

Implement CPQ-EBS Material Reservation Reference Integration

ORACLE TECHNICAL WHITE PAPER | CPQ 2015 R1 RELEASE | JANUARY 2015



Disclaimer

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

Contents

| | |
|---|----|
| Purpose | 1 |
| Prerequisite | 1 |
| Introduction | 1 |
| EBS Web Services..... | 1 |
| Commerce Process | 2 |
| Additional Changes..... | 2 |
| Implementation Details..... | 3 |
| Attributes..... | 3 |
| File Manager..... | 4 |
| Data Tables..... | 5 |
| Library Functions | 6 |
| Actions | 17 |
| Validation | 20 |
| Step Transitions..... | 22 |
| Sample Payloads..... | 22 |
| Appendix A: Create Reservation Template..... | 23 |
| Appendix B: Create Reservation Line Template | 24 |
| Appendix C: Relieve Reservation Template | 25 |
| Appendix D: Relieve Reservation Line Template | 26 |
| Appendix E: Line Relieve Reservation Template..... | 27 |
| Appendix F: Update Reservation Template | 28 |
| Appendix G: Update Reservation Line Template..... | 29 |
| Appendix H: Reserve Action BML..... | 30 |
| Appendix I: Relieve Action BML..... | 34 |
| Appendix J: Relieve Line Action BML | 36 |
| Appendix K: Sample Reserve Action Payload – Create a New Reservation | 37 |
| Appendix L: Sample Reserve Action Payload – Update an Existing Reservation..... | 39 |
| Appendix M: Sample Relieve Action Payload..... | 41 |
| Appendix N: Sample Relieve Line Action Payload | 43 |

Purpose

The white paper describes the implementation of the Reference Integration between Oracle Configure, Price and Quote (CPQ) Cloud and Oracle E-Business Suite Material Reservation.

Prerequisite

The CPQ – EBS Reference Integration is implemented on CPQ 2015 R1 Release and E- Business Suite Release 9 or later. CPQ base Reference Application must be deployed in the environment. Relevant EBS web services must be up and running.

Introduction

CPQ – EBS Material Reservation Reference Integration enables CPQ to perform material reservation functionality of EBS. Once an order is created, Line items can be reserved. Upon Cancellation of line item(s) or entire Order, Relieve can be performed. Relieve functionality will relieve the reservation done against the order. Reservation is done against an order and its corresponding line.

IMPORTANT: The integration is implemented using the following three actions “Reserve”, “Relieve” (Transaction level) and “Relieve Line” (Transaction Line Level).

Implementation Overview

EBS Web Services

The following EBS web services are invoked:

- » Web Service “INV_RESERVATION_PUB_Service” operation “CREATE_RESERVATION”
- » Web Service “INV_RESERVATION_PUB_Service” operation “RELIEVE_RESERVATION”
- » Web Service “INV_QUANTITY_TREE_PUB_Service” operation “CLEAR_QUANTITY_CACHE”

EBS Material Reservation Web Service Generation:

1. Login to the EBS environment.
2. Navigate to the web service as follows:
 - a) **CREATE_RESERVATION and RELIEVE RESERVATION:** Integrated SOA gateway > Integration Repository > Supply Chain Management > Inventory Management > Material Reservation > Material Reservation Application Program Interface
 - b) **CLEAR_QUANTITY_CACHE:** Integrated SOA gateway > Integration Repository > Supply Chain Management > Inventory Management > Inventory On Hand Balance > Quantity tree Application Program Interface
3. Check the operation under procedures and functions to generate the corresponding web service.
 - a) For “INV_RESERVATION_PUB_Service”, check “CREATE_RESERVATION”.
 - b) For “INV_RESERVATION_PUB_ServiceE”, check “RELIEVE_RESERVATION”.
 - c) For “INV_QUANTITY_TREE_PUB_Service”, check “CLEAR_QUANTITY_CACHE”.
4. Click **Generate**.
A WSDL link for the SOAP web service is generated.
5. Select **Username Token** as the **Authentication Type**.
6. Click **Deploy**.
7. Click View WSDL and copy the value of the “soap:address location” element, which is the endpoint.
8. Select the **Grants** tab.
9. Select the object for which the grant is created.
10. Keep the **Grantee Type** as **All Users**.
11. Click **Create Grant**.

Commerce Process

The Reference Integration makes changes to the “Oracle Quote to Order” commerce process from the base reference application in the following areas:

- » **Attributes**
- » **Library Functions**
- » **Actions**
- » **Validation**
- » **Step Transitions**

Additional Changes

Additional changes outside the commerce process include:

- » **Data Table**
- » **File Manager**

Implementation Details

Attributes

Create/Modify the following attributes for the “Oracle Quote to Order” Commerce process.

ATTRIBUTES LIST

| Document | Attribute Name | Attribute Variable Name | Type | Description |
|--------------------|--------------------|-------------------------|-----------|---|
| Transaction Header | Org ID | orgID | Text | Org Id |
| Transaction Header | Order ID | headerID | Text | Order Id |
| Transaction Header | Reservation Status | reservationStatus | Integer | Order Reservation Status |
| Transaction Header | Warehouse Org ID | warehouseOrgID | Text | Ship To Org Id |
| Transaction Header | Soap Request | soapRequest | Text Area | Soap Request |
| Transaction Header | Soap Response | soapResponse | Text Area | Soap Response |
| Transaction Line | Document Number | _document_number | Text | Document Number |
| Transaction Line | Requested Quantity | requestedQuantity_I | Integer | Requested Quantity |
| Transaction Line | Requirement Date | requirementDate_I | Date | Requirement Date. Default value is a function (link). |
| Transaction Line | Reservation Id | reservationId_I | Integer | Reservation Id |
| Transaction Line | Reservation Status | reservationStatus_I | Text | Reservation Status |
| Transaction Line | Part Number | _part_number | Text | Part Number |
| Transaction Line | Reserved Quantity | reservedQuantity_I | Integer | Reserved Quantity |
| Transaction Line | Status | status_I | Text | Status |
| Transaction Line | Line ID | lineID | Text | Line ID |

File Manager

Template file format information is located in the following table.

| System(key) | Operation(key) | Templates |
|----------------------|-------------------|--|
| MATERIAL RESERVATION | Reserve | Refer to Appendix A: Create Reservation Template |
| MATERIAL RESERVATION | ReserveLine | Refer to Appendix B: Create Reservation Line Template |
| MATERIAL RESERVATION | Relieve | Refer to Appendix C: Relieve Reservation Template |
| MATERIAL RESERVATION | RelieveLine | Refer to Appendix D: Relieve Reservation Line Template |
| MATERIAL RESERVATION | LineRelieve | Refer to Appendix E: Line Relieve Reservation Template |
| MATERIAL RESERVATION | UpdateReserve | Refer to Appendix F: Update Reservation Template |
| MATERIAL RESERVATION | UpdateReserveLine | Refer to Appendix G: Update Reservation Line Template |

Data Tables

INT_SYSTEM_DETAILS

| System(key) | Username | WebService | Endpoint |
|----------------------|---|------------|--|
| MATERIAL RESERVATION | <Enter the username here to call the webservice endpoint> | SOAP | <Enter the webservice endpoint to call the service related to EBS> |
| CLEAR_CACHE | <Enter the username here to call the webservice endpoint> | SOAP | <Enter the webservice endpoint to call the service related to EBS> |

INT_SYSTEM_TEMPLATES

| System(key) | Operation(key) | Templates |
|----------------------|-------------------|--|
| MATERIAL RESERVATION | Reserve | <Enter the template URL path that is uploaded in File manager> |
| MATERIAL RESERVATION | ReserveLine | <Enter the template URL path that is uploaded in File manager> |
| MATERIAL RESERVATION | Relieve | <Enter the template URL path that is uploaded in File manager> |
| MATERIAL RESERVATION | RelieveLine | <Enter the template URL path that is uploaded in File manager> |
| MATERIAL RESERVATION | LineRelieve | <Enter the template URL path that is uploaded in File manager> |
| MATERIAL RESERVATION | UpdateReserve | <Enter the template URL path that is uploaded in File manager> |
| MATERIAL RESERVATION | UpdateReserveLine | <Enter the template URL path that is uploaded in File manager> |
| EBS | clearCache | <Enter the template URL path that is uploaded in File manager> |

Library Functions

Six Commerce process library functions are created.

» String getTemplateLocation(String system, String operation)

```
//1. Get Template File
templateUrl = "";
//bmql query
resultSet = bmql("Select Template from INT_SYSTEM_TEMPLATES where System = $system and
Operation = $operation");

//loop through the records
for record in resultSet {
    templateUrl = get(record,"Template");
    print templateUrl;
}

temp=split(templateUrl,"image");

return temp[1];
```

Return Type, Input information, and attributes used by the library function are shown in the below screenshot.



» String getPassword (String sysName)

```
pswd = "";

if ( sysName == "EBS" ) {
    pswd = "welcome";
}

if ( sysName == "MATERIAL RESERVATION" ) {
    pswd = "sysadmin";
}

if ( sysName == "QUERY_ON_HAND" ) {
    pswd = "sysadmin";
}

if ( sysName == "CLEAR_CACHE" ) {
    pswd = "sysadmin";
}

if ( sysName == "EBS-Customer" ) {
    pswd = "sysadmin";
}

if ( sysName == "EBS-Address" ) {
    pswd = "sysadmin";
}

if ( sysName == "EBS-CustomerAccount" ) {
    pswd = "welcome";
}

return pswd;
```

Return Type, Input information, and attributes used by the library function are shown in the below screenshot.

The screenshot displays the 'Commerce BML Library Function Editor: Properties & Parameters' window. It is divided into several sections:

- Properties & Parameters:** A table with columns for '#', 'Parameter Name', and 'Parameter Type'. It contains one entry: '# 1 sysName String'. To the left of this table are input fields for 'Name: getPassword', 'Variable Name: getPassword', 'Description:' (empty), and 'Return Type: String'.
- Function Editor:** A section with a 'Hide Tools' button and 'Editor Help' link. It contains three tabs: 'Attributes', 'Function Wizard', and 'Debugger'. Below these is a 'Library Function(s)' tab.
- Attribute Lists:** Three panels at the bottom: 'Main Document Attribute' (empty), 'Sub Document Attribute' (containing 'transactionLine' with a dropdown arrow), and 'System Attribute' (empty).

» String getTemplate(String system, String operation)

```
//1. Get Template File
templateUrl = "";
//bmql query
resultSet = bmql("Select Template from INT_SYSTEM_TEMPLATES where System = $system
and Operation = $operation");

//loop through the records
for record in resultSet {
    templateUrl = get(record,"Template");
    print templateUrl;
}

headerValues = dict("string");
outFile = urldatabypost(templateUrl ,"" ,"" ,headerValues ,true); // Get the file

//2. Get User Info from data table and replace it in Template file
//bmql query
resultSet = bmql("Select UserName from INT_SYSTEM_DETAILS where System = $system");

//loop through the records
for record in resultSet {
    userName = get(record,"UserName");
    password = commerce.getPassword(system);
    print userName;
    print password;
    outFile = replace(outFile,"{{USERNAME}}", userName);
    outFile = replace(outFile,"{{PASSWORD}}", password);
}

//. Return Template File
return outFile;
```

Return Type, Input information, and attributes used by the library function are shown in the below screenshot.

The screenshot displays the 'Commerce BML Library Function Editor: Properties & Parameters' window. It includes fields for Name, Variable Name, Description, and Return Type, along with a table of parameters.

| # | Parameter Name | Parameter Type |
|---|----------------|----------------|
| 1 | system | String |
| 2 | operation | String |

The 'Function Editor' section below shows tabs for Attributes, Function Wizard, Debugger, and Library Function(s). It also features three panels: Main Document Attribute, Sub Document Attribute (containing 'transactionLine'), and System Attribute.

IMPORTANT: The `getTemplate` library function imports the `getPassword` library function.

» String getDataSecurity(String system, String operation,String headerFile)

```
headerFile_mod=headerFile;
print headerFile_mod;
// For Material Reservation
if(system == "MATERIAL RESERVATION" AND operation == "Reserve"){
    headerFile_mod= replace(headerFile_mod , "{{Responsibility_Name}}", "System
Administrator");
    headerFile_mod= replace(headerFile_mod , "{{Application_Name}}", "SYSADMIN");
    headerFile_mod= replace(headerFile_mod
, "{{Security_Group_Name}}", "STANDARD");
    headerFile_mod= replace(headerFile_mod , "{{Language}}", "AMERICAN");
    headerFile_mod= replace(headerFile_mod , "{{Org_Id}}", orgID);
}
if(system == "MATERIAL RESERVATION" AND operation == "Relieve"){
    headerFile_mod= replace(headerFile_mod , "{{Responsibility_Name}}", "System
Administrator");
    headerFile_mod= replace(headerFile_mod , "{{Application_Name}}", "SYSADMIN");
    headerFile_mod= replace(headerFile_mod
, "{{Security_Group_Name}}", "STANDARD");
    headerFile_mod= replace(headerFile_mod , "{{Language}}", "AMERICAN");
    headerFile_mod= replace(headerFile_mod , "{{Org_Id}}", orgID);
}
if(system == "EBS" AND operation == "queryOnHandSoap"){
    headerFile_mod= replace(headerFile_mod , "{{Responsibility_Name}}", "System
Administrator");
    headerFile_mod= replace(headerFile_mod , "{{Application_Name}}", "SYSADMIN");
    headerFile_mod= replace(headerFile_mod
, "{{Security_Group_Name}}", "STANDARD");
    headerFile_mod= replace(headerFile_mod , "{{Language}}", "AMERICAN");
    headerFile_mod= replace(headerFile_mod , "{{Org_Id}}", orgID);
}
if(system == "OM" AND operation == "OM"){
    headerFile_mod= replace(headerFile_mod
, "$Responsibility_Name$", "ORDER_MGMT_SUPER_USER");
    headerFile_mod= replace(headerFile_mod , "$Application_Name$", "ONT");
    headerFile_mod= replace(headerFile_mod , "$Security_Group_Name$", "STANDARD");
    headerFile_mod= replace(headerFile_mod , "$Language$", "AMERICAN");
}
```

```

headerFile_mod= replace(headerFile_mod , "$Org_ID$", orgID);
}

if(system == "EBS-CustomerAccount" AND operation == "getID"){
    headerFile_mod= replace(headerFile_mod , "$Responsibility_Name$", "Customers
Online Superuser");
    headerFile_mod= replace(headerFile_mod , "$Application_Name$", "IMC");
    headerFile_mod= replace(headerFile_mod , "$Security_Group_Name$", "STANDARD");
    headerFile_mod= replace(headerFile_mod , "$Language$", "AMERICAN");
    headerFile_mod= replace(headerFile_mod , "$Org_ID$", orgID);
}

return headerFile_mod;

```

Return Type, Input information, and attributes used by the library function are shown in the below screenshot.

The screenshot displays the 'Commerce BML Library Function Editor: Properties & Parameters' window. It shows the function name 'getDataSecurity', its variable name, and a table of parameters. Below this, the 'Function Editor' section includes tabs for 'Attributes', 'Function Wizard', 'Debugger', and 'Library Function(s)'. At the bottom, there are three panels: 'Main Document Attribute' with a table listing 'orgID' and 'warehouseOrgID', 'Sub Document Attribute' with 'transactionLine', and 'System Attribute'.

| Name: | getDataSecurity |
|----------------|-----------------|
| Variable Name: | getDataSecurity |
| Description: | |
| Return Type: | String |

| # | Parameter Name | Parameter Type |
|---|----------------|----------------|
| 1 | system | String |
| 2 | operation | String |
| 3 | headerFile | String |

| # | Attribute |
|---|----------------|
| 1 | orgID |
| 2 | warehouseOrgID |

transactionLine

| # | Attribute |
|---|-----------|
| | |

» **String invokeWebService(String system, String soapReq)**

```
// Get WebServiceInfo Info from data table and replace it in Template file
//bmql query
resultSet = bmql("Select WebService from INT_SYSTEM_DETAILS where System =
$system");
webService = "";
endPoint = "";
//loop through the records
for record in resultSet {
    webService = get(record,"WebService");
}

if (webService == "SOAP") {
//Get SOAP endpoint for the system
resultSet = bmql("Select SoapEndPoint from INT_SYSTEM_DETAILS where System =
$system");
endpoint = "";
//loop through the records
for record in resultSet {
    endpoint = get(record,"SoapEndPoint");
    print endpoint;
}
} else {
//Get REST endpoint for the system
resultSet = bmql("Select RestEndPoint from INT_SYSTEM_DETAILS where System =
$system");
endpoint = "";
//loop through the records
for record in resultSet {
    endpoint = get(record,"RestEndPoint");
    print endpoint;
}
}

//2. Invoke the web service
headerValues = dict("string");
put(headerValues, "Content-Type", "text/xml; charset=utf-8");
```



```

errorString = "Error in "+system+" invocation";

soapResponse= urldatabypost(endPoint , soapReq ,errorString,headerValues,true); //
sends the soap call and returns response to variable.

print "going to print soapResponse";
print soapResponse;

//3. Return the response
return soapResponse;

```

Return Type, Input information, and attributes used by the library function are shown in the below screenshot.

Commerce BML Library Function Editor: Properties & Parameters

| Name: | invokeWebService | # | Parameter Name | Parameter Type |
|----------------|------------------|---|----------------|----------------|
| Variable Name: | invokeWebService | 1 | system | String |
| Description: | | 2 | soapReq | String |
| Return Type: | String | | | |

Function Editor

Hide Tools | Editor Help

Attributes | Function Wizard | Debugger | Library Function(s)

Main Document Attribute

| # | Attribute |
|---|-----------------|
| | transactionLine |

Sub Document Attribute

| # | Attribute |
|---|-----------|
| | Attribute |

System Attribute

| # | Attribute |
|---|-----------|
| | |

➤ String clearCache()

```

system = "EBS";
operation="clearCache";

//Header Values
headerValues = dict("string");
put(headerValues, "Content-Type", "text/xml; charset=utf-8");

//Get Endpoint for SOAP request
endpointResultSet = bmql("Select SoapEndPoint from INT_SYSTEM_DETAILS where System
= 'CLEAR_CACHE'");
endpoint = "";
for record in endpointResultSet {
    endpoint = get(record,"SoapEndPoint");
}

```

```

print endpoint;
//Payload dictionary
payload = dict("string");
//Get User Info from data table and put in dictionary
resultSet = bmql("Select UserName from INT_SYSTEM_DETAILS where System
='CLEAR_CACHE'");
for record in resultSet {
    username = get(record,"UserName");
    password = commerce.getPassword("CLEAR_CACHE");
    put(payload,"USERNAME", username);
    put(payload,"PASSWORD", password);
}
put(payload ,"ORGANIZATION_ID", orgID);
put(payload ,"ORG_ID", orgID);

result = "";
defaultErrorMessage="";
templateLocation = commerce.getTemplateLocation(system, operation);

clearCacheResponse = "";
clearCachePayload = "";

//apply template
clearCachePayload =applytemplate(templateLocation,payload,defaultErrorMessage);
print clearCachePayload;

clearCacheResponse = urldatabypost(endpoint, clearCachePayload, "", headerValues,
true);
print clearCacheResponse + "\n\n";

result = result + "|1~soapResponse~" + clearCacheResponse +
"|1~soapRequest~"+clearCachePayload +"|";
return "";

```

Return Type, Input information, and attributes used by the library function are shown in the below screenshot.

The screenshot displays the 'Commerce BML Library Function Editor: Properties & Parameters' window. It contains the following information:

- Name:** Clear Cache
- Variable Name:** clearCache
- Description:** To clear EBS cache for an organisation ID
- Return Type:** String

Below the properties section is the 'Function Editor' toolbar, which includes 'Hide Tools', 'Function Wizard', 'Debugger', and 'Library Function(s)'. The 'Library Function(s)' tab is active, showing three attribute categories:

- Main Document Attribute:** Contains one attribute with ID '1' and value 'orgID'.
- Sub Document Attribute:** Contains one attribute with value 'transactionLine'.
- System Attribute:** Contains one attribute with value '# Attribute'.

IMPORTANT: The clearCache library functions imports the getPassword, getTemplateLocation and getTemplate library functions.

Actions

Transaction Action

The integration is implemented using two actions as follows:

Reserve

To reserve all the line item(s) for the Order Created/Updated, implement the "Reserve" action.

| System Variable Name | Type | Description |
|--|--------------|--------------------|
| N/A | | |
| Variable Name for (Transaction) | Type | Description |
| orgID | String | org ID |
| headerID | String | OrderID |
| reservationStatus | Integer | Reservation Status |
| warehouseOrgID | String | Warehouse Org ID |
| Variable Name for (Transaction Line) | Type | Description |
| _document_number | String | Document Number |
| _part_number | String | Part Number |
| requestedQuantity_I | Integer | Quantity |
| requirementDate_I | String(date) | Requirement Date |
| status_I | String | Status |
| reservationStatus_I | String | Reservation Status |
| lineID | String | lineID |
| reservationId_I | Integer | Reservation Id |
| reservedQuantity_I | Integer | Reserved Quantity |
| Imported Commerce Functions | | |
| String getDataSecurity (String system, String operation, String headerFile) | | |
| String clearCache () | | |
| String getTemplate (String system, String operation) | | |
| String getTemplateLocation (String system, String operation) | | |
| String invokeWebService (String system, String soapReq) | | |

IMPORTANT: The Reserve action BML is located in [Appendix:H](#). Action should be defined for the Advanced modify – After formula section.

Relieve

To relieve all the line item(s) for the Canceled Order, "Relieve" action is implemented which is stated below:

| System Variable Name | Type | Description |
|--|--------------|--------------------|
| N/A | | |
| Variable Name for (Transaction) | Type | Description |
| orgID | String | org ID |
| reservationStatus | Integer | Reservation Status |
| headerID | String | Order ID |
| Variable Name for (Transaction Line) | Type | Description |
| _document_number | String | Document Number |
| _part_number | String | Part Number |
| status_l | String | Status |
| lineID | String | lineID |
| requirementDate_l | String(date) | Requirement Date |
| reservationId_l | Integer | Reservation Id |
| reservationStatus_l | String | Reservation Status |
| reservedQuantity_l | Integer | Reserved Quantity |
| Imported Commerce Functions | | |
| String getDataSecurity(String system, String operation, String headerFile) | | |
| String clearCache() | | |
| String getTemplate(String system, String operation) | | |
| String getTemplateLocation(String system, String operation) | | |
| String invokeWebService(String system, String soapReq) | | |

IMPORTANT: The BML for the Relieve action is located in [Appendix I](#). Action should be defined for Advanced modify - After formula section.

Transaction Line Action

Relieve Line

To relieve the reserved quantity for a single canceled line, "Relieve Line" action is implemented which is stated below:

| System Variable Name | Type | Description |
|--|--------------|--------------------|
| N/A | | |
| Variable Name for (Transaction) | Type | Description |
| orgID | String | org ID |
| headerID | String | Order ID |
| warehouseOrgID | String | Warehouse Org ID |
| Variable Name for (Transaction Line) | Type | Description |
| _document_number | String | Document Number |
| _part_number | String | Part Number |
| status_l | String | Status |
| lineID | String | lineID |
| requirementDate_l | String(date) | Requirement Date |
| reservationId_l | Integer | Reservation Id |
| reservationStatus_l | String | Reservation Status |
| reservedQuantity_l | Integer | Reserved Quantity |
| Imported Commerce Functions | | |
| String getDataSecurity(String system, String operation, String headerFile) | | |
| String getTemplate(String system, String operation) | | |
| String getTemplateLocation(String system, String operation) | | |
| String invokeWebService(String system, String soapReq) | | |

IMPORTANT: The BML for the Relieve Line action is located in [Appendix J](#). Action should be defined for Advanced modify- After formula section.

Validation

Transaction Rules

1. Validation for Relieve Order is done which restricts the canceled order to be relieved, if not reserved.

Validation: ValidateRelieveOrder Oracle Quote to Order >> Transacti

Name: ValidateRelieveOrder **Description:**

Variable Name: validateRelieveOrder

Status: Active Inactive

Available Actions: Relieve

Condition

Condition Type: AlwaysTrue Simple Advanced

| # | Attribute | Operator | Value |
|---|--------------------|----------|-------|
| 1 | Reservation Status | <= | 0 |

Row Grouping (Order of Operations):
1

Condition Summary
(Reservation Status <= 0)

AND All OR All Convert to Advanced Condition

Action (Values to Constrain/Allow)

| Attribute | Operator | Value | Message | Message Location |
|--------------------|----------|-------|-----------------------|------------------|
| Reservation Status | <= | 0 | Order is not Reserved | Top |

Transaction Line Rules

1. Validation for Relieve Line is done which restricts the cancel line to be relieved, if not reserved.

Validation: ValidateRelieveLine Oracle Quote to Order >> Transac

Name: ValidateRelieveLine **Description:**

Variable Name: validateRelieveLine

Status: Active Inactive

Available Actions: Relieve Line

Condition

Condition Type: AlwaysTrue Simple Advanced

| # | Attribute | Operator | Value |
|---|----------------|----------|-------|
| 1 | Reservation Id | Equals | |
| 2 | Reservation Id | Equals | 0 |

Row Grouping (Order of Operations):
1 OR 2

Condition Summary
(Reservation Id Equals) OR (Reservation Id Equals 0)

AND All OR All Convert to Advanced

Action (Values to Constrain/Allow)

| Attribute | Operator | Value | Message | Message Location |
|----------------|----------|-------|----------------------|------------------|
| Reservation Id | <= | 0 | Line is not Reserved | Top |
| Reservation Id | Equals | | Line is not Reserved | Top |

2. Validation for Relieve Line is done which restricts the line to be relieved, if not canceled.

Validation: ValidateStatusRelieveLine

Oracle Quote to Order >> Transaction

Name:

Variable Name:

Status: Active Inactive

Available Actions: ▼

Description:

Condition

Condition Type: AlwaysTrue Simple Advanced

| # | Attribute | Operator | Value |
|---|-----------|----------|----------------------------------|
| 1 | Status | Equals | OR Created [CREATED] OR Quote... |

Add Row

Row Grouping (Order of Operations):

Condition Summary

(Status Equals "" OR "Created [CREATED]" OR "Quoted [QUOTED]" OR "Invoiced [INVOICED]" OR "Awaiting Billing [AWAIT_BILLING]" OR "Billed [BILLED]" OR "Ordered [ORDERED]" OR "Scheduled [SCHEDULED]" OR "Picked [PICKED]" OR "Manufactured [MANUFACTURED]" OR "Awaiting Shipment [AWAIT_SHIP]" OR "Shipped [SHIPPED]" OR "Delivered [DELIVERED]" OR "Activated [ACTIVATED]")

Convert to Advanced Con

Action (Values to Constrain/Allow)

Add

| Attribute | Operator | Value | Message | Message Location |
|-----------|-----------|------------------------------|--|------------------|
| Status | Constrain | OR Created [CREATED] OR Q... | Relieve Line is not allowed unless status is canceled. | Top |

Step Transitions

The “Reserve” action button will be visible only in the Ordered Step. “Relieve” action button is available in the Canceled Step. “Relieve Line” action button will be visible in the Ordered Step and Canceled Step.

| Action Variable Name | Available Step | Comments |
|----------------------|------------------------|---|
| Reserve | Ordered | “Reserve” action button will be visible only in the Ordered Step. |
| Relieve | Canceled Step | “Relieve” action button is available in the Canceled Step. |
| Relieve Line | Ordered, Canceled Step | “Relieve Line” action button will be visible in the Ordered Step and Canceled Step. |

Sample Payloads

- Refer to [Appendix K: Sample Reserve Action Payload – Create a New Reservation](#)
- Refer to [Appendix L: Sample Reserve Action Payload – Update an Existing Reservation](#)
- Refer to [Appendix M: Sample Relieve Action Payload](#)
- Refer to [Appendix N: Sample Relieve Line Action Payload](#)

Appendix A: Create Reservation Template

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:inv="http://xmlns.oracle.com/apps/inv/soapprovider/plsql/inv_reservation_pub/"
xmlns:cre="http://xmlns.oracle.com/apps/inv/soapprovider/plsql/inv_reservation_pub/c
reate_reservation/">
<soapenv:Header>
    <inv:SOAHeader>

<inv:RESPONSIBILITY_NAME>{{Responsibility_Name}}</inv:RESPONSIBILITY_NAME>
<inv:RESPONSIBILITY_APPL_NAME>{{Application_Name}}</inv:RESPONSIBILITY_APPL_NAME>
<inv:SECURITY_GROUP_NAME>{{Security_Group_Name}}</inv:SECURITY_GROUP_NAME>
<inv:NLS_LANGUAGE>{{Language}}</inv:NLS_LANGUAGE>
    <inv:ORG_ID>{{Org_Id}}</inv:ORG_ID>
    </inv:SOAHeader>
    <wsse:Security soapenv:mustUnderstand="1"
xmlns:env="http://schemas.xmlsoap.org/soapenv/envelope/"
xmlns="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
1.0.xsd"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
secext-1.0.xsd"><wsse:UsernameToken
xmlns="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
1.0.xsd"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
secext-1.0.xsd">
    <wsse:Username>{{USERNAME}}</wsse:Username>
    <wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-
profile-1.0#PasswordText">{{PASSWORD}}</wsse:Password>
    </wsse:UsernameToken>
    </wsse:Security>
</soapenv:Header>
<soapenv:Body>
    {{ReservationLine}}
</soapenv:Body>
</soapenv:Envelope>
```

Appendix B: Create Reservation Line Template

```
{{#each TransactionLine}}
<cre:InputParameters>
  <cre:P_API_VERSION_NUMBER>1</cre:P_API_VERSION_NUMBER>
  <cre:P_INIT_MSG_LST>T</cre:P_INIT_MSG_LST>
  <cre:P_ACTION_COMMIT>T</cre:P_ACTION_COMMIT>
  <cre:P_RSV_REC>
    <cre:REQUIREMENT_DATE>{{formatDateString requirementDate_1
"dd/MM/yyyy HH:mm:ss" "dd-MM-yyyy"}}</cre:REQUIREMENT_DATE>
    <cre:ORGANIZATION_ID>{{warehouseOrgID}}</cre:ORGANIZATION_ID>
    <cre:INVENTORY_ITEM_ID>{{_part_number}}</cre:INVENTORY_ITEM_ID>
    <cre:DEMAND_SOURCE_TYPE_ID>2</cre:DEMAND_SOURCE_TYPE_ID>

    <cre:DEMAND_SOURCE_HEADER_ID>{{headerID}}</cre:DEMAND_SOURCE_HEADER_ID>
    <cre:DEMAND_SOURCE_LINE_ID>{{lineID}}</cre:DEMAND_SOURCE_LINE_ID>

    <cre:RESERVATION_QUANTITY>$REQUESTEDQUANTITY$</cre:RESERVATION_QUANTITY>

    <cre:PRIMARY_RESERVATION_QUANTITY>$REQUESTEDQUANTITY$</cre:PRIMARY_RESERVATIO
N_QUANTITY>
    <cre:SUPPLY_SOURCE_TYPE_ID>13</cre:SUPPLY_SOURCE_TYPE_ID>
  </cre:P_RSV_REC>
  <cre:P_SERIAL_NUMBER>
  </cre:P_SERIAL_NUMBER>
</cre:InputParameters>
{{/each}}
```

Appendix C: Relieve Reservation Template

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:inv="http://xmlns.oracle.com/apps/inv/soapprovider/plsql/inv_reservation_pub/"
xmlns:rel="http://xmlns.oracle.com/apps/inv/soapprovider/plsql/inv_reservation_pub/r
elieve_reservation__1/">
  <soapenv:Header>
    <inv:SOAHeader>
      <inv:RESPONSIBILITY_NAME>{{Responsibility_Name}}</inv:RESPONSIBILITY_NAME>
    </inv:SOAHeader>
  </soapenv:Header>
  <inv:RESPONSIBILITY_APPL_NAME>{{Application_Name}}</inv:RESPONSIBILITY_APPL_NAME>
  <inv:SECURITY_GROUP_NAME>{{Security_Group_Name}}</inv:SECURITY_GROUP_NAME>
  <inv:NLS_LANGUAGE>{{Language}}</inv:NLS_LANGUAGE>
  <inv:ORG_ID>{{Org_Id}}</inv:ORG_ID>
</inv:SOAHeader>
  <wsse:Security soapenv:mustUnderstand="1"
xmlns:env="http://schemas.xmlsoap.org/soapenv/envelope/" xmlns="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
secext-1.0.xsd">
    <wsse:UsernameToken>
      <wsse:Username>{{USERNAME}}</wsse:Username>
      <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-
200401-wss-username-token-profile-1.0#PasswordText">{{PASSWORD}}</wsse:Password>
    </wsse:UsernameToken>
  </wsse:Security>
</soapenv:Header>
  <soapenv:Body>{{RelieveLine}}</soapenv:Body>
</soapenv:Envelope>
```

Appendix D: Relieve Reservation Line Template

```
{{#each TransactionLine}}
<rel:InputParameters>
  <rel:P_API_VERSION_NUMBER>1</rel:P_API_VERSION_NUMBER>
  <rel:P_INIT_MSG_LST>T</rel:P_INIT_MSG_LST>
  <rel:P_RSV_REC>
    <rel:RESERVATION_ID>{{reservationId_1}}</rel:RESERVATION_ID>
    <rel:REQUIREMENT_DATE>{{formatDateString requirementDate_1 "dd/MM/yyyy HH:mm:ss"
"dd-MM-yyyy"}}</rel:REQUIREMENT_DATE>
    <rel:ORGANIZATION_ID>{{warehouseOrgID}}</rel:ORGANIZATION_ID>
    <rel:INVENTORY_ITEM_ID>{{_part_number}}</rel:INVENTORY_ITEM_ID>
    <rel:DEMAND_SOURCE_TYPE_ID>2</rel:DEMAND_SOURCE_TYPE_ID>
    <rel:DEMAND_SOURCE_HEADER_ID>{{headerID}}</rel:DEMAND_SOURCE_HEADER_ID>
    <rel:DEMAND_SOURCE_LINE_ID>{{lineID}}</rel:DEMAND_SOURCE_LINE_ID>
    <rel:RESERVATION_QUANTITY>{{reservedQuantity_1}}</rel:RESERVATION_QUANTITY>

<rel:PRIMARY_RESERVATION_QUANTITY>{{reservedQuantity_1}}</rel:PRIMARY_RESERVATION_QUANTITY>
  </rel:P_RSV_REC>

<rel:P_PRIMARY_RELIEVED_QUANTITY>{{reservedQuantity_1}}</rel:P_PRIMARY_RELIEVED_QUANTITY>
  <rel:P_SECONDARY_RELIEVED_QUANTITY/>
  <rel:P_RELIEVE_ALL/>
  <rel:P_ORIGINAL_SERIAL_NUMBER/>
</rel:InputParameters>
{{/each}}
```

Appendix E: Line Relieve Reservation Template

```
<rel:InputParameters>
  <rel:P_API_VERSION_NUMBER>1</rel:P_API_VERSION_NUMBER>
  <rel:P_INIT_MSG_LST>T</rel:P_INIT_MSG_LST>
  <rel:P_RSV_REC>
    <rel:RESERVATION_ID>{{reservationId_1}}</rel:RESERVATION_ID>
    <rel:REQUIREMENT_DATE>{{formatDateString requirementDate_1 "dd/MM/yyyy
HH:mm:ss" "dd-MM-yyyy"}}</rel:REQUIREMENT_DATE>
    <rel:ORGANIZATION_ID>{{warehouseOrgID}}</rel:ORGANIZATION_ID>
    <rel:INVENTORY_ITEM_ID>{{_part_number}}</rel:INVENTORY_ITEM_ID>
    <rel:DEMAND_SOURCE_TYPE_ID>2</rel:DEMAND_SOURCE_TYPE_ID>
    <rel:DEMAND_SOURCE_HEADER_ID>{{headerID}}</rel:DEMAND_SOURCE_HEADER_ID>
    <rel:DEMAND_SOURCE_LINE_ID>{{lineID}}</rel:DEMAND_SOURCE_LINE_ID>

  <rel:RESERVATION_QUANTITY>{{reservedQuantity_1}}</rel:RESERVATION_QUANTITY>

  <rel:PRIMARY_RESERVATION_QUANTITY>{{reservedQuantity_1}}</rel:PRIMARY_RESERVATION_Q
UANTITY>
  </rel:P_RSV_REC>

  <rel:P_PRIMARY_RELIEVED_QUANTITY>{{reservedQuantity_1}}</rel:P_PRIMARY_RELIEVED_QUA
NTITY>
  <rel:P_SECONDARY_RELIEVED_QUANTITY/>
  <rel:P_RELIEVE_ALL/>
  <rel:P_ORIGINAL_SERIAL_NUMBER/>
</rel:InputParameters>
```

Appendix F: Update Reservation Template

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:inv="http://xmlns.oracle.com/apps/inv/soapprovider/plsql/inv_reservation_pub/"
xmlns:cre="http://xmlns.oracle.com/apps/inv/soapprovider/plsql/inv_reservation_pub/udpdate_reservation/">
<soapenv:Header>
    <inv:SOAHeader>

<inv:RESPONSIBILITY_NAME>{{Responsibility_Name}}</inv:RESPONSIBILITY_NAME>
<inv:RESPONSIBILITY_APPL_NAME>{{Application_Name}}</inv:RESPONSIBILITY_APPL_NAME>
<inv:SECURITY_GROUP_NAME>{{Security_Group_Name}}</inv:SECURITY_GROUP_NAME>
<inv:NLS_LANGUAGE>{{Language}}</inv:NLS_LANGUAGE>
    <inv:ORG_ID>{{Org_Id}}</inv:ORG_ID>
    </inv:SOAHeader>
    <wsse:Security soapenv:mustUnderstand="1"
xmlns:env="http://schemas.xmlsoap.org/soapenv/envelope/"
xmlns="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd"><wsse:UsernameToken
xmlns="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd">
    <wsse:Username>{{USERNAME}}</wsse:Username>
    <wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-profile-1.0#PasswordText">{{PASSWORD}}</wsse:Password>
    </wsse:UsernameToken>
    </wsse:Security>
</soapenv:Header>
<soapenv:Body>
    {{ReservationLine}}
</soapenv:Body>
</soapenv:Envelope>
```

Appendix G: Update Reservation Line Template

```
<cre:InputParameters>
  <cre:P_API_VERSION_NUMBER>1</cre:P_API_VERSION_NUMBER>
  <cre:P_INIT_MSG_LST>T</cre:P_INIT_MSG_LST>
  <cre:P_ACTION_COMMIT>T</cre:P_ACTION_COMMIT>
  <cre:P_RSV_REC>
    <cre:RESERVATION_ID>$reservationId_1</cre:RESERVATION_ID>
    <cre:REQUIREMENT_DATE>$requirementDate_1</cre:REQUIREMENT_DATE>
    <cre:ORGANIZATION_ID>$warehouseOrgID</cre:ORGANIZATION_ID>
    <cre:INVENTORY_ITEM_ID>$part_number</cre:INVENTORY_ITEM_ID>
    <cre:DEMAND_SOURCE_TYPE_ID>2</cre:DEMAND_SOURCE_TYPE_ID>

    <cre:DEMAND_SOURCE_HEADER_ID>$headerID</cre:DEMAND_SOURCE_HEADER_ID>
    <cre:DEMAND_SOURCE_LINE_ID>$lineID</cre:DEMAND_SOURCE_LINE_ID>

    <cre:RESERVATION_QUANTITY>$REQUESTEDQUANTITY</cre:RESERVATION_QUANTITY>

    <cre:PRIMARY_RESERVATION_QUANTITY>$REQUESTEDQUANTITY</cre:PRIMARY_RESERVATIO
N_QUANTITY>
    <cre:SUPPLY_SOURCE_TYPE_ID>13</cre:SUPPLY_SOURCE_TYPE_ID>
  </cre:P_RSV_REC>
  <cre:P_SERIAL_NUMBER>
  </cre:P_SERIAL_NUMBER>
</cre:InputParameters>
```


Appendix H: Reserve Action BML

```
count = 0;
reservedCount = 0;
invokeWebservice = false;
//1. Get the Header file
headerFile = commerce.getTemplate("MATERIAL RESERVATION", "Reserve");
headerFile = commerce.getDataSecurity("MATERIAL RESERVATION", "Reserve",
headerFile);

//2. Get the Line file Information and apply template
payload = dict("string");
defaultErrorMessage = "";
LineFileLocation = commerce.getTemplateLocation("MATERIAL RESERVATION",
"ReserveLine");
LineFile=applytemplate(LineFileLocation,payload,defaultErrorMessage);
strArray = split(LineFile, "</cre:InputParameters>");
soapResponse="";
soapRequest="";
lineReturn = "";
//3. Iterate the loop and call the webservice for each Inventory
for line in transactionLine {
if(line.status_l <> "CANCELED"){
currentLine = strArray[count];
currentLine=currentLine+"</cre:InputParameters>";
headerFile_current = headerFile;
if(line.reservationId_l > 0){ // If true, this line is already reserved
if(line.reservedQuantity_l <> line.requestedQuantity_l)
{ // If true, update Reservation flow is initiated.
requirementDatestr= "";
    if(line.requirementDate_l<> ""){
        requirementDate1 = strtodate(line.requirementDate_l, "%m/%d/%y
%H:%M:%S", "UTC");
        requirementDatestr = datetostr(requirementDate1 , "yyyy-MM-dd", "UTC");
    }
}
```

```

headerFile = commerce.getTemplate("MATERIAL RESERVATION", "UpdateReserve");
headerFile = commerce.getDataSecurity("MATERIAL RESERVATION", "Reserve",
headerFile);
UpdateLineFile = commerce.getTemplate("MATERIAL RESERVATION", "UpdateReserveLine");
UpdateLineFile =
replace(UpdateLineFile, "$REQUESTEDQUANTITY$", string(line.requestedQuantity_1));
UpdateLineFile =
replace(UpdateLineFile, "$reservationId_1$", string(line.reservationId_1));
UpdateLineFile = replace(UpdateLineFile, "$requirementDate_1$", requirementDatestr);
UpdateLineFile = replace(UpdateLineFile, "$warehouseOrgID$", warehouseOrgID);
UpdateLineFile = replace(UpdateLineFile, "$_part_number$", line._part_number);
UpdateLineFile = replace(UpdateLineFile, "$headerID$", headerID);
UpdateLineFile = replace(UpdateLineFile, "$lineID$", line.lineID);
invokeWebservice = false;
update_headerFile = replace(headerFile , "{{ReservationLine}}", UpdateLineFile);
soapResponse=commerce.invokeWebService("MATERIAL RESERVATION", update_headerFile);

//Extracting
start=find (soapResponse, "<X_RETURN_STATUS>");
print(" Arpita:: start "+string(start));
end = find (soapResponse, "</X_RETURN_STATUS>");
print(" Arpita:: end "+ string(end));
updateStatus= substring(soapResponse, start+17, end);
print(" Arpita:: updateStatus "+updateStatus);
soapRequest=soapRequest+update_headerFile;

if(updateStatus=="S"){
lineReturn = lineReturn
+"|"+line._document_number+"~reservedQuantity_1~"+string(line.requestedQuantity_1)+
"|"+line._document_number+ "~reservationStatus_1~Reserved|";
reservedCount = reservedCount +1;
}
else
{

```

```

lineReturn = lineReturn
+"|" + line._document_number + "~reservedDate_1~" + line.requirementDate_1 + "|" +
line._document_number + "~reservationStatus_1~Error in Update Reservation|";
}

// End of Extracting
}
}
else
{
currentLine =
replace(currentLine, "$REQUESTEDQUANTITY$", string(line.requestedQuantity_1));
headerFile_current = replace(headerFile_current, "{{ReservationLine}}", currentLine);
invokeWebservice = true;
}
// Invoke Web Service
if (invokeWebservice == true){
soapResponse=commerce.invokeWebService("MATERIAL RESERVATION", headerFile_current);
// Extracting
start=find (soapResponse, "<X_RESERVATION_ID>");
end = find (soapResponse, "</X_RESERVATION_ID>");
reservation_id = substring(soapResponse, start+18, end);
soapRequest=soapRequest+headerFile_current;

if(isnumber(reservation_id)){
lineReturn = lineReturn + "|" + line._document_number +
"~reservationId_1~" + reservation_id + "|" +
line._document_number + "~reservedQuantity_1~" + string(line.requestedQuantity_1) + "|" +
line._document_number + "~reservationStatus_1~Reserved|";
reservedCount = reservedCount + 1;
}
else
{
lineReturn = lineReturn + "|" + line._document_number +
"~reservationId_1~" + "0" + "|" + line._document_number + "~reservedDate_1~" + line.requireme
ntDate_1 + "|" +

```

```
line._document_number+ "~reservationStatus_1~Error|";
}}// end of canceled line
elif(line.status_1 == "CANCELED" AND line.reservationStatus_1 == ""){
lineReturn = lineReturn+"|"+line._document_number+"~reservationStatus_1~Cancelled
Line cannot be Reserved|";
}
count= count+1;
}
if (reservationStatus == 0){
lineReturn=lineReturn+"1~reservationStatus~"+string(reservedCount);
}

//clears the cache for the organisation Id
clearCacheResponse = commerce.clearCache();

return lineReturn+"|1~soapResponse~"+soapResponse+"|1~soapRequest~"+soapRequest;
```


Appendix I: Relieve Action BML

```
count = 0;
//1. Get the Header file
headerFile = commerce.getTemplate("MATERIAL RESERVATION", "Relieve");
headerFile = commerce.getDataSecurity("MATERIAL RESERVATION", "Relieve", headerFile);

//2. Get the Line file Information and apply template
payload = dict("string");
defaultErrorMessage = "";
LineFileLocation = commerce.getTemplateLocation("MATERIAL RESERVATION", "RelieveLine");
LineFile=applytemplate(LineFileLocation,payload,defaultErrorMessage);
//print LineFile;
strArray = split(LineFile, "</rel:InputParameters>");

lineReturn ="";
//3. Iterate the loop and call the webservice for each Inventory
if(reservationStatus > 0){
for line in transactionLine {
if(line.reservationStatus_l <> "Relieved"){
currentLine = strArray[count];
currentLine=currentLine+"</rel:InputParameters>";
headerFile_current = headerFile;
headerFile_current = replace(headerFile_current,"{{RelieveLine}}",currentLine);
//4. Invoke Web Service
soapResponse=commerce.invokeWebService("MATERIAL RESERVATION", headerFile_current);

//5. Extracting
start=find (soapResponse, "<X_RETURN_STATUS>");
end = find (soapResponse, "</X_RETURN_STATUS>");
reservation_status = substring(soapResponse, start+17, end);
print ("reservation_status :: " + reservation_status );
//count1= count+2;
if(reservation_status == "S"){
lineReturn = lineReturn +""+line._document_number+ "~reservationStatus_l~Relieved|";
}else
{
lineReturn = lineReturn +""+line._document_number+ "~reservationStatus_l~Error|";
}
}
count = count +1;
```



```
}  
}  
//print (" lineReturn :: " + lineReturn);  
  
//clears the cache for the organisation Id  
clearCacheResponse = commerce.clearCache();  
  
return lineReturn;
```

Appendix J: Relieve Line Action BML

```
count = 0;
//1. Get the Header file
headerFile = commerce.getTemplate("MATERIAL RESERVATION", "Relieve");
headerFile = commerce.getDataSecurity("MATERIAL RESERVATION", "RelieveLine", headerFile);
//print headerFile;

//2. Get the Line file Information and apply template
payload = dict("string");
defaultErrorMessage = "";
LineFileLocation = commerce.getTemplateLocation("MATERIAL RESERVATION", "LineRelieve");
LineFile=applytemplate(LineFileLocation,payload,defaultErrorMessage);

lineReturn ="";

headerFile = replace(headerFile ,"{RelieveLine}",LineFile);

//4. Invoke Web Service
// Check for status = Canceled and Reservation Status = Reserved
if(status_l == "CANCELED" AND reservationId_l > 0 AND reservationStatus_l == "Reserved"){
soapResponse=commerce.invokeWebService("MATERIAL RESERVATION", headerFile);

//5. Extracting
start=find (soapResponse, "<X_RETURN_STATUS>");
end = find (soapResponse, "</X_RETURN_STATUS>");
reservation_status = substring(soapResponse, start+17, end);
//print ("reservation_id :: " + reservation_id );
if(reservation_status == "S"){
lineReturn = _document_number+ "~reservationStatus_l~Relieved|";
}else
{
lineReturn = _document_number+ "~reservationStatus_l~Error|";
}
}

return lineReturn;
```

Appendix K: Sample Reserve Action Payload – Create a New Reservation

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:inv="http://xmlns.oracle.com/apps/inv/soapprovider/plsql/inv_reservation_pub/"
xmlns:cre="http://xmlns.oracle.com/apps/inv/soapprovider/plsql/inv_reservation_pub/c
reate_reservation/">
<soapenv:Header>
    <inv:SOAHeader>
        <inv:RESPONSIBILITY_NAME>System Administrator</inv:RESPONSIBILITY_NAME>
<inv:RESPONSIBILITY_APPL_NAME>SYSADMIN</inv:RESPONSIBILITY_APPL_NAME>
<inv:SECURITY_GROUP_NAME>STANDARD</inv:SECURITY_GROUP_NAME>
<inv:NLS_LANGUAGE>AMERICAN</inv:NLS_LANGUAGE>
        <inv:ORG_ID>204</inv:ORG_ID>
    </inv:SOAHeader>
    <wsse:Security soapenv:mustUnderstand="1"
xmlns:env="http://schemas.xmlsoap.org/soapenv/envelope/"
xmlns="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
1.0.xsd"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
secext-1.0.xsd"><wsse:UsernameToken
xmlns="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
1.0.xsd"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
secext-1.0.xsd">
        <wsse:Username>SYSADMIN</wsse:Username>
        <wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-
profile-1.0#PasswordText">sysadmin</wsse:Password>
    </wsse:UsernameToken>
    </wsse:Security>
</soapenv:Header>
<soapenv:Body>
    <cre:InputParameters>
<cre:P_API_VERSION_NUMBER>1</cre:P_API_VERSION_NUMBER>
<cre:P_INIT_MSG_LST>T</cre:P_INIT_MSG_LST>
        <cre:P_ACTION_COMMIT>T</cre:P_ACTION_COMMIT>
        <cre:P_RSV_REC>
            <cre:REQUIREMENT_DATE>02-09-2015</cre:REQUIREMENT_DATE>
```



```
<cre:ORGANIZATION_ID>207</cre:ORGANIZATION_ID>
<cre:INVENTORY_ITEM_ID>141</cre:INVENTORY_ITEM_ID>
<cre:DEMAND_SOURCE_TYPE_ID>2</cre:DEMAND_SOURCE_TYPE_ID>
<cre:DEMAND_SOURCE_HEADER_ID>360780</cre:DEMAND_SOURCE_HEADER_ID>
<cre:DEMAND_SOURCE_LINE_ID>674234</cre:DEMAND_SOURCE_LINE_ID>
<cre:RESERVATION_QUANTITY>1</cre:RESERVATION_QUANTITY>

<cre:PRIMARY_RESERVATION_QUANTITY>1</cre:PRIMARY_RESERVATION_QUANTITY>
  <cre:SUPPLY_SOURCE_TYPE_ID>13</cre:SUPPLY_SOURCE_TYPE_ID>
</cre:P_RSV_REC>
<cre:P_SERIAL_NUMBER>
</cre:P_SERIAL_NUMBER></cre:InputParameters>
</soapenv:Body>
</soapenv:Envelope>
```

Appendix L: Sample Reserve Action Payload – Update an Existing Reservation

```
<soapenv:Envelope
xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:inv="http://xmlns.oracle.com/apps/inv/soapprovider/plsql/inv_reservation_pub/"
xmlns:cre="http://xmlns.oracle.com/apps/inv/soapprovider/plsql/inv_reservation_pub/
update_reservation/">
<soapenv:Header>
    <inv:SOAHeader>
        <inv:RESPONSIBILITY_NAME>System Administrator</inv:RESPONSIBILITY_NAME>
<inv:RESPONSIBILITY_APPL_NAME>SYSADMIN</inv:RESPONSIBILITY_APPL_NAME>
<inv:SECURITY_GROUP_NAME>STANDARD</inv:SECURITY_GROUP_NAME>
<inv:NLS_LANGUAGE>AMERICAN</inv:NLS_LANGUAGE>
        <inv:ORG_ID>204</inv:ORG_ID>
    </inv:SOAHeader>
    <wsse:Security soapenv:mustUnderstand="1"
xmlns:env="http://schemas.xmlsoap.org/soapenv/envelope/"
xmlns="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
1.0.xsd"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
secext-1.0.xsd"><wsse:UsernameToken
xmlns="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
1.0.xsd"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
secext-1.0.xsd">
        <wsse:Username>SYSADMIN</wsse:Username>
        <wsse:Password
Type="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-username-token-
profile-1.0#PasswordText">sysadmin</wsse:Password>
    </wsse:UsernameToken>
    </wsse:Security>
</soapenv:Header>
<soapenv:Body>
    <cre:InputParameters>
        <cre:P_API_VERSION_NUMBER>1</cre:P_API_VERSION_NUMBER>
        <cre:P_INIT_MSG_LST>T</cre:P_INIT_MSG_LST>
```

```
<cre:P_ACTION_COMMIT>T</cre:P_ACTION_COMMIT>
<cre:P_ORIGINAL_RSV_REC>
  <cre:RESERVATION_ID>6755871</cre:RESERVATION_ID>v
</cre:P_ORIGINAL_RSV_REC>
  <cre:P_TO_RSV_REC>
    <cre:RESERVATION_ID>6755871</cre:RESERVATION_ID>
    <cre:REQUIREMENT_DATE>2015-02-09</cre:REQUIREMENT_DATE>
    <cre:ORGANIZATION_ID>207</cre:ORGANIZATION_ID>
    <cre:INVENTORY_ITEM_ID>141</cre:INVENTORY_ITEM_ID>
    <cre:DEMAND_SOURCE_TYPE_ID>2</cre:DEMAND_SOURCE_TYPE_ID>
    <cre:DEMAND_SOURCE_HEADER_ID>360780</cre:DEMAND_SOURCE_HEADER_ID>
    <cre:DEMAND_SOURCE_LINE_ID>674234</cre:DEMAND_SOURCE_LINE_ID>
    <cre:RESERVATION_QUANTITY>3</cre:RESERVATION_QUANTITY>

    <cre:PRIMARY_RESERVATION_QUANTITY>3</cre:PRIMARY_RESERVATION_QUANTITY>
    <cre:SUPPLY_SOURCE_TYPE_ID>13</cre:SUPPLY_SOURCE_TYPE_ID>
  </cre:P_TO_RSV_REC>
  <cre:P_ORIGINAL_SERIAL_NUMBER></cre:P_ORIGINAL_SERIAL_NUMBER>
  <cre:P_TO_SERIAL_NUMBER></cre:P_TO_SERIAL_NUMBER>
  <cre:P_VALIDATION_FLAG></cre:P_VALIDATION_FLAG>
</cre:InputParameters>

</soapenv:Body>
</soapenv:Envelope>
```

Appendix M: Sample Relieve Action Payload

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:inv="http://xmlns.oracle.com/apps/inv/soapprovider/plsql/inv_reservation_pub/"
xmlns:rel="http://xmlns.oracle.com/apps/inv/soapprovider/plsql/inv_reservation_pub/r
elieve_reservation__1/">
  <soapenv:Header>
    <inv:SOAHeader>
      <inv:RESPONSIBILITY_NAME>{{Responsibility_Name}}</inv:RESPONSIBILITY_NAME>
    </inv:SOAHeader>
  </soapenv:Header>
  <inv:RESPONSIBILITY_APPL_NAME>{{Application_Name}}</inv:RESPONSIBILITY_APPL_NAME>
  <inv:SECURITY_GROUP_NAME>{{Security_Group_Name}}</inv:SECURITY_GROUP_NAME>
  <inv:NLS_LANGUAGE>{{Language}}</inv:NLS_LANGUAGE>
  <inv:ORG_ID>{{Org_Id}}</inv:ORG_ID>
</inv:SOAHeader>
  <wsse:Security soapenv:mustUnderstand="1"
xmlns:env="http://schemas.xmlsoap.org/soapenv/envelope/" xmlns="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
secext-1.0.xsd">
    <wsse:UsernameToken>
      <wsse:Username>SYSADMIN</wsse:Username>
      <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-
200401-wss-username-token-profile-1.0#PasswordText">sysadmin</wsse:Password>
    </wsse:UsernameToken>
  </wsse:Security>
</soapenv:Header>
<soapenv:Body><rel:InputParameters>
  <rel:P_API_VERSION_NUMBER>1</rel:P_API_VERSION_NUMBER>
  <rel:P_INIT_MSG_LST>T</rel:P_INIT_MSG_LST>
  <rel:P_RSV_REC>
    <rel:RESERVATION_ID>6755871</rel:RESERVATION_ID>
    <rel:REQUIREMENT_DATE>02-09-2015</rel:REQUIREMENT_DATE>
    <rel:ORGANIZATION_ID>207</rel:ORGANIZATION_ID>
    <rel:INVENTORY_ITEM_ID>141</rel:INVENTORY_ITEM_ID>
    <rel:DEMAND_SOURCE_TYPE_ID>2</rel:DEMAND_SOURCE_TYPE_ID>
    <rel:DEMAND_SOURCE_HEADER_ID>360780</rel:DEMAND_SOURCE_HEADER_ID>
    <rel:DEMAND_SOURCE_LINE_ID>674234</rel:DEMAND_SOURCE_LINE_ID>
    <rel:RESERVATION_QUANTITY>3</rel:RESERVATION_QUANTITY>
    <rel:PRIMARY_RESERVATION_QUANTITY>3</rel:PRIMARY_RESERVATION_QUANTITY>
  </rel:P_RSV_REC>
</rel:InputParameters>
</soapenv:Body>
</Envelope>
```

```
</rel:P_RSV_REC>
<rel:P_PRIMARY_RELIEVED_QUANTITY>3</rel:P_PRIMARY_RELIEVED_QUANTITY>
<rel:P_SECONDARY_RELIEVED_QUANTITY/>
<rel:P_RELIEVE_ALL/>
<rel:P_ORIGINAL_SERIAL_NUMBER/>
</rel:InputParameters></soapenv:Body>
</soapenv:Envelope>
```

Appendix N: Sample Relieve Line Action Payload

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:inv="http://xmlns.oracle.com/apps/inv/soapprovider/plsql/inv_reservation_pub/"
xmlns:rel="http://xmlns.oracle.com/apps/inv/soapprovider/plsql/inv_reservation_pub/r
elieve_reservation__1/">
  <soapenv:Header>
    <inv:SOAHeader>
      <inv:RESPONSIBILITY_NAME>{{Responsibility_Name}}</inv:RESPONSIBILITY_NAME>
    </inv:SOAHeader>
  </soapenv:Header>
  <inv:RESPONSIBILITY_APPL_NAME>{{Application_Name}}</inv:RESPONSIBILITY_APPL_NAME>
  <inv:SECURITY_GROUP_NAME>{{Security_Group_Name}}</inv:SECURITY_GROUP_NAME>
  <inv:NLS_LANGUAGE>{{Language}}</inv:NLS_LANGUAGE>
  <inv:ORG_ID>{{Org_Id}}</inv:ORG_ID>
</inv:SOAHeader>
  <wsse:Security soapenv:mustUnderstand="1"
xmlns:env="http://schemas.xmlsoap.org/soapenv/envelope/" xmlns="http://docs.oasis-
open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd"
xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
secext-1.0.xsd">
    <wsse:UsernameToken>
      <wsse:Username>SYSADMIN</wsse:Username>
      <wsse:Password Type="http://docs.oasis-open.org/wss/2004/01/oasis-
200401-wss-username-token-profile-1.0#PasswordText">sysadmin</wsse:Password>
    </wsse:UsernameToken>
  </wsse:Security>
</soapenv:Header>
<soapenv:Body><rel:InputParameters>
  <rel:P_API_VERSION_NUMBER>1</rel:P_API_VERSION_NUMBER>
  <rel:P_INIT_MSG_LST>T</rel:P_INIT_MSG_LST>
  <rel:P_RSV_REC>
    <rel:RESERVATION_ID>6755871</rel:RESERVATION_ID>
    <rel:REQUIREMENT_DATE>02-09-2015</rel:REQUIREMENT_DATE>
    <rel:ORGANIZATION_ID>207</rel:ORGANIZATION_ID>
    <rel:INVENTORY_ITEM_ID>141</rel:INVENTORY_ITEM_ID>
    <rel:DEMAND_SOURCE_TYPE_ID>2</rel:DEMAND_SOURCE_TYPE_ID>
    <rel:DEMAND_SOURCE_HEADER_ID>360780</rel:DEMAND_SOURCE_HEADER_ID>
    <rel:DEMAND_SOURCE_LINE_ID>674234</rel:DEMAND_SOURCE_LINE_ID>
    <rel:RESERVATION_QUANTITY>3</rel:RESERVATION_QUANTITY>
    <rel:PRIMARY_RESERVATION_QUANTITY>3</rel:PRIMARY_RESERVATION_QUANTITY>
  </rel:P_RSV_REC>
</rel:InputParameters>
</soapenv:Body>
</Envelope>
```

```
</rel:P_RSV_REC>
<rel:P_PRIMARY_RELIEVED_QUANTITY>3</rel:P_PRIMARY_RELIEVED_QUANTITY>
<rel:P_SECONDARY_RELIEVED_QUANTITY/>
<rel:P_RELIEVE_ALL/>
<rel:P_ORIGINAL_SERIAL_NUMBER/>
</rel:InputParameters></soapenv:Body>
</soapenv:Envelope>
```



Oracle is committed to developing practices and products that help protect the environment

Copyright © 2018 Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Integrated Cloud Applications & Platform Services