



# **Agile Product Lifecycle Management**

Agile PLM EC Web Services User Guide

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# Preface

Oracle's Agile PLM documentation set includes Adobe® Acrobat PDF files. The [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technetwork/documentation/agile-085940.html) <http://www.oracle.com/technetwork/documentation/agile-085940.html> contains the latest versions of the Agile PLM PDF files. You can view or download these manuals from the Web site, or you can ask your Agile administrator if there is an Agile PLM Documentation folder available on your network from which you can access the Agile PLM documentation (PDF) files.

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**Note** To read the PDF files, you must use the free Adobe Acrobat Reader version 9.0 or later. This program can be downloaded from the [Adobe Web site](http://www.adobe.com) <http://www.adobe.com>.

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The [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technetwork/documentation/agile-085940.html) <http://www.oracle.com/technetwork/documentation/agile-085940.html> can be accessed through **Help > Manuals** in both Agile Web Client and Agile Java Client. If you need additional assistance or information, please contact My Oracle Support (<https://support.oracle.com>) for assistance.

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**Note** Before calling Oracle Support about a problem with an Agile PLM manual, please have the full part number, which is located on the title page.

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## Readme

Any last-minute information about Agile PLM can be found in the Readme file on the [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technetwork/documentation/agile-085940.html) <http://www.oracle.com/technetwork/documentation/agile-085940.html>

## Agile Training Aids

Go to the [Oracle University Web page](http://www.oracle.com/education/chooser/selectcountry_new.html) [http://www.oracle.com/education/chooser/selectcountry\\_new.html](http://www.oracle.com/education/chooser/selectcountry_new.html) for more information on Agile Training offerings.

## Accessibility of Code Examples in Documentation

Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

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## Introduction

### About Engineering Collaboration (EC) Services

Agile PLM Engineering Collaboration (EC) Services are a set of Business Services that supplement PLM's Core Web Services for CAD use cases. They also offer a set of higher level BPEL orchestration services. Customers and partners can build next generation MCAD and ECAD connectors utilizing Agile PLM Web Services and Engineering Collaboration Services.

**Some of the benefits are:**

- Significantly improves WAN performance for CAD connectors because the bulk of the logic is deployed to the server
- Makes it easier for development partners and customers to implement CAD connectors

Customers and partners deploy the following out-of-the box BPEL services or modify them to meet their business needs.

EC BPEL Service	Description
getDesignPropertiesAndRights	Returns Design metadata and access rights. Orchestrates these calls: getTableMetaData, checkPrivilege
getDesignItemPropertiesAndRights	Returns Part metadata and access rights. Orchestrates these calls: getTableMetaData, checkPrivilege
createUpdateThenReserve	Creates or updates Design objects, and then checks them out. Orchestrates these calls: updateObject, getAutoNumbers, createObject, checkoutFF
reserveThenCreateUpdate	Checks out Design objects, and then updates them (and creates them if they don't exist). Orchestrates these calls: checkoutFF, updateObject, getAutoNumbers, createObject
createUpdateThenRelate	Creates or updates objects (Designs or Parts), and then relates them to Parts or Designs. Orchestrates these calls: updateObject, getAutoNumbers, createObject, addRows
retrieveDesignStructureAndMetadata	Retrieves all Design structure, file IDs, metadata, and access rights. Orchestrates these calls: retrieveDesignStructure, getTableMetaData, checkPrivilege

## Software Requirements

- Oracle SOA Suite 10.1.3.4 (iAS 10.1.3.4)
- jDeveloper 10gR3
- Agile 9.3 EC BPEL Services

## Target Audience

The intended audience for this guide are the Administrators who will deploy EC BPEL Services on Oracle SOA Suite.

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**Note** To deploy Agile EC BPEL services, Oracle SOA Suite must be already installed and configured.

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**Note: To deploy This guide provides necessary procedures to:**

1. Configure build properties
2. Build EC BPEL services in jDeveloper
3. Deploy the EC services in Oracle SOA Suite

## EC BPEL Services Source and Configuration files

Agile EC BPEL sources and configuration files are available in a zip file („ecs-bpel.zip.)

The "ecs-bpel.zip" file contains the following directory structure when extracted to a folder "bpel". This location will now on be referred to as <ec-bpel-root>.

The Oracle Agile PLM Application Suite enables enterprises to accelerate product innovation and maximize product profitability by managing the information, processes, and decisions about their products throughout the product lifecycle. The Agile PLM product provides comprehensive support for the PLM business process through PC, PQM, PPM, PCM, PGC & EC.

Businesses are starting to realize the benefits of Service Oriented Architecture (SOA) and Web Services. Web Services are rapidly emerging as the standard solution to publish business services, both within corporate firewalls as well as externally to provide integration points with business partners. Customers are also adopting SOA and Web Services technologies to enable more composite applications and enterprise-wide data integrations. SOA is emerging as the premier integration and architecture framework in today's complex and heterogeneous computing environment. SOA can help organizations streamline processes so that they can do business more efficiently, and adapt to changing needs and competition, enabling the software as a service concept are the preferred standards-based way to realize SOA.

Web Services are designed to support interoperable machine-to-machine interaction over a network. This interoperability is gained through a set of XML-based open standards, such as WSDL, SOAP, and UDDI. These standards provide a common approach for defining, publishing,



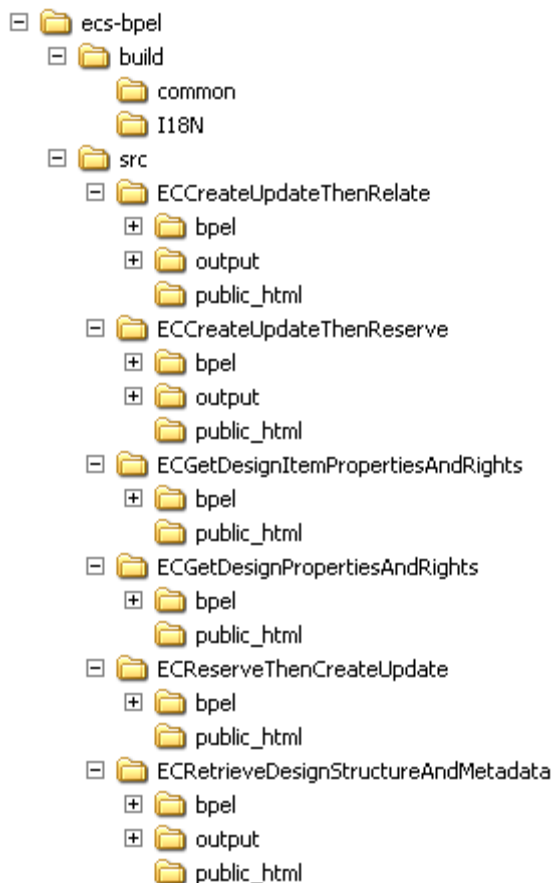
and using web services.



# What is included

The „ecs-bpel.zip“ file contains the following directory structure when extracted to a folder “bpel”. This location will now on be referred to as <ec-bpel-root>.

Figure 1: Directory structure of ecs-bpel.zip



The “build” folder contains a “build.xml” and “build.properties” file. The build.properties file must be adapted before you can deploy the processes. The “build.xml” contains all the targets you need to perform the deploy. This will be described in the following sections. The “I18N” folder contains the language resource bundle. This needs to be manually deployed which will also be described later.

The bpel processes are found under the “src” folder. Each bpel folder has a “build.xml” and “build.properties” file. These are artifacts from JDeveloper and are not used. They are included anyways if anyone wishes to use them.

The “public\_html” folder under each process contains a sample file that shows a sample request for each of the processes. This can be directly pasted in BpelConsole to directly invoke each process.



# EC BPEL Services

This chapter includes the following:

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## Configurations

### Configuration for local access to SOA suite

To compile or deploy bpel processes the following set of properties needs to be defined in build.properties file found under “<ec-bpel-root>/build” directory.

Table 2: Table of Properties for compilation/deployment and their function (BPEL Server on local machine)

List of properties (with actual/sample values)	Description
a9.server.hostname	The hostname of the machine where Agile 9 is deployed.
a9.server.port	The web context of Agile core web services, e.g.  <a href="http://agileserver:8888/coreService/services/BusinessObject">http://agileserver:8888/coreService/services/BusinessObject</a>  The above url points to the Agile 9 Business object services. The “coreService” is the web context for all these services.
todeploy.dir	The directory where compiled bpel processes will be placed ready for deployment, manually or via the deploy task included in script.
bpel.home=I:/product/10.1.3.4/OracleAS_1/bpel	The location of the bpel dir in the OAS app server installation. (Required)
bpel.process.rev=1.0	The revision of all the processes, this is required by the bpel server.
bpel.domain=default	The domain the bpel processes will get

	deployed to. This is a must by the bpel server. (Required)
bpel.http.hostname=localhost	This is required
bpel.http.port=7777	This is required
bpel.admin.user	This is only required for http mode installation. (Optional)
bpel.admin.encrypted.password	This is required for http deploy. This is decrypted at build time automatically using oracle libraries and value is set in the property "bpel.admin.password". If clear text password is set for bpel.admin.password already than decryption is not done. Either of these 2 properties must be set for successful deploy. It can be found in "<bpel.home>/utilities/ant-orabpel.properties" file on the server install.
bpel.admin.password	This is used in http mode installation. This is not needed if "bpel.admin.encrypted.password" is supplied. Not recommended to set this, only the above mentioned property is recommended to be set. But if set it works during the http mode deployment. (Optional)
bpel.verbose=true	Bpel process compilation and deployment verbose flag. (Optional)
dummy.bpel.home	This is a special property not required to be set. It used to deploy from a machine that does not have Soa Suite locally installed on it. When set it must point to the libraries needed to compile and deploy the processes. If bpel.home is left unspecified than these libraries will be used to compile/deploy the processes. See section "Configurations for a non-SOA Suite machine" for more details on how to use this property.

## Configuration for remote access to SOA suite

In general, you can only compile and deploy the BPEL processes from a machine that has the Soa Suite installed locally on to it. Alternatively JDeveloper can be used to compile the BPEL suitcases and the BPEL console can be used to execute an http deploy. But it is sometimes convenient to be

able to deploy all the processes from ANT in one go without manually executing these steps.

To alleviate this problem you need to copy the jar files listed below from your SOA server to your local machine. Your administrator can provide these files. These jars have to be copied over to folder called “lib”. Then you must specify the “dummy.bpel.home” property to be the parent folder of this “lib” directory. The build script will then work transparently for you whether you have the Soa Suite installed locally for you or not. This is not a documented approach for Soa server and is given only for convenience. Following are the required jar files for this setting. They can be found under “<SOA-suite-install-location>/bpel/lib” directory.

- orabpel.jar
- orabpel-ant.jar
- orabpel-boot.jar
- orabpel-common.jar
- orabpel-exts.jar
- orabpel-thirdparty.jar
- oracle\_http\_client.jar
- orawsdl.jar
- xmlparserv2.jar

## Compilation/Deployment of Processes

The Oracle BPEL server must be installed as part of the SOA Suite installation (version 10.1.3.4.0). At least version 1.6.5 of Ant must be present. The recommended version of Java is the same as used by the SOA Suite (version 10.1.3.4). More details on this are present in the installation guides of the Oracle Application Server and are out of scope of this document.

The properties outlined in Table 2 must be filled with valid values. Then open command line in directory “<ec-bpel-root>/build”. Then for deploying the bpel processes execute the following ant command:

**ant deploy-bpel-processes**

To just compile and place the processes in the folder specified by property “todeploy.dir”, execute on the command line in directory “<ec-bpel-root>/build”:

**ant compile-bpel-processes**

## Resource Bundle Installation

The folder under “<ec-bpel-root>/build/I18N” contains a “agileEcBpelResourceBundle.jar” file. This contains the language resource bundles for the bpel processes. The languages supported are the only ones that Agile PLM itself supports. The processes will not work without installing this jar file on the server.

The steps to manually install this jar file are as follows:

1. Copy the "agileEcBpelResourceBundle.jar" file to the "<SOA-suite-install-location>/bpel/lib" directory. Or alternatively you can copy it to some other location of your preference. Remember this path for later reference.
2. Go to the "<SOA-suite-install-location>/j2ee" directory. Next open the home directory in which the bpel server is installed. This is typically "oc4j\_soa" for default installations.
  - Open the "/config/server.xml" file in the above directory.
3. Find the xml node below :
  - <shared-library name="oracle.bpel.common" version="10.1.3">
4. Add the following line

```
<code-source path="<SOA-suite-install-  
location>/bpel/lib/agileEcBpelResourceBundle.jar"/>
```

where the string "<SOA-suite-install-location >" refers to the absolute path of your Soa Suite installation on your system.

Alternatively if you saved the "agileEcBpelResourceBundle.jar" to some other location, please provide the path to the same here.

Restart the Soa Suite server after this step for the changes to take effect. The bpel processes should now successfully run after this step.

## Setting up Processes in JDeveloper

The properties outlined in Table 2 must be filled with valid values. Then for developing or viewing the processes in JDeveloper execute the following Ant command:

**ant init-bpel**

JDeveloper version 10g was used in development of these processes and is the recommended IDE to be used with SOA Suite 10.1.3.4.

---

**Note** Please don't use JDeveloper 11g as this might cause conflicts with the BPEL server.

---

Now the next step is to open the processes in JDeveloper for development. You can do it in 2 ways:

1. Navigate to the directory "<ec-bpel-root>/src". Double click the "ECS-BPEL-V1.jws" file there. If this extension is associated with JDeveloper it will automatically open the projects in JDeveloper.
2. Alternatively if \*.jws files are not associated with JDeveloper, than you can use JDeveloper itself to open this file.
  - Click File->Open...
  - Navigate to the "<ec-bpel-root>/src" directory.
  - Select the "ECS-BPEL-V1.jws" file there in the open dialog box.
  - This will create the ECS-BPEL-V1 application for you with all the bpel processes added to it.



# Troubleshooting

## ***"get-wsdl" task failing***

This is a core task for the complete script. Nothing will work as expected if this task fails. It uses the ant "get" task to download the required wsdl files from the Agile 9 server. Possible reasons for failure could be:

- False Agile 9 server hostname / port, this translates to a wrong url for downloading the wsdl files.
- False setting of the "core.service.virtual.path" property, this translates to a wrong url for downloading the wsdl files.
- Agile 9 server is down.

Make sure that the Url's given in the "get" task of the "get-wsdl" target in the build script are valid and that you can access and download the wsdl files with a browser.

Another possible issue could be that you need to use a proxy server to get at the Agile 93 server. If this is the case, then please refer to the Ant "get" task manual. While using Ant 1.7 with Java 5 or later, the default proxy settings of OS are used. In other cases there is a <setproxy> task that you might need to write yourself.

## ***Could not create task or type of type: validateTask***

This is indicative of the fact that your "bpel.home" variable is not set properly. Please verify your SOA Suite installation directory and reset this variable to valid value that points to the bpel folder in your SOA Suite installation directory.

## ***Timeout error on deployment***

In some cases, especially in clustered application server environments, a timeout exception might be thrown either during deployment or while calling the BPEL services (error message contains: javax.transaction.RollbackException: Timed out).

Adjusting some configuration values in the SOA Suite installation will solve this issue. The placeholder "\${SOA\_Oracle\_Home}" should point to the installation location of the SOA Suite (usually the iAS install location).

1. In \${SOA\_Oracle\_Home}\j2ee\home\config\transaction-manager.xml, the value of transaction-timeout property should be set to 7200 at a minimum.
2. In \${SOA\_Oracle\_Home}\j2ee\home\application-deployments\orabpel\ejb\_ob\_engine\orion-ejb-jar.xml, the value of transaction-timeout property should be set to 3600 at a minimum.
3. In \${SOA\_Oracle\_Home}\bpel\domains\domain\_name\config\domain.xml, the value of syncMaxWaitTime should be set to 240 at a minimum.



# PLM EC Web Services

**This chapter includes the following:**

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## EC Object Calls

The Core service covers most of the basic services, which can also be used in the EC services context. There are some of the services that the Core service does not cover as those are EC specific services. Those EC services will be described in the following sections in detail. The EC Services are designed as document/wrapped style and use consistent request response types which in turn use the types defined in the Core services data model or extend the one from the Core service data model.

### getDesignProperties

#### Service:

To retrieve the metadata of the attributes available for the given subclass of Designs, including those in the Title Block, Page Two and Page Three tabs and optionally also the table pages, such as Files, Structure and Where Used.

#### Usage:

The request does not need to include any Agile objects, however, the following two parameters are allowed in the general parameters section: subclass-name and include-tables. The value of subclass-name is a subclass of a design for which the properties (Metadata) have to be retrieved. The value of the parameter include-tables is either "true" or "false". If set to "true", metadata for attributes in tables is included. The default value is "false".

The service reads the Metadata for the given Design subclass and checks if the subclass is of type Design and retrieves the metadata for all the object attributes, Auto number sources, subclass types and table metadata (if include-tables is set to "true"). Then the AgileECClass type is created and filled with the retrieved metadata.

#### Syntax:

```
AgileECResponseExtType getDesignPropertiesResponseType =  
agileStub.getDesignProperties(getDesignPropertiesRequestType);
```

#### Exceptions:

- If the subclass-name specified is not of type Design
- If there is no subclass of the given subclass type

**Basic Steps:**

To retrieve the metadata of a Design subclass:

1. Create the request object AgileECRequestExtType for the getDesignProperties operation.
2. Create a general parameters list of the type PropertyListType.
3. Add the parameter 'subclass-name' to the list.
4. Optionally add the parameter 'include-tables' to the list.
5. Call the WebService and review the metadata information returned.

**Sample Code Java**

```
try {
    setupServerLogin();
    Integer classId = getIntegerProperty(DSIGN_CLASS_ID);
    String subClass = getStringProperty(DSIGN_SUBCLASS);
    String number = getStringProperty(DSIGN_NUMBER);
    AgileECRequestExtType getDesignPropertiesRequestType = new
AgileECRequestExtType();
    PropertyListType[] generalParameters = new PropertyListType[2];
    generalParameters[0] = new PropertyListType();
    PropertyType[] props = new PropertyType[2];
    props[0] = new PropertyType("include-tables", "false");
    props[1] = new PropertyType("subclass-name", subClass);
    generalParameters[0].setProperty(props);
    getDesignPropertiesRequestType.setGeneralParameters(generalParameters);
    AgileECResponseExtType getDesignPropertiesResponseType =
agileStub.getDesignProperties(getDesignPropertiesRequestType);
    System.out.println("STATUS CODE: " +
getDesignPropertiesResponseType.getStatusCode());
    if
(!getDesignPropertiesResponseType.getStatusCode().toString().equals(ResponseStatus
Code.SUCCESS.getValue())) {
        AgileExceptionListType[] agileExceptionListType =
getDesignPropertiesResponseType.getExceptions();
        for (AgileExceptionListType exceptionListType :
agileExceptionListType) {
            for (AgileExceptionType exception :
exceptionListType.getException()) {
                System.out.println(exception.getMessage());
            }
        }
    } else { // If the object, was successfully retrieved, then examine its
        AgileECClassType[] agileResponseObjects =
getDesignPropertiesResponseType.getAgileClass();
        if (agileResponseObjects != null) {
            for (AgileECClassType agileObject : agileResponseObjects) {
                System.out.println("Class API Name: " +
agileObject.getApiName());
                AdminNodeType[] autoNumbers = agileObject.getAutoNumber();
                for (AdminNodeType autoNumber : autoNumbers) {
                    System.out.println("AutoNumber API Name: " +
autoNumber.getApiName());
                    System.out.println("AutoNumber Display Name: " +
autoNumber.getDisplayName());
                }
                AttributeType[] attributeMetaData =
agileObject.getAttributeMetaData();
                for (AttributeType at : attributeMetaData) {
                    System.out.println("MetaData Node ID: " + at.getNodeId());
                    System.out.println("MetaData API Name: " + at.getApiName());
                    System.out.println("MetaData Type: " + at.getType());
                }
            }
        }
    }
}
```

```

        System.out.println("MetaData Display Name: " +
at.getDisplayName());
        System.out.println("MetaData Data Type: " +
at.getDataType());
        System.out.println("MetaData Searchable: " +
at.getSearchable());
        System.out.println("MetaData Visible: " + at.getVisible());
        System.out.println("MetaData Required: " + at.getRequired());
        System.out.println("MetaData Max. Length: " +
at.getMaxLength());
    }
} else {
    System.out.println("No results!");
}
}
}

```

### Sample Code SOAP

```

==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <soapenv:Body>
        <getDesignProperties xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
            <req xmlns="">
                <generalParameters>
                    <id xsi:nil="true" />
                    <property>
                        <propertyName>include-tables</propertyName>
                        <propertyValue>>false</propertyValue>
                    </property>
                    <property>
                        <propertyName>subclass-name</propertyName>
                        <propertyValue>Design</propertyValue>
                    </property>
                </generalParameters>
                <generalParameters xsi:nil="true" />
            </req>
        </getDesignProperties>
    </soapenv:Body>
</soapenv:Envelope>
==== Response ====
<?xml version="1.0" encoding="utf-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <soapenv:Body>
        <getDesignPropertiesResponse
            xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
            <res xmlns="">
                <messageId xsi:nil="true" />
                <messageName xsi:nil="true" />
                <statusCode>SUCCESS</statusCode>
                <AgileClass>
                    <nodeId>2000008310</nodeId>
                    <apiName>Design</apiName>
                    <typeCLASS</type>
                    <displayName>Design</displayName>
                    <abstractClass>>false</abstractClass>
                    <autoNumber>
                        <nodeId>2000008780</nodeId>
                        <apiName>DesignsNumber</apiName>
                        <typeAUTONUMBER</type>
                        <displayName>Designs Number</displayName>
                    </autoNumber>
                </AgileClass>
            </res>
        </getDesignPropertiesResponse>
    </soapenv:Body>
</soapenv:Envelope>

```

```
</autoNumber>
<attributeMetaData>
  <nodeId>6173</nodeId>
  <apiName>Number</apiName>
  typeATTRIBUTE</type>
  <displayName>Number</displayName>
  <dataType>2</dataType>
  <searchable>true</searchable>
  <visible xsi:nil="true" />
  <required>true</required>
  <maxLength>50</maxLength>
</attributeMetaData>
<attributeMetaData>
  <nodeId>2000009487</nodeId>
  <apiName>itemChangeStatus</apiName>
  typeATTRIBUTE</type>
  <displayName>Item Change Status</displayName>
  <dataType>2</dataType>
  <searchable>true</searchable>
  <visible xsi:nil="true" />
  <required>false</required>
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```

## getItemPropertiesByDesign

### Service:

To retrieve the metadata of the attributes available for the subclass of the Part to which the given Design object is attached. Returns a FAILURE if the given Design is not attached to a Part object.

### Usage:

The request does not need to include any agile objects, however, the following two parameters should be used in first set of general parameters: 'design-id' and 'include-tables'. 'design-id' is a required parameter and should contain the number of the Design object to search for. 'include-tables' is optional and may be set to 'true' or 'false'. If set to 'true', then metadata for the attributes in the table pages of the Parts subclass will be included in the response. The default value for include-tables is "false".

The service returns an array of AgileECClassType for the Parts subclass filled in the response object.

### Syntax:

```

AgileECResponseExtType getItemPropertiesByDesignResponseType =
agileStub.getItemPropertiesByDesign(getItemPropertiesByDesignRequestType)

```

**Exceptions:**

- If the object is not found for the given ID
- If the object found is not of type Design

**Basic Steps:**

1. Create the request object AgileECRequestExtType for the getItemPropertiesByDesign operation.
2. Create a general parameters list of type PropertyListType
3. Add the parameter 'design-id' to the list.
4. Optionally add the parameter 'include-tables' to the list.
5. Call the WebService and review the metadata information returned.

**Sample Code Java:**

```
try {
    setupServerLogin();
    Integer classId = getIntegerProperty(DESIGN_CLASS_ID);
    String subClass = getStringProperty(DESIGN_SUBCLASS);
    String number = getStringProperty(DESIGN_NUMBER);
    String version = getStringProperty(DESIGN_VERSION);
    AgileECRequestExtType getItemPropertiesByDesignRequestType = new
AgileECRequestExtType();
    PropertyListType[] generalParameters = new PropertyListType[2];
    generalParameters[0] = new PropertyListType();
    PropertyType[] props = new PropertyType[2];
    props[0] = new PropertyType("include-tables", "false");
    props[1] = new PropertyType("design-id", number);
    generalParameters[0].setProperty(props);

    getItemPropertiesByDesignRequestType.setGeneralParameters(generalParameters);
    AgileECResponseExtType getItemPropertiesByDesignResponseType = agileStub
        .getItemPropertiesByDesign(getItemPropertiesByDesignRequestType);
    System.out.println("STATUS CODE: " +
getItemPropertiesByDesignResponseType.getStatusCode());
    if
(!getItemPropertiesByDesignResponseType.getStatusCode().toString().equals(Response
StatusCode.SUCCESS.getValue())) {
        AgileExceptionListType[] agileExceptionListType =
getItemPropertiesByDesignResponseType.getExceptions();
        for (AgileExceptionListType exceptionListType :
agileExceptionListType) {
            for (AgileExceptionType exception :
exceptionListType.getException()) {
                System.out.println(exception.getMessage());
            }
        }
    } else { // If the object, was successfully retrieved, then examine its
        AgileECClassType[] agileResponseObjects =
getItemPropertiesByDesignResponseType.getAgileClass();
        if (agileResponseObjects != null) {
            for (AgileECClassType agileObject : agileResponseObjects) {
                System.out.println("Class API Name: " +
agileObject.getApiName());
                AdminNodeType[] autoNumbers = agileObject.getAutoNumber();
                for (AdminNodeType autoNumber : autoNumbers) {
                    System.out.println("AutoNumber API Name: " +
autoNumber.getApiName());
                    System.out.println("AutoNumber Display Name: " +
autoNumber.getDisplayName());
                }
            }
        }
    }
}
```



```

        AttributeType[] attributeMetaData =
agileObject.getAttributeMetaData();
        for (AttributeType at : attributeMetaData) {
            System.out.println("MetaData Node ID: " + at.getNodeId());
            System.out.println("MetaData API Name: " + at.getApiName());
            System.out.println("MetaData Type: " + at.getType());
            System.out.println("MetaData Display Name: " +
at.getDisplayName());
            System.out.println("MetaData Data Type: " +
at.getDataType());
            System.out.println("MetaData Searchable: " +
at.getSearchable());
            System.out.println("MetaData Visible: " + at.getVisible());
            System.out.println("MetaData Required: " + at.getRequired());
            System.out.println("MetaData Max. Length: " +
at.getMaxLength());
        }
    } else {
        System.out.println("No results!");
    }
}
}

```

#### Sample Code SOAP:

```

==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
    <getItemPropertiesByDesign
      xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
      <req xmlns="">
        <generalParameters>
          <id xsi:nil="true" />
          <property>
            <propertyName>include-tables</propertyName>
            <propertyValue>>false</propertyValue>
          </property>
          <property>
            <propertyName>design-id</propertyName>
            <propertyValue>DESIGN09483.SLDASM</propertyValue>
          </property>
        </generalParameters>
        <generalParameters xsi:nil="true" />
      </req>
    </getItemPropertiesByDesign>
  </soapenv:Body>
</soapenv:Envelope>
==== Response ====
<?xml version="1.0" encoding="utf-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
    <getItemPropertiesByDesignResponse
      xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
      <res xmlns="">
        <messageId xsi:nil="true" />
        <messageName xsi:nil="true" />
        <statusCode>SUCCESS</statusCode>
        <AgileClass>
          <nodeId>10141</nodeId>
          <apiName>Part</apiName>
        </AgileClass>
      </res>
    </getItemPropertiesByDesignResponse>
  </soapenv:Body>
</soapenv:Envelope>

```

```

+typeCLASS</type>
<displayName>Part</displayName>
<abstractClass>false</abstractClass>
<autoNumber>
  <nodeId>12416</nodeId>
  <apiName>PartNumber</apiName>
  typeAUTONUMBER</type>
  <displayName>Part Number</displayName>
</autoNumber>
<attributeMetaData>
  <nodeId>1014</nodeId>
  <apiName>Rev</apiName>
  typeATTRIBUTE</type>
  <displayName>Rev</displayName>
  <dataType>4</dataType>
  <possibleValues>
    <id xsi:nil="true" />
    <apiName>Rev</apiName>
    <displayName>Rev</displayName>
    typeSIMPLELIST</type>
    <value xsi:nil="true" />
  </possibleValues>
  <searchable>false</searchable>
  <visible xsi:nil="true" />
  <required>false</required>
  <maxLength>2147483647</maxLength>
</attributeMetaData>
<attributeMetaData>
  <nodeId>1004</nodeId>
  <apiName>productLineS</apiName>
  typeATTRIBUTE</type>
  <displayName>Product Line(s)</displayName>
  <dataType>5</dataType>
  <possibleValues>
    <id xsi:nil="true" />
    <apiName xsi:nil="true" />
    <value xsi:nil="true" />
  </possibleValues>
  <searchable>true</searchable>
  <visible xsi:nil="true" />
  <required>false</required>
  <maxLength>2147483647</maxLength>
</attributeMetaData>
<attributeMetaData>
  <nodeId>2000008549</nodeId>
  <apiName>Thumbnail</apiName>
  typeATTRIBUTE</type>
  <displayName>Thumbnail</displayName>
  <dataType>4</dataType>
  <possibleValues>
    <id xsi:nil="true" />
    <apiName>Thumbnail</apiName>
    <displayName>Thumbnail</displayName>
    typeSIMPLELIST</type>
    <value xsi:nil="true" />
  </possibleValues>
  <searchable>false</searchable>
  <visible xsi:nil="true" />
  <required>false</required>
  <maxLength>2147483647</maxLength>
</attributeMetaData>
<attributeMetaData>
  <nodeId>2000009494</nodeId>
  <apiName>ModelRef</apiName>
  typeATTRIBUTE</type>
  <displayName>Base Model</displayName>
  <dataType>2</dataType>

```

```

        <searchable>false</searchable>
        <visible xsi:nil="true" />
        <required>false</required>
        <maxLength>20</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>1084</nodeId>
        <apiName>lifecyclePhase</apiName>
        typeATTRIBUTE</type>
        <displayName>Lifecycle Phase</displayName>
        <dataType>4</dataType>
        <possibleValues>
            <id xsi:nil="true" />
            <apiName xsi:nil="true" />
            <value xsi:nil="true" />
        </possibleValues>
        <searchable>true</searchable>
        <visible xsi:nil="true" />
        <required>false</required>
        <maxLength>2147483647</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>2000008520</nodeId>
        <apiName>itemGroupS</apiName>
        typeATTRIBUTE</type>
        <displayName>Item Group(s)</displayName>
        <dataType>5</dataType>
        <possibleValues>
            <id xsi:nil="true" />
            <apiName>Item Groups</apiName>
            typeSIMPLELIST</type>
            <value xsi:nil="true" />
        </possibleValues>
        <searchable>true</searchable>
        <visible xsi:nil="true" />
        <required>false</required>
        <maxLength>2147483647</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>1081</nodeId>
        <apiName>partType</apiName>
        typeATTRIBUTE</type>
        <displayName>Part Type</displayName>
        <dataType>4</dataType>
        <possibleValues>
            <id xsi:nil="true" />
            <apiName xsi:nil="true" />
            <value xsi:nil="true" />
        </possibleValues>
        <searchable>true</searchable>
        <visible xsi:nil="true" />
        <required>true</required>
        <maxLength>2147483647</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>2000002859</nodeId>
        <apiName>excludeFromRollup</apiName>
        typeATTRIBUTE</type>
        <displayName>Exclude from Rollup</displayName>
        <dataType>4</dataType>
        <possibleValues>
            <id xsi:nil="true" />
            <apiName xsi:nil="true" />
            <value xsi:nil="true" />
        </possibleValues>
        <searchable>true</searchable>
        <visible xsi:nil="true" />

```

```

        <required>false</required>
        <maxLength>2147483647</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>2000004416</nodeId>
        <apiName>partFamily</apiName>
        typeATTRIBUTE</type>
        <displayName>Part Family</displayName>
        <dataType>4</dataType>
        <possibleValues>
            <id xsi:nil="true" />
            <apiName>PartFamilies</apiName>
            typeSIMPLELIST</type>
            <value xsi:nil="true" />
        </possibleValues>
        <searchable>true</searchable>
        <visible xsi:nil="true" />
        <required>false</required>
        <maxLength>2147483647</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>2000009468</nodeId>
        <apiName>partSubtype</apiName>
        typeATTRIBUTE</type>
        <displayName>Part Subtype</displayName>
        <dataType>4</dataType>
        <possibleValues>
            <id xsi:nil="true" />
            <apiName xsi:nil="true" />
            <value xsi:nil="true" />
        </possibleValues>
        <searchable>true</searchable>
        <visible xsi:nil="true" />
        <required>false</required>
        <maxLength>2147483647</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>2000002781</nodeId>
        <apiName>shippableItem</apiName>
        typeATTRIBUTE</type>
        <displayName>Shippable Item</displayName>
        <dataType>4</dataType>
        <possibleValues>
            <id xsi:nil="true" />
            <apiName xsi:nil="true" />
            <value xsi:nil="true" />
        </possibleValues>
        <searchable>true</searchable>
        <visible xsi:nil="true" />
        <required>false</required>
        <maxLength>2147483647</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>1002</nodeId>
        <apiName>Description</apiName>
        typeATTRIBUTE</type>
        <displayName>Description</displayName>
        <dataType>2</dataType>
        <searchable>true</searchable>
        <visible xsi:nil="true" />
        <required>false</required>
        <maxLength>240</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>1082</nodeId>
        <apiName>partCategory</apiName>
        typeATTRIBUTE</type>

```

```

<displayName>Part Category</displayName>
<dataType>4</dataType>
<possibleValues>
  <id xsi:nil="true" />
  <apiName xsi:nil="true" />
  <value xsi:nil="true" />
</possibleValues>
<searchable>true</searchable>
<visible xsi:nil="true" />
<required>false</required>
<maxLength>2147483647</maxLength>
</attributeMeta-data>
<attributeMeta-data>
  <nodeId>1016</nodeId>
  <apiName>revReleaseDate</apiName>
  typeATTRIBUTE</type>
  <displayName>Rev Release Date</displayName>
  <dataType>3</dataType>
  <searchable>true</searchable>
  <visible xsi:nil="true" />
  <required>false</required>
  <maxLength>2147483647</maxLength>
</attributeMeta-data>
<attributeMeta-data>
  <nodeId>2000004143</nodeId>
  <apiName>complianceCalculatedDate</apiName>
  typeATTRIBUTE</type>
  <displayName>Compliance Calculated Date</displayName>
  <dataType>3</dataType>
  <searchable>true</searchable>
  <visible xsi:nil="true" />
  <required>false</required>
  <maxLength>2147483647</maxLength>
</attributeMeta-data>
<attributeMeta-data>
  <nodeId>1017</nodeId>
  <apiName>revIncorpDate</apiName>
  typeATTRIBUTE</type>
  <displayName>Rev Incorp Date</displayName>
  <dataType>3</dataType>
  <searchable>true</searchable>
  <visible xsi:nil="true" />
  <required>false</required>
  <maxLength>2147483647</maxLength>
</attributeMeta-data>
<attributeMeta-data>
  <nodeId>2000004612</nodeId>
  <apiName>Mass</apiName>
  typeATTRIBUTE</type>
  <displayName>Mass</displayName>
  <dataType>11</dataType>
  <searchable>true</searchable>
  <visible xsi:nil="true" />
  <required>false</required>
  <maxLength>2147483647</maxLength>
</attributeMeta-data>
<attributeMeta-data>
  <nodeId>2000004891</nodeId>
  <apiName>overallCompliance</apiName>
  typeATTRIBUTE</type>
  <displayName>Overall Compliance</displayName>
  <dataType>4</dataType>
  <possibleValues>
    <id xsi:nil="true" />
    <apiName xsi:nil="true" />
    <value xsi:nil="true" />
  </possibleValues>

```

```

        <searchable>true</searchable>
        <visible xsi:nil="true" />
        <required>false</required>
        <maxLength>2147483647</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>1001</nodeId>
        <apiName>Number</apiName>
        typeATTRIBUTE</type>
        <displayName>Number</displayName>
        <dataType>2</dataType>
        <searchable>true</searchable>
        <visible xsi:nil="true" />
        <required>true</required>
        <maxLength>30</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>1068</nodeId>
        <apiName>Size</apiName>
        typeATTRIBUTE</type>
        <displayName>Size</displayName>
        <dataType>4</dataType>
        <possibleValues>
            <id xsi:nil="true" />
            <apiName xsi:nil="true" />
            <value xsi:nil="true" />
        </possibleValues>
        <searchable>true</searchable>
        <visible xsi:nil="true" />
        <required>false</required>
        <maxLength>2147483647</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>12089</nodeId>
        <apiName>effectivityDate</apiName>
        typeATTRIBUTE</type>
        <displayName>Effectivity Date</displayName>
        <dataType>3</dataType>
        <searchable>true</searchable>
        <visible xsi:nil="true" />
        <required>false</required>
        <maxLength>2147483647</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>2008</nodeId>
        <apiName>Text02</apiName>
        typeATTRIBUTE</type>
        <displayName>CAD Model Configuration</displayName>
        <dataType>2</dataType>
        <searchable>true</searchable>
        <visible xsi:nil="true" />
        <required>false</required>
        <maxLength>50</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>1301</nodeId>
        <apiName>Text11</apiName>
        typeATTRIBUTE</type>
        <displayName>CAD System</displayName>
        <dataType>2</dataType>
        <searchable>true</searchable>
        <visible xsi:nil="true" />
        <required>false</required>
        <maxLength>50</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>1306</nodeId>

```

```

    <apiName>Text16</apiName>
    typeATTRIBUTE</type>
    <displayName>CAD Subtype</displayName>
    <dataType>2</dataType>
    <searchable>true</searchable>
    <visible xsi:nil="true" />
    <required>false</required>
    <maxLength>50</maxLength>
  </attributeMetaData>
  <attributeMetaData>
    <nodeId>1313</nodeId>
    <apiName>Text23</apiName>
    typeATTRIBUTE</type>
    <displayName>Published from</displayName>
    <dataType>2</dataType>
    <searchable>true</searchable>
    <visible xsi:nil="true" />
    <required>false</required>
    <maxLength>50</maxLength>
  </attributeMetaData>
  <attributeMetaData>
    <nodeId>1308</nodeId>
    <apiName>Text18</apiName>
    typeATTRIBUTE</type>
    <displayName>CAD Variant</displayName>
    <dataType>2</dataType>
    <searchable>true</searchable>
    <visible xsi:nil="true" />
    <required>false</required>
    <maxLength>50</maxLength>
  </attributeMetaData>
  <attributeMetaData>
    <nodeId>1302</nodeId>
    <apiName>Text12</apiName>
    typeATTRIBUTE</type>
    <displayName>CAD Filename</displayName>
    <dataType>2</dataType>
    <searchable>true</searchable>
    <visible xsi:nil="true" />
    <required>false</required>
    <maxLength>50</maxLength>
  </attributeMetaData>
  <attributeMetaData>
    <nodeId>2023</nodeId>
    <apiName>List04</apiName>
    typeATTRIBUTE</type>
    <displayName>List04</displayName>
    <dataType>4</dataType>
    <possibleValues>
      <id xsi:nil="true" />
      <apiName>List04</apiName>
      <displayName>List04</displayName>
      typeSIMPLELIST</type>
      <value xsi:nil="true" />
    </possibleValues>
    <searchable>true</searchable>
    <visible xsi:nil="true" />
    <required>false</required>
    <maxLength>2147483647</maxLength>
  </attributeMetaData>
  <attributeMetaData>
    <nodeId>1305</nodeId>
    <apiName>Text15</apiName>
    typeATTRIBUTE</type>
    <displayName>CAD Type</displayName>
    <dataType>2</dataType>
    <searchable>true</searchable>

```

```
        <visible xsi:nil="true" />
        <required>false</required>
        <maxLength>50</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>2623310</nodeId>
        <apiName>myPublishedFrom</apiName>
        typeATTRIBUTE</type>
        <displayName>My Published From</displayName>
        <dataType>2</dataType>
        <searchable>true</searchable>
        <visible xsi:nil="true" />
        <required>false</required>
        <maxLength>50</maxLength>
    </attributeMetaData>
    <attributeMetaData>
        <nodeId>2007</nodeId>
        <apiName>Text01</apiName>
        typeATTRIBUTE</type>
        <displayName>CAD Model</displayName>
        <dataType>2</dataType>
        <searchable>true</searchable>
        <visible xsi:nil="true" />
        <required>false</required>
        <maxLength>50</maxLength>
    </attributeMetaData>
</AgileClass>
</res>
</getItemPropertiesByDesignResponse>
</soapenv:Body>
</soapenv:Envelope>
```

## searchSingleObject

### Service:

To search for a Design object based on the file name of the file attached to id, optionally refining the search to the given file category and/or Design subclass.

### Usage:

The request does not need to include any agile objects, however, the following three parameters should be used in the first set of general parameters: 'file-name', 'subclass-name' and 'file-category'.

'file-name' is required and should be set to the name of the file to search for. 'subclass-name' is optional and may be used to limit the search to the given subclass of Designs and 'file-category' is also optional and may be used to limit the search based on the value of the File Category attribute in the FILES table of the Design.

The service returns an AgileBusinessObjectType in the response object, representing the first Design found through the search. If no Design is found to match the search, then a response with no AgileBusinessObjectType elements will be returned.

### Syntax

```
AgileECResponseExtType searchSingleObjectResponseType =
agileStub.searchSingleObject(searchSingleObjectRequestType);
```

### Exceptions:



- If the object is not found for the given ID
- If the object found is not of type Design

#### Basic Steps:

1. Create the request object AgileECRequestExtType for the searchSingleObject operation.
2. Create a general parameters list of type PropertyListType
3. Add the parameter 'file-name' to the list.
4. Optionally add the parameters 'file-category' and 'subclass-name' to the list.
5. Call the WebService and check if an AgileBusinessObjectType is included in the response.

#### Sample Code Java:

```

try {
    setupServerLogin();
    String fileName = getStringProperty(DSIGN_FILE_NAME);
    String fileCategory = getStringProperty(DSIGN_FILE_CATEGORY);
    String subClass = getStringProperty(DSIGN_SUBCLASS);
    AgileECRequestExtType searchSingleObjectRequestType = new
AgileECRequestExtType();
    PropertyListType[] generalParameters = new PropertyListType[2];
    generalParameters[0] = new PropertyListType();
    PropertyType[] props = new PropertyType[3];
    props[0] = new PropertyType("file-name", fileName);
    props[1] = new PropertyType("file-category", fileCategory);
    props[2] = new PropertyType("subclass-name", subClass);
    generalParameters[0].setProperty(props);
    searchSingleObjectRequestType.setGeneralParameters(generalParameters);
    AgileECResponseExtType searchSingleObjectResponseType =
agileStub.searchSingleObject(searchSingleObjectRequestType);
    System.out.println("STATUS CODE: " +
searchSingleObjectResponseType.getStatusCode());
    if
(!searchSingleObjectResponseType.getStatusCode().toString().equals(ResponseStatusC
ode.SUCCESS.getValue())) {
        AgileExceptionListType[] agileExceptionListType =
searchSingleObjectResponseType.getExceptions();
        for (AgileExceptionListType exceptionListType :
agileExceptionListType) {
            for (AgileExceptionType exception :
exceptionListType.getException()) {
                System.out.println(exception.getMessage());
            }
        }
    } else { // If the object, was successfully retrieved, then examine its
        AgileBusinessObjectType[] agileResponseObjects =
searchSingleObjectResponseType.getAgileObject();
        if (agileResponseObjects != null) {
            for (AgileBusinessObjectType agileObject : agileResponseObjects) {
                ObjectIdentifierType objectIdentifier =
agileObject.getObjectIdentifier();
                System.out.println("Agile Object Class ID: " +
objectIdentifier.getClassId());
                System.out.println("Agile Object Class Name: " +
objectIdentifier.getClassName());
                System.out.println("Agile Object Class Display Name: " +
objectIdentifier.getClassDisplayName());
                System.out.println("Agile Object Object ID: " +
objectIdentifier.getObjectId());
                System.out.println("Agile Object Object Name: " +
objectIdentifier.getObjectName());
            }
        }
    }
}

```

```

        PropertyListType options = agileObject.getOptions();
        for (PropertyType property : options.getProperty()) {
            System.out.println("Option Property Name: " +
property.getPropertyName());
            System.out.println("Option Property Value: " +
property.getPropertyValue());
        }
        for (MessageElement node : agileObject.get_any()) {
            System.out.println("Agile Object " + node.getLocalName() + ":
" + node.getValue());
            Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
            while (nodeIt.hasNext()) {
                Node selectionNode = nodeIt.next();
                if (selectionNode instanceof MessageElement) {
                    MessageElement element = (MessageElement)
selectionNode;
                    Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
                    while (subNodeIt.hasNext()) {
                        MessageElement subNode = subNodeIt.next();
                        System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
                    }
                }
            }
        }
    } else {
        System.out.println("No results!");
    }
}
}

```

**Sample Code SOAP:**

```

==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<soapenv:Body>
    <searchSingleObject
xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
        <req xmlns="">
            <generalParameters>
                <id xsi:nil="true" />
                <property>
                    <propertyName>file-
name</propertyName>
                    <propertyValue>512-00011-
000.SLDASM</propertyValue>
                </property>
                <property>
                    <propertyName>file-
category</propertyName>
                    <propertyValue>Source</propertyValue>

```

```

                                </property>
                                <property>
                                    <propertyName>subclass-
name</propertyName>

                                <propertyValue>Design</propertyValue>
                                </property>
                                </generalParameters>
                                <generalParameters xsi:nil="true" />
                            </req>
                        </searchSingleObject>
                    </soapenv:Body>
                </soapenv:Envelope>
            ==== Response ====
            <?xml version="1.0" encoding="utf-8"?>
            <soapenv:Envelope
                xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
                xmlns:xsd="http://www.w3.org/2001/XMLSchema"
                xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
                <soapenv:Body>
                    <searchSingleObjectResponse
                        xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
                        <res xmlns="">
                            <messageId xsi:nil="true" />
                            <messageName xsi:nil="true" />
                            <statusCode>SUCCESS</statusCode>
                            <AgileObject>
                                <objectIdentifier>
                                    <classId>2000008310</classId>
                                    <className>Design</className>

                                <classDisplayName>Design</classDisplayName>
                                <objectId>6103035</objectId>

                                <objectName>DESIGN00001</objectName>
                                </objectIdentifier>
                                <options>
                                    <id xsi:nil="true" />
                                    <property>

                                <propertyName>OPTION_IS_PENDING</propertyName>

                                <propertyValue>>false</propertyValue>
                                </property>
                                <property>

                                <propertyName>OPTION_HAS_SEND_PRIVILEGE</propertyName>

                                <propertyValue>>false</propertyValue>

```

```

        </property>
    </property>

    <propertyName>OPTION_HAS_COMMENT_PRIVILEGE</propertyName>

    <propertyValue>true</propertyValue>
    </property>
</property>

    <propertyName>OPTION_APPROVE_REJECT_PRIVILEGE</propertyName>

    <propertyValue>true</propertyValue>
    </property>
</options>
    <Version xsi:type="xs:integer"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="7951">2</Version>
    <Number xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="6173">DESIGN00001</Number>
    <Type
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="6175">
        <selection>
            <id>2000008310</id>
            <apiName>DESIGN</apiName>
            <value>Design</value>
        </selection>
    </Type>
    <lifecyclePhase
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="6390" />
    <Description xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="6174"></Description>
    <lastModifiedDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="6178">2010-08-11T11:53:17.000Z
    </lastModifiedDate>
    <checkoutStatus
xsi:type="common:AgileListEntryType"

```

```

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="6389">
                                <selection>
                                    <id>1</id>

<apiName>CHECKED_IN</apiName>
                                <value>Checked In</value>
                                </selection>
                                </checkoutStatus>
                                <checkoutUser
xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="6180" />
                                <checkoutDate xsi:type="xs:date"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6184" />
                                <checkoutLocation
xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6183"></checkoutLocation>
                                <checkinDate xsi:type="xs:date"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6388">2009-01-20T15:44:59.000Z
                                </checkinDate>
                                <createDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="6177">2009-01-
20T14:26:59.000Z</createDate>
                                <Label xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2000008316"></Label>
                                <componentType
xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="2000008317" />
                                <Thumbnail
xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

```

```

                                attributeId="2000008554" />
                                <Revision xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2000008685"></Revision>
                                <revisionDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2000008686" />
                                <checkinUser
xsi:type="common:AgileListEntryType"
                                xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="2000008717">
                                <selection>
                                    <id>704</id>
                                    <apiName xsi:nil="true"
/>>
                                    <value>Administrator,
Admin (admin)</value>
                                </selection>
                                </checkinUser>
                                <itemChangeStatus
xsi:type="xs:string"
                                xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2000009487"></itemChangeStatus>
                                <createUser
xsi:type="common:AgileListEntryType"
                                xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="1420">
                                <selection>
                                    <id>704</id>
                                    <apiName xsi:nil="true"
/>>
                                    <value>Administrator,
Admin (admin)</value>
                                </selection>
                                </createUser>
                                <drawnBy
xsi:type="common:AgileListEntryType"
                                xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="2020" />
                                <checkedBy
xsi:type="common:AgileListEntryType"
```

```

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="2021" />
                                <designSystem xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2007"></designSystem>
                                <CADFilename xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2017"></CADFilename>
                                <CADOldFilename xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2018"></CADOldFilename>
                                <designSystemIdentifier
xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2008"></designSystemIdentifier>
                                <Filetype xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2009"></Filetype>
                                <Subtype xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2010"></Subtype>
                                <Family xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2011"></Family>
                                <Variant xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2012"></Variant>
                                <drawingName xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2013"></drawingName>
                                <frameID xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2014"></frameID>
                                <nameFormat xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2015"></nameFormat>
                                <projectName xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2016"></projectName>
                                <localFlag xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"

```

```

        attributeId="1301"></localFlag>
        <partNumber xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1302"></partNumber>
        <filePath xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2019"></filePath>
        <oldFilePath xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1331"></oldFilePath>
        <modelType xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1332"></modelType>
        <modelReference xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1333"></modelReference>
        <linkType xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1334"></linkType>
        <linkReference xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1335"></linkReference>
        <TDMVersion xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1307"></TDMVersion>
        <TDMRevision xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1308"></TDMRevision>
        <MultiList01
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2090" />
    </AgileObject>
</res>
</searchSingleObjectResponse>
</soapenv:Body>
</soapenv:Envelope>

```

## retrieveDesignStructure

Service:



To read the data about a given Design object, including the contents of the Files, Structure and Where Used tables.

#### Usage:

The request should contain one AgileObject for which to retrieve the complete structure. The object will be identified by the subclass and number provided in the ObjectIdentifier and, optionally, a Version element to specify a version other than the latest one.

The service returns an AgileBusinessObjectType for Design in the response object.

#### Syntax:

```
AgileECResponseExtType retrieveDesignStructureResponseType =
agileStub.retrieveDesignStructure(retrieveDesignStructureRequestType)
```

#### Exceptions:

- If the object is not found for the given ID
- If the object found is not of type Design
- If the object has no Object identifier

#### Basic Steps:

1. Create the request object AgileECRequestExtType for the retrieveDesignStructure operation.
2. Create an array of AgileBusinessObjectType elements
3. Create an instance of an AgileBusinessObjectType and set it as the first element in the array.
4. Set the object identifier to contain the appropriate classId, subclass and number.
5. Optionally add a Version element with an attribute called "attributeId" with value "7951", which corresponds to the BaseID of the TitleBlock.Version attribute for Designs.
6. Set the value of this element to the desired Design version.
7. Call the WebService and check if an AgileBusinessObjectType is included in the response, scan through its contents.

#### Sample Code Java:

```
try {
    setupServerLogin();
    Integer classId = getIntegerProperty(DSIGN_CLASS_ID);
    String subClass = getStringProperty(DSIGN_SUBCLASS);
    String number = getStringProperty(DSIGN_NUMBER);
    String version = getStringProperty(DSIGN_VERSION);
    AgileECRequestExtType retrieveDesignStructureRequestType = new
AgileECRequestExtType();
    AgileBusinessObjectType[] agileRequestObjects = new
AgileBusinessObjectType[1];
    agileRequestObjects[0] = new AgileBusinessObjectType();
    agileRequestObjects[0].setObjectIdentifier(new
ObjectIdentifierType(classId, subClass, null, null, number, version));
    // Add the version as an additional element MessageElement[] anyElement =
new MessageElement[1]; anyElement[0] = new MessageElement();
    anyElement[0].setName("Version");
    anyElement[0].addAttribute(null, "attributeId", "7951"); //
FileFolderConstants.ATT_TITLE_BLOCK_VERSION
```

```

        anyElement[0].setValue(version);
        agileRequestObjects[0].set_any(anyElement);
        retrieveDesignStructureRequestType.setAgileObject(agileRequestObjects);
        AgileECResponseExtType retrieveDesignStructureResponseType =
        agileStub.retrieveDesignStructure(retrieveDesignStructureRequestType);
        System.out.println("STATUS CODE: " +
        retrieveDesignStructureResponseType.getStatusCode());
        if
        (!retrieveDesignStructureResponseType.getStatusCode().toString().equals(ResponseSt
        atusCode.SUCCESS.getValue())) {
            AgileExceptionListType[] agileExceptionListType =
            retrieveDesignStructureResponseType.getExceptions();
            for (AgileExceptionListType exceptionListType :
            agileExceptionListType) {
                for (AgileExceptionType exception :
                exceptionListType.getException()) {
                    System.out.println(exception.getMessage());
                }
            }
        } else { // If the object, was successfully retrieved, then examine its
        content
            AgileBusinessObjectType[] agileResponseObjects =
            retrieveDesignStructureResponseType.getAgileObject();
            if (agileResponseObjects != null) {
                for (AgileBusinessObjectType agileObject : agileResponseObjects) {
                    ObjectIdentifierType objectIdentifier =
                    agileObject.getObjectIdentifier();
                    System.out.println("Agile Object Class ID: " +
                    objectIdentifier.getClassId());
                    System.out.println("Agile Object Class Name: " +
                    objectIdentifier.getClassName());
                    System.out.println("Agile Object Class Display Name: " +
                    objectIdentifier.getClassDisplayName());
                    System.out.println("Agile Object Object ID: " +
                    objectIdentifier.getObjectId());
                    System.out.println("Agile Object Object Name: " +
                    objectIdentifier.getObjectName());
                    PropertyListType options = agileObject.getOptions();
                    if (options != null) {
                        for (PropertyType property : options.getProperty()) {
                            System.out.println("Option Property Name: " +
                            property.getPropertyName());
                            System.out.println("Option Property Value: " +
                            property.getPropertyValue());
                        }
                    }
                    AgileTableType[] tables = agileObject.getTable();
                    for (AgileTableType table : tables) {
                        System.out.println("Table Name: " +
                        table.getTableIdentifier().getTableName());
                        AgileRowType[] rows = table.getRow();
                        int rowNo = 0;
                        if (rows != null) {
                            for (AgileRowType row : rows) {
                                System.out.println("Table Row Number " + rowNo++);
                                for (MessageElement node : row.get_any()) {
                                    System.out.println("* " + node.getLocalName() + ": " +
                                    node.getValue());
                                    Iterator<Node> nodeIt = (Iterator<Node>)
                                    node.getChildElements();
                                    while (nodeIt.hasNext()) {
                                        Node selectionNode = nodeIt.next();
                                        if (selectionNode instanceof MessageElement) {
                                            MessageElement element = (MessageElement)
                                            selectionNode;
                                            Iterator<MessageElement> subNodeIt =
                                            (Iterator<MessageElement>) element.getChildElements();

```

```

                                while (subNodeIt.hasNext()) {
                                    MessageElement subNode = subNodeIt.next();
                                    System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
                                }
                            }
                        }
                    }
                }
            }
            for (MessageElement node : agileObject.get_any()) {
                System.out.println("Agile Object " + node.getLocalName() + ":
" + node.getValue());
                Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
                while (nodeIt.hasNext()) {
                    Node selectionNode = nodeIt.next();
                    if (selectionNode instanceof MessageElement) {
                        MessageElement element = (MessageElement)
selectionNode;
                        Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
                        while (subNodeIt.hasNext()) {
                            MessageElement subNode = subNodeIt.next();
                            System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
                        }
                    }
                }
            }
        } else {
            System.out.println("No results!");
        }
    }
}

```

### Sample Code SOAP:

```

==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<soapenv:Body>
    <retrieveDesignStructure
xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
        <req xmlns="">
            <AgileObject>
                <objectIdentifier>
                    <classId>2000008310</classId>
                    <className>Design</className>
                    <objectId xsi:nil="true" />
                </objectIdentifier>
                <objectName>DESIGN09483.SLDASM</objectName>
                <version>1</version>
            </AgileObject>
        </req>
    </retrieveDesignStructure>
</soapenv:Body>
</soapenv:Envelope>
==== Response ====
<?xml version="1.0" encoding="utf-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"

```

```

    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <soapenv:Body>
      <retrieveDesignStructureResponse
        xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
        <res xmlns="">
          <messageId xsi:nil="true" />
          <messageName xsi:nil="true" />
          <statusCode>SUCCESS</statusCode>
          <AgileObject>
            <objectIdentifier>
              <classId>2000008310</classId>
              <className>Design</className>
              <classDisplayName>Design</classDisplayName>
              <objectId>6288483</objectId>
              <objectName>DESIGN09483.SLDASM</objectName>
            </objectIdentifier>
            <table>
              <tableIdentifier>
                <tableId>6150</tableId>
                <tableName>Files</tableName>
              </tableIdentifier>
              <row rowId="0">
                <Thumbnail xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                attributeId="2000008555" />
                <fileName xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"

                attributeId="6303">botthsg_trough_678901234567.SLDASM</fileName>
                <fileDescription xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"

                attributeId="6181"></fileDescription>
                <fileSize xsi:type="xs:double"

xmlns:xs="http://www.w3.org/2001/XMLSchema"

                attributeId="6148">362496.0</fileSize>
                <fileType xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"

                attributeId="6305">SLDASM</fileType>
                <filePath xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"

                attributeId="6304"></filePath>
                <lastViewDate xsi:type="xs:date"

xmlns:xs="http://www.w3.org/2001/XMLSchema"

                attributeId="6176">2010-08-11T11:38:44.000Z
                </lastViewDate>
                <fileCategory xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                attributeId="2000008509">
                  <selection>
                    <id>1</id>
                    <apiName>SOURCE</apiName>
                    <value>Source</value>
                  </selection>
                </fileCategory>
                <documentText xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"

                attributeId="4684"></documentText>
                <checkoutLocation xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"

                attributeId="2000007045"></checkoutLocation>
                <masterThumbnail xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"

                attributeId="2000008560" />

```

```

        <FileID xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        displayName="FileID">6288108</FileID>
    </row>
</table>
<table>
    <tableIdentifier>
        <tableId>2000008318</tableId>
        <tableName>Structure</tableName>
        <tableDisplayName>Structure</tableDisplayName>
    </tableIdentifier>
    <row rowId="0">
        <Attachments xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008326">true
        </Attachments>
        <Linked xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008327">false</Linked>
        <checkedOut xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008328">true
        </checkedOut>
        <Thumbnail xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008556" />
        <designType xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008319">
            <selection>
                <id>2000008310</id>
                <apiName>DESIGN</apiName>
                <value>Design</value>
            </selection>
        </designType>
        <Number xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008320">DESIGN09475.SLDASM</Number>
        <Description xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008321"></Description>
        <lifeCyclePhase xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008322" />
        <Version xsi:type="xs:integer"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008323">1</Version>
        <findNum xsi:type="xs:double"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008324">0.0</findNum>
        <Quantity xsi:type="xs:double"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008325">1.0</Quantity>
        <Label xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008329"></Label>
        <componentType xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008330" />
        <structureMultiText01 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008365"></structureMultiText01>

```

```

        <modelName xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008376">C:\AgilePLM\SW-Assembly-
01\asm0001.sldasm
        </modelName>
        <Identifier xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008377">CAX-SW
        </Identifier>
        <Component xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008378"></Component>
        <Reference xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008379"></Reference>
        <Configuration xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008380">Default
        </Configuration>
        <revision xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000009479"></revision>
        <revisionDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000009480" />
    </row>
    <row rowId="0">
        <Attachments xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008326">true
        </Attachments>
        <Linked xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008327">false</Linked>
        <checkedOut xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008328">true
        </checkedOut>
        <Thumbnail xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008556" />
        <designType xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008319">
            <selection>
                <id>2000008310</id>
                <apiName>DESIGN</apiName>
                <value>Design</value>
            </selection>
        </designType>
        <Number xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008320">DESIGN09480.SLDASM</Number>
        <Description xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008321"></Description>
        <lifeCyclePhase xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008322" />
        <Version xsi:type="xs:integer"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008323">1</Version>
        <findNum xsi:type="xs:double"
xmlns:xs="http://www.w3.org/2001/XMLSchema"

```

```

        attributeId="2000008324">0.0</findNum>
<Quantity xsi:type="xs:double"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008325">1.0</Quantity>
<Label xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008329"></Label>
<componentType xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008330" />
<structureMultiText01 xsi:type="xs:string"
        xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008365"></structureMultiText01>
<modelName xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008376">C:\AgilePLM\SW-Assembly-
01\mot_bkt_assy.sldasm
</modelName>
<Identifier xsi:type="xs:string"
        xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008377">CAX-SW
</Identifier>
<Component xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008378"></Component>
<Reference xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008379"></Reference>
<Configuration xsi:type="xs:string"
        xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008380">Default
</Configuration>
<revision xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000009479"></revision>
<revisionDate xsi:type="xs:date"
        xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000009480" />
</row>
<row rowId="0">
<Attachments xsi:type="xs:string"
        xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008326">true
</Attachments>
<Linked xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008327">false</Linked>
<checkedOut xsi:type="xs:string"
        xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008328">true
</checkedOut>
<Thumbnail xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008556">
<selection>
<id>8154</id>
<apiName>48366SLDPRT</apiName>

<value>com.agile.api.pc.attachment.ThumbnailID@16546ce</value>
</selection>
</Thumbnail>
<designType xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008319">

```

```

        <selection>
          <id>2000008310</id>
          <apiName>DESIGN</apiName>
          <value>Design</value>
        </selection>
      </designType>
      <Number xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008320">DESIGN09481.SLDPRT</Number>
      <Description xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008321"></Description>
      <lifeCyclePhase xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008322" />
      <Version xsi:type="xs:integer"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008323">1</Version>
      <findNum xsi:type="xs:double"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008324">0.0</findNum>
      <Quantity xsi:type="xs:double"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008325">1.0</Quantity>
      <Label xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008329"></Label>
      <componentType xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008330" />
      <structureMultiText01 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008365"></structureMultiText01>
      <modelName xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008376">C:\AgilePLM\SW-Assembly-
01\48366.sldprt
      </modelName>
      <Identifier xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008377">CAX-SW
      </Identifier>
      <Component xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008378"></Component>
      <Reference xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008379"></Reference>
      <Configuration xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008380">Default
      </Configuration>
      <revision xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000009479"></revision>
      <revisionDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000009480" />
    </row>
    <row rowId="0">
      <Attachments xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008326">true
      </Attachments>

```



```

        <Linked xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008327">false</Linked>
        <checkedOut xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008328">true
        </checkedOut>
        <Thumbnail xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008556">
        <selection>
        <id>8157</id>
        <apiName>48364SLDPRT</apiName>

<value>com.agile.api.pc.attachment.ThumbnailID@73f7ac</value>
        </selection>
        </Thumbnail>
        <designType xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008319">
        <selection>
        <id>2000008310</id>
        <apiName>DESIGN</apiName>
        <value>Design</value>
        </selection>
        </designType>
        <Number xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008320">DESIGN09482.SLDPR</Number>
        <Description xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008321"></Description>
        <lifeCyclePhase xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008322" />
        <Version xsi:type="xs:integer"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008323">1</Version>
        <findNum xsi:type="xs:double"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008324">0.0</findNum>
        <Quantity xsi:type="xs:double"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008325">1.0</Quantity>
        <Label xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008329"></Label>
        <componentType xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008330" />
        <structureMultiText01 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008365"></structureMultiText01>
        <modelName xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008376">C:\AgilePLM\SW-Assembly-
01\48364.sldprt
        </modelName>
        <Identifier xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008377">CAX-SW
        </Identifier>

```

```

        <Component xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008378"></Component>
        <Reference xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008379"></Reference>
        <Configuration xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008380">Default
        </Configuration>
        <revision xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000009479"></revision>
        <revisionDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000009480" />
    </row>
</table>
<table>
    <tableIdentifier>
        <tableId>2000008495</tableId>
        <tableName>Where Used - Design</tableName>
        <tableDisplayName>Where Used - Design</tableDisplayName>
    </tableIdentifier>
</table>
<table>
    <tableIdentifier>
        <tableId>6149</tableId>
        <tableName>Where Used - Attachment</tableName>
        <tableDisplayName>Where Used - Attachment</tableDisplayName>
    </tableIdentifier>
    <row rowId="0">
        <Thumbnail xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008557" />
        <Type xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="6310">
            <selection>
                <id>10141</id>
                <apiName>PART</apiName>
                <value>Part</value>
            </selection>
        </Type>
        <numberName xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6299">P00764
        </numberName>
        <Rev xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="6302">Introductory</Rev>
        <Description xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6300"></Description>
        <lifecycleStatus xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="6301">
            <selection>
                <id>976</id>
                <apiName>PRELIMINARY</apiName>
                <value>Preliminary</value>
            </selection>
        </lifecycleStatus>
    </row>

```

```

        </table>
        <Number xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="6173">DESIGN09483.SLDASM</Number>
        <Type xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="6175">
        <selection>
        <id>2000008310</id>
        <apiName>DESIGN</apiName>
        <value>Design</value>
        </selection>
        </Type>
        <lifecyclePhase xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="6390" />
        <Description xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6174"></Description>
        <Version xsi:type="xs:integer"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="7951">1</Version>
        <lastModifiedDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6178">2010-08-18T13:52:58.000Z
        </lastModifiedDate>
        <checkoutStatus xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="6389">
        <selection>
        <id>1</id>
        <apiName>CHECKED_IN</apiName>
        <value>Checked In</value>
        </selection>
        </checkoutStatus>
        <checkoutUser xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="6180" />
        <checkoutDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6184"
/>
        <checkoutLocation xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6183"></checkoutLocation>
        <checkinDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6388">2010-08-11T11:38:54.000Z
        </checkinDate>
        <createDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="6177">2010-08-11T08:44:43.000Z</createDate>
        <Label xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008316"></Label>
        <componentType xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008317" />
        <Thumbnail xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008554" />

```

```

        <Revision xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008685">- 1</Revision>
        <revisionDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008686" />
        <checkinUser xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008717">
        <selection>
        <id>704</id>
        <apiName xsi:nil="true" />
        <value>Administrator, Admin (admin)</value>
        </selection>
        </checkinUser>
        <itemChangeStatus xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000009487"></itemChangeStatus>
        <createUser xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="1420">
        <selection>
        <id>704</id>
        <apiName xsi:nil="true" />
        <value>Administrator, Admin (admin)</value>
        </selection>
        </createUser>
        <drawnBy xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2020" />
        <checkedBy xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2021" />
        <designSystem xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2007">SW2009
        </designSystem>
        <CADFilename xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2017">bothsg_trough_678901234567.SLDASM
        </CADFilename>
        <CADOldFilename xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2018"></CADOldFilename>
        <designSystemIdentifier xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2008"></designSystemIdentifier>
        <Filetype xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2009">SLDASM</Filetype>
        <Subtype xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2010"></Subtype>
        <Family xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2011"></Family>
        <Variant xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2012"></Variant>
        <drawingName xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2013"></drawingName>

```

```

        <frameID xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2014"></frameID>
        <nameFormat xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2015"></nameFormat>
        <projectName xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2016"></projectName>
        <localFlag xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1301"></localFlag>
        <partNumber xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1302">DESIGN09483</partNumber>
        <filePath xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2019"></filePath>
        <oldFilePath xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1331"></oldFilePath>
        <modelType xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1332"></modelType>
        <modelReference xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1333"></modelReference>
        <linkType xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1334"></linkType>
        <linkReference xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1335"></linkReference>
        <TDMVersion xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1307"></TDMVersion>
        <TDMRevision xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1308"></TDMRevision>
        <MultiList01 xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2090" />
    </AgileObject>
</res>
</retrieveDesignStructureResponse>
</soapenv:Body>
</soapenv:Envelope>

```

## createUpdateDesignStructure

### Service:

To create structure relationships between Desing objects that already exist in the PLM system.

### Usage:

The request should consist of at least one Agile Object, which would be the top level object of an assembly structure. More than one Agile Object may be present in the request to allow the creation of a multi-level structure, however, when this is the case, the first object in the request should be the only top-level assembly and all other Agile Objects present in the request should be sub-assemblies of its structure.

The structure relation between two Design objects is represented in the request by row elements in the structure table inside the parent AgileObject. This is the table identified with the id 2000008318.

The service returns an array of AgileBusinessObjectType of type Design in the response object.

**Syntax:**

```
AgileECResponseExtType createUpdateDesignStructureResponseType =  
agileStub.createUpdateDesignStructure(createUpdateDesignStructureRequestType)
```

**Exceptions:**

- If the object is not found for the object in request
- If the object found is not of type Design

**Basic Steps:**

1. Create the request object AgileECRequestExtType for the createUpdateDesignStructure operation.
2. Create an array of AgileBusinessObjectType elements
3. Create an instance of an AgileBusinessObjectType and set it as the first element in the array.
4. Set the object identifier to contain the appropriate classId, subclass and number.
5. Optionally add a Version element with an attribute called "attributeId" with value "7951", which corresponds to the BaseID of the TitleBlock.Version attribute for Designs.
6. Set the value of this element to the desired Design version.
7. Create an array of AgileTableType elements and set it as the tables element of the Agile business object created above.
8. Set the table identifier to contain the table id of the Structure table (2000008318).
9. Create an array of AgileRowType elements and set it as the rows of the table
10. Create as many row elements in the array as components of the agile object need to be created or updated.
11. Set the any elements of the row to an array of MessageElements containing at least elements to represent the fields Structure Number and Structure Version, repeat this step for all components of the Design.
12. Call the WebService and check if an AgileBusinessObjectType is included in the response, scan through its contents.

**Sample Code Java:**

```
try {  
    setupServerLogin();  
    Integer classId = getIntegerProperty(DSIGN_CLASS_ID);  
    String subClass = getStringProperty(DSIGN_SUBCLASS);  
    String parentNumber = getStringProperty(DSIGN_NUMBER);  
    String parentVersion = getStringProperty(DSIGN_VERSION);  
    String firstChildNumber = getStringProperty(FIRST_CHILD_DESIGN_NUMBER);  
    String firstChildVersion = getStringProperty(FIRST_CHILD_DESIGN_VERSION);  
    String secondChildNumber = getStringProperty(SECOND_CHILD_DESIGN_NUMBER);  
    String secondChildVersion =  
    getStringProperty(SECOND_CHILD_DESIGN_VERSION);
```

```

        AgileECRequestExtType createUpdateDesignStructureRequestType = new
        AgileECRequestExtType();
        AgileBusinessObjectType[] agileRequestObjects = new
        AgileBusinessObjectType[1];
        agileRequestObjects[0] = new AgileBusinessObjectType();
        agileRequestObjects[0].setObjectIdentifier(new
        ObjectIdentifierType(classId, subClass, null, null, parentNumber, null));
        // Add the version for the parent object
        MessageElement[] anyElement = new MessageElement[1];
        anyElement[0] = new MessageElement();
        anyElement[0].setName("Version");
        anyElement[0].addAttribute(null, "attributeId", "7951"); //
        FileFolderConstants.ATT_TITLE_BLOCK_VERSION
        anyElement[0].setValue(parentVersion);
        agileRequestObjects[0].set_any(anyElement);
        // Define the structure table
        AgileTableType[] parentTables = new AgileTableType[1];
        parentTables[0] = new AgileTableType();
        TableIdentifierType tableIdentifier = new TableIdentifierType();
        tableIdentifier.setTableId(new Integer(2000008318));
        parentTables[0].setTableIdentifier(tableIdentifier);
        // Create two rows of components AgileRowType[] rows = new
        AgileRowType[2];
        // First row
        rows[0] = new AgileRowType();
        MessageElement[] anyElementFirstRow = new MessageElement[2];
        anyElementFirstRow[0] = new MessageElement();
        anyElementFirstRow[0].setName("Number");
        anyElementFirstRow[0].addAttribute(null, "attributeId", "2000008320"); //
        FileFolderConstants.ATT_STRUCTURE_NUMBER
        anyElementFirstRow[0].setValue(firstChildNumber);
        anyElementFirstRow[1] = new MessageElement();
        anyElementFirstRow[1].setName("Version");
        anyElementFirstRow[1].addAttribute(null, "attributeId", "2000008323"); //
        FileFolderConstants.ATT_STRUCTURE_VERSION
        anyElementFirstRow[1].setValue(firstChildVersion);
        rows[0].set_any(anyElementFirstRow);
        // Second row
        rows[1] = new AgileRowType();
        MessageElement[] anyElementSecondRow = new MessageElement[2];
        anyElementSecondRow[0] = new MessageElement();
        anyElementSecondRow[0].setName("Number");
        anyElementSecondRow[0].addAttribute(null, "attributeId", "2000008320");
        // FileFolderConstants.ATT_STRUCTURE_NUMBER
        anyElementSecondRow[0].setValue(secondChildNumber);
        anyElementSecondRow[1] = new MessageElement();
        anyElementSecondRow[1].setName("Version");
        anyElementSecondRow[1].addAttribute(null, "attributeId", "2000008323");
        // FileFolderConstants.ATT_STRUCTURE_VERSION
        anyElementSecondRow[1].setValue(secondChildVersion);
        rows[1].set_any(anyElementSecondRow);
        parentTables[0].setRow(rows);
        agileRequestObjects[0].setTable(parentTables);

        createUpdateDesignStructureRequestType.setAgileObject(agileRequestObjects);
        AgileECResponseExtType createUpdateDesignStructureResponseType =
        agileStub.createUpdateDesignStructure(createUpdateDesignStructureRequestType);
        System.out.println("STATUS CODE: " +
        createUpdateDesignStructureResponseType.getStatusCode());
        if
        (!createUpdateDesignStructureResponseType.getStatusCode().toString().equals(Respon
        seStatusCode.SUCCESS.getValue())) {
            AgileExceptionListType[] agileExceptionListType =
            createUpdateDesignStructureResponseType.getExceptions();
            for (AgileExceptionListType exceptionListType :
            agileExceptionListType) {

```

```

        for (AgileExceptionType exception :
exceptionListType.getException()) {
            System.out.println(exception.getMessage());
        }
    }
} else { // If the object, was successfully retrieved, then examine its
    AgileBusinessObjectType[] agileResponseObjects =
createUpdateDesignStructureResponseType.getAgileObject();
    if (agileResponseObjects != null) {
        for (AgileBusinessObjectType agileObject : agileResponseObjects) {
            ObjectIdentifierType objectIdentifier =
agileObject.getObjectIdentifier();
            System.out.println("Agile Object Class ID: " +
objectIdentifier.getClassId());
            System.out.println("Agile Object Class Name: " +
objectIdentifier.getClassName());
            System.out.println("Agile Object Class Display Name: " +
objectIdentifier.getClassDisplayName());
            System.out.println("Agile Object Object ID: " +
objectIdentifier.getObjectId());
            System.out.println("Agile Object Object Name: " +
objectIdentifier.getObjectName());
            PropertyListType options = agileObject.getOptions();
            if (options != null) {
                for (PropertyType property : options.getProperty()) {
                    System.out.println("Option Property Name: " +
property.getPropertyName());
                    System.out.println("Option Property Value: " +
property.getPropertyValue());
                }
            }
            AgileTableType[] tables = agileObject.getTable();
            if (tables != null) {
                for (AgileTableType table : tables) {
                    System.out.println("Table Name: " +
table.getTableIdentifier().getTableName());
                    rows = table.getRow();
                    int rowNo = 0;
                    if (rows != null) {
                        for (AgileRowType row : rows) {
                            System.out.println("Table Row Number " + rowNo++);
                            for (MessageElement node : row.get_any()) {
                                System.out.println("* " + node.getLocalName() +
": " + node.getValue());
                                Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
                                while (nodeIt.hasNext()) {
                                    Node selectionNode = nodeIt.next();
                                    if (selectionNode instanceof MessageElement) {
                                        MessageElement element = (MessageElement)
selectionNode;
                                        Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
                                        while (subNodeIt.hasNext()) {
                                            MessageElement subNode =
subNodeIt.next();
                                            System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
                                        }
                                    }
                                }
                            }
                        }
                    }
                }
            }
        }
    }
}
for (MessageElement node : agileObject.get_any()) {

```



```

        System.out.println("Agile Object " + node.getLocalName() + ": " +
            node.getValue());
        Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
        while (nodeIt.hasNext()) {
            Node selectionNode = nodeIt.next();
            if (selectionNode instanceof MessageElement) {
                MessageElement element = (MessageElement)
selectionNode;
                Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
                while (subNodeIt.hasNext()) {
                    MessageElement subNode = subNodeIt.next();
                    System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
                }
            }
        }
    }
} else {
    System.out.println("No results!");
}
}
}

```

### Sample Code SOAP:

```

==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<soapenv:Body>
    <createUpdateDesignStructure
        xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
        <req xmlns="">
            <AgileObject>
                <objectIdentifier>
                    <classId>2000008310</classId>
                    <className>Design</className>
                    <objectId xsi:nil="true" />
                    <objectName>DESIGN09496</objectName>
                </objectIdentifier>
                <table>
                    <tableIdentifier>
                        <tableId>2000008318</tableId>
                        <tableName xsi:nil="true" />
                    </tableIdentifier>
                    <row rowId="0">
                        <Number
attributeId="2000008320">DESIGN09497</Number>
                        <Version
attributeId="2000008323">1</Version>
                    </row>
                    <row rowId="0">
                        <Number
attributeId="2000008320">DESIGN09498</Number>
                        <Version
attributeId="2000008323">1</Version>
                    </row>
                </table>
                <Version attributeId="7951">1</Version>
            </AgileObject>
        </req>
    </createUpdateDesignStructure>
</soapenv:Body>

```

```

</soapenv:Envelope>
==== Response ====
<?xml version="1.0" encoding="utf-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<soapenv:Body>
  <createUpdateDesignStructureResponse
    xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
    <res xmlns="">
      <messageId xsi:nil="true" />
      <messageName xsi:nil="true" />
      <statusCode>SUCCESS</statusCode>
      <AgileObject>
        <objectIdentifier>
          <classId>2000008310</classId>
          <className>Design</className>

        <classDisplayName>Design</classDisplayName>
          <objectId>6289448</objectId>
          <objectName>DESIGN09497</objectName>
        </objectIdentifier>
        <options>
          <id xsi:nil="true" />
          <property>

        <propertyName>OPTION_IS_PENDING</propertyName>

        <propertyValue>>false</propertyValue>
          </property>
        </property>

        <propertyName>OPTION_HAS_SEND_PRIVILEGE</propertyName>

        <propertyValue>>false</propertyValue>
          </property>
        </property>

        <propertyName>OPTION_HAS_COMMENT_PRIVILEGE</propertyName>

        <propertyValue>>true</propertyValue>
          </property>
        </property>

        <propertyName>OPTION_APPROVE_REJECT_PRIVILEGE</propertyName>

        <propertyValue>>true</propertyValue>
          </property>
        </options>
        <Version xsi:type="xs:integer"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
          attributeId="7951">1</Version>
          <Number xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
          attributeId="6173">DESIGN09497</Number>
          <Type xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
          attributeId="6175">
            <selection>
              <id>2000008310</id>
              <apiName>DESIGN</apiName>
              <value>Design</value>
            </selection>
          </Type>
          <lifecyclePhase
xsi:type="common:AgileListEntryType"

```

```

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="6390" />
        <Description xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6174"></Description>
        <lastModifiedDate xsi:type="xs:date"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6178">2010-08-
19T08:21:55.000Z
        </lastModifiedDate>
        <checkoutStatus
xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="6389">
        <selection>
            <id>0</id>
            <apiName>CHECKED_OUT</apiName>
            <value>Checked Out</value>
        </selection>
        </checkoutStatus>
        <checkoutUser
xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="6180">
        <selection>
            <id>704</id>
            <apiName xsi:nil="true" />
            <value>Administrator, Admin
(admin)</value>
        </selection>
        </checkoutUser>
        <checkoutDate xsi:type="xs:date"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6184">2010-08-
19T11:19:19.000Z
        </checkoutDate>
        <checkoutLocation xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6183"></checkoutLocation>
        <checkinDate xsi:type="xs:date"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6388">2010-08-
19T08:21:55.000Z
        </checkinDate>
        <createDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="6177">2010-08-
19T08:21:55.000Z</createDate>
        <Label xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008316"></Label>
        <componentType
xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008317" />
        <Thumbnail xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008554" />
        <Revision xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008685"></Revision>

```

```

        <revisionDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2000008686" />
        <checkinUser xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008717" />
        <itemChangeStatus xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000009487"></itemChangeStatus>
        <createUser xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="1420">
        <selection>
            <id>704</id>
            <apiName xsi:nil="true" />
            <value>Administrator, Admin
(admin)</value>

        </selection>
        </createUser>
        <drawnBy xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2020" />
        <checkedBy xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2021" />
        <designSystem xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2007"></designSystem>
        <CADFilename xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2017"></CADFilename>
        <CADOldFilename xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2018"></CADOldFilename>
        <designSystemIdentifier xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2008"></designSystemIdentifier>
        <Filetype xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2009"></Filetype>
        <Subtype xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2010"></Subtype>
        <Family xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2011"></Family>
        <Variant xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2012"></Variant>
        <drawingName xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2013"></drawingName>
        <frameID xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2014"></frameID>
        <nameFormat xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2015"></nameFormat>
        <projectName xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2016">WebServices

```

```

                                DocId</projectName>
                                <localFlag xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="1301"></localFlag>
                                <partNumber xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="1302"></partNumber>
                                <filePath xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2019"></filePath>
                                <oldFilePath xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1331"></oldFilePath>
                                <modelType xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="1332"></modelType>
                                <modelReference xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1333"></modelReference>
                                <linkType xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="1334"></linkType>
                                <linkReference xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1335"></linkReference>
                                <TDMVersion xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="1307"></TDMVersion>
                                <TDMRevision xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1308"></TDMRevision>
                                <MultiList01 xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="2090" />
                                </AgileObject>
                                <AgileObject>
                                    <objectIdentifier>
                                        <classId>2000008310</classId>
                                        <className>Design</className>
                                    </objectIdentifier>
                                    <classDisplayName>Design</classDisplayName>
                                    <objectId>6289454</objectId>
                                    <objectName>DESIGN09498</objectName>
                                    </objectIdentifier>
                                    <options>
                                        <id xsi:nil="true" />
                                        <property>
                                            <propertyName>OPTION_IS_PENDING</propertyName>
                                            <propertyValue>>false</propertyValue>
                                        </property>
                                        <property>
                                            <propertyName>OPTION_HAS_SEND_PRIVILEGE</propertyName>
                                            <propertyValue>>false</propertyValue>
                                        </property>
                                        <property>
                                            <propertyName>OPTION_HAS_COMMENT_PRIVILEGE</propertyName>
                                            <propertyValue>>true</propertyValue>
                                        </property>
                                    </options>
                                </AgileObject>

```

```

<propertyName>OPTION APPROVE REJECT PRIVILEGE</propertyName>
<propertyValue>true</propertyValue>
    </property>
  </options>
  <Version xsi:type="xs:integer"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
    attributeId="7951">1</Version>
    <Number xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
    attributeId="6173">DESIGN09498</Number>
    <Type xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
    attributeId="6175">
      <selection>
        <id>2000008310</id>
        <apiName>DESIGN</apiName>
        <value>Design</value>
      </selection>
    </Type>
    <lifecyclePhase
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
    attributeId="6390" />
      <Description xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6174"></Description>
      <lastModifiedDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6178">2010-08-
19T08:22:12.000Z
      </lastModifiedDate>
      <checkoutStatus
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
    attributeId="6389">
        <selection>
          <id>0</id>
          <apiName>CHECKED_OUT</apiName>
          <value>Checked Out</value>
        </selection>
      </checkoutStatus>
      <checkoutUser
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
    attributeId="6180">
        <selection>
          <id>704</id>
          <apiName xsi:nil="true" />
          <value>Administrator, Admin
(admin)</value>
        </selection>
      </checkoutUser>
      <checkoutDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6184">2010-08-
19T11:19:35.000Z
      </checkoutDate>
      <checkoutLocation xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
    attributeId="6183"></checkoutLocation>

```

```

        <checkinDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6388">2010-08-
19T08:22:12.000Z
        </checkinDate>
        <createDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="6177">2010-08-
19T08:22:12.000Z</createDate>
        <Label xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008316"></Label>
        <componentType
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008317" />
        <Thumbnail xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008554" />
        <Revision xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008685"></Revision>
        <revisionDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2000008686" />
        <checkinUser xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008717" />
        <itemChangeStatus xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000009487"></itemChangeStatus>
        <createUser xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="1420">
        <selection>
            <id>704</id>
            <apiName xsi:nil="true" />
            <value>Administrator, Admin
(admin)</value>
        </selection>
        </createUser>
        <drawnBy xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2020" />
        <checkedBy xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2021" />
        <designSystem xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2007"></designSystem>
        <CADFilename xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2017"></CADFilename>
        <CADOldFilename xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2018"></CADOldFilename>
        <designSystemIdentifier xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2008"></designSystemIdentifier>

```

```

                                <Filetype xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2009"></Filetype>
                                <Subtype xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2010"></Subtype>
                                <Family xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2011"></Family>
                                <Variant xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2012"></Variant>
                                <drawingName xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2013"></drawingName>
                                <frameID xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2014"></frameID>
                                <nameFormat xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2015"></nameFormat>
                                <projectName xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2016">WebServices
                                Docu</projectName>
                                <localFlag xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="1301"></localFlag>
                                <partNumber xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="1302"></partNumber>
                                <filePath xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2019"></filePath>
                                <oldFilePath xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1331"></oldFilePath>
                                <modelType xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="1332"></modelType>
                                <modelReference xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1333"></modelReference>
                                <linkType xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="1334"></linkType>
                                <linkReference xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1335"></linkReference>
                                <TDMVersion xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="1307"></TDMVersion>
                                <TDMRevision xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1308"></TDMRevision>
                                <MultiList01 xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="2090" />
                                </AgileObject>
                                <AgileObject>
                                    <objectIdentifier>
                                        <classId>2000008310</classId>
                                        <className>Design</className>
                                        <objectId xsi:nil="true" />
                                        <objectName>DESIGN09496</objectName>
                                    </objectIdentifier>

```



```

<table>
  <tableIdentifier>
    <tableId>2000008318</tableId>
    <tableName xsi:nil="true" />
  </tableIdentifier>
  <row rowId="0">
    <Number xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008320">DESIGN09497</Number>
    <Version xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008323">1</Version>
    <Attachments xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2000008326">>false
    </Attachments>
    <Linked xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008327">>false</Linked>
    <checkedOut xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2000008328">>true
    </checkedOut>
    <Thumbnail
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
attributeId="2000008556"
/>
    <designType
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
attributeId="2000008319">
    <selection>
<id>2000008310</id>
<apiName>DESIGN</apiName>
<value>Design</value>
    </selection>
    </designType>
    <Description xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008321"></Description>
    <lifeCyclePhase
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
attributeId="2000008322"
/>
    <findNum xsi:type="xs:double"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008324">0.0</findNum>
    <Quantity xsi:type="xs:double"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008325">1.0</Quantity>
    <Label xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"

```

```

attributeId="2000008329"></Label>
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
/>
xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008365"></structureMultiText01>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008376"></modelName>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008377"></Identifier>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008378"></Component>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008379"></Reference>
xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008380"></Configuration>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000009479"></revision>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000009480" />
</row>
<row rowId="0">
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008320">DESIGN09498</Number>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008323">1</Version>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008326">>false</Attachments>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008327">>false</Linked>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008328">>true</checkedOut>
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

```

```

/>
                                attributeId="2000008556"
                                <designType
xsi:type="common:AgileListEntryType"
                                <selection>
                                </selection>
                                </designType>
                                <Description xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                <lifeCyclePhase
                                </lifeCyclePhase>
                                <findNum xsi:type="xs:double"
                                <Quantity xsi:type="xs:double"
                                <Label xsi:type="xs:string"
                                <componentType
                                <structureMultiText01
                                <modelName xsi:type="xs:string"
                                <Identifier xsi:type="xs:string"
                                <Component xsi:type="xs:string"
                                <Reference xsi:type="xs:string"
                                <Configuration
xsi:type="xs:string"

```

```

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008380"></Confirmation>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000009479"></revision>
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2000009480" />
</table>
<options>
  <id xsi:nil="true" />
  <property>
    <propertyName>OPTION_IS_PENDING</propertyName>
    <propertyValue>>false</propertyValue>
  </property>
  <property>
    <propertyName>OPTION_HAS_SEND_PRIVILEGE</propertyName>
    <propertyValue>>false</propertyValue>
  </property>
  <property>
    <propertyName>OPTION_HAS_COMMENT_PRIVILEGE</propertyName>
    <propertyValue>>true</propertyValue>
  </property>
  <property>
    <propertyName>OPTION_APPROVE_REJECT_PRIVILEGE</propertyName>
    <propertyValue>>true</propertyValue>
  </property>
</options>
<Version xsi:type="xs:integer"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="7951">1</Version>
<Number xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6173">DESIGN09496</Number>
<Type xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
attributeId="6175">
  <selection>
    <id>2000008310</id>
    <apiName>DESIGN</apiName>
    <value>Design</value>
  </selection>
</Type>
<lifecyclePhase
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
attributeId="6390" />
  <Description xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6174"></Description>
  <lastModifiedDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6178">2010-08-
19T08:21:35.000Z

```

```

        </lastModifiedDate>
        <checkoutStatus
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="6389">
        <selection>
            <id>0</id>
            <apiName>CHECKED_OUT</apiName>
            <value>Checked Out</value>
        </selection>
        </checkoutStatus>
        <checkoutUser
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="6180">
        <selection>
            <id>704</id>
            <apiName xsi:nil="true" />
            <value>Administrator, Admin
(admin)</value>
        </selection>
        </checkoutUser>
        <checkoutDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6184">2010-08-
19T11:18:58.000Z
        </checkoutDate>
        <checkoutLocation xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6183"></checkoutLocation>
        <checkinDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6388">2010-08-
19T08:21:34.000Z
        </checkinDate>
        <createDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6177">2010-08-
19T08:21:31.000Z</createDate>
        <Label xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008316"></Label>
        <componentType
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008317" />
        <Thumbnail xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008554" />
        <Revision xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008685"></Revision>
        <revisionDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2000008686" />
        <checkinUser xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008717" />
        <itemChangeStatus xsi:type="xs:string"

```

```

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000009487"></itemChangeStatus>
      <createUser xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
      attributeId="1420">
        <selection>
          <id>704</id>
          <apiName xsi:nil="true" />
          <value>Administrator, Admin

(admin)</value>

        </selection>
      </createUser>
    <drawnBy xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
      attributeId="2020" />
    <checkedBy xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
      attributeId="2021" />
    <designSystem xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2007"></designSystem>
    <CADFilename xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2017"></CADFilename>
    <CADOldFilename xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2018"></CADOldFilename>
    <designSystemIdentifier xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2008"></designSystemIdentifier>
    <Filetype xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
      attributeId="2009"></Filetype>
    <Subtype xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
      attributeId="2010"></Subtype>
    <Family xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
      attributeId="2011"></Family>
    <Variant xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
      attributeId="2012"></Variant>
    <drawingName xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2013"></drawingName>
    <frameID xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
      attributeId="2014"></frameID>
    <nameFormat xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
      attributeId="2015"></nameFormat>
    <projectName xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2016">WebServices
    Docu</projectName>
    <localFlag xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
      attributeId="1301"></localFlag>
    <partNumber xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
      attributeId="1302"></partNumber>

```

```

        <filePath xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2019"></filePath>
        <oldFilePath xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1331"></oldFilePath>
        <modelType xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1332"></modelType>
        <modelReference xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1333"></modelReference>
        <linkType xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1334"></linkType>
        <linkReference xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1335"></linkReference>
        <TDMVersion xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1307"></TDMVersion>
        <TDMRevision xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1308"></TDMRevision>
        <MultiList01 xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2090" />
    </AgileObject>
</res>
</createUpdateDesignStructureResponse>
</soapenv:Body>
</soapenv:Envelope>

```

## createBOM

### Service:

To create BOM relationships between Part objects that already exist in the PLM system.

### Usage:

The request should consist of at least one Agile Object, which would be the top level object of a Part assembly structure. More than one Agile Object may be present in the request to allow the creation of a multi-level structure, however, when this is the case, the first object in the request should be the only top-level assembly and all other Agile Objects present in the request should be sub-assemblies of its structure.

The BOM relation between two Part objects is represented in the request by row elements in the BOM table inside the parent AgileObject. This is the table identified with the id 803.

The service returns an array of AgileBusinessObjectType of type Part in the response object.

### Syntax:

```
AgileECResponseExtType createBOMResponseType =
agileStub.createBOM(createBOMRequestType)
```

### Exceptions:

- If the object is not found for the given ID

- If the object found is not of type Part

**Basic Steps:**

1. Create the request object AgileECRequestExtType for the createBOM operation.
2. Create an array of AgileBusinessObjectType elements
3. Create an instance of an AgileBusinessObjectType and set it as the first element in the array.
4. Set the object identifier to contain the appropriate classId, subclass and number.
5. Create an array of AgileTableType elements and set it as the tables element of the Agile business object created above.
6. Set the table identifier to contain the table id of the BOM table (803).
7. Create an array of AgileRowType elements and set it as the rows of the table
8. Create as many row elements in the array as components of the agile object need to be created or updated.
9. Set the any elements of the row to an array of MessageElements containing at least one element to represent the field 'BOM.Item Number', repeat this step for all components of the Part.
10. Call the WebService and check if an AgileBusinessObjectType is included in the response, scan through its contents.

**Sample Code Java:**

```
try {
    setupServerLogin();
    Integer classId = getIntegerProperty(PART_CLASS_ID);
    String subClass = getStringProperty(PART_SUBCLASS);
    String parentNumber = getStringProperty(PART_NUMBER);
    String firstChildNumber = getStringProperty(FIRST_CHILD_PART_NUMBER);
    String secondChildNumber = getStringProperty(SECOND_CHILD_PART_NUMBER);
    AgileECRequestExtType createBOMRequestType = new AgileECRequestExtType();
    AgileBusinessObjectType[] agileRequestObjects = new
AgileBusinessObjectType[1];
    agileRequestObjects[0] = new AgileBusinessObjectType();
    agileRequestObjects[0].setObjectIdentifier(new
ObjectIdentifierType(classId, subClass, null, null, parentNumber, null));
    // Define the BOM table
    AgileTableType[] parentTables = new AgileTableType[1];
    parentTables[0] = new AgileTableType();
    TableIdentifierType tableIdentifier = new TableIdentifierType();
    tableIdentifier.setTableId(new Integer(803));
    parentTables[0].setTableIdentifier(tableIdentifier);
    // Create two rows of components AgileRowType[] rows = new
AgileRowType[2];
    // First row
    rows[0] = new AgileRowType();
    MessageElement[] anyElementFirstRow = new MessageElement[1];
    anyElementFirstRow[0] = new MessageElement();
    anyElementFirstRow[0].setName("Number");
    anyElementFirstRow[0].addAttribute(null, "attributeId", "1011"); //
ItemConstants.ATT_BOM_ITEM_NUMBER
    anyElementFirstRow[0].setValue(firstChildNumber);
    rows[0].set_any(anyElementFirstRow);
    // Second row
    rows[1] = new AgileRowType();
    MessageElement[] anyElementSecondRow = new MessageElement[1];
    anyElementSecondRow[0] = new MessageElement();
```



```

        anyElementSecondRow[0].setName("Number");
        anyElementSecondRow[0].addAttribute(null, "attributeId", "1011"); //
ItemConstants.ATT_BOM_ITEM_NUMBER
        anyElementSecondRow[0].setValue(secondChildNumber);
        rows[1].set_any(anyElementSecondRow);
        parentTables[0].setRow(rows);
        agileRequestObjects[0].setTable(parentTables);
        createBOMRequestType.setAgileObject(agileRequestObjects);
        AgileECResponseExtType createBOMResponseType =
        agileStub.createBOM(createBOMRequestType);
        System.out.println("STATUS CODE: " +
        createBOMResponseType.getStatusCode());
        if
        (!createBOMResponseType.getStatusCode().toString().equals(ResponseStatusCode.SUCCE
        SS.getValue())) {
            AgileExceptionListType[] agileExceptionListType =
            createBOMResponseType.getExceptions();
            for (AgileExceptionListType exceptionListType :
            agileExceptionListType) {
                for (AgileExceptionType exception :
            exceptionListType.getException()) {
                    System.out.println(exception.getMessage());
                }
            }
        } else { // If the object, was successfully retrieved, then examine its
            AgileBusinessObjectType[] agileResponseObjects =
            createBOMResponseType.getAgileObject();
            if (agileResponseObjects != null) {
                for (AgileBusinessObjectType agileObject : agileResponseObjects) {
                    ObjectIdentifierType objectIdentifier =
            agileObject.getObjectIdentifier();
                    if (objectIdentifier == null) {
                        continue;
                    }
                    System.out.println("Agile Object Class ID: " +
            objectIdentifier.getClassId());
                    System.out.println("Agile Object Class Name: " +
            objectIdentifier.getClassName());
                    System.out.println("Agile Object Class Display Name: " +
            objectIdentifier.getClassDisplayName());
                    System.out.println("Agile Object Object ID: " +
            objectIdentifier.getObjectId());
                    System.out.println("Agile Object Object Name: " +
            objectIdentifier.getObjectName());
                    PropertyListType options = agileObject.getOptions();
                    if (options != null) {
                        for (PropertyType property : options.getProperty()) {
                            System.out.println("Option Property Name: " +
            property.getPropertyName());
                            System.out.println("Option Property Value: " +
            property.getPropertyValue());
                        }
                    }
                    AgileTableType[] tables = agileObject.getTable();
                    if (tables != null) {
                        for (AgileTableType table : tables) {
                            System.out.println("Table Name: " +
            table.getTableIdentifier().getTableName());
                            rows = table.getRow();
                            int rowNo = 0;
                            if (rows != null) {
                                for (AgileRowType row : rows) {
                                    System.out.println("Table Row Number " + rowNo++);
                                    for (MessageElement node : row.get_any()) {
                                        System.out.println("* " + node.getLocalName() +
            ": " + node.getValue());
                                    }
                                }
                            }
                        }
                    }
                }
            }
        }
    }
}

```

```

node.getChildElements();
        while (nodeIt.hasNext()) {
            Node selectionNode = nodeIt.next();
            if (selectionNode instanceof MessageElement) {
                MessageElement element = (MessageElement)
selectionNode;
                Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
                while (subNodeIt.hasNext()) {
                    MessageElement subNode =
subNodeIt.next();
                    System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
                }
            }
        }
    }
}
}
}
}
for (MessageElement node : agileObject.get_any()) {
    System.out.println("Agile Object " + node.getLocalName() + ":
" + node.getValue());
    Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
    while (nodeIt.hasNext()) {
        Node selectionNode = nodeIt.next();
        if (selectionNode instanceof MessageElement) {
            MessageElement element = (MessageElement)
selectionNode;
            Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
            while (subNodeIt.hasNext()) {
                MessageElement subNode = subNodeIt.next();
                System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
            }
        }
    }
}
} else {
    System.out.println("No results!");
}
}
}

```

**Sample Code SOAP:**

```

==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<soapenv:Body>
    <createBOM xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
        <req xmlns="">
            <AgileObject>
                <objectIdentifier>
                    <classId>10141</classId>
                    <className>Part</className>
                    <objectId xsi:nil="true" />
                    <objectName>P00776</objectName>
                </objectIdentifier>
                <table>

```

```

        <tableIdentifier>
          <tableId>803</tableId>
          <tableName xsi:nil="true" />
        </tableIdentifier>
        <row rowId="0">
          <Number
attributeId="1011">P00777</Number>
          </row>
        <row rowId="0">
          <Number
attributeId="1011">P00778</Number>
          </row>
        </table>
      </AgileObject>
    </req>
  </createBOM>
</soapenv:Body>
</soapenv:Envelope>
==== Response ====
<?xml version="1.0" encoding="utf-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
    <createBOMResponse xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
      <res xmlns="">
        <messageId xsi:nil="true" />
        <messageName xsi:nil="true" />
        <statusCode>SUCCESS</statusCode>
        <AgileObject xsi:nil="true" />
        <AgileObject xsi:nil="true" />
        <AgileObject>
          <objectIdentifier>
            <classId>10141</classId>
            <className>Part</className>
            <objectId xsi:nil="true" />
            <objectName>P00776</objectName>
          </objectIdentifier>
          <table>
            <tableIdentifier xsi:nil="true" />
            <row rowId="0">
              <Number xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="1011">P00777</Number>
              <attachmentsImage
xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="12630">false
              </attachmentsImage>
              <manufacturerImage
xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="12631">false
              </manufacturerImage>
              <pendingChangesImage
xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="12632">false
              </pendingChangesImage>
              <hasQualityImage
xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="7954">false
              </hasQualityImage>
              <priceImage xsi:type="xs:string"

```

```

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2000007815">>false
</priceImage>
<pendingDeclarationsImage
xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2000011130">>false
</pendingDeclarationsImage>
<Thumbnail
xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
attributeId="2000008550"
/>
<itemDescription
xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1020"></itemDescription>
<itemRev xsi:type="xs:string"
attributeId="1021">
</itemRev>
<Qty xsi:type="xs:string"
attributeId="1035">1</Qty>
<findNum xsi:type="xs:string"
attributeId="1012">0</findNum>
<refDes xsi:type="xs:string"
attributeId="1019" />
<Sites
xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
attributeId="12205" />
<BOMNotes xsi:type="xs:string"
attributeId="1036"></BOMNotes>
<summaryCompliance
xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
attributeId="2000011100"
/>
<BOMMultiText30
xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1341"></BOMMultiText30>
<BOMMultiText31
xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1342"></BOMMultiText31>
<BOMText01 xsi:type="xs:string"
attributeId="2175"></BOMText01>
<BOMText02 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2176"></BOMText02>
<BOMText03 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2177"></BOMText03>

```

```

xmlns:xs="http://www.w3.org/2001/XMLSchema"          <BOMText04 xsi:type="xs:string"
attributeId="2178"></BOMText04>
                                                    </row>
                                                    <row rowId="0">
xmlns:xs="http://www.w3.org/2001/XMLSchema"          <Number xsi:type="xs:string"
attributeId="1011">P00778</Number>
                                                    <attachmentsImage
xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="12630">false
                                                    </attachmentsImage>
                                                    <manufacturerImage
xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="12631">false
                                                    </manufacturerImage>
                                                    <pendingChangesImage
xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="12632">false
                                                    </pendingChangesImage>
                                                    <hasQualityImage
xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="7954">false
                                                    </hasQualityImage>
                                                    <priceImage xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2000007815">false
                                                    </priceImage>
                                                    <pendingDeclarationsImage
xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2000011130">false
                                                    </pendingDeclarationsImage>
                                                    <Thumbnail
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                                    attributeId="2000008550"
/>
                                                    <itemDescription
xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1020"></itemDescription>
                                                    <itemRev xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                                    attributeId="1021">
</itemRev>
<Qty xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                                    attributeId="1035">1</Qty>
<findNum xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="1012">0</findNum>
                                                    <refDes xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                                    attributeId="1019" />
<Sites
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

```

```

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="1036"></BOMNotes>
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
attributeId="2000011100"
/>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="1341"></BOMMultiText30>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="1342"></BOMMultiText31>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2175"></BOMText01>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2176"></BOMText02>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2177"></BOMText03>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2178"></BOMText04>
</row>
</table>
<Rev xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
attributeId="1014">
<selection>
<id>0</id>
<apiName>Rev</apiName>
<value>Introductory</value>
</selection>
</Rev>
<Number xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="1001">P00776</Number>
<partType xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
attributeId="1081">
<selection>
<id>10141</id>
<apiName>PART</apiName>
<value>Part</value>
</selection>
</partType>
<lifecyclePhase
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
attributeId="1084">
<selection>
<id>976</id>

```

```

                                <apiName>PRELIMINARY</apiName>
                                <value>Preliminary</value>
                            </selection>
                        </lifecyclePhase>
                        <Description xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1002"></Description>
                            <partCategory
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="1082" />
                                <Size xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="1068" />
                                <productLines
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="1004" />
                                <revIncorpDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1017" />
                                <revReleaseDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1016" />
                                <effectivityDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="12089" />
                                <shippableItem
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="2000002781">
                                    <selection>
                                        <id>0</id>
                                        <apiName>NO</apiName>
                                        <value>No</value>
                                    </selection>
                                </shippableItem>
                                <excludeFromRollup
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="2000002859">
                                    <selection>
                                        <id>0</id>
                                        <apiName>NO</apiName>
                                        <value>No</value>
                                    </selection>
                                </excludeFromRollup>
                                <complianceCalculatedDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2000004143" />
                                <partFamily xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="2000004416" />
                                <Mass xsi:type="common:AgileUnitOfMeasureType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="2000004612" />
                                <overallCompliance
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

```

```

        attributeId="2000004891" />
        <Thumbnail xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008549" />
        <ModelRef xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000009494"></ModelRef>
        <Text11 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1301"></Text11>
        <Text12 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1302"></Text12>
        <Text15 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1305"></Text15>
        <Text16 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1306"></Text16>
        <Text18 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1308"></Text18>
        <Text23 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1313"></Text23>
        <Text01 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2007"></Text01>
        <Text02 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2008"></Text02>
        <List04 xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2023" />
        <myPublishedFrom xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2623310"></myPublishedFrom>
        </AgileObject>
    </res>
</createBOMResponse>
</soapenv:Body>
</soapenv:Envelope>

```

## getDesignWhereUsed

### Service:

To retrieve the Where Used in Design information of a given Design object.

### Usage:

The request must contain a single Agile Object to represent the Design for which the where used in Design information should be retrieved. All the data to identify the Design object should be present in the ObjectIdentifier, including class-id, subclass, number and version. The service will additionally support two properties in the first set of general parameters: TARGET-DESIGN-VERSION and WHERE-USED-DESIGN-VERSION. The property TARGET-DESIGN-VERSION may have the values "LATEST", "SPECIFIED" or "ALL", whereas the property WHERE-USED-DESIGN-VERSION may have the values "LATEST" or "ALL"



The property TARGET-DESIGN-VERSION refers to the given Design in the request, and indicates whether the Where Used information should be gathered for the given version (SPECIFIED), for the latest version (LATEST) or for all the versions of the Design object (ALL). Note that when using LATEST or ALL, any given version in the AgileObject in the request is ignored.

The property WHERE-USED-DESIGN-VERSION refers to the version of the Design objects found in the Where Used table of the target design and indicates that only the latest version of the Design found, where the target Design is used should be returned, or all the versions of the Design found, in which the target Design is used should be returned.

The service returns an array of AgileBusinessObjectType of type Design in the response object.

#### Syntax:

```
AgileECResponseExtType getDesignWhereUsedResponseType =
agileStub.getDesignWhereUsed(getDesignWhereUsedRequestType)
```

#### Exceptions:

- If the object is not found for the given ID
- If the object found is not of type Design
- If the object has no object identifier

#### Basic Steps:

1. Create the request object AgileECRequestExtType for the getDesignWhereUsed operation.
2. Create an array of AgileBusinessObjectType elements
3. Create an instance of an AgileBusinessObjectType and set it as the first element in the array.
4. Set the object identifier to contain the appropriate classId, subclass, number and version.
5. Optionally define an array of PropertyListType and set the request's general parameters to this list.
6. In the list, define PropertyType elements for the optional properties "TARGET-DESIGN-VERSION" and "WHERE-USED-DESIGN-VERSION".
7. Call the WebService and check if an AgileBusinessObjectType is included in the response, scan through its contents.

#### Sample Code Java:

```
try {
    setupServerLogin();
    Integer classId = getIntegerProperty(DSIGN_CLASS_ID);
    String subClass = getStringProperty(DSIGN_SUBCLASS);
    String number = getStringProperty(DSIGN_NUMBER);
    String version = getStringProperty(DSIGN_VERSION);
    AgileECRequestExtType getDesignWhereUsedRequestType = new
AgileECRequestExtType();
    PropertyListType[] generalParameters = new PropertyListType[2];
    generalParameters[0] = new PropertyListType();
    PropertyType[] props = new PropertyType[2];
    props[0] = new PropertyType("TARGET-DESIGN-VERSION", "SPECIFIED");
    props[1] = new PropertyType("WHERE-USED-DESIGN-VERSION", "ALL");
    generalParameters[0].setProperty(props);
    getDesignWhereUsedRequestType.setGeneralParameters(generalParameters);
```

```

        AgileBusinessObjectType[] agileRequestObjects = new
        AgileBusinessObjectType[1];
        agileRequestObjects[0] = new AgileBusinessObjectType();
        agileRequestObjects[0].setObjectIdentifier(new
        ObjectIdentifierType(classId, subClass, null, null, number, version));
        getDesignWhereUsedRequestType.setAgileObject(agileRequestObjects);
        AgileECResponseExtType getDesignWhereUsedResponseType =
        agileStub.getDesignWhereUsed(getDesignWhereUsedRequestType);
        System.out.println("STATUS CODE: " +
        getDesignWhereUsedResponseType.getStatusCode());
        if
        (!getDesignWhereUsedResponseType.getStatusCode().toString().equals(ResponseStatusC
        ode.SUCCESS.getValue())) {
            AgileExceptionListType[] agileExceptionListType =
            getDesignWhereUsedResponseType.getExceptions();
            for (AgileExceptionListType exceptionListType :
            agileExceptionListType) {
                for (AgileExceptionType exception :
                exceptionListType.getException()) {
                    System.out.println(exception.getMessage());
                }
            }
        } else {
            AgileBusinessObjectType[] agileResponseObjects =
            getDesignWhereUsedResponseType.getAgileObject();
            if (agileResponseObjects != null) {
                for (AgileBusinessObjectType agileObject : agileResponseObjects) {
                    ObjectIdentifierType objectIdentifier =
                    agileObject.getObjectIdentifier();
                    System.out.println("Agile Object Class ID: " +
                    objectIdentifier.getClassId());
                    System.out.println("Agile Object Class Name: " +
                    objectIdentifier.getClassName());
                    System.out.println("Agile Object Class Display Name: " +
                    objectIdentifier.getClassDisplayName());
                    System.out.println("Agile Object Object ID: " +
                    objectIdentifier.getObjectId());
                    System.out.println("Agile Object Object Name: " +
                    objectIdentifier.getObjectName());
                    PropertyListType options = agileObject.getOptions();
                    if (options != null) {
                        for (PropertyType property : options.getProperty()) {
                            System.out.println("Option Property Name: " +
                            property.getPropertyName());
                            System.out.println("Option Property Value: " +
                            property.getPropertyValue());
                        }
                    }
                    AgileTableType[] tables = agileObject.getTable();
                    if (tables != null) {
                        for (AgileTableType table : tables) {
                            System.out.println("Table Name: " +
                            table.getTableIdentifier().getTableName());
                            AgileRowType[] rows = table.getRow();
                            int rowNo = 0;
                            if (rows != null) {
                                for (AgileRowType row : rows) {
                                    System.out.println("Table Row Number " + rowNo++);
                                    for (MessageElement node : row.get_any()) {
                                        System.out.println("** " +
                                        node.getLocalName() + ": " + node.getValue());
                                        Iterator<Node> nodeIt = (Iterator<Node>)
                                        node.getChildElements();
                                        while (nodeIt.hasNext()) {
                                            Node selectionNode = nodeIt.next();
                                            if (selectionNode instanceof
                                            MessageElement) {

```

```

        MessageElement element =
(MessageElement) selectionNode:
        Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
        while (subNodeIt.hasNext()) {
            MessageElement subNode =
subNodeIt.next();
            System.out.println("*** Selection "
+ subNode.getLocalName() + ": " + subNode.getValue());
        }
    }
}
}
}
}
}
}
for (MessageElement node : agileObject.get_any()) {
    System.out.println("Agile Object " + node.getLocalName() +
": " + node.getValue());
    Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
    while (nodeIt.hasNext()) {
        Node selectionNode = nodeIt.next();
        if (selectionNode instanceof MessageElement) {
            MessageElement element = (MessageElement)
selectionNode;
            Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
            while (subNodeIt.hasNext()) {
                MessageElement subNode = subNodeIt.next();
                System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
            }
        }
    }
}
} else {
    System.out.println("No results!");
}
}
}

```

### Sample Code SOAP:

```
==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
    <getDesignWhereUsed xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
      <req xmlns="">
        <generalParameters>
          <id xsi:nil="true" />
          <property>
            <propertyName>TARGET-DESIGN-
VERSION</propertyName>
            <propertyValue>SPECIFIED</propertyValue>
          </property>
          <property>
            <propertyName>WHERE-USED-DESIGN-
VERSION</propertyName>
            <propertyValue>ALL</propertyValue>
          </property>
        </generalParameters>
      </req>
    </getDesignWhereUsed>
  </soapenv:Body>
</soapenv:Envelope>
```

```

        <generalParameters xsi:nil="true" />
        <AgileObject>
            <objectIdentifier>
                <classId>2000008310</classId>
                <className>Design</className>
                <objectId xsi:nil="true" />
            </objectIdentifier>
            <objectName>DESIGN09435.SLDPRT</objectName>
            <version>2</version>
        </objectIdentifier>
        </AgileObject>
    </req>
</getDesignWhereUsed>
</soapenv:Body>
</soapenv:Envelope>
==== Response ====
<?xml version="1.0" encoding="utf-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<soapenv:Body>
    <getDesignWhereUsedResponse
        xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
        <res xmlns="">
            <messageId xsi:nil="true" />
            <messageName xsi:nil="true" />
            <statusCode>SUCCESS</statusCode>
            <AgileObject>
                <objectIdentifier>
                    <classId>2000008310</classId>
                    <className>Design</className>
                </objectIdentifier>
                <classDisplayName>Design</classDisplayName>
                <objectId>6286231</objectId>
            </AgileObject>
            <objectName>DESIGN09436.SLDASM</objectName>
            </objectIdentifier>
            <options>
                <id xsi:nil="true" />
                <property>
                    <propertyName>OPTION_IS_PENDING</propertyName>
                    <propertyValue>>false</propertyValue>
                </property>
                <property>
                    <propertyName>OPTION_HAS_SEND_PRIVILEGE</propertyName>
                    <propertyValue>>false</propertyValue>
                </property>
                <property>
                    <propertyName>OPTION_HAS_COMMENT_PRIVILEGE</propertyName>
                    <propertyValue>>true</propertyValue>
                </property>
                <property>
                    <propertyName>OPTION_APPROVE_REJECT_PRIVILEGE</propertyName>
                    <propertyValue>>true</propertyValue>
                </property>
            </options>
            <Version xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"

```

```

                                attributeId="7951"
displayname="Version"></Version>
                                <Number xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="6173">DESIGN09436.SLDASM</Number>
                                <Type xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="6175">
                                <selection>
                                        <id>2000008310</id>
                                        <apiName>DESIGN</apiName>
                                        <value>Design</value>
                                </selection>
                                </Type>
                                <lifecyclePhase
xsi:type="common:AgileListEntryType"
                                xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="6390" />
                                <Description xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6174"></Description>
                                <lastModifiedDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6178">2010-07-
06T10:33:09.000Z
                                </lastModifiedDate>
                                <checkoutStatus
xsi:type="common:AgileListEntryType"
                                xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="6389">
                                <selection>
                                        <id>1</id>
                                        <apiName>CHECKED_IN</apiName>
                                        <value>Checked In</value>
                                </selection>
                                </checkoutStatus>
                                <checkoutUser
xsi:type="common:AgileListEntryType"
                                xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                                attributeId="6180" />
                                <checkoutDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6184" />
                                <checkoutLocation xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="6183"></checkoutLocation>
                                <checkinDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6388">2010-07-
06T13:11:39.000Z
                                </checkinDate>
                                <createDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="6177">2010-07-
06T09:41:04.000Z</createDate>
                                <Label xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2000008316"></Label>
                                <componentType
xsi:type="common:AgileListEntryType"

```

```

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008317" />
        <Thumbnail xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008554" />
        <Revision xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008685">(A) -
C00115foeiufgoewtureol</Revision>
        <revisionDate xsi:type="xs:date"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2000008686" />
        <checkinUser xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008717">
        <selection>
            <id>704</id>
            <apiName xsi:nil="true" />
            <value>Administrator, Admin
(admin)</value>
        </selection>
        </checkinUser>
        <itemChangeStatus xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000009487"></itemChangeStatus>
        <createUser xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="1420">
        <selection>
            <id>704</id>
            <apiName xsi:nil="true" />
            <value>Administrator, Admin
(admin)</value>
        </selection>
        </createUser>
        <drawnBy xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2020" />
        <checkedBy xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2021" />
        <designSystem xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2007">SW2009
        </designSystem>
        <CADFilename xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2017">asm0001.sldasm
        </CADFilename>
        <CADOldFilename xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2018"></CADOldFilename>
        <designSystemIdentifier xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2008"></designSystemIdentifier>
        <Filetype xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2009">SLDASM</Filetype>

```

```

        <Subtype xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2010"></Subtype>
        <Family xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2011"></Family>
        <Variant xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2012"></Variant>
        <drawingName xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2013"></drawingName>
        <frameID xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2014"></frameID>
        <nameFormat xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2015"></nameFormat>
        <projectName xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2016"></projectName>
        <localFlag xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1301"></localFlag>
        <partNumber xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1302"></partNumber>
        <filePath xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2019"></filePath>
        <oldFilePath xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1331"></oldFilePath>
        <modelType xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1332"></modelType>
        <modelReference xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1333"></modelReference>
        <linkType xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1334"></linkType>
        <linkReference xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1335"></linkReference>
        <TDMVersion xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1307"></TDMVersion>
        <TDMRevision xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1308"></TDMRevision>
        <MultiList01 xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2090" />
    </AgileObject>
</res>
</getDesignWhereUsedResponse>
</soapenv:Body>
</soapenv:Envelope>

```

## get DesignWhereAttached

Service:

To retrieve the Where Used as Attachment information of a given Design object.

**Usage:**

The request must contain a single Agile Object to represent the Design for which the where used as attachment information should be retrieved. All the data to identify the Design object should be present in the ObjectIdentifier, including class-id, subclass, number and version. The service will additionally support two properties in the first set of general parameters: TARGET-DESIGN-VERSION and WHERE-USED-ITEM-REVISION. The property TARGET-DESIGN-VERSION may have the values "LATEST", "SPECIFIED" or "ALL", whereas the property WHERE-USED-ITEM-REVISION may have the values "LATEST" or "ALL".

The property TARGET-DESIGN-VERSION refers to the given Design in the request, and indicates whether the Where Used information should be gathered for the given version (SPECIFIED), for the latest version (LATEST) or for all the versions of the Design object (ALL). Note that when using LATEST or ALL, any given version in the AgileObject in the request is ignored.

The property WHERE-USED-ITEM-REVISION refers to the revision of the Part objects found in the Where Attached table of the target design and indicates that only the latest revision of the Part found, to which the target Design is attached should be returned, or all the revisions of the Part found, to which the target Design is attached should be returned.

The service returns an array of AgileBusinessObjectType of type Part in the response object.

**Syntax:**

```
AgileECResponseExtType getDesignWhereAttachedResponseType =  
agileStub.getDesignWhereAttached(getDesignWhereAttachedRequestType)
```

**Exceptions:**

- If the object is not found for the given ID
- If the object found is not of type Design
- If the object has no object identifier

**Basic Steps:**

1. Create the request object AgileECRequestExtType for the getDesignWhereUsed operation.
2. Create an array of AgileBusinessObjectType elements
3. Create an instance of an AgileBusinessObjectType and set it as the first element in the array.
4. Set the object identifier to contain the appropriate classId, subclass, number and version.
5. Optionally define an array of PropertyListType and set the request's general parameters to this list.
6. In the list, define PropertyType elements for the optional properties "TARGET-DESIGN-VERSION" and "WHERE-USED-ITEM-REVISION".
7. Call the WebService and check if an AgileBusinessObjectType is included in the response, scan through its contents.

**Sample Code Java:**

```
try {
```



```

        setServerLogin();
        Integer classId = getIntegerProperty(DSIGN_CLASS_ID);
        String subClass = getStringProperty(DSIGN_SUBCLASS);
        String number = getStringProperty(DSIGN_NUMBER);
        String version = getStringProperty(DSIGN_VERSION);
        AgileECRequestExtType getDesignWhereAttachedRequestType = new
AgileECRequestExtType();
        PropertyListType[] generalParameters = new PropertyListType[2];
        generalParameters[0] = new PropertyListType();
        PropertyType[] props = new PropertyType[2];
        props[0] = new PropertyType("TARGET-DESIGN-VERSION", "SPECIFIED");
        props[1] = new PropertyType("WHERE-USED-ITEM-REVISION", "ALL");
        generalParameters[0].setProperty(props);

getDesignWhereAttachedRequestType.setGeneralParameters(generalParameters);
        AgileBusinessObjectType[] agileRequestObjects = new
AgileBusinessObjectType[1];
        agileRequestObjects[0] = new AgileBusinessObjectType();
        agileRequestObjects[0].setObjectIdentifier(new
ObjectIdentifierType(classId, subClass, null, null, number, version));
        getDesignWhereAttachedRequestType.setAgileObject(agileRequestObjects);
        AgileECResponseExtType getDesignWhereAttachedResponseType =
agileStub.getDesignWhereAttached(getDesignWhereAttachedRequestType);
        System.out.println("STATUS CODE: " +
getDesignWhereAttachedResponseType.getStatusCode());
        if
(!getDesignWhereAttachedResponseType.getStatusCode().toString().equals(ResponseSta
tusCode.SUCCESS.getValue())) {
            AgileExceptionListType[] agileExceptionListType =
getDesignWhereAttachedResponseType.getExceptions();
            for (AgileExceptionListType exceptionListType :
agileExceptionListType) {
                for (AgileExceptionType exception :
exceptionListType.getException()) {
                    System.out.println(exception.getMessage());
                }
            }
        } else {
            AgileBusinessObjectType[] agileResponseObjects =
getDesignWhereAttachedResponseType.getAgileObject();
            if (agileResponseObjects != null) {
                for (AgileBusinessObjectType agileObject : agileResponseObjects) {
                    ObjectIdentifierType objectIdentifier =
agileObject.getObjectIdentifier();
                    System.out.println("Agile Object Class ID: " +
objectIdentifier.getClassId());
                    System.out.println("Agile Object Class Name: " +
objectIdentifier.getClassName());
                    System.out.println("Agile Object Class Display Name: " +
objectIdentifier.getClassDisplayName());
                    System.out.println("Agile Object Object ID: " +
objectIdentifier.getObjectId());
                    System.out.println("Agile Object Object Name: " +
objectIdentifier.getObjectName());
                    PropertyListType options = agileObject.getOptions();
                    if (options != null) {
                        for (PropertyType property : options.getProperty()) {
                            System.out.println("Option Property Name: " +
property.getPropertyName());
                            System.out.println("Option Property Value: " +
property.getPropertyValue());
                        }
                    }
                    AgileTableType[] tables = agileObject.getTable();
                    if (tables != null) {
                        for (AgileTableType table : tables) {

```

```

        System.out.println("Table Name: " +
table.getTableIdentifier().getTableName());
        AgileRowType[] rows = table.getRow();
        int rowNo = 0;
        if (rows != null) {
            for (AgileRowType row : rows) {
                System.out.println("Table Row Number " + rowNo++);
                for (MessageElement node : row.get_any()) {
                    System.out.println("** " +
node.getLocalName() + ": " + node.getValue());
                    Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
                    while (nodeIt.hasNext()) {
                        Node selectionNode = nodeIt.next();
                        if (selectionNode instanceof
MessageElement) {
                            MessageElement element =
(MessageElement) selectionNode;
                            Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
                            while (subNodeIt.hasNext()) {
                                MessageElement subNode =
subNodeIt.next();
                                System.out.println("*** Selection "
+ subNode.getLocalName() + ": " + subNode.getValue());
                            }
                        }
                    }
                }
            }
        }
        for (MessageElement node : agileObject.get_any()) {
            System.out.println("Agile Object " + node.getLocalName() +
": " + node.getValue());
            Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
            while (nodeIt.hasNext()) {
                Node selectionNode = nodeIt.next();
                if (selectionNode instanceof MessageElement) {
                    MessageElement element = (MessageElement)
selectionNode;
                    Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
                    while (subNodeIt.hasNext()) {
                        MessageElement subNode = subNodeIt.next();
                        System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
                    }
                }
            }
        }
        } else {
            System.out.println("No results!");
        }
    }
}

```

**Sample Code SOAP:**

```

==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

```

```

<soapenv:Body>
  <getDesignWhereAttached
    xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
    <req xmlns="">
      <generalParameters>
        <id xsi:nil="true" />
        <property>
          <propertyName>TARGET-DESIGN-
VERSION</propertyName>
          <propertyValue>SPECIFIED</propertyValue>
        </property>
        <property>
          <propertyName>WHERE-USED-ITEM-
REVISION</propertyName>
          <propertyValue>ALL</propertyValue>
        </property>
      </generalParameters>
      <generalParameters xsi:nil="true" />
      <AgileObject>
        <objectIdentifier>
          <classId>2000008310</classId>
          <className>Design</className>
          <objectId xsi:nil="true" />
        </objectIdentifier>
        <objectName>DESIGN09435.SLDPRT</objectName>
        <version>1</version>
      </AgileObject>
    </req>
  </getDesignWhereAttached>
</soapenv:Body>
</soapenv:Envelope>
==== Response ====
<?xml version="1.0" encoding="utf-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
    <getDesignWhereAttachedResponse
      xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
      <res xmlns="">
        <messageId xsi:nil="true" />
        <messageName xsi:nil="true" />
        <statusCode>SUCCESS</statusCode>
        <AgileObject>
          <objectIdentifier>
            <classId>10141</classId>
            <className>Part</className>
            <classDisplayName>Part</classDisplayName>
            <objectId>6286561</objectId>
            <objectName>P00722</objectName>
          </objectIdentifier>
          <options>
            <id xsi:nil="true" />
            <property>
              <propertyName>IS-
PENDING</propertyName>
              <propertyValue>>false</propertyValue>
            </property>
            <property>
              <propertyName>MANUFACTURE-
SITE</propertyName>
              <propertyValue>ALL</propertyValue>
            </property>
          </options>
        </AgileObject>
      </res>
    </getDesignWhereAttachedResponse>
  </soapenv:Body>
</soapenv:Envelope>

```

```

PRIVET.RGE</propertyName>
<propertyValue>false</propertyValue>
    </property>
  </options>
  <Rev xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
    attributeId="1014">
    <selection>
      <id>0</id>
      <apiName>Rev</apiName>
      <value>Introductory</value>
    </selection>
    </Rev>
    <Number xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
    attributeId="1001">P00722</Number>
    <partType xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
    attributeId="1081">
    <selection>
      <id>10141</id>
      <apiName>PART</apiName>
      <value>Part</value>
    </selection>
    </partType>
    <lifecyclePhase
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
    attributeId="1084">
    <selection>
      <id>976</id>
      <apiName>PRELIMINARY</apiName>
      <value>Preliminary</value>
    </selection>
    </lifecyclePhase>
    <Description xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1002">Default
    </Description>
    <partCategory
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
    attributeId="1082" />
    <Size xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
    attributeId="1068" />
    <productLineS
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
    attributeId="1004" />
    <revIncorpDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1017" />
    <revReleaseDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1016" />
    <effectivityDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="12089" />

```

```

        <shippableItem
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000002781">
        <selection>
            <id>0</id>
            <apiName>NO</apiName>
            <value>No</value>
        </selection>
        </shippableItem>
        <excludeFromRollup
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000002859">
        <selection>
            <id>0</id>
            <apiName>NO</apiName>
            <value>No</value>
        </selection>
        </excludeFromRollup>
        <complianceCalculatedDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2000004143" />
        <partFamily xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000004416" />
        <Mass xsi:type="common:AgileUnitOfMeasureType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000004612" />
        <overallCompliance
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000004891" />
        <Thumbnail xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008549">
        <selection>
            <id>7886</id>
            <apiName>48369R1SLDPRT</apiName>
        </selection>
        <value>com.agile.api.pc.attachment.ThumbnailID@13f4076</value>
        </Thumbnail>
        <ModelRef xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000009494"></ModelRef>
        <Text11 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1301"></Text11>
        <Text12 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1302"></Text12>
        <Text15 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1305"></Text15>
        <Text16 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1306"></Text16>
        <Text18 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1308"></Text18>

```

```

        <Text23 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1313"></Text23>
        <Text01 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2007"></Text01>
        <Text02 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2008">DESIGN09435</Text02>
        <List04 xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2023" />
        <myPublishedFrom xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2623310">1
        </myPublishedFrom>
    </AgileObject>
    <AgileObject>
        <objectIdentifier>
            <classId>10141</classId>
            <className>Part</className>
            <classDisplayName>Part</classDisplayName>
            <objectId>6286561</objectId>
            <objectName>P00722</objectName>
        </objectIdentifier>
        <options>
            <id xsi:nil="true" />
            <property>
                <propertyName>IS-
PENDING</propertyName>
                <propertyValue>true</propertyValue>
            </property>
            <property>
                <propertyName>MANUFACTURE-
SITE</propertyName>
                <propertyValue>ALL</propertyValue>
            </property>
            <property>
                <propertyName>HAS-SEND-
PRIVELEGE</propertyName>
                <propertyValue>>false</propertyValue>
            </property>
        </options>
        <Rev xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="1014">
            <selection>
                <id>6286682</id>
                <apiName>Rev</apiName>
                <value>(A) C00115</value>
            </selection>
        </Rev>
        <Number xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1001">P00722</Number>
        <partType xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="1081">
            <selection>
                <id>10141</id>
                <apiName>PART</apiName>
                <value>Part</value>

```

```

        </selection>
      </partType>
      <lifecyclePhase
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="1084">
        <selection>
          <id>976</id>
          <apiName>PRELIMINARY</apiName>
          <value>Preliminary</value>
        </selection>
      </lifecyclePhase>
      <Description xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1002">Default
      </Description>
      <partCategory
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="1082" />
      <Size xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="1068" />
      <productLines
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="1004" />
      <revIncorpDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1017" />
      <revReleaseDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1016" />
      <effectivityDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="12089" />
      <shippableItem
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000002781">
        <selection>
          <id>0</id>
          <apiName>NO</apiName>
          <value>No</value>
        </selection>
      </shippableItem>
      <excludeFromRollup
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000002859">
        <selection>
          <id>0</id>
          <apiName>NO</apiName>
          <value>No</value>
        </selection>
      </excludeFromRollup>
      <complianceCalculatedDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2000004143" />
      <partFamily xsi:type="common:AgileListEntryType"

```

```

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000004416" />
        <Mass xsi:type="common:AgileUnitOfMeasureType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000004612" />
        <overallCompliance
xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000004891" />
        <Thumbnail xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008549">
        <selection>
            <id>7886</id>
            <apiName>48369R1SLDPRT</apiName>

<value>com.agile.api.pc.attachment.ThumbnailID@4bae41</value>
        </selection>
        </Thumbnail>
        <ModelRef xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000009494"></ModelRef>
        <Text11 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1301"></Text11>
        <Text12 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1302"></Text12>
        <Text15 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1305"></Text15>
        <Text16 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1306"></Text16>
        <Text18 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1308"></Text18>
        <Text23 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="1313"></Text23>
        <Text01 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2007"></Text01>
        <Text02 xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2008">DESIGN09435</Text02>
        <List04 xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2023" />
        <myPublishedFrom xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2623310">1
        </myPublishedFrom>
        </AgileObject>
    </res>
</getDesignWhereAttachedResponse>
</soapenv:Body>
</soapenv:Envelope>

```



## getDesignRelationships

### Service:

To retrieve the version specific relationships between the given Design object and other Designs. It differentiates itself from the core service used to retrieve the contents of the Relationships table for Design objects in that: a) It filters out all objects which are not Designs and b) It allows a combination of versions for the target Design as well as the related Design objects.

### Usage:

The request must contain a single Agile Object to represent the Design for which the relationships information should be retrieved. All the data to identify the Design object should be present in the ObjectIdentifier, including class-id, subclass, number and version. The service will additionally support two properties in the first set of general parameters: TARGET-DESIGN-VERSION and RELATED-DESIGN-VERSION. The property TARGET-DESIGN-VERSION may have the values "LATEST", "SPECIFIED" or "ALL", whereas the property RELATED-DESIGN-VERSION may have the values "LATEST" or "ALL". The property TARGET-DESIGN-VERSION refers to the given Design in the request, and indicates whether the Relationship information should be gathered for the given version (SPECIFIED), for the latest version (LATEST) or for all the versions of the Design object (ALL). Note that when using LATEST or ALL, any given version in the AgileObject in the request is ignored.

The property RELATED-DESIGN-VERSION refers to the version of the Design objects found in the Relationship table of the target design and indicates that only the latest version of the Design found, to which the target Design is related should be returned, or all the versions of the Design found, to which the target Design is related should be returned.

The service returns an array of AgileBusinessObjectType of type Design in the response object.

### Syntax:

```
AgileECResponseExtType getDesignRelationshipsResponseType =  
agileStub.getDesignRelationships(getDesignRelationshipsRequestType)
```

### Exceptions:

- If the object is not found for the given objectName
- If the Object found is not of type Design
- If the Object version is not valid
- If the Object has no Object identifier

### Basic Steps:

1. Create the request object AgileECRequestExtType for the getDesignWhereUsed operation.
2. Create an array of AgileBusinessObjectType elements
3. Create an instance of an AgileBusinessObjectType and set it as the first element in the array.
4. Set the object identifier to contain the appropriate classId, subclass, number and version.
5. Optionally define an array of PropertyListType and set the request's general parameters to this list.

6. In the list, define PropertyType elements for the optional properties "TARGET-DESIGN-VERSION" and "RELATED-DESIGN-VERSION".
7. Call the WebService and check if an AgileBusinessObjectType is included in the response, scan through its contents.

**Sample Code Java:**

```

try {
    setupServerLogin();
    Integer classId = getIntegerProperty(DSIGN_CLASS_ID);
    String subClass = getStringProperty(DSIGN_SUBCLASS);
    String number = getStringProperty(DSIGN_NUMBER);
    String version = getStringProperty(DSIGN_VERSION);
    AgileECRequestExtType getDesignRelationshipsRequestType = new
AgileECRequestExtType();
    PropertyListType[] generalParameters = new PropertyListType[2];
    generalParameters[0] = new PropertyListType();
    PropertyType[] props = new PropertyType[2];
    props[0] = new PropertyType("TARGET-DESIGN-VERSION", "SPECIFIED");
    props[1] = new PropertyType("RELATED-DESIGN-VERSION", "ALL");
    generalParameters[0].setProperty(props);

    getDesignRelationshipsRequestType.setGeneralParameters(generalParameters);
    AgileBusinessObjectType[] agileRequestObjects = new
AgileBusinessObjectType[1];
    agileRequestObjects[0] = new AgileBusinessObjectType();
    agileRequestObjects[0].setObjectIdentifier(new
ObjectIdentifierType(classId, subClass, null, null, number, version));
    getDesignRelationshipsRequestType.setAgileObject(agileRequestObjects);
    AgileECResponseExtType getDesignRelationshipsResponseType =
agileStub.getDesignRelationships(getDesignRelationshipsRequestType);
    System.out.println("STATUS CODE: " +
getDesignRelationshipsResponseType.getStatusCode());
    if
(!getDesignRelationshipsResponseType.getStatusCode().toString().equals(ResponseStat
usCode.SUCCESS.getValue())) {
        AgileExceptionListType[] agileExceptionListType =
getDesignRelationshipsResponseType.getExceptions();
        for (AgileExceptionListType exceptionListType :
agileExceptionListType) {
            for (AgileExceptionType exception :
exceptionListType.getException()) {
                System.out.println(exception.getMessage());
            }
        }
    } else {
        AgileBusinessObjectType[] agileResponseObjects =
getDesignRelationshipsResponseType.getAgileObject();
        if (agileResponseObjects != null) {
            for (AgileBusinessObjectType agileObject : agileResponseObjects) {
                ObjectIdentifierType objectIdentifier =
agileObject.getObjectIdentifier();
                System.out.println("Agile Object Class ID: " +
objectIdentifier.getClassId());
                System.out.println("Agile Object Class Name: " +
objectIdentifier.getClassName());
                System.out.println("Agile Object Class Display Name: " +
objectIdentifier.getClassDisplayName());
                System.out.println("Agile Object Object ID: " +
objectIdentifier.getObjectId());
                System.out.println("Agile Object Object Name: " +
objectIdentifier.getObjectName());
                PropertyListType options = agileObject.getOptions();
                if (options != null) {
                    for (PropertyType property : options.getProperty()) {

```

```

        System.out.println("Option Property Name: " +
property.getPropertyName());
        System.out.println("Option Property Value: " +
property.getPropertyValue());
    }
}
AgileTableType[] tables = agileObject.getTable();
if (tables != null) {
    for (AgileTableType table : tables) {
        System.out.println("Table Name: " +
table.getTableIdentifier().getTableName());
        AgileRowType[] rows = table.getRow();
        int rowNo = 0;
        if (rows != null) {
            for (AgileRowType row : rows) {
                System.out.println("Table Row Number " + rowNo++);
                for (MessageElement node : row.get_any()) {
                    System.out.println("** " +
node.getLocalName() + ": " + node.getValue());
                    Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
                    while (nodeIt.hasNext()) {
                        Node selectionNode = nodeIt.next();
                        if (selectionNode instanceof
MessageElement) {
                            MessageElement element =
(MessageElement) selectionNode;
                            Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
                            while (subNodeIt.hasNext()) {
                                MessageElement subNode =
subNodeIt.next();
                                System.out.println("*** Selection "
+ subNode.getLocalName() + ": " + subNode.getValue());
                            }
                        }
                    }
                }
            }
        }
        for (MessageElement node : agileObject.get_any()) {
            System.out.println("Agile Object " + node.getLocalName() +
": " + node.getValue());
            Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
            while (nodeIt.hasNext()) {
                Node selectionNode = nodeIt.next();
                if (selectionNode instanceof MessageElement) {
                    MessageElement element = (MessageElement)
selectionNode;
                    Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
                    while (subNodeIt.hasNext()) {
                        MessageElement subNode = subNodeIt.next();
                        System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
                    }
                }
            }
        }
    } else {
        System.out.println("No results!");
    }
}

```

}

**Sample Code SOAP:**

```

==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
    <getDesignRelationships
      xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
      <req xmlns="">
        <generalParameters>
          <id xsi:nil="true" />
          <property>
            <propertyName>TARGET-DESIGN-
VERSION</propertyName>
            <propertyValue>SPECIFIED</propertyValue>
          </property>
          <property>
            <propertyName>RELATED-DESIGN-
VERSION</propertyName>
            <propertyValue>ALL</propertyValue>
          </property>
        </generalParameters>
        <generalParameters xsi:nil="true" />
        <AgileObject>
          <objectIdentifier>
            <classId>2000008310</classId>
            <className>Design</className>
            <objectId xsi:nil="true" />
          </objectIdentifier>
          <objectName>DESIGN09436.SLDASM</objectName>
          <version>2</version>
        </AgileObject>
      </req>
    </getDesignRelationships>
  </soapenv:Body>
</soapenv:Envelope>
==== Response ====
<?xml version="1.0" encoding="utf-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
    <getDesignRelationshipsResponse
      xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
      <res xmlns="">
        <messageId xsi:nil="true" />
        <messageName xsi:nil="true" />
        <statusCode>SUCCESS</statusCode>
        <AgileObject>
          <objectIdentifier>
            <classId>2000008310</classId>
            <className>Design</className>
          </objectIdentifier>
          <classDisplayName>Design</classDisplayName>
          <objectId>6286256</objectId>
          <objectName>DESIGN09444.SLDASM</objectName>
          </objectIdentifier>
          <options>
            <id xsi:nil="true" />
          </property>

```

```

<propertyName>OPTION_IS_PENDING</propertyName>
<propertyValue>>false</propertyValue>
</property>
<property>

<propertyName>OPTION_HAS_SEND_PRIVILEGE</propertyName>
<propertyValue>>false</propertyValue>
</property>
<property>

<propertyName>OPTION_HAS_COMMENT_PRIVILEGE</propertyName>
<propertyValue>>true</propertyValue>
</property>
<property>

<propertyName>OPTION_APPROVE_REJECT_PRIVILEGE</propertyName>
<propertyValue>>true</propertyValue>
</property>
</options>
<Version xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="7951"
displayName="Version">3</Version>
<Number xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6173">DESIGN09444.SLDASM</Number>
<Type xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
attributeId="6175">
<selection>
<id>2000008310</id>
<apiName>DESIGN</apiName>
<value>Design</value>
</selection>
</Type>
<lifecyclePhase
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
attributeId="6390" />
<Description xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6174"></Description>
<lastModifiedDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6178">2010-08-
19T10:24:33.000Z</lastModifiedDate>
<checkoutStatus
xsi:type="common:AgileListEntryType"
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
attributeId="6389">
<selection>
<id>1</id>
<apiName>CHECKED_IN</apiName>
<value>Checked In</value>
</selection>
</checkoutStatus>
<checkoutUser
xsi:type="common:AgileListEntryType"

```

```

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="6180" />
        <checkoutDate xsi:type="xs:date"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6184" />
        <checkoutLocation xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6183"></checkoutLocation>
        <checkinDate xsi:type="xs:date"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="6388">2010-08-
10T16:39:56.000Z</checkinDate>
        <createDate xsi:type="xs:date"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="6177">2010-07-
06T09:41:13.000Z</createDate>
        <Label xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008316"></Label>
        <componentType
xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008317" />
        <Thumbnail xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008554" />
        <Revision xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
        attributeId="2000008685"></Revision>
        <revisionDate xsi:type="xs:date"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2000008686" />
        <checkinUser xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2000008717">
        <selection>
            <id>704</id>
            <apiName xsi:nil="true" />
            <value>Administrator, Admin
(admin)</value>
        </selection>
        </checkinUser>
        <itemChangeStatus xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000009487"></itemChangeStatus>
        <createUser xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="1420">
        <selection>
            <id>704</id>
            <apiName xsi:nil="true" />
            <value>Administrator, Admin
(admin)</value>
        </selection>
        </createUser>
        <drawnBy xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
        attributeId="2020" />
        <checkedBy xsi:type="common:AgileListEntryType"

```

```

xmlns:common="http://xmlns.oracle.com/ArileObjects/Core/Common/v1"
                                attributeId="2021" />
                                <designSystem xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2007">SW2009</designSystem>
                                <CADFilename xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2017">botthsg_trough_678901234567.SLDASM</CADFilename>
                                <CADOldFilename xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2018"></CADOldFilename>
                                <designSystemIdentifier xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2008"></designSystemIdentifier>
                                <Filetype xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2009">SLDASM</Filetype>
                                <Subtype xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2010"></Subtype>
                                <Family xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2011"></Family>
                                <Variant xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2012"></Variant>
                                <drawingName xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2013"></drawingName>
                                <frameID xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2014"></frameID>
                                <nameFormat xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2015"></nameFormat>
                                <projectName xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="2016"></projectName>
                                <localFlag xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="1301"></localFlag>
                                <partNumber xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="1302"></partNumber>
                                <filePath xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="2019"></filePath>
                                <oldFilePath xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1331"></oldFilePath>
                                <modelType xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="1332"></modelType>
                                <modelReference xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1333"></modelReference>
                                <linkType xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                attributeId="1334"></linkType>
                                <linkReference xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1335"></linkReference>

```

```
<TDMVersion xsi:type="xs:string"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="1307"></TDMVersion>
<TDMRevision xsi:type="xs:string"

xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeId="1308"></TDMRevision>
<MultiList01 xsi:type="common:AgileListEntryType"

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
attributeId="2090">
<selection>
<id>41000</id>
<apiName xsi:nil="true" />
<value>DEMO CUSTOMER 1</value>
</selection>
</MultiList01>
</AgileObject>
</res>
</getDesignRelationshipsResponse>
</soapenv:Body>
</soapenv:Envelope>
```

## generateThumbnails

### Service:

To trigger the generation of thumbnail images for Design assemblies once the complete check-in process has finished. Note that the PLM system will typically trigger the generation of thumbnail images automatically once the Design objects are checked-in, however, the thumbnail generation for assemblies requires a manual trigger to properly reflect all components. This is especially true for CAD models of certain tools.

### Usage:

The request should contain at least one Agile Object to represent the Design for which the thumbnail generation should be triggered. All the data to identify the Design object should be present in the ObjectIdentifier, including class-id, subclass, number and version.

The service does not return any object in the response, only the status of the call. Note that the call to generate the thumbnails simply triggers the generation process on the PLM system. The actual generation of the thumbnails and the fact that they become visible on the Design form depends on the server side task schedule.

### Syntax:

```
AgileECResponseExtType generateThumbnailsResponseType =
agileStub.generateThumbnails(generateThumbnailsRequestType);
```

### Exceptions:

- If the object is not found for the given objectName
- If the Object found is not of type Design
- If the Object version is not valid
- If the Object has no Object identifier

### Basic Steps:



1. Create the request object AgileECRequestExtType for the generateThumbnails operation.
2. Create an array of AgileBusinessObjectType elements
3. Create an instance of an AgileBusinessObjectType and set it as the first element in the array.
4. Set the object identifier to contain the appropriate classId, subclass, number and version.
5. Call the WebService and check the status of the response.

**Sample Code Java:**

```

try {
    setupServerLogin();
    Integer classId = getIntegerProperty(DSIGN_CLASS_ID);
    String subClass = getStringProperty(DSIGN_SUBCLASS);
    String number = getStringProperty(DSIGN_NUMBER);
    String version = getStringProperty(DSIGN_VERSION);
    AgileECRequestExtType generateThumbnailsRequestType = new
AgileECRequestExtType();
    AgileBusinessObjectType[] agileRequestObjects = new
AgileBusinessObjectType[1];
    agileRequestObjects[0] = new AgileBusinessObjectType();
    agileRequestObjects[0].setObjectIdentifier(new
ObjectIdentifierType(classId, subClass, null, null, number, version));
    generateThumbnailsRequestType.setAgileObject(agileRequestObjects);
    AgileECResponseExtType generateThumbnailsResponseType =
agileStub.generateThumbnails(generateThumbnailsRequestType);
    System.out.println("STATUS CODE: " +
generateThumbnailsResponseType.getStatusCode());
    if
(!generateThumbnailsResponseType.getStatusCode().toString().equals(ResponseStatusC
ode.SUCCESS.getValue())) {
        AgileExceptionListType[] agileExceptionListType =
generateThumbnailsResponseType.getExceptions();
        for (AgileExceptionListType exceptionListType :
agileExceptionListType) {
            for (AgileExceptionType exception :
exceptionListType.getException()) {
                System.out.println(exception.getMessage());
            }
        }
    } else {
        System.out.println("SUCCESS!");
    }
}

```

**Sample Code SOAP:**

```

==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<soapenv:Body>
    <generateThumbnails xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
        <req xmlns="">
            <AgileObject>
                <objectIdentifier>
                    <classId>2000008310</classId>
                    <className>Design</className>
                    <objectId xsi:nil="true" />
                    <objectName>DESIGN03412</objectName>
                    <version>2</version>
                </objectIdentifier>
            </AgileObject>

```

```
        </res>
      </generateThumbnails>
    </soapenv:Body>
  </soapenv:Envelope>
  ==== Response ====
  <?xml version="1.0" encoding="utf-8"?>
  <soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
    xmlns:xsd="http://www.w3.org/2001/XMLSchema"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <soapenv:Body>
      <generateThumbnailsResponse
        xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
        <res xmlns="">
          <messageId xsi:nil="true" />
          <messageName xsi:nil="true" />
          <statusCode>SUCCESS</statusCode>
        </res>
      </generateThumbnailsResponse>
    </soapenv:Body>
  </soapenv:Envelope>
```

## getUserPreferredLanguage

### Service:

To retrieve the setting for the preferred language of the current user.

### Usage:

The request should not contain any AgileObject, however, it should contain an empty element of type GetUserPreferredLanguageRequest.

The service returns the preferred language in the response.

### Syntax:

```
GetUserPreferredLanguageResponseType userPreferredLanguageResponseType =
agileStub.getUserPreferredLanguage(userPreferredLanguageRequestType);
```

### Basic Steps:

1. Create the request object GetUserPreferredLanguageRequestType for the getUserPreferredLanguage operation.
2. Create an empty element of type GetUserPreferredLanguageRequest and set it to the request type created above.
3. Call the WebService and get the preferred language setting from the response.

### Sample Code Java:

```
try {
    setupServerLogin();
    GetUserPreferredLanguageRequestType userPreferredLanguageRequestType =
    new GetUserPreferredLanguageRequestType();
    GetUserPreferredLanguageRequest requests = new
    GetUserPreferredLanguageRequest();
    userPreferredLanguageRequestType.setRequests(requests);
    GetUserPreferredLanguageResponseType userPreferredLanguageResponseType =
    agileStub.getUserPreferredLanguage(userPreferredLanguageRequestType);
    System.out.println("STATUS CODE: " +
    userPreferredLanguageResponseType.getStatusCode());
}
```

```

        if
        (!userPreferredLanguageResponseType.getStatusCode().toString().equals(ResponseStat
usCode SUCCESS.getValue())) {
            AgileExceptionListType[] agileExceptionListType =
            userPreferredLanguageResponseType.getExceptions();
            for (AgileExceptionListType exceptionListType :
            agileExceptionListType) {
                for (AgileExceptionType exception :
            exceptionListType.getException()) {
                    System.out.println(exception.getMessage());
                }
            }
        } else {
            System.out.println("SUCCESS!");
            UserPreferredLanguageResponse response =
            userPreferredLanguageResponseType.getResponse();
            System.out.println("Preferred language: " + response.getLanguage());
        }
    }
}

```

### Sample Code SOAP:

```

==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<soapenv:Body>
    <getUserPreferredLanguage
        xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
        <req xmlns="">
            <messageId>MessageId</messageId>
            <requests />
        </req>
    </getUserPreferredLanguage>
</soapenv:Body>
</soapenv:Envelope>
==== Response ====
<?xml version="1.0" encoding="utf-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<soapenv:Body>
    <getUserPreferredLanguageResponse
        xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
        <res xmlns="">
            <messageId>MessageId</messageId>
            <messageName xsi:nil="true" />
            <statusCode>SUCCESS</statusCode>
            <responses>
                <language>en</language>
                <country></country>
            </responses>
        </res>
    </getUserPreferredLanguageResponse>
</soapenv:Body>
</soapenv:Envelope>

```

## EC Orchestrated Calls

The orchestrated services for Engineering Collaboration in Agile 9.3 are based on Oracle's BPEL engine, which is a very flexible and robust framework for automating sequences of WebService calls to conduct several actions within one single call to the server side. The result is improved

performance, especially in WAN environments, where the response time for a roundtrip to the server is significantly longer than that in LAN environments.

The following sections list the available EC Orchestrated WebServices. For information about the compilation and deployment of these services, please refer to the EC BPEL Services Guide, which is included in the documentation for 9.3.

## getDesignPropertiesAndRights

### Service:

To retrieve the metadata of the given AgileClass and the privileges of the given user on the given Design object in one call.

### Usage:

The request should not have any Agile Object. Instead, all the parameters used by this service are provided as properties included in the first generalParameters section of the request.

The following properties should be included in this section:

- **userIdentification** – The name of the user whose privileges should be checked
- classIdentifier** – The numeric ID of the Designs' subclass whose tables' metadata will be retrieved. Note that metadata for the following tables will be retrieved:
  - TitleBlock (table id = 6146)
  - Page Two (table id = 810)
  - Page Three (table id = 1501)
  - Where Used (table id = 6149)
  - Files (table id = 6150)
  - Relationships (table id = 2000007761)
  - History (table id = 815)
  - Structure (table id = 2000008318)
  - Where Used Design (table id = 2000008495)
- **object Number** - The number of the Design object for which the user's privileges will be retrieved
- **privilege** – The number of the privilege to check. Note that more than one privilege property may be included in the generalParameters section to check more than one privilege in one call.

The service will return a response which includes each of the individual responses obtained during the execution of the orchestrated process.

### Syntax:

```
GetDesignPropertiesAndRightsResponseRes getDesignPropertiesAndRightsResponseType =  
bpelStub.getDesignPropertiesAndRights(getDesignPropertiesAndRightsRequestType);
```

### Basic Steps:

1. Create the request object AgileECRequestExtType for the getDesignPropertiesAndRights operation.

2. Create a general parameters list of type `PropertyListType`
3. Add the property 'userIdentification' to the list, set its value to the desired username.
4. Add the property 'classIdentifier' to the list, set its value to the subclass of Design whose metadata should be retrieved.
5. Add the property 'objectNumber' to the list, set its value to the number of the design whose privileges should be checked.
6. Add one or more 'privilege' properties to the list, set the values of the ids of the privileges to check.
7. Call the WebService and review the metadata information returned, as well as the privilege information.

**Sample Code Java:**

```

try {
    setupServerLogin();
    String userId = getStringProperty("USERNAME");
    Integer designClassId = getIntegerProperty(DSIGN_CLASS_ID);
    Integer partClassId = getIntegerProperty(PART_CLASS_ID);
    String designNumber = getStringProperty(DSIGN_NUMBER);
    String partNumber = getStringProperty(PART_NUMBER);
    AgileECRequestExtType getDesignPropertiesAndRightsRequestType = new
AgileECRequestExtType();
    PropertyListType[] generalParameters = new PropertyListType[2];
    generalParameters[0] = new PropertyListType();
    PropertyType[] props = new PropertyType[8];
    props[0] = new PropertyType("userIdentification", userId);
    props[1] = new PropertyType("classIdentifier",
String.valueOf(designClassId));
    props[2] = new PropertyType("objectNumber", designNumber);
    props[3] = new PropertyType("type", "design");
    // Multiple privileges can be checked in one call
    props[4] = new PropertyType("privilege", "2");
    props[5] = new PropertyType("privilege", "15");
    props[6] = new PropertyType("privilege", "17");
    props[7] = new PropertyType("privilege", "38");
    generalParameters[0].setProperty(props);
    generalParameters[1] = new PropertyListType(); props = new
PropertyType[8]; props[0] = new PropertyType("userIdentification", userId);
    props[1] = new PropertyType("classIdentifier",
String.valueOf(partClassId));
    props[2] = new PropertyType("objectNumber", partNumber);
    props[3] = new PropertyType("type", "item");
    // Multiple privileges can be checked in one call
    props[4] = new PropertyType("privilege", "2");
    props[5] = new PropertyType("privilege", "15");
    props[6] = new PropertyType("privilege", "17");
    props[7] = new PropertyType("privilege", "38");
    generalParameters[1].setProperty(props);

    getDesignPropertiesAndRightsRequestType.setGeneralParameters(generalParameters);
    GetDesignItemPropertiesAndRightsResponseRes
getDesignPropertiesAndRightsResponseType =
bpelStub.getDesignItemPropertiesAndRights(getDesignPropertiesAndRightsRequestType)
;
    System.out.println("STATUS CODE: " +
getDesignPropertiesAndRightsResponseType.getStatusCode());
    if
(!getDesignPropertiesAndRightsResponseType.getStatusCode().toString().equals(Respo
nseStatusCode.SUCCESS.getValue())) {

```

```

        CheckPrivilegeResponse checkOutFFResponse =
getDesignPropertiesAndRightsResponseType.getCheckPrivilegeResponse().
        AgileExceptionListType[] agileExceptionListType =
checkOutFFResponse.getResponse().getExceptions();
        if (agileExceptionListType != null) {
            for (AgileExceptionListType exceptionListType :
agileExceptionListType) {
                for (AgileExceptionType exception :
exceptionListType.getException()) {
                    System.out.println(exception.getMessage());
                }
            }
        }
        } else { // If the call was successful, then examine its contents
            AgileCheckPrivilegeResponseType[] checkPrivilegeResponses =
getDesignPropertiesAndRightsResponseType.getCheckPrivilegeResponse().getResponse().
.getResponses();
            if (checkPrivilegeResponses != null) {
                for (AgileCheckPrivilegeResponseType agileResponse :
checkPrivilegeResponses) {
                    CheckPrivilegeType privilege = agileResponse.getPrivilege();
                    System.out.println("Privilege ID: " + privilege.getPrivilege() +
". Has Privilege: " + privilege.getCheckPrivilege());
                }
            } else {
                System.out.println("No results!");
            }
        }
    }
}

```

**Sample Code SOAP:**

```

==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<soapenv:Body>
    <getDesignItemPropertiesAndRights
        xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
        <req xmlns="">
            <generalParameters>
                <id xsi:nil="true" />
                <property>

<propertyName>userIdentification</propertyName>
                <propertyValue>admin</propertyValue>
            </property>
            <property>

<propertyName>classIdentifier</propertyName>
                <propertyValue>2000008310</propertyValue>
            </property>
            <property>
                <propertyName>objectNumber</propertyName>
                <propertyValue>DESIGN09502</propertyValue>
            </property>
            <property>
                <propertyName>type</propertyName>
                <propertyValue>design</propertyValue>
            </property>
            <property>
                <propertyName>privilege</propertyName>
                <propertyValue>2</propertyValue>
            </property>
            <property>
                <propertyName>privilege</propertyName>

```

```

        <propertyValue>15</propertyValue>
      </property>
      <property>
        <propertyName>privilege</propertyName>
        <propertyValue>17</propertyValue>
      </property>
      <property>
        <propertyName>privilege</propertyName>
        <propertyValue>38</propertyValue>
      </property>
    </generalParameters>
    <generalParameters>
      <id xsi:nil="true" />
      <property>
        <propertyName>userIdentification</propertyName>
        <propertyValue>admin</propertyValue>
      </property>
      <property>
        <propertyName>classIdentifier</propertyName>
        <propertyValue>10141</propertyValue>
      </property>
      <property>
        <propertyName>objectNumber</propertyName>
        <propertyValue>P00776</propertyValue>
      </property>
      <property>
        <propertyName>type</propertyName>
        <propertyValue>item</propertyValue>
      </property>
      <property>
        <propertyName>privilege</propertyName>
        <propertyValue>2</propertyValue>
      </property>
      <property>
        <propertyName>privilege</propertyName>
        <propertyValue>15</propertyValue>
      </property>
      <property>
        <propertyName>privilege</propertyName>
        <propertyValue>17</propertyValue>
      </property>
      <property>
        <propertyName>privilege</propertyName>
        <propertyValue>38</propertyValue>
      </property>
    </generalParameters>
  </req>
</getDesignItemPropertiesAndRights>
</soapenv:Body>
</soapenv:Envelope>
==== Response ====
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:wsa="http://www.w3.org/2005/08/addressing">
  <env:Header>
    <wsa:MessageID>urn:E2612FC0AC5211DFBFD3F7C676F77F9</wsa:MessageID>
    <wsa:ReplyTo>
      <wsa:Address>http://www.w3.org/2005/08/addressing/anonymous
    </wsa:Address>
    </wsa:ReplyTo>
  </env:Header>
  <env:Body>
    <getDesignItemPropertiesAndRightsResponse
      xmlns:dvm="http://www.oracle.com/XSL/Transform/java/oracle.tip.dvm.LookupValue"

```

```

    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
  <res xmlns="">
    <messageId />
    <messageName />
    <statusCode>WARNING</statusCode>
    <sessionParameters />
    <generalParameters>
      <id xsi:nil="true" />
      <property>
        <propertyName>userIdentification</propertyName>
        <propertyValue>admin</propertyValue>
      </property>
      <property>
        <propertyName>classIdentifier</propertyName>
        <propertyValue>2000008310</propertyValue>
      </property>
      <property>
        <propertyName>objectNumber</propertyName>
        <propertyValue>DESIGN09502</propertyValue>
      </property>
      <property>
        <propertyName>type</propertyName>
        <propertyValue>design</propertyValue>
      </property>
      <property>
        <propertyName>privilege</propertyName>
        <propertyValue>2</propertyValue>
      </property>
      <property>
        <propertyName>privilege</propertyName>
        <propertyValue>15</propertyValue>
      </property>
      <property>
        <propertyName>privilege</propertyName>
        <propertyValue>17</propertyValue>
      </property>
      <property>
        <propertyName>privilege</propertyName>
        <propertyValue>38</propertyValue>
      </property>
    </generalParameters>
    <generalParameters>
      <id xsi:nil="true" />
      <property>
        <propertyName>userIdentification</propertyName>
        <propertyValue>admin</propertyValue>
      </property>
      <property>
        <propertyName>classIdentifier</propertyName>
        <propertyValue>10141</propertyValue>
      </property>
      <property>
        <propertyName>objectNumber</propertyName>
        <propertyValue>P00776</propertyValue>
      </property>
      <property>
        <propertyName>type</propertyName>
        <propertyValue>item</propertyValue>
      </property>
      <property>
        <propertyName>privilege</propertyName>
        <propertyValue>2</propertyValue>
      </property>
      <property>
        <propertyName>privilege</propertyName>
        <propertyValue>15</propertyValue>
      </property>
    </generalParameters>
  </res>
</AgileObject>

```



```

        </property>
        <property>
            <propertyName>privilege</propertyName>
            <propertyValue>17</propertyValue>
        </property>
        <property>
            <propertyName>privilege</propertyName>
            <propertyValue>38</propertyValue>
        </property>
    </generalParameters>
    <notes>
        <id />
        <processNote>
            <message />
        </processNote>
    </notes>
    <exceptions>
        <id />
        <exception>
            <exceptionId />
            <message />
        </exception>
    </exceptions>
    <getTableMetadataResponse xmlns:xsd="http://www.w3.org/2001/XMLSchema"
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xmlns="http://xmlns.oracle.com/AgileObjects/Core/AdminMetadata/V1">
        <response xmlns="">Response omitted from this sample due to
            the size. Check the documentation about the getTableMetadata
            service, which is part of the AdminMetadata services in a9
        </response>
    </getTableMetadataResponse>
    <checkPrivilegeResponse xmlns:xsd="http://www.w3.org/2001/XMLSchema"
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xmlns="http://xmlns.oracle.com/AgileObjects/Core/Business/V1">
        <response xmlns="">
            <messageId>f467ace57764bfde:-1d875c14:12a8e6a4023:-7f87
            </messageId>
            <messageName>checkPrivilege-by-
ECGetDesignItemPropertiesAndRights
            </messageName>
            <statusCode>SUCCESS</statusCode>
            <responses>
                <userIdentification>
                    <userIdentifier>admin</userIdentifier>
                </userIdentification>
                <privilege>
                    <privilege>2</privilege>
                    <checkPrivilege>true</checkPrivilege>
                    <classIdentifier>2000008310</classIdentifier>
                    <objectNumber>DESIGN09502</objectNumber>
                </privilege>
            </responses>
            <responses>
                <userIdentification>
                    <userIdentifier>admin</userIdentifier>
                </userIdentification>
                <privilege>
                    <privilege>15</privilege>
                    <checkPrivilege>false</checkPrivilege>
                    <classIdentifier>2000008310</classIdentifier>
                    <objectNumber>DESIGN09502</objectNumber>
                </privilege>
            </responses>
            <responses>
                <userIdentification>
                    <userIdentifier>admin</userIdentifier>
                </userIdentification>
            </responses>
        </response>
    </checkPrivilegeResponse>

```

```

        <privilege>
          <privilege>17</privilege>
          <checkPrivilege>true</checkPrivilege>
          <classIdentifier>2000008310</classIdentifier>
          <objectNumber>DESIGN09502</objectNumber>
        </privilege>
      </responses>
    <responses>
      <userIdentification>
        <userIdentifier>admin</userIdentifier>
      </userIdentification>
      <privilege>
        <privilege>38</privilege>
        <checkPrivilege>true</checkPrivilege>
        <classIdentifier>2000008310</classIdentifier>
        <objectNumber>DESIGN09502</objectNumber>
      </privilege>
    </responses>
  </responses>
  <responses>
    <userIdentification>
      <userIdentifier>admin</userIdentifier>
    </userIdentification>
    <privilege>
      <privilege>2</privilege>
      <checkPrivilege>false</checkPrivilege>
      <classIdentifier>10141</classIdentifier>
      <objectNumber>P00776</objectNumber>
    </privilege>
  </responses>
  <responses>
    <userIdentification>
      <userIdentifier>admin</userIdentifier>
    </userIdentification>
    <privilege>
      <privilege>15</privilege>
      <checkPrivilege>false</checkPrivilege>
      <classIdentifier>10141</classIdentifier>
      <objectNumber>P00776</objectNumber>
    </privilege>
  </responses>
  <responses>
    <userIdentification>
      <userIdentifier>admin</userIdentifier>
    </userIdentification>
    <privilege>
      <privilege>17</privilege>
      <checkPrivilege>true</checkPrivilege>
      <classIdentifier>10141</classIdentifier>
      <objectNumber>P00776</objectNumber>
    </privilege>
  </responses>
  <responses>
    <userIdentification>
      <userIdentifier>admin</userIdentifier>
    </userIdentification>
    <privilege>
      <privilege>38</privilege>
      <checkPrivilege>false</checkPrivilege>
      <classIdentifier>10141</classIdentifier>
      <objectNumber>P00776</objectNumber>
    </privilege>
  </responses>
</response>
</checkPrivilegeResponse>
</res>
</getDesignItemPropertiesAndRightsResponse>
</env:Body>

```

```
</env:Envelope>
```

## getDesignItemPropertiesAndRights

### Service:

To retrieve the metadata of the given AgileClass and the privileges of the given user on the given object in one call. This call may combine Design and Item classes in one call, thus being able to retrieve metadata and privilege information for both class types in one single call.

### Usage:

The request should not have any Agile Object. Instead, all the parameters used by this service are provided as properties included in the first two generalParameters sections of the request.

The following properties should be included in each of the generalParameters sections:

- **userIdentification** – The name of the user whose privileges should be checked
- **classIdentifier** – The numeric ID of the subclass whose tables' metadata will be retrieved. Note that for a subclass of design, metadata for the following tables will be retrieved:
  - TitleBlock (table id = 6146)
  - Page Two (table id = 810)
  - Page Three (table id = 1501)
  - Where Used (table id = 6149)
  - Files (table id = 6150)
  - Relationships (table id = 2000007761)
  - History (table id = 815)
  - Structure (table id = 2000008318)
  - Where Used Design (table id = 2000008495)

For a subclass of parts or documents, metadata for the following tables will be retrieved:

- TitleBlock (table id = 801)
- Page Two (table id = 810 )
- Page Three (table id = 1501 )
- Where Used (table id = 805)
- Attachments (table id = 807)
- Relationships (table id = 2000007761)
- History (table id = 814)
- BOM (table id = 803)
- Pending Changes (table id = 804)
- Change History (table id = 802)
- Redline BOM (table id = -803)

- **type** –Set to either "design" or "item", depending on whether the given subclass is a subclass of the Designs class or a subclass of the Parts or Documents classes.
- **objectNumber** – The number of the Design or Item for which the user's privileges will be retrieved.
- **privilege** – The number of the privilege to check. Note that more than one privilege property may be included in the generalParameters section to check more than one privilege in one call.

The service will return a response which includes each of the individual responses obtained during the execution of the orchestrated process.

**Syntax:**

```
GetDesignItemPropertiesAndRightsResponseRes getDesignPropertiesAndRightsResponseType =  
bpelStub.getDesignItemPropertiesAndRights(getDesignPropertiesAndRightsRequestType);
```

**Basic Steps:**

1. Create the request object AgileECRequestExtType for the getDesignItemPropertiesAndRights operation.
2. Create an array of general parameters list of type PropertyListType with a maximum of two elements.
3. For each of the generalParameter elements in the array, perform steps 4 to 8 below:
4. Add the property 'userIdentification' to the list, set its value to the desired username.
5. Add the property 'classIdentifier' to the list, set its value to the subclass of Design whose metadata should be retrieved.
6. Add the property 'type' set to either 'item' or 'design'.
7. Add the property 'objectNumber' to the list, set its value to the number of the design whose privileges should be checked.
8. Add one or more 'privilege' properties to the list, set the values of the ids of the privileges to check.
9. Call the WebService and review the metadata information returned, as well as the privilege information.

**Sample Code Java:**

```
try {  
    setupServerLogin();  
    String userId = getStringProperty("USERNAME");  
    Integer classId = getIntegerProperty(DSIGN_CLASS_ID);  
    String number = getStringProperty(DSIGN_NUMBER);  
    AgileECRequestExtType getDesignPropertiesAndRightsRequestType = new  
AgileECRequestExtType();  
    PropertyListType[] generalParameters = new PropertyListType[1];  
    generalParameters[0] = new PropertyListType();  
    PropertyType[] props = new PropertyType[7];  
    props[0] = new PropertyType("userIdentification", userId);  
    props[1] = new PropertyType("classIdentifier", String.valueOf(classId));  
    props[2] = new PropertyType("objectNumber", number);  
    // Multiple privileges can be checked in one call  
    props[3] = new PropertyType("privilege", "2");  
    props[4] = new PropertyType("privilege", "15");  
    props[5] = new PropertyType("privilege", "17");  
}
```

```

        props[6] = new PropertyType("privilege", "38");
        generalParameters[0].setProperty(props);

        getDesignPropertiesAndRightsRequestType.setGeneralParameters(generalParameters);
        GetDesignPropertiesAndRightsResponseRes
        getDesignPropertiesAndRightsResponseType =
        bpelStub.getDesignPropertiesAndRights(getDesignPropertiesAndRightsRequestType);
        System.out.println("STATUS CODE: " +
        getDesignPropertiesAndRightsResponseType.getStatusCode());
        if
        (!getDesignPropertiesAndRightsResponseType.getStatusCode().toString().equals(ResponseStatusValue.SUCCESS.getValue())) {
            CheckPrivilegeResponse checkOutFFResponse =
            getDesignPropertiesAndRightsResponseType.getCheckPrivilegeResponse();
            AgileExceptionListType[] agileExceptionListType =
            checkOutFFResponse.getResponse().getExceptions();
            if (agileExceptionListType != null) {
                for (AgileExceptionListType exceptionListType :
                agileExceptionListType) {
                    for (AgileExceptionType exception :
                    exceptionListType.getException()) {
                        System.out.println(exception.getMessage());
                    }
                }
            }
        } else { // If the call was successful, then examine its contents
            AgileCheckPrivilegeResponseType[] checkPrivilegeResponses =
            getDesignPropertiesAndRightsResponseType.getCheckPrivilegeResponse().getResponse().
            getResponses();
            if (checkPrivilegeResponses != null) {
                for (AgileCheckPrivilegeResponseType agileResponse :
                checkPrivilegeResponses) {
                    CheckPrivilegeType privilege = agileResponse.getPrivilege();
                    System.out.println("Privilege ID: " + privilege.getPrivilege() +
                    ". Has Privilege: " + privilege.getCheckPrivilege());
                }
            } else {
                System.out.println("No results!");
            }
        }
    }
}

```

### Sample Code SOAP:

```

==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<soapenv:Body>
    <getDesignPropertiesAndRights
        xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
        <req xmlns="">
            <generalParameters>
                <id xsi:nil="true" />
                <property>

<propertyName>userIdentification</propertyName>
                <propertyValue>admin</propertyValue>
            </property>
            <property>

<propertyName>classIdentifier</propertyName>
                <propertyValue>2000008310</propertyValue>
            </property>
            <property>

<propertyName>objectNumber</propertyName>

```

```

        <propertyValue>DESIGN09502</propertyValue>
      </property>
      <property>
        <propertyName>privilege</propertyName>
        <propertyValue>2</propertyValue>
      </property>
      <property>
        <propertyName>privilege</propertyName>
        <propertyValue>15</propertyValue>
      </property>
      <property>
        <propertyName>privilege</propertyName>
        <propertyValue>17</propertyValue>
      </property>
      <property>
        <propertyName>privilege</propertyName>
        <propertyValue>38</propertyValue>
      </property>
    </generalParameters>
  </req>
</getDesignPropertiesAndRights>
</soapenv:Body>
</soapenv:Envelope>
==== Response ====
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:wsa="http://www.w3.org/2005/08/addressing">
  <env:Header>
    <wsa:MessageID>urn:27E6B210AC4711DFBFDF3F7C676F77F9</wsa:MessageID>
    <wsa:ReplyTo>
      <wsa:Address>http://www.w3.org/2005/08/addressing/anonymous
      </wsa:Address>
    </wsa:ReplyTo>
  </env:Header>
  <env:Body>
    <getDesignPropertiesAndRightsResponse
      xmlns:dvm="http://www.oracle.com/XSL/Transform/java/oracle.tip.dvm.LookupValue"
      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
      <res xmlns="">
        <messageId />
        <messageName />
        <statusCode>SUCCESS</statusCode>
        <sessionParameters />
        <generalParameters>
          <id xsi:nil="true" />
          <property>
            <propertyName>userIdentification</propertyName>
            <propertyValue>admin</propertyValue>
          </property>
          <property>
            <propertyName>classIdentifier</propertyName>
            <propertyValue>2000008310</propertyValue>
          </property>
          <property>
            <propertyName>objectNumber</propertyName>
            <propertyValue>DESIGN09502</propertyValue>
          </property>
          <property>
            <propertyName>privilege</propertyName>
            <propertyValue>2</propertyValue>
          </property>
          <property>
            <propertyName>privilege</propertyName>
            <propertyValue>15</propertyValue>
          </property>
        </generalParameters>
      </res>
    </getDesignPropertiesAndRightsResponse>
  </env:Body>
</env:Envelope>

```

```

        </property>
        <property>
            <propertyName>privilege</propertyName>
            <propertyValue>17</propertyValue>
        </property>
        <property>
            <propertyName>privilege</propertyName>
            <propertyValue>38</propertyValue>
        </property>
    </generalParameters>
    <notes>
        <id />
        <processNote>
            <message />
        </processNote>
    </notes>
    <exceptions>
        <id />
        <exception>
            <exceptionId />
            <message />
        </exception>
    </exceptions>
    <warnings>
        <id />
        <warning>
            <message />
        </warning>
    </warnings>
    <getTableMetadataResponse>
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance"

        xmlns="http://xmlns.oracle.com/AgileObjects/Core/AdminMetadata/V1">
        <response xmlns="">Response omitted from this
sample due to
        the size. Check the documentation about
the getTableMetadata service, which is part of the AdminMetadata services in
a9</response>
    </getTableMetadataResponse>
    <checkPrivilegeResponse>
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns="http://xmlns.oracle.com/AgileObjects/Core/Business/V1">
        <response xmlns="">
            <messageId>f467ace57764bfde-
1d875c14:12a8e6a4023:-7f94
            </messageId>
            <messageName>checkPrivilege-by-
ECGetDesignPropertiesAndRights
            </messageName>
            <statusCode>SUCCESS</statusCode>
            <responses>
                <userIdentification>
<userIdentifier>admin</userIdentifier>
                </userIdentification>
                <privilege>
                    <privilege>2</privilege>
                </privilege>
            </responses>
            <checkPrivilege>true</checkPrivilege>
            <classIdentifier>2000008310</classIdentifier>
            <objectNumber>DESIGN09502</objectNumber>
        </response>
    </checkPrivilegeResponse>
    </privilege>

```

```

</responses>
<responses>
  <userIdentification>

<userIdentifier>admin</userIdentifier>

  </userIdentification>
  <privilege>
    <privilege>15</privilege>

<checkPrivilege>false</checkPrivilege>

<classIdentifier>2000008310</classIdentifier>

<objectNumber>DESIGN09502</objectNumber>

  </privilege>
</responses>
<responses>
  <userIdentification>

<userIdentifier>admin</userIdentifier>

  </userIdentification>
  <privilege>
    <privilege>17</privilege>

<checkPrivilege>true</checkPrivilege>

<classIdentifier>2000008310</classIdentifier>

<objectNumber>DESIGN09502</objectNumber>

  </privilege>
</responses>
<responses>
  <userIdentification>

<userIdentifier>admin</userIdentifier>

  </userIdentification>
  <privilege>
    <privilege>38</privilege>

<checkPrivilege>true</checkPrivilege>

<classIdentifier>2000008310</classIdentifier>

<objectNumber>DESIGN09502</objectNumber>

  </privilege>
</responses>
</response>
</checkPrivilegeResponse>
</res>
</getDesignPropertiesAndRightsResponse>
</env:Body>
</env:Envelope>

```

## createUpdateThenReserve

### Service:

To create or update one or many Design objects and then check them out.

### Usage:

The request should have at least one AgileObject, which represents the Design object to be created or updated. The attributes of the new design should be included in the object identifier, including class id, subclass and number. If an autonumber source should be used to provide the number for



the new design, then the `objectName` element in the `ObjectIdentifier` should be left empty and a property named "autoNumberSrc" should be added to the first set of options of the `AgileObject`. The value of this property should be set to the name of the autonumber source to use.

The service will attempt to create the objects it finds in the request, therefore, an error will be triggered if an object with the given number already exists in the PLM system. To avoid this error and allow an existing object to be updated, a property called "updateExistingObject" should be added to the first set of options of the `AgileObject` with its value set to "true". Other attributes to be populated, such as TitleBlock, Page Two or Page Three attributes should be included inside table element with the table identifier set to the respective page. One single row element should be included in the table and attributes are added as child elements of the row, with the `attributeld` set to the `BaseID` of the attribute to update.

The service will return a response which includes each of the individual responses obtained during the execution of the orchestrated process.

#### Syntax:

```
CreateUpdateThenReserveResponseRes createUpdateThenReserveResponseType =
bpelStub.createUpdateThenReserve(createUpdateThenReserveRequestType)
```

#### Basic Steps:

1. Create the request object `AgileECRequestExtType` for the `createUpdateThenRelate` operation.
2. Create an array of `AgileBusinessObjectType` elements
3. Create an instance of an `AgileBusinessObjectType` and set it as the first element in the array.
4. Set the object identifier to contain the appropriate `classId`, `subclass`, and number.
5. Optionally define an array of `PropertyListType` to add options to this object.
6. In the list, define `PropertyType` elements for the optional properties "autoNumberSrc" and "updateExistingObject"
7. If attributes in Title Block, Page Two or Page Three need to be updated, define table elements for these tables and add a single `AgileRowType` element to them. Define the attributes inside the row element as any elements with an attribute called `attributeld`, set to the `BaseID` of the attribute to update.
8. Call the `WebService` and check the individual responses included in the global response.

#### Sample Code Java:

```
try {
    setupServerLogin();
    Integer classId = getIntegerProperty(DSIGN_CLASS_ID);
    String subclass = getStringProperty(DSIGN_SUBCLASS);
    String description = getStringProperty(DSIGN_DESCRIPTION);
    String autoNumberSource = getStringProperty(DSIGN_AUTONUMBER_SOURCE);
    AgileECRequestExtType createUpdateThenReserveRequestType = new
AgileECRequestExtType();
    AgileBusinessObjectType[] agileRequestObjects = new
AgileBusinessObjectType[1];
    agileRequestObjects[0] = new AgileBusinessObjectType();
    agileRequestObjects[0].setObjectIdentifier(new
ObjectIdentifierType(classId, subclass, null, null, null, null));
    // set option to use autonumber for this design
    PropertyListType options = new PropertyListType();
    PropertyType[] props = new PropertyType[1];
    props[0] = new PropertyType("autoNumberSrc", autoNumberSource);
```

```

options.setProperty(props);
agileRequestObjects[0].setOptions(options);
AgileTableType[] parentTables = new AgileTableType[1];
// Update the description
parentTables[0] = new AgileTableType();
TableIdentifierType tbTableIdentifier = new TableIdentifierType();
tbTableIdentifier.setTableName("Title Block");
tbTableIdentifier.setTableId(new Integer(6146));
parentTables[0].setTableIdentifier(tbTableIdentifier);
AgileRowType[] tbRow = new AgileRowType[1];
// First row
tbRow[0] = new AgileRowType();
MessageElement[] anyElementTbRow = new MessageElement[1];
anyElementTbRow[0] = new MessageElement();
anyElementTbRow[0].setName("Description");
anyElementTbRow[0].addAttribute(null, "attributeId", "6174");
anyElementTbRow[0].setValue(description);
tbRow[0].set_any(anyElementTbRow);
parentTables[0].setRow(tbRow);
agileRequestObjects[0].setTable(parentTables);
createUpdateThenReserveRequestType.setAgileObject(agileRequestObjects);
CreateUpdateThenReserveResponseRes createUpdateThenReserveResponseType =
bpelStub.createUpdateThenReserve(createUpdateThenReserveRequestType);
System.out.println("STATUS CODE: " +
createUpdateThenReserveResponseType.getStatusCode());
if
(!createUpdateThenReserveResponseType.getStatusCode().toString().equals(ResponseSt
atusCode.SUCCESS.getValue())) {
    CreateObjectResponseType createObjectResponse =
createUpdateThenReserveResponseType.getCreateObjectResponse().getResponse();
    AgileExceptionListType[] agileExceptionListType =
createObjectResponse.getExceptions();
    if (agileExceptionListType != null) {
        for (AgileExceptionListType exceptionListType :
agileExceptionListType) {
            for (AgileExceptionType exception :
exceptionListType.getException()) {
                System.out.println(exception.getMessage());
            }
        }
    }
    CheckOutFFResponse checkOutFFResponse =
createUpdateThenReserveResponseType.getCheckOutFFResponse();
    agileExceptionListType =
checkOutFFResponse.getResponse().getExceptions();
    if (agileExceptionListType != null) {
        for (AgileExceptionListType exceptionListType :
agileExceptionListType) {
            for (AgileExceptionType exception :
exceptionListType.getException()) {
                System.out.println(exception.getMessage());
            }
        }
    }
} else { // If the object, was successfully retrieved, then examine its
contents
    AgileCreateObjectResponse[] agileCreateResponses =
createUpdateThenReserveResponseType.getCreateObjectResponse().getResponse().getRes
ponses();
    if (agileCreateResponses != null) {
        for (AgileCreateObjectResponse agileResponse :
agileCreateResponses) {
            AgileObjectType agileObject = agileResponse.getAgileObject();
            ObjectIdentifierType objectIdentifier =
agileObject.getObjectIdentifier();
            System.out.println("Agile Object Class ID: " +
objectIdentifier.getClassId());

```

```

        System.out.println("Agile Object Class Name: " +
objectIdentifier.getClassName());
        System.out.println("Agile Object Class Display Name: " +
objectIdentifier.getClassDisplayName());
        System.out.println("Agile Object Object ID: " +
objectIdentifier.getObjectId());
        System.out.println("Agile Object Object Name: " +
objectIdentifier.getObjectName());
        AgileTableType[] tables = agileObject.getTable();
        if (tables != null) {
            for (AgileTableType table : tables) {
                System.out.println("Table Name: " +
table.getTableIdentifier().getTableName());
                AgileRowType[] rows = table.getRow();
                int rowNo = 0;
                if (rows != null) {
                    for (AgileRowType row : rows) {
                        System.out.println("Table Row Number " + rowNo++);
                        for (MessageElement node : row.get_any()) {
                            System.out.println("** " + node.getLocalName() +
": " + node.getValue());
                            Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
                            while (nodeIt.hasNext()) {
                                Node selectionNode = nodeIt.next();
                                if (selectionNode instanceof MessageElement) {
                                    MessageElement element = (MessageElement)
selectionNode;
                                    Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
                                    while (subNodeIt.hasNext()) {
                                        MessageElement subNode =
subNodeIt.next();
                                        System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
                                    }
                                }
                            }
                        }
                    }
                }
                for (MessageElement node : agileObject.get_any()) {
                    System.out.println("Agile Object " + node.getLocalName() + ":
" + node.getValue());
                    Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
                    while (nodeIt.hasNext()) {
                        Node selectionNode = nodeIt.next();
                        if (selectionNode instanceof MessageElement) {
                            MessageElement element = (MessageElement)
selectionNode;
                            Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
                            while (subNodeIt.hasNext()) {
                                MessageElement subNode = subNodeIt.next();
                                System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
                            }
                        }
                    }
                }
            }
        }
        else {
            System.out.println("No results!");
        }
    }
}

```

```
}
}
```

**Sample Code SOAP:**

```
==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
    <createUpdateThenReserve
      xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
      <req xmlns="">
        <AgileObject>
          <objectIdentifier>
            <classId>2000008310</classId>
            <className>Design</className>
            <objectId xsi:nil="true" />
            <objectName xsi:nil="true" />
          </objectIdentifier>
          <table>
            <tableIdentifier>
              <tableId>6146</tableId>
              <tableName>Title Block</tableName>
            </tableIdentifier>
            <row rowId="0">
              <Description
                attributeId="6174">Generated by a BPEL Service
              </Description>
            </row>
          </table>
          <options>
            <id xsi:nil="true" />
            <property>
              <propertyName>autoNumberSrc</propertyName>
              <propertyValue>Designs
                Number</propertyValue>
              </property>
            </options>
          </AgileObject>
        </req>
      </createUpdateThenReserve>
    </soapenv:Body>
  </soapenv:Envelope>
==== Response ====
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:wsa="http://www.w3.org/2005/08/addressing">
  <env:Header>
    <wsa:MessageID>urn:F7974930AC3711DFBFD3F7C676F77F9</wsa:MessageID>
    <wsa:ReplyTo>
      <wsa:Address>http://www.w3.org/2005/08/addressing/anonymous
    </wsa:Address>
    </wsa:ReplyTo>
  </env:Header>
  <env:Body>
    <createUpdateThenReserveResponse
      xmlns:dvm="http://www.oracle.com/XSL/Transform/java/oracle.tip.dvm.LookupValue"
      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
      <res xmlns="">
        <messageId />
        <messageName />
        <statusCode>SUCCESS</statusCode>
        <sessionParameters />
      </res>
    </createUpdateThenReserveResponse>
  </env:Body>
</env:Envelope>
```

```

        </generalParameters />
        <notes />
        <warnings>
            <id />
            <warning>
                <message />
            </warning>
        </warnings>
        <createObjectResponse
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
            xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns="http://xmlns.oracle.com/AgileObjects/Core/Business/V1">
            <response xmlns="">
                <messageId>f467ace57764bfde:-
1d875c14:12a8e6a4023:-7fac
                </messageId>
                <messageName>createObject-by-
ECCreateUpdateThenReserve
                </messageName>
                <statusCode>SUCCESS</statusCode>
                <responses>
                    <agileObject>
                        <objectIdentifier>

<classId>2000008310</classId>
<className>Design</className>
<classDisplayName>Design</classDisplayName>
<objectId>6289625</objectId>
<objectName>DESIGN09500</objectName>
                        </objectIdentifier>
                        <Number>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                        xsi:type="xs:string" attributeId="6173" readOnly="False">DESIGN09500
                        </Number>
                        <Type>
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                        xsi:type="common:AgileListEntryType" attributeId="6175"
                        readOnly="False">
<selection>

<id>2000008310</id>
<apiName>DESIGN</apiName>
<value>Design</value>
                        </selection>
                        </Type>
                        <lifecyclePhase>

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                        xsi:type="common:AgileListEntryType" attributeId="6390"
                        readOnly="False"
/>
                        <Description>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                        xsi:type="xs:string" attributeId="6174" readOnly="False">Generated by a
BPEL
Service</Description>

```

```

                                <Version
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:integer" attributeId="7951" readOnly="True">0</Version>
                                <lastModifiedDate
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                xsi:type="xs:date"
attributeId="6178" readOnly="True">2010-08-20T08:50:21.000Z
                                </lastModifiedDate>
                                <checkoutStatus
                                <id>1</id>

                                </selection>
                                </checkoutStatus>
                                <checkoutUser

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="6389"
                                readOnly="True">
                                <selection>
                                <id>1</id>

                                </selection>
                                </checkoutStatus>
                                <checkoutUser

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="6180"
                                readOnly="True" />
                                <checkoutDate
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                xsi:type="xs:date"
attributeId="6184" readOnly="True" />
                                <checkoutLocation
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                xsi:type="xs:string" attributeId="6183" readOnly="True" />
                                <checkinDate
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                xsi:type="xs:date"
attributeId="6388" readOnly="True">2010-08-20T08:50:20.000Z
                                </checkinDate>
                                <createDate
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                xsi:type="xs:date"
attributeId="6177" readOnly="True">2010-08-20T08:50:20.000Z
                                </createDate>
                                <Label
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                xsi:type="xs:string" attributeId="2000008316" readOnly="False" />
                                <componentType
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008317"
                                readOnly="False"
/>
                                <Thumbnail
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008554"
                                readOnly="True" />
                                <Revision
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                xsi:type="xs:string" attributeId="2000008685" readOnly="False" />

```

```

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008686" readOnly="False" />
<revisionDate
xsi:type="xs:date"
<checkinUser
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008717"
readOnly="True" />
<approvalStatus
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000009374"
readOnly="True" />
<itemChangeStatus
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000009487" readOnly="False" />
<createUser
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="1420"
readOnly="True">
<selection>
<id>704</id>
<apiName
xsi:nil="true" />
<value>Administrator, Admin (admin)</value>
</selection>
</createUser>
<drawnBy
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2020"
readOnly="False"
/>
<checkedBy
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2021"
readOnly="False"
/>
<designSystem
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2007" readOnly="False" />
<CADFilename
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2017" readOnly="False" />
<CADOldFilename
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2018" readOnly="False" />
<designSystemIdentifier
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2008" readOnly="False" />
<Filetype
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2009" readOnly="False" />

```

```

                                <Subtype
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2010" readOnly="False" />
                                <Family
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2011" readOnly="False" />
                                <Variant
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2012" readOnly="False" />
                                <drawingName
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2013" readOnly="False" />
                                <frameID
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2014" readOnly="False" />
                                <nameFormat
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2015" readOnly="False" />
                                <projectName
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2016" readOnly="False" />
                                <localFlag
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1301" readOnly="False" />
                                <partNumber
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1302" readOnly="False" />
                                <filePath
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2019" readOnly="False" />
                                <oldFilePath
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1331" readOnly="False" />
                                <modelType
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1332" readOnly="False" />
                                <modelReference
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1333" readOnly="False" />
                                <linkType
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1334" readOnly="False" />
                                <linkReference
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1335" readOnly="False" />
                                <TDMVersion
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1307" readOnly="False" />
                                <TDMRevision
xmlns:xs="http://www.w3.org/2001/XMLSchema"

```



```

xsi:type="xs:string" attributeId="1308" readOnly="False" />
<Text13
xmlns:xs="http://www.w3.org/2001/XMLSchema"

xsi:type="xs:string" attributeId="1303" readOnly="False" />
<Text14
xmlns:xs="http://www.w3.org/2001/XMLSchema"

xsi:type="xs:string" attributeId="1304" readOnly="False" />
<List04
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

xsi:type="common:AgileListEntryType" attributeId="2023"
readOnly="False"
/>
<MultiList01
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

xsi:type="common:AgileListEntryType" attributeId="2090"
readOnly="False"
/>
<MultiList04
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

xsi:type="common:AgileListEntryType" attributeId="2000008063"
readOnly="True" />
</agileObject>
</responses>
</response>
</createObjectResponse>
<checkOutFFResponse
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns="http://xmlns.oracle.com/AgileObjects/Core/Attachment/V1">
<response xmlns="">
<messageId>f467ace57764bfde:-
1d875c14:12a8e6a4023:-7fab
</messageId>
<messageName>checkOutFF-by-
ECCreateUpdateThenReserve</messageName>
<statusCode>SUCCESS</statusCode>
<responses>

<folderNumber>DESIGN09500</folderNumber>
</responses>
</response>
</checkOutFFResponse>
</res>
</createUpdateThenReserveResponse>
</env:Body>
</env:Envelope>

```

## reserveThenCreateUpdate

### Service:

To checkout existing Design objects and then to create new Designs or Update existing ones.

### Usage:

The request should have at least one AgileObject, which represents the Design object to be

checked out and then updated. The attributes of the design should be included in the object identifier, including class id, subclass and number. Additionally, the Title Block table should be included with at least the Title Block.Number attribute represented by an element of type any inside the single row for this table.

Additionally, new objects may be created by this service, which follow the same guidelines as the CreateUpdateThenReserve web service call.

Certain objects may be marked so that they are not included in the call to check-out, which is especially important for new objects, as they do not exist when the call to checkout is executed. To mark an object to be excluded from the checkout, add an property called "checkoutFlag" to the first set of options of the object with its value set to "false".

After the call to checkout, the service will attempt to create the objects it finds in the request, therefore, an error will be triggered if an object with the given number already exists in the PLM system. To avoid this error and allow an existing object to be updated, a property called "updateExistingObject" should be added to the first set of options of the AgileObject with its value set to "true". Other attributes to be populated, such as TitleBlock, Page Two or Page Three attributes should be included inside table element with the table identifier set to the respective page. One single row element should be included in the table and attributes are added as child elements of the row, with the attributeld set to the BaseID of the attribute to update.

The service will return a response which includes each of the individual responses obtained during the execution of the orchestrated process.

**Syntax:**

```
ReserveThenCreateUpdateResponseRes reserveThenCreateUpdateResponseType =  
bpelStub.reserveThenCreateUpdate(reserveThenCreateUpdateRequestType)
```

**Basic Steps:**

1. Create the request object AgileECRequestExtType for the createUpdateThenRelate operation.
2. Create an array of AgileBusinessObjectType elements
3. Create an instance of an AgileBusinessObjectType and set it as the first element in the array.
4. Set the object identifier to contain the appropriate classId, subclass, and number.
5. Optionally define an array of PropertyListType to add options to this object.
6. In the list, define PropertyType elements for the optional properties "autoNumberSrc", "updateExistingObject" and "checkoutFlag" as needed.
7. Define a table element for the TitleBlock table. Add a single row through a AgileRowType and add an attribute to represent the TitleBlock.Number attribute, that is, the BaseID 6173. Add other attributes of this table that should be updated.
8. If attributes in Page Two or Page Three need to be updated, define table elements for these tables and add a single AgileRowType element to them. Define the attributes inside the row element as any elements with an attribute called attributeld, set to the BaseID of the attribute to update.
9. Call the WebService and check the individual responses included in the global response.

**Sample Code Java:**

```
try {
```

```

        setUnServerLogin();
        Integer classId = getIntegerProperty(DSIGN_CLASS_ID);
        String subClass = getStringProperty(DSIGN_SUBCLASS);
        String number = getStringProperty(DSIGN_NUMBER);
        String description = getStringProperty(DSIGN_DESCRIPTION);
        String autoNumberSource = getStringProperty(DSIGN_AUTONUMBER_SOURCE);
        AgileECRequestExtType reserveThenCreateUpdateRequestType = new
AgileECRequestExtType();
        AgileBusinessObjectType[] agileRequestObjects = new
AgileBusinessObjectType[2];
        agileRequestObjects[0] = new AgileBusinessObjectType();
        agileRequestObjects[0].setObjectIdentifier(new
ObjectIdentifierType(classId, subClass, null, null, null, null));
        // set options to use autonumber for this design and skip the checkout
        PropertyListType options = new PropertyListType();
        PropertyType[] props = new PropertyType[2];
        props[0] = new PropertyType("autoNumberSrc", autoNumberSource);
        props[1] = new PropertyType("checkoutFlag", "false");
        options.setProperty(props);
        agileRequestObjects[0].setOptions(options);
        AgileTableType[] designTables = new AgileTableType[1];
        // Update the description
        designTables[0] = new AgileTableType();
        TableIdentifierType tbTableIdentifier = new TableIdentifierType();
        tbTableIdentifier.setTableName("Title Block");
        tbTableIdentifier.setTableId(new Integer(6146));
        designTables[0].setTableIdentifier(tbTableIdentifier);
        AgileRowType[] tbRow = new AgileRowType[1];
        // First row
        tbRow[0] = new AgileRowType();
        MessageElement[] anyElementTBRow = new MessageElement[1];
        anyElementTBRow[0] = new MessageElement();
        anyElementTBRow[0].setName("Description");
        anyElementTBRow[0].addAttribute(null, "attributeId", "6174");
        anyElementTBRow[0].setValue(description);
        tbRow[0].set_any(anyElementTBRow);
        designTables[0].setRow(tbRow);
        agileRequestObjects[0].setTable(designTables);
        agileRequestObjects[1] = new AgileBusinessObjectType();
        agileRequestObjects[1].setObjectIdentifier(new
ObjectIdentifierType(classId, subClass, null, null, number, null));
        // set option to update object if exists
        options = new PropertyListType();
        props = new PropertyType[1];
        props[0] = new PropertyType("updateExistingObject", "true");
        options.setProperty(props);
        agileRequestObjects[1].setOptions(options);
        designTables = new AgileTableType[1];
        // Update the description
        designTables[0] = new AgileTableType();
        tbTableIdentifier = new TableIdentifierType();
        tbTableIdentifier.setTableName("Title Block");
        tbTableIdentifier.setTableId(new Integer(6146));
        designTables[0].setTableIdentifier(tbTableIdentifier);
        tbRow = new AgileRowType[1];
        // First row
        tbRow[0] = new AgileRowType();
        anyElementTBRow = new MessageElement[2];
        // Make sure to add the Title Block.Number attribute. This is required
for the checkout call
        anyElementTBRow[0] = new MessageElement();
        anyElementTBRow[0].setName("Number");
        anyElementTBRow[0].addAttribute(null, "attributeId", "6173");
        anyElementTBRow[0].setValue(number);
        anyElementTBRow[1] = new MessageElement();
        anyElementTBRow[1].setName("Description");
        anyElementTBRow[1].addAttribute(null, "attributeId", "6174");

```

```

        anyElementTBRow[1].setValue(description);
        tbRow[0].set_any(anyElementTBRow);
        designTables[0].setRow(tbRow);
    }
    agileRequestObjects[1].setTable(designTables);
    reserveThenCreateUpdateRequestType.setAgileObject(agileRequestObjects);
    ReserveThenCreateUpdateResponseRes reserveThenCreateUpdateResponseType =
    bpelStub.reserveThenCreateUpdate(reserveThenCreateUpdateRequestType);
    System.out.println("STATUS CODE: " +
    reserveThenCreateUpdateResponseType.getStatusCode());
    if
    (!reserveThenCreateUpdateResponseType.getStatusCode().toString().equals(ResponseSt
    atusCode.SUCCESS.getValue())) {
        CheckOutFFResponse checkOutFFResponse =
    reserveThenCreateUpdateResponseType.getCheckOutFFResponse();
        AgileExceptionListType[] agileExceptionListType =
    checkOutFFResponse.getResponse().getExceptions();
        if (agileExceptionListType != null) {
            for (AgileExceptionListType exceptionListType :
    agileExceptionListType) {
                for (AgileExceptionType exception :
    exceptionListType.getException()) {
                    System.out.println(exception.getMessage());
                }
            }
        }
        CreateObjectResponseType createObjectResponse =
    reserveThenCreateUpdateResponseType.getCreateObjectResponse().getResponse();
        agileExceptionListType = createObjectResponse.getExceptions();
        if (agileExceptionListType != null) {
            for (AgileExceptionListType exceptionListType :
    agileExceptionListType) {
                for (AgileExceptionType exception :
    exceptionListType.getException()) {
                    System.out.println(exception.getMessage());
                }
            }
        }
    }
    } else { // If the object, was successfully retrieved, then examine its
    contents
        AgileCreateObjectResponse[] agileCreateResponses =
    reserveThenCreateUpdateResponseType.getCreateObjectResponse().getResponse().getRes
    ponses();
        if (agileCreateResponses != null) {
            for (AgileCreateObjectResponse agileResponse :
    agileCreateResponses) {
                AgileObjectType agileObject = agileResponse.getAgileObject();
                ObjectIdentifierType objectIdentifier =
    agileObject.getObjectIdentifier();
                System.out.println("Agile Object Class ID: " +
    objectIdentifier.getClassId());
                System.out.println("Agile Object Class Name: " +
    objectIdentifier.getClassName());
                System.out.println("Agile Object Class Display Name: " +
    objectIdentifier.getClassDisplayName());
                System.out.println("Agile Object Object ID: " +
    objectIdentifier.getObjectId());
                System.out.println("Agile Object Object Name: " +
    objectIdentifier.getObjectName());
                AgileTableType[] tables = agileObject.getTable();
                if (tables != null) {
                    for (AgileTableType table : tables) {
                        System.out.println("Table Name: " +
    table.getTableIdentifier().getTableName());
                        AgileRowType[] rows = table.getRow();
                        int rowNo = 0;
                        if (rows != null) {

```

```

        for (AgileRowType row : rows) {
            System.out.println("Table Row Number " + rowNo++);
            for (MessageElement node : row.get_any()) {
                System.out.println("** " + node.getLocalName() +
": " + node.getValue());
                Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
                while (nodeIt.hasNext()) {
                    Node selectionNode = nodeIt.next();
                    if (selectionNode instanceof MessageElement) {
                        MessageElement element = (MessageElement)
selectionNode;
                        Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
                        while (subNodeIt.hasNext()) {
                            MessageElement subNode =
subNodeIt.next();
                            System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
                        }
                    }
                }
            }
        }
        for (MessageElement node : agileObject.get_any()) {
            System.out.println("Agile Object " + node.getLocalName() + ":
" + node.getValue());
            Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
            while (nodeIt.hasNext()) {
                Node selectionNode = nodeIt.next();
                if (selectionNode instanceof MessageElement) {
                    MessageElement element = (MessageElement)
selectionNode;
                    Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
                    while (subNodeIt.hasNext()) {
                        MessageElement subNode = subNodeIt.next();
                        System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
                    }
                }
            }
        }
        } else {
            System.out.println("No results!");
        }
    }
}

```

**Sample Code SOAP:**

```

==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<soapenv:Body>
    <reserveThenCreateUpdate
xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
        <req xmlns="">
            <AgileObject>
                <objectIdentifier>

```

```

        <classId>2000008310</classId>
        <className>Design</className>
        <objectId xsi:nil="true" />
        <objectName xsi:nil="true" />
    </objectIdentifier>
    <table>
        <tableIdentifier>
            <tableId>6146</tableId>
            <tableName>Title Block</tableName>
        </tableIdentifier>
        <row rowId="0">
            <Description>
attributeId="6174">Generated by a BPEL Service
            </Description>
        </row>
    </table>
    <options>
        <id xsi:nil="true" />
    </options>
    <property>
        <propertyName>autoNumberSrc</propertyName>
        <propertyValue>
            <propertyValue>Designs
            </propertyValue>
        </property>
    </property>
    <property>
        <propertyName>checkoutFlag</propertyName>
        <propertyValue>false</propertyValue>
    </property>
    </options>
</AgileObject>
<AgileObject>
    <objectIdentifier>
        <classId>2000008310</classId>
        <className>Design</className>
        <objectId xsi:nil="true" />
        <objectName>DESIGN09502</objectName>
    </objectIdentifier>
    <table>
        <tableIdentifier>
            <tableId>6146</tableId>
            <tableName>Title Block</tableName>
        </tableIdentifier>
        <row rowId="0">
            <Number>
attributeId="6173">DESIGN09502</Number>
            <Description>
attributeId="6174">Generated by a BPEL Service
            </Description>
        </row>
    </table>
    <options>
        <id xsi:nil="true" />
    </options>
    <property>
        <propertyName>updateExistingObject</propertyName>
        <propertyValue>true</propertyValue>
    </property>
    </options>
</AgileObject>
</req>
</reserveThenCreateUpdate>
</soapenv:Body>
</soapenv:Envelope>
==== Response ====

```

```

<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:wsa="http://www.w3.org/2005/08/addressing">
  <env:Header>
    <wsa:MessageID>urn:ED2D4100AC3E11DFBFD3F7C676F77F9</wsa:MessageID>
    <wsa:ReplyTo>
      <wsa:Address>http://www.w3.org/2005/08/addressing/anonymous
      </wsa:Address>
    </wsa:ReplyTo>
  </env:Header>
  <env:Body>
    <reserveThenCreateUpdateResponse

xmlns:dvm="http://www.oracle.com/XSL/Transform/java/oracle.tip.dvm.LookupValue"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
      <res xmlns="">
        <messageId />
        <messageName />
        <statusCode>SUCCESS</statusCode>
        <sessionParameters />
        <generalParameters />
        <notes />
        <warnings>
          <id />
          <warning>
            <message />
          </warning>
        </warnings>
        <checkoutFFResponse
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
          xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns="http://xmlns.oracle.com/AgileObjects/Core/Attachment/V1">
            <response xmlns="">
              <messageId>f467ace57764bfde:-
1d875c14:12a8e6a4023:-7f9c
              </messageId>
              <messageName>checkoutFF-by-
ECReserveThenCreateUpdate</messageName>
              <statusCode>SUCCESS</statusCode>
              <responses>

                <folderNumber>DESIGN09502</folderNumber>
              </responses>
            </response>
          </checkoutFFResponse>
          <createObjectResponse
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
            xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns="http://xmlns.oracle.com/AgileObjects/Core/Business/V1">
              <response xmlns="">
                <messageId>f467ace57764bfde:-
1d875c14:12a8e6a4023:-7f9b
                </messageId>
                <messageName>createObject-by-
ECReserveThenCreateUpdate
                </messageName>
                <statusCode>SUCCESS</statusCode>
                <responses>
                  <agileObject>
                    <objectIdentifier>

                    <classId>2000008310</classId>
                    <className>Design</className>
                    <classDisplayName>Design</classDisplayName>

```

```

<objectId>6289670</objectId>
<objectName>DESIGN09506</objectName>
</objectIdentifier>
<Number
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="6173" readOnly="False">DESIGN09506
</Number>
<Type
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="6175"
readOnly="False">
<selection>

<id>2000008310</id>
<apiName>DESIGN</apiName>
<value>Design</value>

</selection>
</Type>
<lifecyclePhase
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="6390"
readOnly="False"
/>
<Description
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="6174" readOnly="False">Generated by a
BPEL
Service</Description>
<Version
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:integer" attributeId="7951" readOnly="True">0</Version>
<lastModifiedDate
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:date"
attributeId="6178" readOnly="True">2010-08-20T09:40:10.000Z
</lastModifiedDate>
<checkoutStatus

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="6389"
readOnly="True">
<selection>
<id>1</id>

<apiName>CHECKED_IN</apiName>
<value>Checked In</value>

</selection>
</checkoutStatus>
<checkoutUser
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="6180"
readOnly="True" />

```



```

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6184" readOnly="True" />
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="6183" readOnly="True" />
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6388" readOnly="True">2010-08-20T09:40:10.000Z
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="6177" readOnly="True">2010-08-20T09:40:10.000Z
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008316" readOnly="False" />
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008317"
/>
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008554"
/>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008685" readOnly="False" />
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008686" readOnly="False" />
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008717"
/>
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000009374"
/>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000009487" readOnly="False" />
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="1420"
/>
</id>704</id>

```

```

xsi:nil="true" />
<value>Administrator, Admin (admin)</value>
</selection>
</createUser>
<drawnBy
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2020"
readOnly="False"
/>
<checkedBy
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2021"
readOnly="False"
/>
<designSystem
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2007" readOnly="False" />
<CADFilename
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2017" readOnly="False" />
<CADOldFilename
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2018" readOnly="False" />
<designSystemIdentifier
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2008" readOnly="False" />
<FileType
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2009" readOnly="False" />
<Subtype
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2010" readOnly="False" />
<Family
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2011" readOnly="False" />
<Variant
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2012" readOnly="False" />
<drawingName
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2013" readOnly="False" />
<frameID
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2014" readOnly="False" />
<nameFormat
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2015" readOnly="False" />
<projectName
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2016" readOnly="False" />

```

```

                                <localFlag
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1301" readOnly="False" />
                                <partNumber
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1302" readOnly="False" />
                                <filePath
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2019" readOnly="False" />
                                <oldFilePath
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1331" readOnly="False" />
                                <modelType
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1332" readOnly="False" />
                                <modelReference
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1333" readOnly="False" />
                                <linkType
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1334" readOnly="False" />
                                <linkReference
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1335" readOnly="False" />
                                <TDMVersion
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1307" readOnly="False" />
                                <TDMRevision
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1308" readOnly="False" />
                                <Text13
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1303" readOnly="False" />
                                <Text14
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1304" readOnly="False" />
                                <List04
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2023"
                                readOnly="False"
/>
                                <MultiList01
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2090"
                                readOnly="False"
/>
                                <MultiList04
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008063"
                                readOnly="True" />

```

```

                                </agileObject>
</responses>
<responses>
    <agileObject>
        <objectIdentifier>

<classId>2000008310</classId>

<className>Design</className>

<classDisplayName>Design</classDisplayName>

<objectId>6289639</objectId>

<objectName>DESIGN09502</objectName>

                                </objectIdentifier>
                                <Number>

xmlns:xs="http://www.w3.org/2001/XMLSchema"

xsi:type="xs:string" attributeId="6173" readOnly="False">DESIGN09502
                                </Number>
                                <Type>

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

xsi:type="common:AgileListEntryType" attributeId="6175"

                                readOnly="False">
                                <selection>

<id>2000008310</id>

<apiName>DESIGN</apiName>

<value>Design</value>

                                </selection>
                                </Type>
                                <lifecyclePhase>

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

xsi:type="common:AgileListEntryType" attributeId="6390"

                                readOnly="False"
/>
                                <Description>

xmlns:xs="http://www.w3.org/2001/XMLSchema"

xsi:type="xs:string" attributeId="6174" readOnly="False">Generated by a
                                BPEL
Service</Description>
                                <Version>

xmlns:xs="http://www.w3.org/2001/XMLSchema"

xsi:type="xs:integer" attributeId="7951" readOnly="True">2</Version>
                                <lastModifiedDate>

xmlns:xs="http://www.w3.org/2001/XMLSchema"

                                xsi:type="xs:date"
attributeId="6178" readOnly="True">2010-08-20T09:40:10.000Z
                                </lastModifiedDate>
                                <checkoutStatus>

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

xsi:type="common:AgileListEntryType" attributeId="6389"

                                readOnly="True">
                                <selection>
                                    <id>0</id>

<apiName>CHECKED_OUT</apiName>

```

```

<value>Checked Out</value>
                                </selection>
                                </checkoutStatus>
                                <checkoutUser
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="6180"
                                readOnly="True">
                                <selection>
<id>704</id>
                                <apiName
xsi:nil="true" />
<value>Administrator, Admin (admin)</value>
                                </selection>
                                </checkoutUser>
                                <checkoutDate
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                xsi:type="xs:date"
attributeId="6184" readOnly="True">2010-08-20T12:38:02.000Z
                                </checkoutDate>
                                <checkoutLocation
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="6183" readOnly="True" />
                                <checkinDate
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                xsi:type="xs:date"
attributeId="6388" readOnly="True">2010-08-20T09:40:10.000Z
                                </checkinDate>
                                <createDate
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                xsi:type="xs:date"
attributeId="6177" readOnly="True">2010-08-20T09:18:16.000Z
                                </createDate>
                                <Label
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008316" readOnly="False" />
                                <componentType
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008317"
                                readOnly="False"
/>
                                <Thumbnail
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008554"
                                readOnly="True" />
                                <Revision
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008685" readOnly="False" />
                                <revisionDate
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                xsi:type="xs:date"
attributeId="2000008686" readOnly="False" />
                                <checkinUser
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008717"

```

```

<approvalStatus
    readOnly="True" />
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000009374"
    readOnly="True" />
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000009487" readOnly="False" />
    <createUser
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="1420"
    readOnly="True">
    <selection>
<id>704</id>
    <apiName
xsi:nil="true" />
<value>Administrator, Admin (admin)</value>
    </selection>
    </createUser>
    <drawnBy
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2020"
    readOnly="False"
/>
    <checkedBy
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2021"
    readOnly="False"
/>
    <designSystem
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2007" readOnly="False" />
    <CADFilename
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2017" readOnly="False" />
    <CADOldFilename
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2018" readOnly="False" />
    <designSystemIdentifier
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2008" readOnly="False" />
    <Filetype
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2009" readOnly="False" />
    <Subtype
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2010" readOnly="False" />
    <Family
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2011" readOnly="False" />

```

```

                                <Variant
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2012" readOnly="False" />
                                <drawingName
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2013" readOnly="False" />
                                <frameID
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2014" readOnly="False" />
                                <nameFormat
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2015" readOnly="False" />
                                <projectName
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2016" readOnly="False">EC WebServices
                                Docu</projectName>
                                <localFlag
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1301" readOnly="False" />
                                <partNumber
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1302" readOnly="False" />
                                <filePath
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2019" readOnly="False" />
                                <oldFilePath
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1331" readOnly="False" />
                                <modelType
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1332" readOnly="False" />
                                <modelReference
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1333" readOnly="False" />
                                <linkType
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1334" readOnly="False" />
                                <linkReference
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1335" readOnly="False" />
                                <TDMVersion
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1307" readOnly="False" />
                                <TDMRevision
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1308" readOnly="False" />
                                <Text13
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1303" readOnly="False" />
                                <Text14
xmlns:xs="http://www.w3.org/2001/XMLSchema"

```

```
xsi:type="xs:string" attributeId="1304" readOnly="False" />
<List04
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

xsi:type="common:AgileListEntryType" attributeId="2023"
readOnly="False"
/>
<MultiList01

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

xsi:type="common:AgileListEntryType" attributeId="2090"
readOnly="False"
/>
<MultiList04

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

xsi:type="common:AgileListEntryType" attributeId="2000008063"
readOnly="True" />
</agileObject>
</responses>
</response>
</createObjectResponse>
</res>
</reserveThenCreateUpdateResponse>
</env:Body>
</env:Envelope>
```

## createUpdateThenRelate

### Service:

To create or update one or many Design objects and then add relationships among them or to other existing objects in the PLM system.

### Usage:

The request should have at least one `AgileObject`, which represents the Design object to be created or updated. The attributes of the new design should be included in the object identifier, including class id, subclass and number. If an autonumber source should be used to provide the number for the new design, then the `objectName` element in the `ObjectIdentifier` should be left empty and a property named `autoNumberSrc` should be added to the first set of options of the `AgileObject`. The value of this property should be set to the name of the autonumber source to use.

The service will attempt to create the objects it finds in the request, therefore, an error will be triggered if an object with the given number already exists in the PLM system. To avoid this error and allow an existing object to be updated, a property called `updateExistingObject` should be added to the first set of options of the `AgileObject` with its value set to `"true"`.

Other attributes to be populated, such as `TitleBlock`, `Page Two` or `Page Three` attributes should be included inside table element with the table identifier set to the respective page. One single row element should be included in the table and attributes are added as child elements of the row, with the `attributeId` set to the `BaseId` of the attribute to update.

Finally, the `Relationships` table should be included, having a `tableId` of `"2000007761"`. Inside this table, each row representing a new relationship should include the key attribute `"2000007767"` (`Relationships.Name`) with its value set to a `ReferentIdType`, which represents the object to be



related to the design.

The service will return a response which includes each of the individual responses obtained during the execution of the orchestrated process.

**Syntax:**

```
CreateUpdateThenRelateResponseRes createUpdateThenRelateResponseType =
bpelStub.createUpdateThenRelate(createUpdateThenRelateRequestType)
```

**Basic Steps:**

1. Create the request object AgileECRequestExtType for the createUpdateThenRelate operation.
2. Create an array of AgileBusinessObjectType elements
3. Create an instance of an AgileBusinessObjectType and set it as the first element in the array.
4. Set the object identifier to contain the appropriate classId, subclass, and number.
5. Optionally define an array of PropertyListType to add options to this object.
6. In the list, define PropertyType elements for the optional properties "autoNumberSrc" and "updateExistingObject"
7. If attributes in Title Block, Page Two or Page Three need to be updated, define table elements for these tables and add a single AgileRowType element to them. Define the attributes inside the row element as any elements with an attribute called attributeld, set to the BaseID of the attribute to update.
8. If relationships should be created for this design object, define the relationships table to have id equal to "2000007761". Add as many row elements as needed.
9. For each AgileRowType, define at least one element of type any with the following attributes:
10. "attributeld" set to "2000007767"
11. "type", with namespace "<http://xmlns.oracle.com/AgileObjects/Core/Common/V1>" set to "ObjectReferentIdType".
12. Set the value of this element to be a ObjectReferentIdType pointing to the object to be related.
13. Call the WebService and check the individual responses included in the global response.

**Sample Code Java:**

```
try {
    setupServerLogin();
    Integer classId = getIntegerProperty(DSIGN_CLASS_ID);
    String subClass = getStringProperty(DSIGN_SUBCLASS);
    String parentNumber = getStringProperty(DSIGN_NUMBER);
    String parentVersion = getStringProperty(DSIGN_VERSION);
    String parentDescription = getStringProperty(DSIGN_DESCRIPTION);
    Integer firstRelatedClassId =
getIntegerProperty(FIRST_RELATED_OBJECT_CLASS_ID);
    String firstRelatedNumber =
getStringProperty(FIRST_RELATED_OBJECT_NUMBER);
    Integer secondRelatedClassId =
getIntegerProperty(SECOND_RELATED_OBJECT_CLASS_ID);
    String secondRelatedNumber =
getStringProperty(SECOND_RELATED_OBJECT_NUMBER);
    AgileECRequestExtType createUpdateThenRelateRequestType = new
AgileECRequestExtType();
```

```

        AgileBusinessObjectType[] agileRequestObjects = new
        AgileBusinessObjectType[1];
        agileRequestObjects[0] = new AgileBusinessObjectType();
        agileRequestObjects[0].setObjectIdentifier(new
        ObjectIdentifierType(classId, subClass, null, null, parentNumber, parentVersion));
        // set option to update object if exists
        PropertyListType options = new PropertyListType();
        PropertyType[] props = new PropertyType[1];
        props[0] = new PropertyType("updateExistingObject", "true");
        options.setProperty(props);
        agileRequestObjects[0].setOptions(options);
        AgileTableType[] parentTables = new AgileTableType[2];
        // Update the description
        parentTables[0] = new AgileTableType();
        TableIdentifierType tbTableIdentifier = new TableIdentifierType();
        tbTableIdentifier.setTableName("Title Block");
        tbTableIdentifier.setTableId(new Integer(6146));
        parentTables[0].setTableIdentifier(tbTableIdentifier);
        AgileRowType[] tbRow = new AgileRowType[1];
        // First row
        tbRow[0] = new AgileRowType();
        MessageElement[] anyElementTbRow = new MessageElement[2];
        anyElementTbRow[0] = new MessageElement();
        anyElementTbRow[0].setName("Number");
        anyElementTbRow[0].addAttribute(null, "attributeId", "6173");
        anyElementTbRow[0].setValue(parentNumber);
        anyElementTbRow[1] = new MessageElement();
        anyElementTbRow[1].setName("Description");
        anyElementTbRow[1].addAttribute(null, "attributeId", "6174");
        anyElementTbRow[1].setValue(parentDescription);
        tbRow[0].set_any(anyElementTbRow);
        parentTables[0].setRow(tbRow);
        // Define the relationships table parentTables[1] = new AgileTableType();
        TableIdentifierType tableIdentifier = new TableIdentifierType();
        tableIdentifier.setTableName("Relationships");
        tableIdentifier.setTableId(new Integer(2000007761));
        parentTables[1].setTableIdentifier(tableIdentifier);
        // Create two rows of related items AgileRowType[] rows = new
        AgileRowType[2];
        // First row
        rows[0] = new AgileRowType();
        MessageElement[] anyElementFirstRow = new MessageElement[1];
        anyElementFirstRow[0] = new MessageElement();
        anyElementFirstRow[0].setName("key2000007767");
        anyElementFirstRow[0].addAttribute(null, "attributeId", "2000007767");

        anyElementFirstRow[0].addAttribute("http://xmlns.oracle.com/AgileObjects/Core/Comm
        on/V1", "type", "ObjectReferentIdType");
        anyElementFirstRow[0].setObjectValue(new
        ObjectReferentIdType(String.valueOf(firstRelatedClassId), firstRelatedNumber,
        null, null));
        rows[0].setRowId(0);
        rows[0].set_any(anyElementFirstRow);

        // Second row
        rows[1] = new AgileRowType();
        MessageElement[] anyElementSecondRow = new MessageElement[1];
        anyElementSecondRow[0] = new MessageElement();
        anyElementSecondRow[0].setName("key2000007767");
        anyElementSecondRow[0].addAttribute(null, "attributeId", "2000007767");

        anyElementSecondRow[0].addAttribute("http://xmlns.oracle.com/AgileObjects/Core/Com
        mon/V1", "type", "ObjectReferentIdType");
        anyElementSecondRow[0].setObjectValue(new
        ObjectReferentIdType(String.valueOf(secondRelatedClassId), secondRelatedNumber,
        null, null));
        rows[1].set_any(anyElementSecondRow);

```

```

        rows[1].setRowId(1);
        parentTables[1].setRow(rows);
    }
    agileRequestObjects[0].setTable(parentTables);
    createUpdateThenRelateRequestType.setAgileObject(agileRequestObjects);
    CreateUpdateThenRelateResponseRes createUpdateThenRelateResponseType =
    bpelStub.createUpdateThenRelate(createUpdateThenRelateRequestType);
    System.out.println("STATUS CODE: " +
    createUpdateThenRelateResponseType.getStatusCode());
    if
    (!createUpdateThenRelateResponseType.getStatusCode().toString().equals(ResponseSta
    tusCode.SUCCESS.getValue())) {
        CreateObjectResponseType createObjectResponse =
        createUpdateThenRelateResponseType.getCreateObjectResponse().getResponse();
        AgileExceptionListType[] agileExceptionListType =
        createObjectResponse.getExceptions();
        if (agileExceptionListType != null) {
            for (AgileExceptionListType exceptionListType :
            agileExceptionListType) {
                for (AgileExceptionType exception :
                exceptionListType.getException()) {
                    System.out.println(exception.getMessage());
                }
            }
        }
        AddRowsResponse[] addRowsResponses =
        createUpdateThenRelateResponseType.getAddRowsResponse();
        for (AddRowsResponse addRowsResponse : addRowsResponses) {
            agileExceptionListType =
            addRowsResponse.getResponse().getExceptions();
            if (agileExceptionListType != null) {
                for (AgileExceptionListType exceptionListType :
                agileExceptionListType) {
                    for (AgileExceptionType exception :
                    exceptionListType.getException()) {
                        System.out.println(exception.getMessage());
                    }
                }
            }
        }
    } else { // If the object, was successfully retrieved, then examine its
    contents
        AgileCreateObjectResponse[] agileCreateResponses =
        createUpdateThenRelateResponseType.getCreateObjectResponse().getResponse().getResp
        onses();
        if (agileCreateResponses != null) {
            for (AgileCreateObjectResponse agileResponse :
            agileCreateResponses) {
                AgileObjectType agileObject = agileResponse.getAgileObject();
                ObjectIdentifierType objectIdentifier =
                agileObject.getObjectIdentifier();
                System.out.println("Agile Object Class ID: " +
                objectIdentifier.getClassId());
                System.out.println("Agile Object Class Name: " +
                objectIdentifier.getClassName());
                System.out.println("Agile Object Class Display Name: " +
                objectIdentifier.getClassDisplayName());
                System.out.println("Agile Object Object ID: " +
                objectIdentifier.getObjectId());
                System.out.println("Agile Object Object Name: " +
                objectIdentifier.getObjectName());
                AgileTableType[] tables = agileObject.getTable();
                if (tables != null) {
                    for (AgileTableType table : tables) {
                        System.out.println("Table Name: " +
                        table.getTableIdentifier().getTableName());
                        rows = table.getRow();
                        int rowNo = 0;

```

```

        if (rows != null) {
            for (AgileRowType row : rows) {
                System.out.println("Table Row Number " + rowNo++);
                for (MessageElement node : row.get_any()) {
                    System.out.println("* " + node.getLocalName() +
": " + node.getValue());
                    Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
                    while (nodeIt.hasNext()) {
                        Node selectionNode = nodeIt.next();
                        if (selectionNode instanceof MessageElement) {
                            MessageElement element = (MessageElement)
selectionNode;
                            Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
                            while (subNodeIt.hasNext()) {
                                MessageElement subNode =
subNodeIt.next();
                                System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
                            }
                        }
                    }
                }
            }
            for (MessageElement node : agileObject.get_any()) {
                System.out.println("Agile Object " + node.getLocalName() + ":
" + node.getValue());
                Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
                while (nodeIt.hasNext()) {
                    Node selectionNode = nodeIt.next();
                    if (selectionNode instanceof MessageElement) {
                        MessageElement element = (MessageElement)
selectionNode;
                        Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
                        while (subNodeIt.hasNext()) {
                            MessageElement subNode = subNodeIt.next();
                            System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
                        }
                    }
                }
            }
        } else {
            System.out.println("No results!");
        }
    }
}

```

**Sample Code SOAP:**

```

==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<soapenv:Body>
    <createUpdateThenRelate
xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
        <req xmlns="">
            <AgileObject>

```

```

<objectIdentifier>
  <classId>2000008310</classId>
  <className>Design</className>
  <objectId xsi:nil="true" />
</objectIdentifier>
<objectName>DESIGN10006.SLDASM</objectName>
<version>1</version>
</objectIdentifier>
<table>
  <tableIdentifier>
    <tableId>6146</tableId>
    <tableName>Title Block</tableName>
  </tableIdentifier>
  <row rowId="0">
    <Number
      attributeId="6173">DESIGN10006.SLDASM</Number>
    <Description
      attributeId="6174">Generated by a BPEL Service</Description>
    </row>
  </table>
  <table>
    <tableIdentifier>
      <tableId>2000007761</tableId>
    </tableIdentifier>
    <tableName>Relationships</tableName>
    <row rowId="0">
      <key2000007767
        attributeId="2000007767" ns1:type="ObjectReferentIdType"
        xmlns:ns1="http://xmlns.oracle.com/AgileObjects/Core/Common/V1">
      </key2000007767>
    </row>
    <row rowId="1">
      <key2000007767
        attributeId="2000007767" ns2:type="ObjectReferentIdType"
        xmlns:ns2="http://xmlns.oracle.com/AgileObjects/Core/Common/V1">
      </key2000007767>
    </row>
  </table>
  <options>
    <id xsi:nil="true" />
  </options>
</table>
<propertyName>updateExistingObject</propertyName>
<propertyValue>true</propertyValue>
</property>
</options>
</AgileObject>
</req>
</createUpdateThenRelate>
</soapenv:Body>
</soapenv:Envelope>
==== Response ====
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:wsa="http://www.w3.org/2005/08/addressing">

```

```

<env:Header>
  <wsa:MessageID>urn:E0F48AC0AC2E11DFBFD3F7C676F77F9</wsa:MessageID>
  <wsa:ReplyTo>
    <wsa:Address>http://www.w3.org/2005/08/addressing/anonymous
    </wsa:Address>
  </wsa:ReplyTo>
</env:Header>
<env:Body>
  <createUpdateThenRelateResponse

xmlns:dvm="http://www.oracle.com/XSL/Transform/java/oracle.tip.dvm.LookupValue"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
    <res xmlns="">
      <messageId />
      <messageName />
      <statusCode>SUCCESS</statusCode>
      <sessionParameters />
      <generalParameters />
      <warnings>
        <id />
        <warning>
          <message />
        </warning>
      </warnings>
      <createObjectResponse
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
        xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://xmlns.oracle.com/AgileObjects/Core/Business/V1">
          <response xmlns="">
            <messageId>f467ace57764bfde:-
1d875c14:12a8e6a4023:-7fbf
            </messageId>
            <messageName>createObject-by-
ECCreateUpdateThenRelate
            </messageName>
            <statusCode>SUCCESS</statusCode>
            <responses>
              <agileObject>
                <objectIdentifier>

<classId>2000008310</classId>
<className>Design</className>
<classDisplayName>Design</classDisplayName>
<objectId>6289591</objectId>
<objectName>DESIGN10006.SLDASM</objectName>
                </objectIdentifier>
                <Number>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                xsi:type="xs:string" attributeId="6173" readOnly="False">DESIGN10006.SLDASM
                </Number>
                <Type>
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                xsi:type="common:AgileListEntryType" attributeId="6175"
                readOnly="False">
                <selection>

<id>2000008310</id>
<apiName>DESIGN</apiName>

```

```

<value>Design</value>
</selection>
</Type>
<lifecyclePhase

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

xsi:type="common:AgileListEntryType" attributeId="6390"
readOnly="False"
/>
<Description
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="6174" readOnly="False">Generated by a
BPEL
Service</Description>
<Version
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:integer" attributeId="7951" readOnly="True">1</Version>
<lastModifiedDate
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:date"
attributeId="6178" readOnly="True">2010-08-20T07:45:18.000Z
</lastModifiedDate>
<checkoutStatus

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

xsi:type="common:AgileListEntryType" attributeId="6389"
readOnly="True">
<selection>
<id>0</id>

<apiName>CHECKED_OUT</apiName>
<value>Checked Out</value>
</selection>
</checkoutStatus>
<checkoutUser

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

xsi:type="common:AgileListEntryType" attributeId="6180"
readOnly="True">
<selection>

<id>704</id>
<apiName

xsi:nil="true" />
<value>Administrator, Admin (admin)</value>
</selection>
</checkoutUser>
<checkoutDate
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:date"
attributeId="6184" readOnly="True">2010-08-20T10:43:00.000Z
</checkoutDate>
<checkoutLocation
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="6183" readOnly="True" />
<checkinDate
xmlns:xs="http://www.w3.org/2001/XMLSchema"

```

```

                                xsi:type="xs:date"
attributeId="6388" readOnly="True">2010-08-20T07:45:10.000Z
                                </checkinDate>
                                <createDate
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                xsi:type="xs:date"
attributeId="6177" readOnly="True">2010-08-20T07:42:13.000Z
                                </createDate>
                                <Label
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008316" readOnly="False" />
                                <componentType
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008317"
                                readOnly="False"
/>
                                <Thumbnail
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008554"
                                readOnly="True" />
                                <Revision
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008685" readOnly="False" />
                                <revisionDate
xmlns:xs="http://www.w3.org/2001/XMLSchema"
                                xsi:type="xs:date"
attributeId="2000008686" readOnly="False" />
                                <checkinUser
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008717"
                                readOnly="True" />
                                <approvalStatus
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000009374"
                                readOnly="True" />
                                <itemChangeStatus
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000009487" readOnly="False" />
                                <createUser
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="1420"
                                readOnly="True">
                                <selection>
<id>704</id>
                                <apiName
xsi:nil="true" />
<value>Administrator, Admin (admin)</value>
                                </selection>
                                </createUser>
                                <drawnBy
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2020"

```



```

                                readOnly="False"
/>
                                <checkedBy
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2021"
                                readOnly="False"
/>
                                <designSystem
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2007" readOnly="False" />
                                <CADFilename
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2017" readOnly="False" />
                                <CADOldFilename
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2018" readOnly="False" />
                                <designSystemIdentifier
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2008" readOnly="False" />
                                <Filetype
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2009" readOnly="False" />
                                <Subtype
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2010" readOnly="False" />
                                <Family
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2011" readOnly="False" />
                                <Variant
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2012" readOnly="False" />
                                <drawingName
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2013" readOnly="False" />
                                <frameID
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2014" readOnly="False" />
                                <nameFormat
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2015" readOnly="False" />
                                <projectName
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2016" readOnly="False" />
                                <localFlag
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1301" readOnly="False" />
                                <partNumber
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="1302" readOnly="False" />
                                <filePath
xmlns:xs="http://www.w3.org/2001/XMLSchema"

```

```

xsi:type="xs:string" attributeId="2019" readOnly="False" />
                                <oldFilePath
xmlns:xs="http://www.w3.org/2001/XMLSchema"

xsi:type="xs:string" attributeId="1331" readOnly="False" />
                                <modelType
xmlns:xs="http://www.w3.org/2001/XMLSchema"

xsi:type="xs:string" attributeId="1332" readOnly="False" />
                                <modelReference
xmlns:xs="http://www.w3.org/2001/XMLSchema"

xsi:type="xs:string" attributeId="1333" readOnly="False" />
                                <linkType
xmlns:xs="http://www.w3.org/2001/XMLSchema"

xsi:type="xs:string" attributeId="1334" readOnly="False" />
                                <linkReference
xmlns:xs="http://www.w3.org/2001/XMLSchema"

xsi:type="xs:string" attributeId="1335" readOnly="False" />
                                <TDMVersion
xmlns:xs="http://www.w3.org/2001/XMLSchema"

xsi:type="xs:string" attributeId="1307" readOnly="False" />
                                <TDMRevision
xmlns:xs="http://www.w3.org/2001/XMLSchema"

xsi:type="xs:string" attributeId="1308" readOnly="False" />
                                <Text13
xmlns:xs="http://www.w3.org/2001/XMLSchema"

xsi:type="xs:string" attributeId="1303" readOnly="False" />
                                <Text14
xmlns:xs="http://www.w3.org/2001/XMLSchema"

xsi:type="xs:string" attributeId="1304" readOnly="False" />
                                <List04
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

xsi:type="common:AgileListEntryType" attributeId="2023"
                                readOnly="False"
/>
                                <MultiList01

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

xsi:type="common:AgileListEntryType" attributeId="2090"
                                readOnly="False"
/>
                                <MultiList04

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"

xsi:type="common:AgileListEntryType" attributeId="2000008063"
                                readOnly="True" />
                                </agileObject>
                                </responses>
                                </response>
                                </createObjectResponse>
                                <addRowsResponse
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
                                xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns="http://xmlns.oracle.com/AgileObjects/Core/Table/V1">
                                <response xmlns="">

```

```

1d875c14.12a8a6a4023.-7fba
<messageId>f467ace57764bfde:-
</messageId>
<messageName>addRows-by-
ECCreateUpdateAndRelate</messageName>
<statusCode>SUCCESS</statusCode>
</response>
</addRowsResponse>
</res>
</createUpdateThenRelateResponse>
</env:Body>
</env:Envelope>

```

## retrieveDesignStructureAndMetadata

### Service:

To retrieve the structure and privileges of a given Design object as well as the metadata for the given AgileClass in one call.

### Usage:

This service orchestrates two EC WebServices in one single call. These services are `getDesignService` and `getDesignPropertiesAndRights`. By doing this, it allows to retrieve all information related to a Design object in one call to the server side. Given this, the request of this service is a combination of the elements in the requests used for calling each of those two web services separately. For details on the specific requests, please review the documentation for those services in the preceding sections.

The service will return the combined responses of both service calls.

### Syntax:

```

RetrieveDesignStructureAndMetadataResponseRes
retrieveDesignStructureAndMetadataResponseType =
bpelStub.retrieveDesignStructureAndMetadata(retrieveDesignStructureAndMetadataRequestType);

```

### Basic Steps:

1. Create the request object `AgileECRequestExtType` for the `retrieveDesignStructureAndMetadata` operation.
2. Create a general parameters list of type `PropertyListType`
3. Add the property 'userIdentification' to the list, set its value to the desired username.
4. Add the property 'classIdentifier' to the list, set its value to the subclass of Design whose metadata should be retrieved.
5. Add the property 'objectNumber' to the list, set its value to the number of the design whose privileges should be checked.
6. Add one or more 'privilege' properties to the list, set the values of the ids of the privileges to check.
7. Create an array of `AgileBusinessObjectType` elements
8. Create an instance of an `AgileBusinessObjectType` and set it as the first element in the array.
9. Set the object identifier to contain the appropriate classId, subclass and number.

10. Optionally add a Version element with an attribute called "attributeId" with value "7951", which corresponds to the BaseID of the TitleBlock.Version attribute for Designs.
11. Set the value of this element to the desired Design version.
12. Call the WebService and check the responses.

**Sample Code Java:**

```

try {
    setupServerLogin();
    String userId = getStringProperty("USERNAME");
    Integer classId = getIntegerProperty(DSIGN_CLASS_ID);
    String subClass = getStringProperty(DSIGN_SUBCLASS);
    String number = getStringProperty(DSIGN_NUMBER);
    String version = getStringProperty(DSIGN_VERSION);
    AgileECRequestExtType retrieveDesignStructureAndMetadataRequestType = new
AgileECRequestExtType();
    // First, set the general parameters section for the metadata
    PropertyListType[] generalParameters = new PropertyListType[1];
    generalParameters[0] = new PropertyListType();
        PropertyType[] props = new PropertyType[5];
        props[0] = new PropertyType("userIdentification", userId);
        props[1] = new PropertyType("classIdentifier", String.valueOf(classId));
        props[2] = new PropertyType("objectNumber", number);
        // Multiple privileges can be checked in one call
        props[3] = new PropertyType("privilege", "2");
        props[4] = new PropertyType("privilege", "15");
        generalParameters[0].setProperty(props);

    retrieveDesignStructureAndMetadataRequestType.setGeneralParameters(generalParamete
rs);

    // Next, define the agile object for retrieving the structure
    AgileBusinessObjectType[] agileRequestObjects = new
AgileBusinessObjectType[1];
    agileRequestObjects[0] = new AgileBusinessObjectType();
    agileRequestObjects[0].setObjectIdentifier(new
ObjectIdentifierType(classId, subClass, null, null, number, version));
    // Add the version as an additional element MessageElement[] anyElement =
new MessageElement[1]; anyElement[0] = new MessageElement();
    anyElement[0].setName("Version");
        anyElement[0].addAttribute(null, "attributeId", "7951"); //
    FileFolderConstants.ATT_TITLE_BLOCK_VERSION
        anyElement[0].setValue(version);
    agileRequestObjects[0].set_any(anyElement);

    retrieveDesignStructureAndMetadataRequestType.setAgileObject(agileRequestObjects);
    RetrieveDesignStructureAndMetadataResponseRes
retrieveDesignStructureAndMetadataResponseType =
bpelStub.retrieveDesignStructureAndMetadata(retrieveDesignStructureAndMetadataRequ
estType);
    System.out.println("STATUS CODE: " +
retrieveDesignStructureAndMetadataResponseType.getStatusCode());
    AgileECResponseExtType retrieveDesignStructureResponseType =
retrieveDesignStructureAndMetadataResponseType.getRetrieveDesignStructureResponse(
).getRes();
    if
(!retrieveDesignStructureAndMetadataResponseType.getStatusCode().toString().equals
(ResponseStatusCode.SUCCESS.getValue())) {
        AgileExceptionListType[] agileExceptionListType =
retrieveDesignStructureResponseType.getExceptions();
        if (agileExceptionListType != null) {
            for (AgileExceptionListType exceptionListType :
agileExceptionListType) {
                for (AgileExceptionType exception :
exceptionListType.getException()) {

```

```

        } System.out.println(exception.getMessage());
    }
}

CheckPrivilegeResponse checkOutFFResponse =
retrieveDesignStructureAndMetadataResponseType.getCheckPrivilegeResponse();
agileExceptionListType =
checkOutFFResponse.getResponse().getExceptions();
if (agileExceptionListType != null) {
    for (AgileExceptionListType exceptionListType :
agileExceptionListType) {
        for (AgileExceptionType exception :
exceptionListType.getException()) {
            System.out.println(exception.getMessage());
        }
    }
} else { // If the call was successful, then examine its contents
    AgileBusinessObjectType[] agileResponseObjects =
retrieveDesignStructureResponseType.getAgileObject();
    if (agileResponseObjects != null) {
        for (AgileBusinessObjectType agileObject : agileResponseObjects) {
            ObjectIdentifierType objectIdentifier =
agileObject.getObjectIdentifier();
            System.out.println("Agile Object Class ID: " +
objectIdentifier.getClassId());
            System.out.println("Agile Object Class Name: " +
objectIdentifier.getClassName());
            System.out.println("Agile Object Class Display Name: " +
objectIdentifier.getClassDisplayName());
            System.out.println("Agile Object Object ID: " +
objectIdentifier.getObjectId());
            System.out.println("Agile Object Object Name: " +
objectIdentifier.getObjectName());
            PropertyListType options = agileObject.getOptions();
            if (options != null) {
                for (PropertyType property : options.getProperty()) {
                    System.out.println("Option Property Name: " +
property.getPropertyName());
                    System.out.println("Option Property Value: " +
property.getPropertyValue());
                }
            }
            AgileTableType[] tables = agileObject.getTable();
            for (AgileTableType table : tables) {
                System.out.println("Table Name: " +
table.getTableIdentifier().getTableName());
                AgileRowType[] rows = table.getRow();
                int rowNo = 0;
                if (rows != null) {
                    for (AgileRowType row : rows) {
                        System.out.println("Table Row Number " + rowNo++);
                        for (MessageElement node : row.get_any()) {
                            System.out.println("* " + node.getLocalName()
+ ": " + node.getValue());
                            Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
                            while (nodeIt.hasNext()) {
                                Node selectionNode = nodeIt.next();
                                if (selectionNode instanceof MessageElement)
{
                                    MessageElement element = (MessageElement)
selectionNode;
                                    Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
                                    while (subNodeIt.hasNext()) {

```

```

        MessageElement subNode =
subNodeIt.next();
        System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
    }
}
}
}
}
}
for (MessageElement node : agileObject.get_any()) {
    System.out.println("Agile Object " + node.getLocalName() + ":
" + node.getValue());
    Iterator<Node> nodeIt = (Iterator<Node>)
node.getChildElements();
    while (nodeIt.hasNext()) {
        Node selectionNode = nodeIt.next();
        if (selectionNode instanceof MessageElement) {
            MessageElement element = (MessageElement)
selectionNode;
            Iterator<MessageElement> subNodeIt =
(Iterator<MessageElement>) element.getChildElements();
            while (subNodeIt.hasNext()) {
                MessageElement subNode = subNodeIt.next();
                System.out.println("*** Selection " +
subNode.getLocalName() + ": " + subNode.getValue());
            }
        }
    }
}
}
}
AgileCheckPrivilegeResponseType[] checkPrivilegeResponses =
retrieveDesignStructureAndMetadataResponseType.getCheckPrivilegeResponse().getResp
onse().getResponses();
    if (checkPrivilegeResponses != null) {
        for (AgileCheckPrivilegeResponseType agileResponse :
checkPrivilegeResponses) {
            CheckPrivilegeType privilege = agileResponse.getPrivilege();
            System.out.println("Privilege ID: " + privilege.getPrivilege() +
". Has Privilege: " + privilege.getCheckPrivilege());
        }
    } else {
        System.out.println("No results!");
    }
}
}
}

```

### Sample Code SOAP:

```
==== Request ====
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <soapenv:Body>
    <retrieveDesignStructureAndMetadata
      xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
      <req xmlns="">
        <generalParameters>
          <id xsi:nil="true" />
          <property>
            <propertyName>userIdentification</propertyName>
            <propertyValue>admin</propertyValue>
          </property>
        </generalParameters>
      </req>
    </retrieveDesignStructureAndMetadata>
  </soapenv:Body>
</soapenv:Envelope>
```

```

        </property>
</generalParameters>
<AgileObject>
  <objectIdentifier>
    <classId>2000008310</classId>
    <className>Design</className>
    <objectId xsi:nil="true" />
    <objectName>DESIGN09022.ASM</objectName>
    <version>2</version>
  </objectIdentifier>
  <Version attributeId="7951">2</Version>
</AgileObject>
</req>
</retrieveDesignStructureAndMetadata>
</soapenv:Body>
</soapenv:Envelope>
==== Response ====
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:wsa="http://www.w3.org/2005/08/addressing">
  <env:Header>
    <wsa:MessageID>urn:30A0D370AC5811DFBFD3F7C676F77F9</wsa:MessageID>
    <wsa:ReplyTo>
      <wsa:Address>http://www.w3.org/2005/08/addressing/anonymous
    </wsa:Address>
    </wsa:ReplyTo>
  </env:Header>
  <env:Body>
    <retrieveDesignStructureAndMetadataResponse
      xmlns:dvm="http://www.oracle.com/XSL/Transform/java/oracle.tip.dvm.LookupValue"
      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
      xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
      <res xmlns="">
        <messageId />
        <messageName />
        <statusCode>SUCCESS</statusCode>
        <sessionParameters />
        <generalParameters>
          <id xsi:nil="true" />
          <property>
            <propertyName>userIdentification</propertyName>
            <propertyValue>admin</propertyValue>
          </property>
          <property>
            <propertyName>classIdentifier</propertyName>
            <propertyValue>2000008310</propertyValue>
          </property>
        </generalParameters>
      </res>
    </retrieveDesignStructureAndMetadataResponse>
  </env:Body>
</env:Envelope>

```

```

        <propertyName>objectNumber</propertyName>
    </property>
    <property>
        <propertyName>privilege</propertyName>
        <propertyValue>2</propertyValue>
    </property>
    <property>
        <propertyName>privilege</propertyName>
        <propertyValue>15</propertyValue>
    </property>
</generalParameters>
<notes>
    <id />
    <processNote>
        <message />
    </processNote>
</notes>
<exceptions>
    <id />
    <exception>
        <exceptionId />
        <message />
    </exception>
</exceptions>
<warnings>
    <id />
    <warning>
        <message />
    </warning>
</warnings>
<getTableMetadataResponse
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance"
xmlns="http://xmlns.oracle.com/AgileObjects/Core/AdminMetadata/V1">
    <response xmlns="">Response omitted from this
sample due to
the size. Check the documentation about
the getTableMetadata
service, which is part of the
AdminMetadata services in a9
    </response>
</getTableMetadataResponse>
<retrieveDesignStructureResponse
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://xmlns.oracle.com/AgileObjects/ECS/V1">
    <res xmlns="">
        <messageId>f467ace57764bfde:-
1d875c14:12a8e6a4023:-7f85
        </messageId>
        <messageName>retrieveDesignStructure-by-
ECRetrieveDesignStructureAndMetadata
        </messageName>
        <statusCode>SUCCESS</statusCode>
        <AgileObject>
            <objectIdentifier>
<classId>2000008310</classId>
<className>Design</className>
<classDisplayName>Design</classDisplayName>

```



```

<objectId>6250017</objectId>
<objectName>DESIGN09022.ASM</objectName>
</objectIdentifier>
<table>
  <tableIdentifier>

<tableId>6150</tableId>

<tableName>Files</tableName>
</tableIdentifier>
<row rowId="0">
  <Thumbnail

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008555" />
  <fileName
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="6303">design09022.asm</fileName>
  <fileDescription
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="6181" />
  <fileSize
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:double" attributeId="6148">32980.0</fileSize>
  <fileType
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="6305">asm</fileType>
  <filePath
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="6304" />
  <lastViewDate
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:date" attributeId="6176">2010-04-06T13:31:38.000Z
  </lastViewDate>
  <fileCategory

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008509">
  <selection>
    <id>1</id>
    <apiName>SOURCE</apiName>
    <value>Source</value>
  </selection>
  </fileCategory>
  <documentText
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="4684" />
  <checkoutLocation
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000007045" />

```

```

xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008560" />
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" displayName="FileID">6250666</FileID>
</row>
<row rowId="0">
  <Thumbnail
    <masterThumbnail
      <FileID
        <fileName
          <fileDescription
            <fileSize
              <fileType
                <filePath
                  <lastViewDate
                    </lastViewDate>
                    <fileCategory
                      </fileCategory>
                      <documentText
                        <checkoutLocation
                          <masterThumbnail
                            </masterThumbnail

```

```

xsi:type="xs:string" attributeId="2000008560" />
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" displayName="FileID">6250667</FileID>
</row>
<row rowId="0">
  <Thumbnail
    xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
    xsi:type="common:AgileListEntryType" attributeId="2000008555" />
    <fileName
      xmlns:xs="http://www.w3.org/2001/XMLSchema"
      xsi:type="xs:string" attributeId="6303">design09022.igs</fileName>
      <fileDescription
        xmlns:xs="http://www.w3.org/2001/XMLSchema"
        xsi:type="xs:string" attributeId="6181" />
        <fileSize
          xmlns:xs="http://www.w3.org/2001/XMLSchema"
          xsi:type="xs:double" attributeId="6148">1648692.0</fileSize>
          <fileType
            xmlns:xs="http://www.w3.org/2001/XMLSchema"
            xsi:type="xs:string" attributeId="6305">igs</fileType>
            <filePath
              xmlns:xs="http://www.w3.org/2001/XMLSchema"
              xsi:type="xs:string" attributeId="6304" />
              <lastViewDate
                xmlns:xs="http://www.w3.org/2001/XMLSchema"
                xsi:type="xs:date" attributeId="6176">2010-04-06T13:31:38.000Z
                </lastViewDate>
                <fileCategory
                  xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
                  xsi:type="common:AgileListEntryType" attributeId="2000008509">
                    <selection>
                      <id>2</id>
                      <apiName>VIEWABLE</apiName>
                      <value>Viewable</value>
                    </selection>
                    </fileCategory>
                    <documentText
                      xmlns:xs="http://www.w3.org/2001/XMLSchema"
                      xsi:type="xs:string" attributeId="4684" />
                      <checkoutLocation
                        xmlns:xs="http://www.w3.org/2001/XMLSchema"
                        xsi:type="xs:string" attributeId="2000007045" />
                        <masterThumbnail
                          xmlns:xs="http://www.w3.org/2001/XMLSchema"
                          xsi:type="xs:string" attributeId="2000008560" />

```

```

                                <FileID
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" displayName="FileID">6250668</FileID>
                                </row>
                                </table>
                                <table>
                                <tableIdentifier>

<tableId>2000008318</tableId>

<tableName>Structure</tableName>

<tableDisplayName>Structure</tableDisplayName>
                                </tableIdentifier>
                                <row rowId="0">
                                <Attachments
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008326">true</Attachments>
                                <Linked
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008327">false</Linked>
                                <checkedOut
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008328">false</checkedOut>
                                <Thumbnail

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008556">

<selection>

<id>3551</id>

<apiName>DESIGN09015PRT</apiName>

<value>com.agile.api.pc.attachment.ThumbnailID@1158395

</value>

</selection>
                                </Thumbnail>
                                <designType

xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008319">

<selection>

<id>2000008310</id>

<apiName>DESIGN</apiName>

<value>Design</value>

</selection>
                                </designType>
                                <Number
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008320">DESIGN09015.PRT</Number>

```

```

xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008321" />
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008322" />
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:integer" attributeId="2000008323">2</Version>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:double" attributeId="2000008324">0.0</findNum>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:double" attributeId="2000008325">1.0</Quantity>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008329" />
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008330" />
<structureMultiText01 xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008365" />
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008376" />
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008377">CAX-PROE</Identifier>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008378" />
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008379" />
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008380" />
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000009479" />
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:date" attributeId="2000009480" />
</row>
<row rowId="0">
  <Attachments

```

```

xsi:type="xs:string" attributeId="2000008326">true</Attachments>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008327">false</Linked>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xsi:type="xs:string" attributeId="2000008328">false</checkedOut>
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008556">
<selection>
<id>3554</id>
<apiName>DESIGN09016PRT</apiName>
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</selection>

<selection>

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</selection>

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  </Thumbnail>
  <selection>
    <id>3570</id>
  </selection>
  <apiName>DESIGN09022ASM</apiName>
  <value>com.agile.api.pc.attachment.ThumbnailID@1097741</value>
  </value>
  </selection>

```

```

xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008685">A v2</Revision>
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000008686" />
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2000008717">
  <selection>
    <id>704</id>
    <apiName
xsi:nil="true" />
<value>Administrator, Admin (admin)</value>
  </selection>
</checkinUser>
<itemChangeStatus
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2000009487" />
  xsi:type="xs:string"
  <createUser
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="1420">
  <selection>
    <id>704</id>
    <apiName
xsi:nil="true" />
<value>Administrator, Admin (admin)</value>
  </selection>
</createUser>
<drawnBy
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2020" />
  <checkedBy
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2021" />
  <designSystem
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2007">Pro/E Wildfire 3.0
  </designSystem>
  <CADFilename
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2017">DESIGN09022.ASM</CADFilename>
  <CADOldFilename
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2018" />
  <designSystemIdentifier
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2008" />
  <Filetype
xmlns:xs="http://www.w3.org/2001/XMLSchema"
attributeId="2009">ASM</Filetype>

```

<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;Subtype</code>
<code>attributeId="2010" /&gt;</code>	<code>    xsi:type="xs:string"</code>
<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;Family</code>
<code>attributeId="2011" /&gt;</code>	<code>    xsi:type="xs:string"</code>
<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;Variant</code>
<code>attributeId="2012" /&gt;</code>	<code>    xsi:type="xs:string"</code>
<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;drawingName</code>
<code>attributeId="2013" /&gt;</code>	<code>    xsi:type="xs:string"</code>
<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;frameID</code>
<code>attributeId="2014" /&gt;</code>	<code>    xsi:type="xs:string"</code>
<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;nameFormat</code>
<code>attributeId="2015" /&gt;</code>	<code>    xsi:type="xs:string"</code>
<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;projectName</code>
<code>attributeId="2016" /&gt;</code>	<code>    xsi:type="xs:string"</code>
<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;localFlag</code>
<code>attributeId="1301" /&gt;</code>	<code>    xsi:type="xs:string"</code>
<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;partNumber</code>
<code>attributeId="1302"&gt;DESIGN09022&lt;/partNumber&gt;</code>	<code>    xsi:type="xs:string"</code>
<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;filePath</code>
<code>attributeId="2019" /&gt;</code>	<code>    xsi:type="xs:string"</code>
<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;oldFilePath</code>
<code>attributeId="1331" /&gt;</code>	<code>    xsi:type="xs:string"</code>
<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;modelType</code>
<code>attributeId="1332" /&gt;</code>	<code>    xsi:type="xs:string"</code>
<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;modelReference</code>
<code>attributeId="1333" /&gt;</code>	<code>    xsi:type="xs:string"</code>
<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;linkType</code>
<code>attributeId="1334" /&gt;</code>	<code>    xsi:type="xs:string"</code>
<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;linkReference</code>
<code>attributeId="1335" /&gt;</code>	<code>    xsi:type="xs:string"</code>
<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;TDMVersion</code>
<code>attributeId="1307" /&gt;</code>	<code>    xsi:type="xs:string"</code>
<code>xmlns:xs="http://www.w3.org/2001/XMLSchema"</code>	<code>&lt;TDMRevision</code>

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xsi:type="xs:string"
attributeId="1308" />
<MultiList01
xmlns:common="http://xmlns.oracle.com/AgileObjects/Core/Common/V1"
xsi:type="common:AgileListEntryType" attributeId="2090" />
</AgileObject>
</res>
</retrieveDesignStructureResponse>
<checkPrivilegeResponse
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-
instance" xmlns="http://xmlns.oracle.com/AgileObjects/Core/Business/V1">
<response xmlns="">
<messageId>f467ace57764bfde:-
1d875c14:12a8e6a4023:-7f83
</messageId>
<messageName>checkPrivilege-by-
ECRetrieveDesignStructureAndMetadata
</messageName>
<statusCode>SUCCESS</statusCode>
<responses>
<userIdentification>
<userIdentifier>admin</userIdentifier>
</userIdentification>
<privilege>
<privilege>2</privilege>
<checkPrivilege>true</checkPrivilege>
<classIdentifier>2000008310</classIdentifier>
<objectNumber>DESIGN09022.ASM</objectNumber>
</privilege>
</responses>
<responses>
<userIdentification>
<userIdentifier>admin</userIdentifier>
</userIdentification>
<privilege>
<privilege>15</privilege>
<checkPrivilege>false</checkPrivilege>
<classIdentifier>2000008310</classIdentifier>
<objectNumber>DESIGN09022.ASM</objectNumber>
</privilege>
</responses>
</response>
</checkPrivilegeResponse>
</res>
</retrieveDesignStructureAndMetadataResponse>
</env:Body>
</env:Envelope>

```

## EC Schema Types

### AgileECObjectRequestType

<b>Description:</b>		It defines the structure of request header for EC services.	
	<i>Contains</i>		
		req	Request
			Refer to AgileECRequestExtType

### AgileECRequestExType

<b>Description:</b>		It defines the structure of request header for EC services.	
	<i>Extends</i>		
		AbstractRequestType	Base Request Type
			Refer to common:Abstract RequestExtType in core services documentation.
	<i>Contains</i>	AgileObject	List of objects
			Refer to bobjs:AgileBusinessObjectType in core services documentation.

### AgileECObjectResponseType

<b>Description:</b>		It defines the structure of response header for EC services.	
	<i>Contains</i>		
		res	Response
			Refer to AgileECResponseExtType

### AgileECResponseExtType

<b>Description:</b>		It defines the structure of response header for EC services.	
	<i>Extends</i>		
		AbstractResponseType	Base Response Type
			Refer to common:AbstractResponseType in core services

			documentation
	<i>Contains</i>	AgileClass	List of classes
			Refer to AgileECClassType
		AgileObject	List of objects
			Refer to bobjs:AgileBusinessObjectType in core services documentation

## AgileECClassType

<b>Description:</b>	It defines the classes for EC services.		
	<i>Extends</i>		
		ClassType	Class Type
			Refer to common:ClassType in core service documentation.
	<i>Contains</i>	Properties	Property list
			Refer to common:PropertyListType in core services documentation.
		autoNumber	Auto number source
			Refer to common:AdminNodeType in core services documentation.
		attributeMetaData	Meta Data for Attribute
			Refer to common:AttributeType in core service documentation.
		tableMetaData	Meta Data for Table
			Refer to common:TableType in core service documentation

## getDesignPropertiesAndRightsResponse

<b>Description:</b>	Response type for getDesignPropertiesAndRightsResponse call.		
	<i>Element</i>		

		res	Response element
	Extends		
		AbstractResponseType	Base response type
			Refer to common:AbstractResponseType in core services documentation.
	Contains		
		getTableMetadataResponse	Response for getTableMetaData call
			Refer to adminMetadata:getTableMetadataResponse in core services documentation.
		hasPrivilegeResponse	Response for hasPrivilege call
			Refer to bobjs:hasPrivilegeResponse in core services documentation.

## getDesignItemPropertiesAndRightsResponse

<b>Description:</b>	Response type for getDesignItemPropertiesAndRightsResponse call.		
	<i>Element</i>		
		res	Response element
	Extends		
		AbstractResponseType	Base response type
			Refer to common:AbstractResponseType in core services documentation.
	Contains		
		getTableMetadataResponse	Response for getTableMetaData call
			Refer to adminMetadata:getTableMetadataResponse in core services documentation.
		hasPrivilegeResponse	Response for hasPrivilege call



			Refer to bobjs:hasPrivilegeResponse in core services documentation.
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## createUpdateThenReserveResponse

<b>Description:</b>	Response type for createUpdateThenReserveResponse call.		
	<i>Element</i>		
		res	Response element
	Extends		
		AbstractResponseType	Base response type
			Refer to common:AbstractResponseType in core services documentation.
	Contains		
		createObjectResponse	Response for createObject call
			Refer to bobjs:createObjectResponse in core services documentation.
		checkOutFFResponse	Response for checkOutFF call
			Refer to attach:checkOutFFResponse in core services documentation.

## reserveThenCreateUpdateResponse

<b>Description:</b>	Response type for reserveThenCreateUpdateResponse call		
	<i>Element</i>		
		res	Response element
	Extends		
		AbstractResponseType	Base response type
			Refer to common:AbstractResponseType in core

			services documentation.
	Contains		
		CheckOutFFResponse	Response for checkOutFF call
			Refer to attach:checkOutFFResponse in core services documentation.
		createObjectResponse	Response for createObject call
			Refer to bobjs:createObjectResponse in core services documentation.

## createUpdateThenRelateResponse

<b>Description:</b>	Response type for createUpdateThenRelateResponse call		
	<i>Element</i>		
		res	Response element
	Extends		
		AbstractResponseType	Base response type
			Refer to common:AbstractResponseType in core services documentation.
	Contains		
		CreateObjectResponse	Response for createObject call
			Refer to bobjs:createObjectResponse in core services documentation.
		addRowsResponse	Response for addRows call
			Refer to table:addRowsResponse in core services documentation.

## retrieveDesignStructureAndMetadataResponse

<b>Description:</b>	Response type for retrieveDesignStructureAndMetadataResponse call		
	<i>Element</i>		
		res	Response element
	Extends		
		AbstractResponseType	Base response type
			Refer to common:AbstractResponseType in core services documentation.
	Contains		
		getTableMetadataResponse	Response for getTableMetada call
			Refer to adminMetadata:getTableMetadataResponse in core services documentation.
		retrieveDesignStructureResponse	Response for retrieveDesignStructure call
			Refer to retrieveDesignStructure
		hasPrivilegeResponse	Response for hasPrivilege call
			Refer to bobjs:hasPrivilegeResponse in core services documentation.

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