org/2005/05/xmlmime">PD94bWwgdmVyc2lvdj0iM
S4wIiB1bmNvZGluZz0iVVRGLTgiPz4NCjxETONVTUVOVCBUWVBFPSJSUFdJUCI
gVksVSU
01PTj0iMTEuMyI+DQo8RE9DUOVUIE5BTUU9IiI+DQo8Rk1FTEQgTkFNRT0iUE
9MSUNZI
j5BSUM5MDkwQTWwRk1FTEQ+DQo8Rk1FTEQgTkFNRT0iSU5TTkFNIj5CaWxsIF
MhbXBsZ
TwRk1FTEQ+DQo8Rk1FTEQgTkFNRT0iSU5TQUQxIj4xMjMgTWFpbiBTdHJlZ
XQ8LOZJR
UxEpGOKPEZJRUXeIE5BTUU9Ik1OUONUWSI+QXR5YW50YTwwRk1FTEQ+DQo8Rk
1FTEQgT
kFNRT0iSUSTU1QiPkdBPC9GSUVMRD4NCjxGSUVMRCBOQU1FPSJJTlNaSVAiPj
5UPgOK<
/ImportFile>
</doCreateFolderRequest>

```

...and the response:

```

<doCreateFolderResponse
xmlns="http://webservices.docucorp.com/ewps/schema/2005-12-01">
  <Result>Success</Result>
  <FolderId>72</FolderId>
</doCreateFolderResponse>

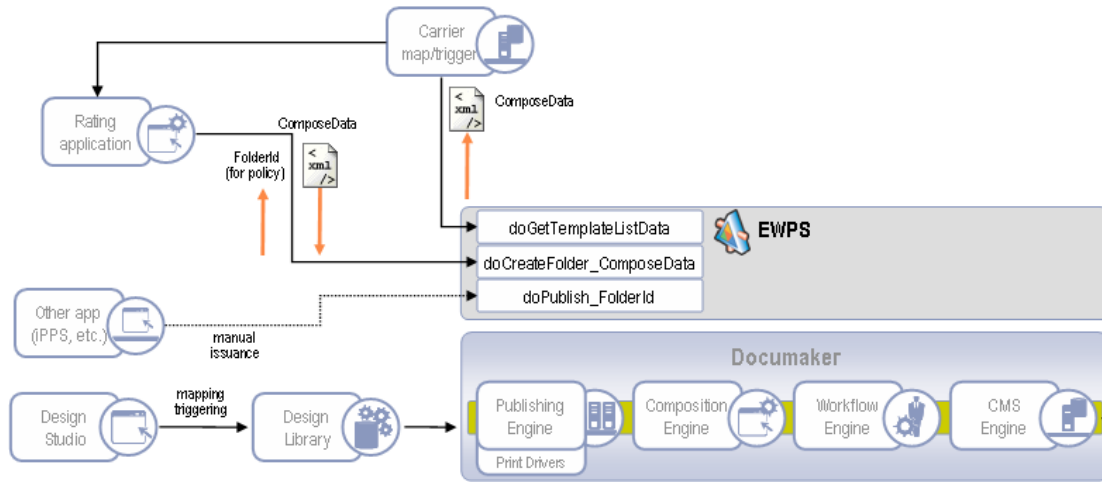
```

- Step 4 **ISSUANCE.** The agent or underwriter completes the issuance as desired via their policy administration system or by using an application such as iPPS.

OPTION 2: RESOLVING THE DATA MAPPING BEFORE THE DO PUBLISH REQUEST

Option 2: Carrier handles mapping/triggering using internal tools

- ▶ Carrier determines how to trigger various policy forms and uses doGetTemplateListData Web service to obtain field-level data for mapping.
- ▶ Rating engine calls EWPS doCreateFolder Web service with ComposeData.
- ▶ Agent/underwriter completes the issuance process as desired (doPublish can be used for manual issuance).



Process flow diagram

Step 1 **MAPPING.** The carrier uses the doGetTemplateListData web service to get field-level information for mapping and triggering purposes. For example, here is a sample request:

```
<doGetTemplateListDataRequest
xmlns="http://webservices.docucorp.com/ewps/schema/2005-12-01"
schemaVersion="1.0">
  <AuthUser></AuthUser>
  <LibraryId>100AIC</LibraryId>
  <TemplateList>
    <Story StoryName="A100 03-1997" id="2870026170">
      <Key1 id="AMERGEN" package="INTERLINE">
        <Key2 id="INTERLINE" />
      </Key1>
      <Description>Common Policy Dec - DC</Description>
      <Props>
        <Prop name="OPTIONS">RMX</Prop>
      </Props>
    </Story>
    <Story StoryName="A101 03-1997" id="4">
      <Key1 id="AMERGEN" package="INTERLINE">
        <Key2 id="INTERLINE" />
      </Key1>
      <Description>Minimum Earned Premium Endt</Description>
      <Props>
        <Prop name="OPTIONS">RM</Prop>
      </Props>
    </Story>
  </TemplateList>
</doGetTemplateListDataRequest>
```

...and the response:

```

<doGetTemplateListDataResponse
xmlns="http://webservices.docucorp.com/ewps/schema/2005-12-01">
  <Result>Success</Result>
  <ComposeData>
    <Field name="POLICY"/>
    <Story StoryName="A100 03-1997" id="2870026170">
      <Key1 id="AMERGEN" package="INTERLINE">
        <Key2 id="INTERLINE"/>
      </Key1>
      <Description>Common Policy Dec - DC</Description>
      <Props>
        <Prop name="OPTIONS">RMX</Prop>
      </Props>
      <StoryFragments />
    </Story>
    <Story StoryName="A101 03-1997" id="4">
      <Key1 id="AMERGEN" package="INTERLINE">
        <Key2 id="INTERLINE"/>
      </Key1>
      <Description>Minimum Earned Premium Endt</Description>
      <Props>
        <Prop name="OPTIONS">RM</Prop>
      </Props>
      <StoryFragments>
        <StoryFragment FragmentName="a101c">
          <Field name="ERNPRM"/>
          <Field name="PERCENT"/>
        </StoryFragment>
      </StoryFragments>
    </Story>
  </ComposeData>
</doGetTemplateListDataResponse>

```

Step 2 **DOCREATEFOLDER**. The rating engine calls the EWPS doCreateFolder web service with ComposeData. For example, here is a sample request:

```
<doCreateFolderRequest xsi:type="doCreateFolderReq_ComposeData"
xmlns="http://webservices.docucorp.com/ewps/schema/2005-12-01">
  <Owner>DEM01</Owner>
  <CoreProperties>
    <LibraryId>100AIC</LibraryId>
    <DocumentId>AIC9091M</DocumentId>
    <Key1 id="AMERGEN">
      <Key2 id="INTERLINE" />
    </Key1>
    <Description>Policy From Webservice</Description>
    <Props>
      <Prop name="LOCID">100</Prop>
      <Prop name="SUBLOCID">0</Prop>
      <Prop name="JURISDICTION">AL</Prop>
      <Prop name="TRNNAME">Bill Sample</Prop>
    </Props>
  </CoreProperties>
  <ComposeData>
    <Field name="POLICY">AIC9091M</Field>
    <Story StoryName="A100 03-1997" id="2870026170">
      <Key1 id="AMERGEN" package="INTERLINE">
        <Key2 id="INTERLINE"/>
      </Key1>
      <Description>Common Policy Dec - DC</Description>
      <Props>
        <Prop name="OPTIONS">RMX</Prop>
      </Props>
      <StoryFragments />
    </Story>
    <Story StoryName="A101 03-1997" id="4">
      <Key1 id="AMERGEN" package="INTERLINE">
        <Key2 id="INTERLINE"/>
      </Key1>
      <Description>Minimum Earned Premium Endt</Description>
      <Props>
        <Prop name="OPTIONS">RM</Prop>
      </Props>
      <StoryFragments>
        <StoryFragment FragmentName="a101c">
          <Field name="ERNPRM">$100,000</Field>
          <Field name="PERCENT">35%</Field>
        </StoryFragment>
      </StoryFragments>
    </Story>
  </ComposeData>
</doCreateFolderRequest>
```

...and the response:

```
<doCreateFolderResponse
xmlns="http://webservices.docucorp.com/ewps/schema/2005-12-01">
  <Result>Success</Result>
  <FolderId>73</FolderId>
</doCreateFolderResponse>
```

Step 3 **ISSUANCE.** The agent or underwriter completes the issuance as desired via their policy administration system or by using an application such as iDocumaker.

Chapter 4

Available Web Services

There are several web services available with EWPS. This chapter describes these services.

You can use the following composition services:

- [doGetLibraries on page 57](#)
- [doGetBusUnits on page 58](#)
- [doGetTemplateList on page 59](#)
- [doGetTemplateListData on page 61](#)
- [doCreateFolder on page 62](#)
- [doGetFolderList on page 64](#)
- [doGetFolder on page 66](#)
- [doModifyFolder on page 67](#)
- [doDeleteFolder on page 69](#)

You can use this service for composition or publishing:

- [doCallAPI on page 70](#)

You can use this service for publishing:

- [doPublish on page 77](#)

In addition, you can set up a web service to send Studio resource information, in the form of a WDF file, to the Documaker Add-In for Microsoft Word. For more information, see [Accessing a Workspace Definition File via a Web Service on page 79](#).

doGetLibraries

Use this service to get a simple list of candidate document libraries available for publishing services.

This web service is non-stateful in nature and accepts optional user identification for library profiling purposes.

Scenario	Synchronous Request/Response using SOAP over HTTP
Message style	doc/literal

Operation/Message types The following operation/message types should be supported and follow the synchronous request/response scenario:

Message	Parameter	Description	Type
Request			
doGetLibrariesRequest	AuthUser	Optional user identification.	String
	ResponseGroup	Optionally return certain response groups, including: <ul style="list-style-type: none"> LibraryList 	ResponseGroup
Response			
doGetLibrariesResponse	Result	Returns <i>Success</i> or an error message.	String
	Errors	A list of the errors returned if the request completed, but not 100% successfully.	ErrorList
	LibraryList	A list of the available libraries.	LibraryList
Fault			
	BadRequest	An exception because of a bad request or malformed parameters.	Client
	ServiceException	An exception because of server problem or configuration.	Server

doGetBusUnits

Use this service to get a list of candidate business unit (BU) selection criteria for a particular library that helps refine the document selection process.

This web service is non-stateful in nature and accepts optional user identification for library profiling purposes.

Scenario	Synchronous Request/Response using SOAP over HTTP
Message style	doc/literal

Operation/Message types The following operation/message types should be supported and follow the synchronous request/response scenario:

Message	Parameter	Description	Type
Request			
doGetBusUnitsRequest	AuthUser	Optional user identification.	String
	LibraryId	Required library selection (ID).	String
	EffectiveDate	Optional date qualifier.	String
	ResponseGroup	Optionally return certain response groups, including: <ul style="list-style-type: none">• BusUnitsList	ResponseGroup
Response			
doGetBusUnitsResponse	Result	Returns <i>Success</i> or an error message.	String
	Errors	A list of the errors returned if the request completed, but not 100% successfully.	ErrorList
	BusUnitsList	A list of available business-unit groupings to refine transaction selection.	BusUnitsList
Fault			
	BadRequest	An exception because of a bad request or malformed parameters.	Client
	ServiceException	An exception because of server problem or configuration.	Server

doGetTemplateList

Use this service recursively to get a list of the candidate forms available for publishing services. Use the Start and MaxResults parameters to specify where the template listing should start and how many records are returned. The NameQuery and DescQuery parameters filter the results by their form name, description, in-line contents, or any combination thereof.

This web service is non-stateful in nature and accepts optional user identification for library profiling purposes.

Scenario	Synchronous Request/Response using SOAP over HTTP
Message style	doc/literal

Operation/Message types

The following operation/message types should be supported and follow the synchronous request/response scenario:

Message	Parameter	Description	Type
Request			
doGetTemplateListRequest	AuthUser	Optional user identification.	String
	LibraryId	Required library selection (ID).	String
	BusUnitsList	A list of selected business-unit groupings to refine transaction selection.	BusUnitsList
	EffectiveDate	Optional date qualifier.	String
	Start	One-based index of the first desired result.	Integer
	MaxResults	Number of results desired per query.	Integer
	NameQuery	Use to refine the search by template name. You can use all or part of this parameter in the query.	String
	DescQuery	Use to refine the search by template description. You can use all or part of this parameter in the query.	String
	SortBy	Optional parameter to specify how the list you retrieve is ordered. You can sort the list by: <ul style="list-style-type: none"> NAME DESCRIPTION 	String
	ResponseGroup	Optionally return certain response groups, including <ul style="list-style-type: none"> TemplateList: 	ResponseGroup
Response			
doGetTemplateListResponse	Result	Returns <i>Success</i> or an error message	String
	Errors	A list of the errors returned if the request completed, but not 100% successfully.	ErrorList
	TemplateList	A list of the available story templates.	TemplateList
	StartIndex	The index (1-based) of the first search result in TemplateList.	Integer
	EndIndex	The index (1-based) of the last search result in TemplateList	Integer
	TotalResults	The total number of results that exist for the search request.	Integer

	SearchTime	The total amount of time the service took to complete the search in seconds.	String
Fault			
	BadRequest	An exception because of a bad request or malformed parameters.	Client
	ServiceException	An exception because of server problem or configuration.	Server

doGetTemplateListData

Use this service to get schema for a given `TemplateList`, including details about the `Story`, `StoryFragments`, and `Fields` information for the `TemplateList`. This service is useful if you want to map field-level data to a document package.

The `ComposeData` type in the response contains a full aggregate of schema for each story in the `TemplateList`, which lets you interrogate any portion of the schema for varying types and scope of elements.

This web service is non-stateful in nature and accepts optional user identification for library profiling purposes.

Scenario	Synchronous Request/Response using SOAP over HTTP
Message style	doc/literal

Operation/Message types The following operation/message types should be supported and follow the synchronous request/response scenario:

Message	Parameter	Description	Type
Request			
doGetTemplateListDataRequest	AuthUser	Optional user identification.	String
	LibraryId	Required library selection (ID).	String
	TemplateList	A list of the available story templates.	TemplateList
	EffectiveDate	Optional date qualifier.	String
	ResponseGroup	Optionally return certain response groups, including: <ul style="list-style-type: none"> ComposeData 	ResponseGroup
Response			
doGetTemplateListDataResponse	Result	Returns <i>Success</i> or an error message.	String
	Errors	A list of the errors returned if the request completed, but not 100% successfully.	ErrorList
	ComposeData	A fragment of the schema for the selected list of templates – use to map data for downstream composition and publishing services.	ComposeData
Fault			
	BadRequest	An exception because of a bad request or malformed parameters.	Client
	ServiceException	An exception because of server problem or configuration.	Server

doCreateFolder

Use this service to create a remote *folder* of selected story templates you want to work on. A remote *folder* works somewhat like an e-Commerce shopping cart, except it is designed for managing an active document *package* with stateful composition.

The doCreateFolderRequest service is considered *abstract* in nature, which means it cannot be implemented. Instead, doCreateFolder supports the implementation of these underlying *concrete* types:

Type	Use this type if you...
doCreateFolder_Import	Want Oracle Insurance rules to handle the dynamic triggering of Story and StoryFragment types and mapping of data to the document. (<code><doCreateFolderRequest xsi:type="doCreateFolderReq_Import"...></code>)
doCreateFolder_ComposeData	Know which story templates you need and (optionally) want to map specific data elements to the document. (<code><doCreateFolderRequest xsi:type="doCreateFolderReq_ComposeData"...></code>)

This web service is stateful in nature and returns a unique FolderId to be used in subsequent requests.

Scenario	Synchronous Request/Response using SOAP over HTTP
Message style	doc/literal

Operation/Message types The following operation/message types should be supported and follow the synchronous request/response scenario:

Message	Parameter	Description	Type
Abstract Request			
doCreateFolderRequest	Owner	Identity of the document or folder owner, for identification purposes.	Owner
	CoreProperties	Core properties of the folder.	CoreProperties
	ResponseGroup	Optionally return certain response groups, including: <ul style="list-style-type: none"> TemplateList CoreProperties 	ResponseGroup
Typed Request			
doCreateFolderReq_Import	ImportFile	Attachment data for the import files that drives the publishing request	ImportFileList
	TemplateList	Optional listing of selected story templates.	TemplateList
Typed Request			
doCreateFolderReq_ComposeData	ComposeData	A list of selected story templates with composition data to be merged with the active document for composition or publishing.	ComposeData
Response			

doCreateFolderResponse	Result	Returns <i>Success</i> or an error message.	String
	Errors	A list of the errors returned if the request completed, but not 100% successfully.	ErrorList
	FolderId	Unique folder identifier.	String
	TemplateList	A list of all story templates currently in the remote folder.	TemplateList
	CoreProperties	The core properties of the folder.	CoreProperties
Fault			
	BadRequest	An exception because of a bad request or malformed parameters.	Client
	ServiceException	An exception because of server problem or configuration.	Server

doGetFolderList

Use this service to get a list of folders.

This web service is stateful in nature and requires a FolderId to maintain the state of the request.

Scenario	Synchronous Request/Response using SOAP over HTTP
Message style	doc/literal

Operation/Message types The following operation/message types should be supported and follow the synchronous request/response scenario:

Message	Parameter	Description	Type
Request			
doGetFolderListRequest	Owner	Identity of the document or folder owner, for identification purposes.	Owner
	LibraryId	Required library selection (ID).	String
	Start	One-based index of the first desired result.	Integer
	MaxResults	Number of results desired per query.	Integer
	DocumentIdQuery	Use to refine the search by DocumentId. You can use all or part of this parameter in the query.	String
	DescQuery	Use to refine the search by Description. You can use all or part of this parameter in the query.	String
	PropQuery	Use to refine the search by one or more custom properties. You can use all or part of this parameter in the query.	PropQueryInfo
	SortBy	Optional parameter to specify how to order the list you retrieve. You can sort the list by: <ul style="list-style-type: none"> DOCUMENTID DESCRIPTION <PROPERTY> 	String
	ResponseGroup	Optionally return certain response groups, including: <ul style="list-style-type: none"> TemplateList ComposeData 	ResponseGroup
Response			
doGetFolderListResponse	Result	Returns <i>Success</i> or an error message.	String
	Errors	A list of the errors returned if the request completed, but not 100% successfully.	ErrorList
	FolderList	A list of folders returned from the search query.	FolderListType
	StartIndex	The index (1-based) of the first search result in FolderList.	Integer
	EndIndex	The index (1-based) of the last search result in FolderList.	Integer
	TotalResults	The total number of results that exist for the search request.	Integer
	SearchTime	The total amount of time the service took to complete the search in seconds.	String
Fault			

	BadRequest	An exception because of a bad request or malformed parameters.	Client
	ServiceException	An exception because of server problem or configuration.	Server

doGetFolder

Use this service to get the contents of a pre-existing folder.

This web service is stateful in nature and requires a FolderId to maintain the state of the request.

Scenario	Synchronous Request/Response using SOAP over HTTP
Message style	doc/literal

Operation/Message types The following operation/message types should be supported and follow the synchronous request/response scenario:

Message	Parameter	Description	Type
Request			
doGetFolderRequest	LibraryId	Required library selection (ID).	String
	FolderId	Unique folder identifier.	String
	ResponseGroup	Optionally return certain response groups, including: <ul style="list-style-type: none">• TemplateList• CoreProperties• ComposeData	ResponseGroup
Response			
doGetFolderResponse	Result	Returns <i>Success</i> or an error message.	String
	Errors	A list of the errors returned if the request completed, but not 100% successfully.	ErrorList
	Owner	Identity of the document or folder owner, for identification purposes.	Owner
	FolderId	Unique folder identifier.	String
	TemplateList	A list of all story templates currently in the remote folder.	TemplateList
	CoreProperties	The core properties of the folder.	CoreProperties
Fault			
	BadRequest	An exception because of a bad request or malformed parameters.	Client
	ServiceException	An exception because of server problem or configuration.	Server

doModifyFolder

Use this service to add, remove, re-arrange, and generally modify the contents, XML data, and/or general information of a folder.

Here are the rules that apply to the use of doModifyFolder:

Rule	Description
CoreProperties	Any property item omitted means the pre-existing property in the folder remains intact. Additionally, any property passed as a blank/empty value indicates the pre-existing property in the folder should be cleared — subject to certain underlying publishing rules, wherein the clearing of a property would effectively invalidate the folder in the system.
ComposeData	Including ComposeData in the request means there is an intention to update/modify the document itself. If there is a mismatch between Story items, ComposeData determines the new document packaging (overwrites the current document). Additionally, if a field item is included in the request, it means there is an intention to update/modify the same field in the folder. Conversely, omitting field items in the request indicates there is an intention to preserve the current content of the field in the folder.

This web service is stateful in nature and requires a FolderId to maintain the state of the request.

Scenario	Synchronous Request/Response using SOAP over HTTP
Message style	doc/literal

Operation/Message types

The following operation/message types should be supported and the synchronous request/response scenario:

Message	Parameter	Description	Type
Request			
doModifyFolderRequest	Owner	Identity of the document or folder owner, for identification purposes.	Owner
	LibraryId	Required library selection (ID).	String
	FolderId	Unique folder identifier.	String
	ComposeData	The fragment of composition data to be injected/merged with the active document for composition or publishing	ComposeData
	CoreProperties	Modified core properties of the folder.	CoreProperties
	ResponseGroup	Optionally return certain response groups, including: <ul style="list-style-type: none"> TemplateList CoreProperties 	ResponseGroup
Response			
doModifyFolderResponse	Result	Returns <i>Success</i> or an error message.	String
	Errors	A list of the errors returned if the request completed, but not 100% successfully.	ErrorList

	FolderId	Unique folder identifier.	String
	TemplateList	A list of all story templates currently in the remote folder.	TemplateList
	CoreProperties	The core properties of the folder.	CoreProperties
Fault			
	BadRequest	An exception because of a bad request or malformed parameters.	Client
	ServiceException	An exception because of server problem or configuration.	Server

doDeleteFolder

Use this service to delete a folder.

This web service is stateful in nature and requires a FolderId to make the request.

Scenario	Synchronous Request/Response using SOAP over HTTP
Message style	doc/literal

Operation/Message types The following operation/message types should be supported and follow the synchronous request/response scenario:

Message	Parameter	Description	Type
Request			
doDeleteFolderRequest	LibraryId	Required library selection (ID).	String
	FolderId	Unique folder identifier.	String
Response			
doDeleteFolderResponse	Result	Returns <i>Success</i> or an error message.	String
	Errors	A list of the errors returned if the request completed, but not 100% successfully.	ErrorList
Fault			
	BadRequest	An exception because of a bad request or malformed parameters.	Client
	ServiceException	An exception because of server problem or configuration.	Server

doCallAPI

Use this service operation to submit any request type to a provider such as Docupresentment. This service operation allows more flexibility than the other service operations discussed in this document by providing more abstraction of a request payload that can be submitted to a provider. For instance, you can submit and return any number of name/value pairs, collections, and attachments. This also means that unlike the other service operations discussed in this document, doCallAPI does not lend itself well to the definition of a well-defined service. Only use this service when one of the other service operations does not provide the necessary functionality.

NOTE: This service operation is only supported in Java.

Parameter	Description	Type	Occurrence
Request payload (doCallAPIRequest) elements			
schemaVersion	The schema version to use. The default is 1.0, but version 1.1 can also be used.	schemaVersion Enum	0...1
timeOut	The timeout value in seconds for the service operation to receive a response from the provider. The default is 30 seconds.	int	0...1
ProviderName	The provider name for the operation that should be invoked. The default is <i>IDSPProvider</i> , which represents a Docupresentment server as a provider.	string	1
Operation	The provider operation that should be invoked. The default is <i>processRequest</i> but you can also provide a value of <i>Discovery</i> to ask the doCallAPI service operation to return a list of supported operations for the provider.	string	1
Props	A list of <i>Prop</i> , <i>FileProp</i> and <i>Collection</i> elements to send to the provider. See the definition of each for more details.	PropertyList	1
Prop	A name/value pair to send to the provider for a specific operation. You can submit a <i>Prop</i> name/value pair of name <i>Discovery</i> and value <i>true</i> to ask doCallAPI service operation to return additional information about the expected <i>Prop</i> elements for the <i>Operation</i> value provided. Here are the attributes: <ul style="list-style-type: none">name – The name of the name/value pair.Text – The value of the name/value pair. Here is an example: <pre><Prop name="Reqtype">SSS</Prop></pre>	PropertyInfo	0...many

Parameter	Description	Type	Occurrence
FileProp	<p>A file attachment to send to the provider. The attachment can be inline base64 content or a valid HTTP or File URL to a file accessible by the doCallAPI service operation.</p> <p>Here are the attributes:</p> <ul style="list-style-type: none"> • <i>name</i> – The name of the attachment. • <i>location</i> – The location of the attachment. Use <i>ATTACH</i> if the content is provided as base64 inline text. Use <i>URL</i> if the content will be provided by an HTTP or File URL. • <i>URLLocation</i> – only present when the type is <i>PropFile_URL</i> and should contain the value of the HTTP or File URL. • <i>contentType</i> – You can omit this value. It is only present because the base class used for <i>PropFile_ATTACH</i> and <i>PropFile_URL</i> types contains this attribute. • <i>Text</i> – None (blank) when <i>location</i> is set equal to <i>URL</i>, otherwise, the base64 inline text content of the attachment when <i>FileProp</i> element is a child of <i>Props</i> element and none (blank) when it is a child of <i>ResponseProps</i> element. <p>Here is an example:</p> <pre><FileProp xsi:type="contract:PropFile_URL" location="URL" URLLocation="file:///c:/ test.xml" name="MyAttachment"/></pre>	PropFile_ATTACH or PropFile_URL	0...many
Collection	<p>A collection of items to send to the provider. Each item can contain one or more columns with a name and value. You can also think of a collection as a row set with one or more rows, each row containing one or more name/value pairs.</p> <p>Here are the attributes:</p> <ul style="list-style-type: none"> • <i>name</i> – The name of the collection • <i>Text</i> – None (blank) <p>Here is an example:</p> <pre><Collection name="My Collection"> <Item name="My Item 1"> <Column name="name1"> value1 </Column> <Column name="name2"> value2 </Column> </Item> <Item name="My Item 2"> <Column name="name1"> value1 </Column> <Column name="name2"> value2 </Column> </Item> </Collection></pre>	CollectionType	0...many

Parameter	Description	Type	Occurrence
ResponseProps	<p>An element that defines how attachments should be returned by the provider. As such, it contains one or more <i>FileProp</i> elements. See the definition of <i>FileProp</i> for more information.</p> <p>Here is an example:</p> <pre>< ResponseProps> <FileProp xsi:type="contract:PropFile_ATTACH" location="ATTACH" name="ATC1"/> <FileProp xsi:type="contract:PropFile_URL" location="URL" URLLocation="file:///c:/ test.xml" name="ATC2"/> </ResponseProps></pre>	ResponsePropertyList	0...many
Response payload (doCallAPIResponse) elements			
Props	<p>A list of <i>Prop</i>, <i>FileProp</i> and <i>Collection</i> elements returned by the provider. See the definition of each for more details.</p>	PropertyList	1
Prop	<p>A name/value pair returned by the provider.</p> <p>Here are the attributes:</p> <ul style="list-style-type: none"> • name – The name of the name/value pair. • Text – The value of the name/value pair. <p>Here is an example:</p> <pre><Prop name="Reqtype">SSS</Prop></pre>	PropertyInfo	0...many
FileProp	<p>A file attachment returned by the provider. The attachment can be inline base64 content or a valid HTTP or file URL.</p> <p>Here are the attributes:</p> <ul style="list-style-type: none"> • name – The name of the attachment. • location – The location of the attachment. Will be <i>ATTACH</i> if the content is returned as base64 inline text, otherwise <i>URL</i> if the content is returned as an HTTP or file URL. • URLLocation – Only present when the type is <i>PropFile_URL</i> and should contain the value of the HTTP or file URL. • contentType – You can omit this value. It is only present because the base class used for <i>PropFile_ATTACH</i> and <i>PropFile_URL</i> types contains this attribute. • Text – None (blank) when <i>location</i> is set equal to <i>URL</i>, otherwise, the base64 inline text content of the attachment returned by the provider. <p>Here is an example:</p> <pre><FileProp xsi:type="contract:PropFile_URL" location="URL" URLLocation="file:///c:/ test.xml" name="MyAttachment"/></pre>	PropFile_ATTACH or PropFile_URL	0...many

Parameter	Description	Type	Occurrence
Collection	<p>A collection of items returned by the provider. Each item can contain one or more columns with a name and value. You can also think of a collection as a row set with one or more rows, each row containing one or more name/value pairs.</p> <p>Here are the attributes:</p> <ul style="list-style-type: none"> • name – The name of the collection • Text – None (blank) <p>Here is an example:</p> <pre><Collection name="My Collection"> <Item name="My Item 1"> <Column name="name1"> value1 </Column> <Column name="name2"> value2 </Column> </Item> <Item name="My Item 2"> <Column name="name1"> value1 </Column> <Column name="name2"> value2 </Column> </Item> </Collection></pre>	CollectionType	0...many

Here is an example request payload:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:ns="http://www.w3.org/2005/05/xmlmime" xmlns:contract="http://webservices.docucorp.com/ewps/schema/2005-12-01">
  <soap:Body>
    <contract:doCallAPIRequest schemaVersion="1.0">
      <contract:timeOut>30</contract:timeOut>
      <contract:ProviderName>IDSProvider</contract:ProviderName>
      <contract:Operation>processRequest</contract:Operation>
      <contract:Props>
        <contract:Prop name="REQTYPE">ECH</contract:Prop>
        <contract:Prop name="Foo">Foo</contract:Prop>
        <contract:FileProp xsi:type="contract:PropFile_ATTACH" location="ATTACH" name="ATTACHMENT1">
          PD94bWVgdMvYc2l2bWVjOjI0IjE4bWVjZGluZz0iVVRGLTgiPz4NCjxtZXNzYWdlPg0KCTxkYXRh
          Pg0KCSAgPHZhciBuYW1lPSJDT05GSUciPkFNRVJHRU48L3Zhcj4NCgkgIDx2YXIgYmFtZT0iVjVNF
          Uk1EIJ5GT1JNQUtFUjwvdmFyPg0KCSAgPHZhciBuYW1lPSJQVWNTV09SRCI+Rk9STUF
          LRVI8L3Zh
          cj4NCgkgIDx2YXIgYmFtZT0iUkVVRVFlQRSi+VEVTVDwvdmFyPg0KCSAgPHZhciBuYW1lPSJEWU5B
          TUI DLUNPTkZJR1VSQVRJT04tRklMRSI+QzpcZG9jc2Vyd1x0ZXN0ZmlsZXNcdGVzdC1jb25maWct
```

```

ZmlsZS54bWw8L3Zhcj4NCgk8L2RhdGE+DQoJPGF0dGFjaG1lbnRzPg0KCQk8ZmlsZSBB
uYW1lPSJB
VFRBQ0hNRU5UMSI+QzpcZG9jc2Vyd1x0ZXN0ZmlsZXNcaW1wb3J0LnhtbDwvZmlsZT4
NCgk8L2F0
dGFjaG1lbnRzPgkNCjwvbnVzc2FnZT4NCg==</contract:FileProp>
  <contract:FileProp xsi:type="contract:PropFile_URL"
location="URL" URLLocation="http://localhost:8080/ewps-axis2/cache/
test.xml" name="ATTACHMENT2"/>
  <contract:FileProp xsi:type="contract:PropFile_URL"
location="URL" URLLocation="file:///c:/java/tomcat/webapps/ewps-
axis2/cache/test.xml" name="ATTACHMENT3"/>
  <contract:Collection name="Collection1">
    <contract:Item name="Item1">
      <contract:Column name="column1">value1</contract:Column>
      <contract:Column name="column2">value2</contract:Column>
    </contract:Item>
    <contract:Item name="Item2">
      <contract:Column name="name1">string1</contract:Column>
      <contract:Column name="name2">string2</contract:Column>
    </contract:Item>
  </contract:Collection>
  <contract:Collection name="Collection2">
    <contract:Item name="Coll1">
      <contract:Column name="testname1">testvalue1</
contract:Column>
      <contract:Column name="testname2">testvalue2</
contract:Column>
    </contract:Item>
    <contract:Item name="Coll2">
      <contract:Column name="myname1">stringvalue1</
contract:Column>
      <contract:Column name="myname2">stringvalue2</
contract:Column>
    </contract:Item>
  </contract:Collection>
</contract:Props>
<contract:ResponseProps>
  <contract:FileProp name="ATTACHMENT1" location="URL"
URLLocation="file:///c:/temp/test1.xml"/>
  <contract:FileProp name="ATTACHMENT2" location="ATTACH"/>
  <contract:FileProp name="ATTACHMENT3" location="URL"
URLLocation="file:///c:/temp/test2.xml"/>
</contract:ResponseProps>
</contract:doCallAPIRequest>
</soap:Body>
</soap:Envelope>

```

Here is the corresponding response payload example:

```

<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/
envelope/">
  <soapenv:Body>
    <doCallAPIResponse xmlns="http://webservices.docucorp.com/ewps/
schema/2005-12-01">
      <Props>
        <Prop name="Foo">Foo</Prop>
        <Prop name="IDSGUID">ef87ae86d4d53eb5010b6791190894f1</
Prop>

```

```

        <Prop name="IDSHOSTNAME">jrobertsnb1</Prop>
        <Prop name="REQTYPE">ECH</Prop>
        <Prop name="SERVERTIMESPENT">0.000</Prop>
        <Prop name="SERVERTIMESPENTMS">0</Prop>
        <Prop name="Timeout">30</Prop>
        <Prop name="ServiceResults">SUCCESS</Prop>
        <Prop name="ServiceTimeMillis">125</Prop>
        <FileProp name="ATTACHMENT1" location="URL"
URLLocation="file:///c:/temp/test1.xml"/>
        <FileProp name="ATTACHMENT2"
location="ATTACH">PD94bWwgdmVyc2lvcj0iMS4wIiBlbmNvZGluz0iVVRGLTgiP
z4NCjxtZXNzYWdlPg0KCTxkYXRh
Pg0KCSAgPHZhciBuYW1lPSJDT05GSUciPkFNRVJHRU48L3Zhcj4NCgkgIDx2YXIgYmF
tZT0iVVNF
UklEij5GT1JNQUtFUjwvdmFyPg0KCSAgPHZhciBuYW1lPSJQVWVNTV09SRCI+Rk9STUF
LRVI8L3Zh
cj4NCgkgIDx2YXIgYmFtZT0iUkVRVFlQRSi+VEVTVDwvdmFyPg0KCSAgPHZhciBuYW1
lPSJEWU5B
TUlDLUNPTkZJR1VSQVRJT04tRklMRSI+QzpcZG9jc2Vydlx0ZXN0ZmlsZXNcdGVzdC1
jb25maWct
ZmlsZS54bWw8L3Zhcj4NCgk8L2RhdGE+DQoJPGF0dGFjaG1lbnRzPg0KCQk8ZmlsZSB
uYW1lPSJB
VFRBQ0hNRU5UMSI+QzpcZG9jc2Vydlx0ZXN0ZmlsZXNcaW1wb3J0LnhtbDwvZmlsZT4
NCgk8L2F0
dGFjaG1lbnRzPgkNCjwvbmVzc2FnZT4NCg==</FileProp>
        <FileProp name="ATTACHMENT3" location="URL"
URLLocation="file:///c:/temp/test2.xml"/>
        <Collection name="Collection1">
            <Item name="1">
                <Column name="column1">value1</Column>
                <Column name="column2">value2</Column>
            </Item>
            <Item name="2">
                <Column name="name1">string1</Column>
                <Column name="name2">string2</Column>
            </Item>
        </Collection>
        <Collection name="Collection2">
            <Item name="1">
                <Column name="testname1">testvalue1</Column>
                <Column name="testname2">testvalue2</Column>
            </Item>
            <Item name="2">
                <Column name="myname1">stringvalue1</Column>
                <Column name="myname2">stringvalue2</Column>
            </Item>
        </Collection>
    </Props>
</doCallAPIResponse>
</soapenv:Body>
</soapenv:Envelope>

```

Configuring the Provider

Each provider supported by the doCallAPI service operation contains a configuration section with the same name as that of *ProviderName* inside the ewps.config.xml configuration file. You can use this section to configure connection properties for each provider. For example, the IDSPProvider section for Docupresentation contains the same configuration properties as those of the queue configuration properties for Docupresentation. Here is an example:

```
<IDSPProvider>
  <entry
    name="marshaller.class">com.docucorp.messaging.data.marshaller.SOAP
    MIMEDSIMessageMarshaller</entry>
    <entry
      name="queuefactory.class">com.docucorp.messaging.http.DSIHTTPMessage
      eQueueFactory</entry>
      <entry name="http.url">http://localhost:49152</entry>
      <entry name="http.reuse.ports">15</entry>
      <entry name="http.putmessage.tries">15</entry>
      <entry name="timeout">30</entry>
    </entry>
</IDSPProvider>
```

The request payload can provide the configuration properties for the provider, overriding the properties defined in the ewps.config.xml configuration file. The configuration properties should be provided as a collection with the same name as that of *ProviderName*. Here is an example of a request payload that does that:

```
<?xml version="1.0" encoding="utf-8"?>
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/
envelope/" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:ns="http://
www.w3.org/2005/05/xmlmime" xmlns:contract="http://
webservices.docucorp.com/ewps/schema/2005-12-01">
  <soap:Body>
    <contract:doCallAPIRequest schemaVersion="1.0">
      <contract:ProviderName>IDSPProvider</contract:ProviderName>
      <contract:Operation>processRequest</contract:Operation>
      <contract:Props>
        <contract:Prop name="REQTYPE">SSS</contract:Prop>
        <contract:Prop name="CONFIG">DOCCDEMO</contract:Prop>
        <contract:Collection name="IDSPProvider">
          <contract:Item name="Properties">
            <contract:Column
              name="marshaller.class">com.docucorp.messaging.data.marshaller.SOAP
              MIMEDSIMessageMarshaller</contract:Column>
            <contract:Column
              name="queuefactory.class">com.docucorp.messaging.http.DSIHTTPMessage
              eQueueFactory</contract:Column>
            <contract:Column name="http.url">http://127.0.0.1:49152</
              contract:Column>
          </contract:Item>
        </contract:Collection>
      </contract:Props>
      <contract:ResponseProps>
      </contract:ResponseProps>
    </contract:doCallAPIRequest>
  </soap:Body>
</soap:Envelope>
```

doPublish

Use this service to publish a composed document, either from a stateful transaction or via an imported transaction.

A stateful request simply requires a FolderId, which is the identifier to handle a folder-based publishing request with pre-selected story templates in a ComposeData structure. Stateless requests can be driven by an import file (such as XML or a pre-defined extract) or the selection of desired story templates in a folder.

The doPublishRequest is considered *abstract* in nature, which means it cannot be implemented. Instead, doPublish supports the implementation of two underlying *concrete* types, as follows:

Type	Publishes a document from...
doPublish_Import	An import file (<doPublishRequest xsi:type="doPublishReq_Import"...)
doPublish_ComposedData	Composed data (<doPublishRequest xsi:type="doPublishReq_ComposedData"...)
doPublish_FolderId	A FolderId (<doPublishRequest xsi:type="doPublishReq_FolderId"...)

Scenario	Synchronous Request/Response using SOAP over HTTP
Message style	doc/literal

Operation/Message types

The following operation/message types should be supported and follow the synchronous request/response scenario:

Message	Parameter	Description	Type
Abstract Request			
doPublishRequest	LibraryId	Optional library selection identifier (required for SourceType=IMPORT or FOLDERID).	String
	DistributionOptions	Required grouping that specifies various publishing and distribution options.	DistributionOptions
Typed Request			
doPublishRequest_Import	SourceType	Fixed identifier for the type of publishing request (IMPORT).	String
	Import	Attachment data for the import files that drives the publishing request.	ImportFileList
Typed Request			
doPublishRequest_FolderId	SourceType	Fixed identifier for the type of publishing request (FOLDERID).	String
	FolderId	Unique identifier for the remote Folder	String
Typed Request			

doPublishRequest_ComposeData	SourceType	Fixed identifier for the type of publishing request (COMPOSEDATA).	String
	ComposeData	A list of selected story templates with composition data to be merged with the active document for composition or publishing.	ComposeData
Response			
doPublishResponse	Result	Returns <i>Success</i> or an error message.	String
	Errors	A list of the errors returned if the request completed, but not 100% successfully.	ErrorList
	DistributionResults	The DistributionResults group contains information pertaining to recipients and their published document results.	DistributionResults
Fault			
	BadRequest	An exception because of a bad request or malformed parameters.	Client
	ServiceException	An exception because of server problem or configuration.	Server

RETURNING A PDF FILE IN A DOPUBLISH RESPONSE

Use the doPublishAttachment INI option in the CONFIG.INI file to enable a print stream produced by Documaker extract file processing to be returned in the EWPS doPublish response. With this option set to Yes, any input to doPublish, such as a Documaker standard XML file or an extract file, can be configured to return base64 attachments.

```
< IDSServer >
doPublishAttachment = Yes
```

Option	Description
doPublishAttachment	Enter Yes to enable a print stream produced by Documaker extract file processing to be returned in the EWPS doPublish response. With this option set to Yes, any input to doPublish can be configured to return base64 attachments. The default is No.

NOTE: :This INI option only affects doPublish processing with an import file, not ComposeData or FolderID. You must use this option with the EWPS doPublish disposition distribution option of ATTACH.

ACCESSING A WORKSPACE DEFINITION FILE VIA A WEB SERVICE

You can use a web service to provide a Documaker Workspace Definition file (WDF) to the Documaker Add-In for Microsoft Word. This file contains information about the workspace such as recipients, triggers, and fields which makes it easier for Add-In users to insert these objects into their documents.

The Documaker Add-in for Microsoft Word is pre-configured to get a WDF file with key information about the resource library. The Documaker Add-In for Microsoft Word Help explains how to set up the web service and make sure it is working properly.

These items must be in place to enable the web service to access the definition file:

- Docupresentment version 2.2 with Documaker Shared Objects version 11.5 or higher must be installed and configured to use the workspace that will use the content created with the Add-in. Do this by adding the configuration name to the dap.ini file and creating a specific configuration file for the workspace, if it does not already exist. Here is an example:

```
< Config:workspace_name >
  INIFile = c:\fap\mstrres\workspace_name\fsisys.ini
  INIFile = c:\fap\mstrres\workspace_name\fsiuser.ini
```

Also add this option in the Configurations control group:

```
< Configurations >
  Config = workspace_name
```

- Put the GENDEFXML request type in the IDS configuration file (docserv.xml) to call the DPRGenerateDefinitionFile rule.

```
<section name="ReqType:GENDEFXML">
<entry name="function">atcw32->ATCLoadAttachment</entry>
<entry name="function">atcw32->ATCUnloadAttachment</entry>
<entry name="function">dprw32->DPRSetConfig</entry>
<entry name="function">dprw32->DPRGenerateDefinitionFile</entry>
<!-- -->
</section>
```

NOTE: For more information on the DPRGenerateDefinitionFile rule, see [Using the Documaker Bridge](#).

The request needs these input variables:

- Config
- BDF Name

Add-In users will enter these variables via the Documaker Add-in for Microsoft Word configuration option, see *Downloading a Workspace Definition File* in the Documaker Add-In for Microsoft Word Help for more information. To test, you can enter these variables via the DSICOTB test configuration tool. See the [Internet Document Server SDK Reference](#) for more information on this tool.

- Deploy EWPS to the application server via the ewps-axis2.war file. You can find this file at the root of the Docupresentment directory, docserv\webervices. Use the location of the deployed EWPS as the endpoint for configuring the web service connectivity.

When using Secure Sockets Layer (SSL), verify your certificate with a trusted CA site. To verify the certificate, create a .csr or .cer file and import the file into the keystore file. Then submit the .csr or .cer file to a certification service, such as VeriSign. From that site you can verify or authenticate the certificate and then use that certificate to connect to the Add-In operating behind the Secure Sockets Layer (SSL).

NOTE: The Documaker Add-In does not accept self-signed certificates.

Chapter 5

Additional Resources

The following resources provide information about SOAP, JSON, and web services in general, as well as other useful topics:

- [SOAP on page 83](#)
- [Web Services on page 84](#)
- [Web Services Description Language on page 86](#)
- [Using the XML Configuration File on page 87](#)

The definitions within various sections of this document are taken from several of these resources.

SOAP

SOAP (Simple Object Access Protocol) is a lightweight protocol intended for exchanging structured information in a decentralized, distributed environment. SOAP uses XML technologies to define an extensible messaging framework providing a message construct that can be exchanged over a variety of underlying protocols.

The framework has been designed to be independent of any particular programming model and other implementation specific semantics. SOAP supports message security, attachment, routing, reliability, and choreography.

W3C: <http://www.w3.org/TR/soap12-part1/>

SOAP Messaging Framework:

W3C: <http://www.w3.org/TR/SOAP>

W3Schools SOAP Tutorial:

W3Schools: <http://www.w3schools.com/soap/default.asp>

WEB SERVICES

Web services is a technology that lets applications communicate with each other in a platform- and programming language-independent manner.

A web service is a software interface that describes a collection of operations that can be accessed over the network through standardized XML messaging. It uses protocols based on the XML language to describe an operation to execute or data to exchange with another web service.

Web services promise to increase interoperability and lower the costs of software integration and data-sharing with partners. As they are based on simple and non-proprietary standards, web services make it possible for computer programs to communicate directly with one another and exchange data regardless of location, operating systems, or languages.

IBM: <http://www-106.ibm.com/developerworks/webservices/newto/>

REFERENCES AND PROJECTS

IBM developerWorks Web Services
IBM Corporation

<http://www-136.ibm.com/developerworks/webservices>

O'Reilly Web Services
O'Reilly & Associates, Inc.

<http://webservices.oreilly.com>

Microsoft Web Services
Microsoft Corporation

<http://msdn.microsoft.com/webservices>

XML and Web Services
Microsoft Corporation

<http://msdn2.microsoft.com/en-us/library/ms950421.aspx>

Java Technology and Web Services
Sun Microsystems, Inc.

<http://java.sun.com/webservices>

Apache Web Services Project
The Apache Software Foundation

<http://ws.apache.org>

JSON
JSON.org

<http://www.json.org>

WEB SERVICES STANDARDS AND SPECIFICATIONS

Web Services Interoperability Organization
WS-I

<http://www.ws-i.org>

Web Services Activity
W3C

<http://www.w3.org/2002/ws>

OASIS
OASIS

<http://www.oasis-open.org/home/index.php>

OTHER RESOURCES

Web Services Architect

<http://www.webservicesarchitect.com>

SOA World Magazine

<http://webservices.sys-con.com>

WebServices.org

<http://www.webservices.org>

Dr. Dobbs Journal – SOA, Web services, and XML

<http://www.ddj.com/dept/webservices>

WEB SERVICES DESCRIPTION LANGUAGE

Web Services Description Language (WSDL) is an XML-based service description on how to communicate using web services. The WSDL defines services as collections of network endpoints, or ports. WSDL specification provides an XML format for documents for this purpose.

The abstract definition of ports and messages is separated from their concrete use or instance. This allows the reuse of these definitions. A port is defined by associating a network address with a reusable binding, and a collection of ports define a service. Messages are abstract descriptions of the data being exchanged, and port types are abstract collections of supported operations. The concrete protocol and data format specifications for a particular port type constitutes a reusable binding, where the messages and operations are then bound to a concrete network protocol and message format. In this way, WSDL describes the public interface to the web service.

WSDL is often used with SOAP and XML Schema to provide web services over the Internet. A client program connecting to a web service can read the WSDL to determine what functions are available on the server. Any special data types used are embedded in the WSDL file in the form of XML Schema. The client can then use SOAP to actually call one of the functions listed in the WSDL.

Wikipedia: http://en.wikipedia.org/wiki/Web_Services_Description_Language

Using WSDL in SOAP applications:

IBM: <http://www-128.ibm.com/developerworks/library/ws-soap/?dwzone=ws>

Understanding WSDL:

Microsoft: <http://msdn2.microsoft.com/en-us/library/ms996486.aspx>

An overview of WSDL:

Sun: http://developers.sun.com/sw/building/tech_articles/overview_wsdl.html

Apache Axis2 User Guide:

Apache: http://ws.apache.org/axis2/1_1_1/userguide.html

USING THE XML CONFIGURATION FILE

EWPS uses a file to set up configuration options, including how it communicates with Docupresentment. The default behavior is to communicate with Docupresentment over HTTP, on port 49152, with EWPS and Docupresentment on the same machine.

There are several ways to have EWPS change where it looks for the configuration file. Based on your application server and clustering setup, you should select the approach that best fits your needs.

EWPS first looks for the following JVM system property:

```
ewps.config.url
```

If this is set, EWPS looks for the configuration file at the URL specified in the setting. If the configuration file is in a file on the local machine, use the *file:* url naming scheme. Here is an example:

```
file:///c:/configurations/ewps.config.xml
```

If the system property is not set or if there was an error retrieving the configuration file, EWPS searches its Java classpath for a file named:

```
ewps.config.xml
```

With some application servers, such as Tomcat, the file can be located in one of these EWPS directories...

- /WEB-INF/classes directory
- /WEB-INF/lib directory (if packaged in a JAR file)

Other application servers, such as WebSphere, have options to set up shared libraries that can be added to a web application's classpath but still remain external to the web application's deployment.

If none of these options find a configuration file, EWPS looks at the *init.file* context parameter in the web application's web.xml file. Some application servers allow access and the editing of this file directly after web application deployment, while others have administration consoles to allow the editing of parameters in the web application.

If the parameter is in the form of a URL, EWPS looks for the configuration file at the URL specified in the setting. If the parameter is not a URL, it is assumed to be a file in the context and file structure of the web application. The default value for the *init.file* context parameter is shown here:

```
/WEB-INF/xml/ewps.config.xml
```

ewps.config.xml file The ewps.config.xml file contains the configuration for the message bus provider. This file is located in the ewps-axis2.war's WEB-INF/services/EWPSService.aar (Axis2 Archive – Java Archive format) file, under its root.

You can modify this file to define the different message bus providers that Docupresentment (IDS) is configured to listen on. The ewps.config.xml file contains configuration examples for the following:

- JMS/ActiveMQ
- WebSphere MQ
- MSMQ (Windows only)
- IDS HTTP

You can find these message bus configuration examples under the <EWPS><Core><queuemanager> section of the XML file. Here is an example of the ewps.config.xml file:

```
<EWPS>
  <Core>
    <queuemanager>
      <!-- MESSAGING and QUEUE nodes are used for setting communication
      to Docupresentment. Refer to Docupresentment documentation for
      possible values -->
      <!-- ***Settings for ActiveMQ JMS setup *** -->
      <entry name="queuefactory.class">com.docucorp.messaging.jms.
DSIJMSJNDIMessageQueueFactory</entry>
      <entry name="jms.inputqueue.connectstring">resultq</entry>
      <entry name="jms.outputqueue.connectstring">requestq</entry>
      <entry name="jms.qcf.name">queueConnectionFactory</entry>
      <entry name="jms.initial.context.factory">org.apache.activemq.
jndi.ActiveMQInitialContextFactory</entry>
      <!-- ***Settings for IDS http connection*** -->
      <!--
      <entry name="queuefactory.class">com.docucorp.messaging.
http.DSIHTTPMessageQueueFactory</entry>
      <entry name="http.url">http://localhost:49152</entry>
      -->
      <!-- ***Settings for WebSphereMQ connection*** -->
      <!--
      <entry name="queuefactory.class">com.docucorp.messaging.
mqseries.DSIMQMessageQueueFactory</entry>
      <entry name="mq.queue.manager">QM.server1</entry>
      <entry name="mq.inputqueue.name">resultq</entry>
      <entry name="mq.inputqueue.maxwaitseconds">5</entry>
      <entry name="mq.outputqueue.name">requestq</entry>
      <entry name="mq.tcpip.host">10.1.10.159</entry>
      <entry name="mq.queue.channel">SCC1.server1</entry>
      <entry name="mq.tcpip.port">1415</entry>
      -->
      <!-- ***Settings for MSMQ connection*** -->
      <!--
      <entry name="queuefactory.class">com.docucorp.messaging.msmq.
DSIMSMQMessageQueueFactory</entry>
      <entry name="msmq.server.name">localhost</entry>
      <entry name="msmq.inputqueue.name">DIRECT=TCP:10.1.10.178\
private$\resultq</entry>
```



```
    <entry name="msmq.outputqueue.name">DIRECT=TCP:10.1.10.178
\private$\requestq</entry>
    <entry name="msmq.timeout">30000</entry>
    <entry name="msmq.expiry">1800000</entry>
    <entry name="msmq.debuglevel">2</entry>
    -->
  </queuemanager>
</Core>
</EWPS>
```

Appendix A

Using the Jmeter Test Script to Test EWPS

EWPS provides multiple service operations. Some of the service operations are abstract and encompass multiple implementations. Such a set of complex service operations can present a steep learning curve to new users of EWPS, but the EWPS Jmeter test script helps you get started by providing the following:

- A set of examples for each service request operation. These examples can help you more quickly implement your system.
- An interface which lets you inspect, modify, and expand test plans or create your own to establish EWPS functionality or test performance.
- A Docupresentation master resource library (MRL) that EWPS can use to invoke each service operation via the Jmeter test script.
- A way to do regression testing.

Also, the accompanying FSDMS2 library in Docupresentation shows a full working set by illustrating the library configuration on the Docupresentation side, which is used by EWPS.

NOTE: To use the Jmeter test script, you must have Docupresentation version 2.2, patch 08 or higher.

WHAT IS JMETER

Jmeter is a user interface from Apache that you can use to test the performance and functionality of Web services as well as other endpoints. You can learn more about Jmeter at the following link:

<http://jakarta.apache.org/jmeter/>

A Jmeter script is a test module that contains one or more pre-recorded test cases. A script can contain assertions and validations for each test case and can be run in a single thread to test for functionality or in multiple threads to test performance.

USING JMETER

To run the EWPS Jmeter test script, you must first download the latest version of Apache Jmeter from this site:

<http://jakarta.apache.org/jmeter/>

NOTE: Version 2.4 or greater is required to run the EWPS-Java-FSDMS2.jmx script.

The Docupresentment installation includes a Jmeter test script for testing the different EWPS service operations. The Jmeter script file is contained in this zip file:

`Docupresentment_installation/jmeter-scripts/EWPS-Java-FSDMS2.zip`

Where *Docupresentment_installation* represents the location where Docupresentment was installed, such as

On Windows	c:\docserv
On UNIX	/home/docupresentment/docserv

The EWPS Jmeter test script contains these test cases:

Test Case	Description
doGetLibraries	Tests the doGetLibraries service operation.
doGetBusUnits	Tests the doGetBusUnits service operation.
doGetTemplateList1	Tests the doGetTemplateList service operation. Returns a template list by matching the effective date.
doGetTemplateListData1	Tests the doGetTemplateListData service operation. Returns the template list data for the template list returned by the doGetTemplateList1 service request.
doGetTemplateList2	Tests the doGetTemplateList service operation. Returns a template list by matching the effective date and form name. The results are sorted by form name.
doGetTemplateListData2	Tests the doGetTemplateListData service operation. Returns the template list data for the template list returned by the doGetTemplatelist2 service request.
doGetTemplateList3	Tests the doGetTemplateList service operation. Returns a template list by matching the effective date and form description. The results are sorted by form description.
doGetTemplateListData3	Tests the doGetTemplateListData service operation. Returns the template list data for the template list returned by the doGetTemplatelist3 service request.
doCreateFolder1	Tests the doCreateFolder_Import service operation. Creates a folder (transaction) in WIP using a Documaker import file provided as a file URL.

Test Case	Description
doGetFolder1	Tests the doGetFolder service operation. Retrieves the folder created by the doCreateFolder1 service request and checks, through assertions, the Key1, Key2, DocumentId, DocumentType, StatusCode, and Description core property values.
doDeleteFolder1	Tests the doDeleteFolder service operation. Deletes the folder created by the doCreateFolder1 service request.
doCreateFolder2	Tests the doCreateFolder_Import service operation. Creates a folder (transaction) in WIP using a Documaker import file provided as inline base64 content.
doGetFolder2	Tests the doGetFolder service operation. Retrieves the folder created by the doCreateFolder2 service request and checks the Key1, Key2, DocumentId, DocumentType, StatusCode, and Description core property values.
doDeleteFolder2	Tests the doDeleteFolder service operation. Deletes the folder created by the doCreateFolder2 service request.
doCreateFolder3	Tests the doCreateFolder_Import service operation. Creates a folder (transaction) in WIP using a Documaker import file provided as a file URL and a TemplateList element that was returned by the doGetTemplateList2 service request.
doGetFolder3	Tests the doGetFolder service operation. Retrieves the folder created by the doCreateFolder3 service request checks the Key1, Key2, DocumentId, DocumentType, StatusCode, and Description core property values.
doDeleteFolder3	Tests the doDeleteFolder service operation. Deletes the folder created by the doCreateFolder3 service request.
doCreateFolder4	Tests the doCreateFolder_ComposeData service operation. Creates a folder (transaction) in WIP using a ComposeData element returned by the doGetTemplateListData2 service request and a custom property named INS_PHONE.
doGetFolder4	Tests the doGetFolder service operation. Retrieves the folder created by the previous service request (doCreateFolder4) and checks the Key1, Key2, DocumentId, DocumentType, StatusCode, and Description core property values. Also checks the custom property INS_PHONE.
doPublish1	Tests the doPublish_FolderId service operation. Publishes an XML export file from a transaction (folder) ID in WIP using the ADHOC distribution option and returns the file as a file URL.
doPublish2	Tests the doPublish_FolderId service operation. Publishes an XML export file from a transaction (folder) ID in WIP using the ADHOC distribution option and returns the file as base64 inline content.
doPublish3	Tests the doPublish_ComposeData service operation. Publishes a PDF file from a ComposeData Element using the ADHOC distribution option and returns the file as base64 inline content.

Test Case	Description
doPublish4	Tests the doPublish_Import service operation. Publishes a PDF file from an XML Import file using the PREDEFINED distribution option and returns the file as a URL.
doModifyFolder1	Tests the doModifyFolder service operation. Modifies the Key ID (DocumentId), the status code, the INS_PHONE custom Key, and the Description for a transaction (folder) in WIP.
doGetFolder5	Tests the doGetFolder service operation. Makes sure the values modified in the doModifyFolder1 service request present.
doModifyFolder2	Tests the doModifyFolder service operation. Modifies the field and form data for a transaction (folder) in WIP using a ComposeData element.
doGetFolder6	Tests the doGetFolder service operation. Makes sure the values modified in the doModifyFolder2 service request present.
doDeleteFolder4	Tests the doDeleteFolder service operation. Deletes the folder created by the doCreateFolder4 service request.
doGetFolderList	Tests the doGetFolderList service operation. Gets a folder list for the user, library, and other search criteria specified.
doCallAPI1	Tests the doCallAPI service operation. Sends an SSS request type to Docupresentation.
doCallAPI2	Tests the doCallAPI service operation. Sends an ECH request type with a 971,272 byte file attachment as base64 inline content to Docupresentation.
doCallAPI3	Tests the doCallAPI service operation. Sends an ECH request type with two file attachments. Demonstrates using the ResponseProps element to indicate how the response file attachments should be returned. One is returned as a file URL and the other is returned as inline base64 content.

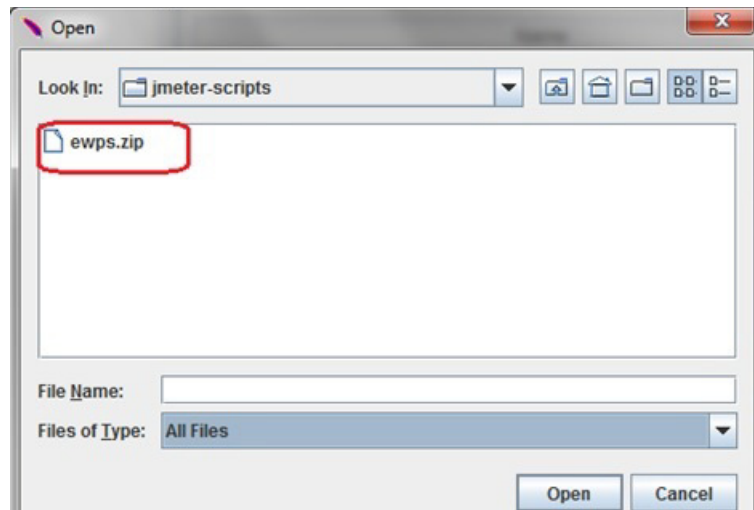
RUNNING THE JMETER TEST SCRIPT

Follow these steps to run the Jmeter test script:

- 1 Enter this command from the bin directory to start Jmeter:

```
jmeter
```

- 2 Once Jmeter starts, select File, Open and enter the location of the EWPS jmeter test script. The jmeter script can be found from the zip file.



- 3 Select the top most node (EWPS Test Plan) on the left tree view to display the Test plan properties in the right pane.

Test Plan	
Name:	EWPS Test Plan
Comments:	Use this test plan to test EWPS service operations. Modify the global variables below to match your environment.
User Defined Variables	
Name:	
ewps.host	127.0.0.1
ewps.port	8080
library.id	fsdms2
ids.host	127.0.0.1
ids.port	49152
file.input.URL	file:///c:/docserv/mstres/fsdms2/input/D
file.output.URL	file:///c:/docserv/mstres/fsdms2/Docum
key.1	DOCUDEMO
key.2	LIFE;CI
user.id	DEMO
effective.date	20091201

You must configure these properties for your environment before you run the Jmeter test script:

Property	Description
host	Specifies the IP address or server name of the application server hosting EWPS.
port	Specifies the port of the application server hosting EWPS.
libraryid	Specifies the library ID EWPS will use. This value corresponds to the library Docupresentation is configured to use in the DAP.INI file. This INI file points to the location of the library.
ids.host	Specifies the IP address or server name of the machine where Docupresentation is running the HTTP server (EWPS communicates with Docupresentation via HTTP with the default setup).
ids.port	Specifies the port number for the HTTP server running under Docupresentation. The port number is specified in the docserv.xml file for Docupresentation. The default is 49152.
file.input.URL	Specifies a file URL used by the doCallAPI service operation to generate a file attachment in the request payload.
file.output.URL	Specifies a file URL used by the doCallAPI service operation to generate a file from a file attachment in the response payload.
key1	Specifies the company value for the request payload.
key2	Specifies the line of business value for the request payload. Note: For Key3 value, include the value in the Key2 property by using a semicolon delimiter.
userid	Specifies the user account for the request payload.
effectivedate	Specifies the effective date to use for forms and sections stored and retrieved via the different service operations.

- 4 Select EWPS Thread Group to display the thread group for the test plan. You can change the number of threads for the thread group to test performance or accept the default to test functionality.

Thread Group

Name: EWPS Thread Group

Comments: Use this thread group to generate X number fo threads to test the service operation requests included in the thread group.

Action to be taken after a Sampler error

Continue
 Stop Thread
 Stop Test
 Stop Test Now

Thread Properties

Number of Threads (users): 1

Ramp-Up Period (in seconds): 1

Loop Count: Forever 1

Scheduler

- 5 To start the test, make sure EWPS and Docupresentation are running, then select Run, Start from the menu.
- 6 As the test runs, you can monitor the progress by looking at the summary report. To see this report, select the Summary Report node in the tree view on the left.

Summary Report										
Name: Summary Report										
Comments:										
Write results to file / Read from file										
Filename			Browse...		LogDisplay Only: <input type="checkbox"/> Errors <input type="checkbox"/> Successes		Configure			
Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	KB/sec	Avg. B	
doGetLibraries	1	1180	1180	1180	0.00	0.00%	50.8/min	2.55		
doGetBusUnits	1	884	884	884	0.00	0.00%	1.1/sec	0.68		
doGetTemplate...	1	642	642	642	0.00	0.00%	1.6/sec	16.98		
doGetTemplate...	1	948	948	948	0.00	0.00%	1.1/sec	42.74		
doGetTemplate...	1	627	627	627	0.00	0.00%	1.6/sec	4.62		
doGetTemplate...	1	883	883	883	0.00	0.00%	1.1/sec	11.09		
doGetTemplate...	1	728	728	728	0.00	0.00%	1.4/sec	4.58		
doGetTemplate...	1	796	796	796	0.00	0.00%	1.3/sec	17.00		
doCreateFolder 1	1	1745	1745	1745	0.00	0.00%	34.4/min	0.21		
doGetFolder 1	1	991	991	991	0.00	0.00%	1.0/sec	2.32		
doDeleteFolder 1	1	574	574	574	0.00	0.00%	1.7/sec	0.60		
doCreateFolder 2	1	729	729	729	0.00	0.00%	1.4/sec	0.51		
doGetFolder 2	1	777	777	777	0.00	0.00%	1.3/sec	2.91		
doDeleteFolder 2	1	626	626	626	0.00	0.00%	1.6/sec	0.55		
doCreateFolder 3	1	919	919	919	0.00	0.00%	1.1/sec	0.40		
doGetFolder 3	1	833	833	833	0.00	0.00%	1.2/sec	2.76		
doDeleteFolder 3	1	577	577	577	0.00	0.00%	1.7/sec	0.60		
doCreateFolder 4	1	891	891	891	0.00	0.00%	1.1/sec	0.42		
doGetFolder 4	1	780	780	780	0.00	0.00%	1.3/sec	6.61		
doPublish 1	1	779	779	779	0.00	0.00%	1.3/sec	1.01		
doPublish 2	1	862	862	862	0.00	0.00%	1.2/sec	15.55		
doPublish 3	1	1269	1269	1269	0.00	0.00%	47.3/min	50.02		
doPublish 4	1	3297	3297	3297	0.00	0.00%	18.2/min	0.47		
doGetFolderList	1	785	785	785	0.00	0.00%	1.3/sec	14.94		
doModifyFolder 1	1	833	833	833	0.00	0.00%	1.2/sec	1.94		
doGetFolder 5	1	779	779	779	0.00	0.00%	1.3/sec	6.61		
doModifyFolder 2	1	944	944	944	0.00	0.00%	1.1/sec	1.72		
doGetFolder 6	1	830	830	830	0.00	0.00%	1.2/sec	6.21		
doDeleteFolder 4	1	627	627	627	0.00	0.00%	1.6/sec	0.55		
doCallAPI 1	1	236	236	236	0.00	0.00%	4.2/sec	23.13		
doCallAPI 2	1	232	232	232	0.00	0.00%	4.3/sec	28.42		
doCallAPI 3	1	397	397	397	0.00	0.00%	2.5/sec	50.50		
doCallAPI 4	1	486	486	486	0.00	0.00%	2.1/sec	231.30	1	
doCallAPI 5	1	1696	1696	1696	0.00	0.00%	35.4/min	588.39	10	
doCallAPI 6	1	270	270	270	0.00	0.00%	3.7/sec	40.40		
TOTAL	35	870	727	3297	525.27	0.00%	1.1/sec	47.46		

- 7 To view the results of a particular test case, expand the test case and select its View Results Tree. Then, select the test case node within the View Results Tree and select the Request or Response Data tabs to view the payloads.

View Results Tree

Name: View Results Tree

Comments:

Write results to file / Read from file

Filename Log/Display Only: Errors Successes

doCreateFolder 4	Sampler result	Request	Response data
			<pre> <?xml version="1.0" encoding="UTF-8"?> <soapenv:Envelope xmlns:ns="http://webservicess.docucorp.com/ewps/schema/2005-12-01" xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"> <soapenv:Header></soapenv:Header> <soapenv:Body> <ns:doCreateFolderRequest xmlns:ns="http://webservicess.docucorp.com/ewps/schema/2005-12-01" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:type="ns:doCreateFolderReq_ComposeData" xmlns="http://webservicess.docucorp.com/ewps/schema/2005-12-01"> <ns:Owner>DEMO</ns:Owner> <ns:CoreProperties> <ns:LibraryId>fsdms2</ns:LibraryId> <ns:DocumentId>12345</ns:DocumentId> <ns:Key1 id="DOCUDEMO" package=""> <ns:Key2 id="LIFE"/> </ns:Key1> <ns:DocumentType>NB</ns:DocumentType> <ns:StatusCode>W</ns:StatusCode> <ns:Description>doCreateFolder 4</ns:Description> <ns:EffectiveDate>20091201</ns:EffectiveDate> <ns:Props> <ns:Prop name="INS_PHONE">770-513-7042</ns:Prop> </ns:Props> </ns:CoreProperties> <ComposeData> <Field name="FORMSET PAGE NUM"/> <Field name="FORMSET PAGE NUM OF"/> <Field name="RJUST DATE"/> <Field name="INSURED PREFIX"/> <Field name="INSURED ADDRESS1"/> <Field name="INSURED ADDRESS2"/> <Field name="INSURED CITY"/> <Field name="INSURED STATE"/> <Field name="INSURED ZIP"/> <Field name="INSUREDCITYSTATEZIP"/> <Field name="InsFName"/> <Field name="InsLName"/> <Field name="INSURED LNAME"/> </ComposeData> </ns:doCreateFolderRequest> </soapenv:Body> </soapenv:Envelope> </pre>