Visual Builder->OIC->SaaS. Create invoice from file with REST. (21).

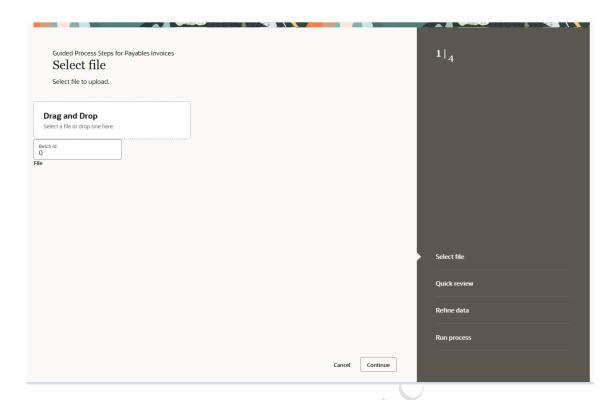
Summary

The application is a Redwood Guided Process with 4 steps to load Payables invoices from a CSV file selected in Visual Builder page using OIC.

This page opens the Guided Process.



In this page the user selects the file:



The rest of the steps are shown at the end of the chapter (not shown here to not repeat).

At the end of the process Payables invoices are created in SaaS using the standard REST API included in OIC Integration.

Summary of features.

- Visual Builder side:
 - o Load of files from csv file.
 - Run OIC integration.

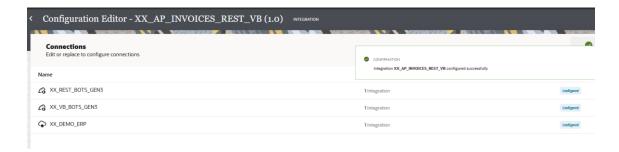
For this specific feature, we used this blog and additional help from forums:

https://satishkumar.hashnode.dev/how-to-parse-csv-data-in-oracle-visual-builder-using-js-library

- Oracle Integration side:
 - o Creation of payables invoice using SaaS/Fusion Applications REST API.
 - Update Visual Builder Business Objects from Oracle Integration to log success/error after calling REST API to create payables invoice.
 - Other data in case of success is also recorded.

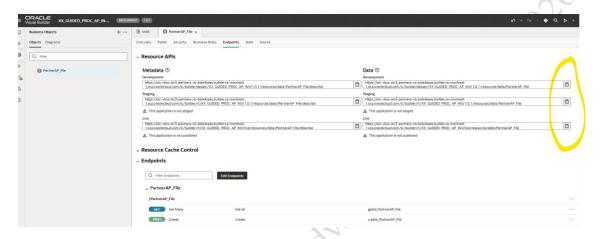
Oracle Integration side.

• General view of OIC connections.



1. Connection to access Business Objects in Visual Builder.

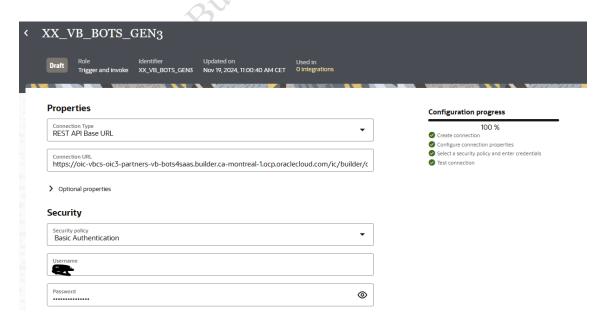
Get the URL's here on the Visual Builder side.



On the right you have the URL's corresponding to the 3 stages (design, stage and publish).

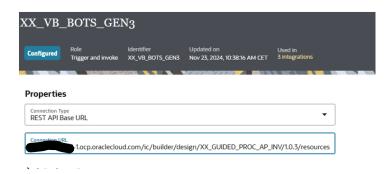
For learning purposes, we will use "design" stage:

https://oic-xxxx-redwood demo-1.ocp.oraclecloud.com/ic/builder/design/XX GUIDED PROC AP INV/1.0.3/resources

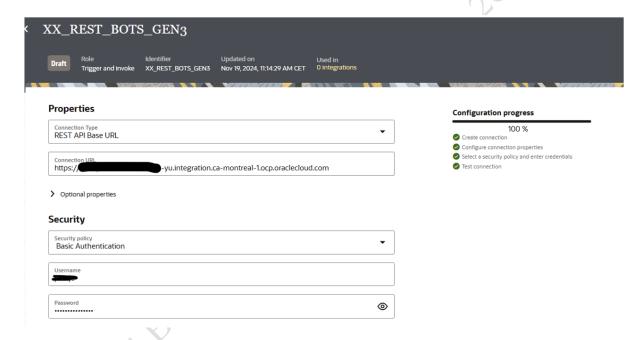


Notice that versions (1.0, 1.0.1, 1.0.2, etc.) apply only when NOT in live mode.

https://oic-xxx-cccc-redwood_demo1.ocp.oraclecloud.com/ic/builder/design/XX_GUIDED_PROC_AP_INV/1.0.3/resources

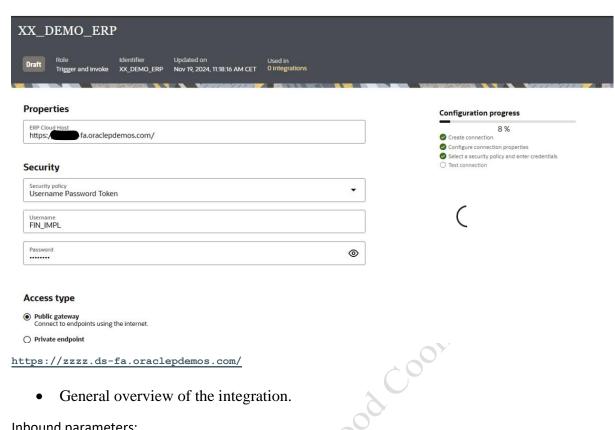


2. Connection REST "internal" to call from Visual Builder.



https://oic3-xxxx-cccc-yu.integration.ca-montreal-1.ocp.oraclecloud.com

3. Connection to SaaS/Fusion Applications.

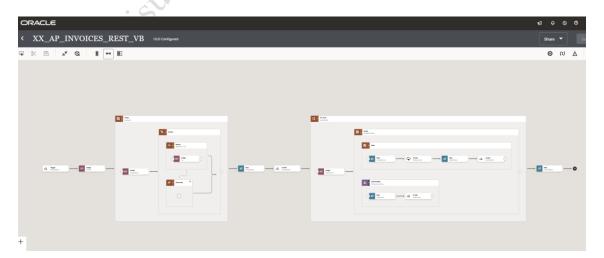


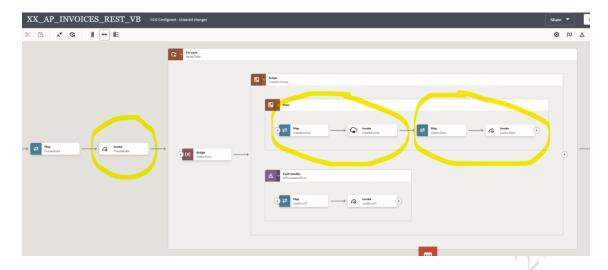
General overview of the integration.

Inbound parameters:



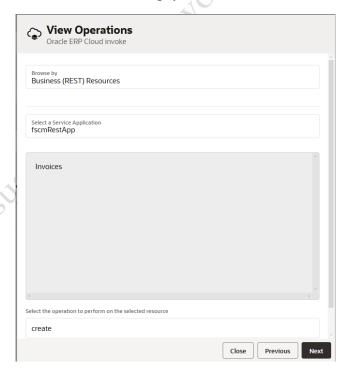
General overview of the integration.



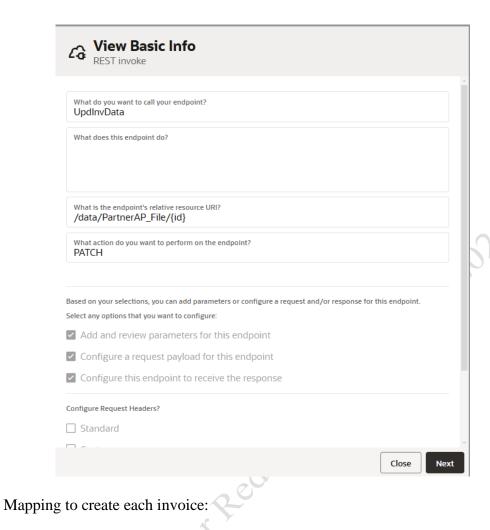


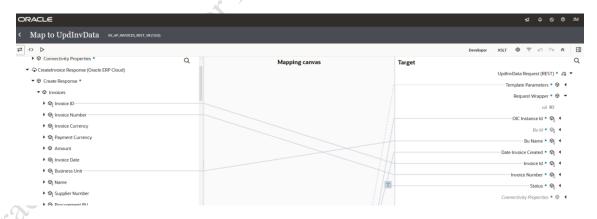
Actions:

- On the left (ProcessData invoke) we read the Visual Builder Business Object (similar to table) with the invoices to load filtering by "batch_id" received as parameter.
- In the loop "IterateTable", in the middle of above screenshot we see the call (CreateInvoice invoke) the REST for payables invoices to create.



• On the right of above screenshot (UpdateInvData invoke), we update the Visual Builder Business Object with success status and additional information.



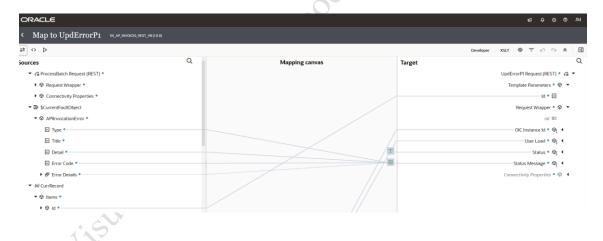


In case of error, we update Business Object as shown:



What do you want to call your en	ndpoint?
JpdErrorP1	·
What does this endpoint do?	
What is the endpoint's relative re	
/data/PartnerAP_File/{ic	1}
What action do you want to perfo PATCH	orm on the endpoint?
sed on your selections, you can	add parameters or configure a request and/or response for this endpoint.
sed on your selections, you can a	

Example of mapping to update Business Object:

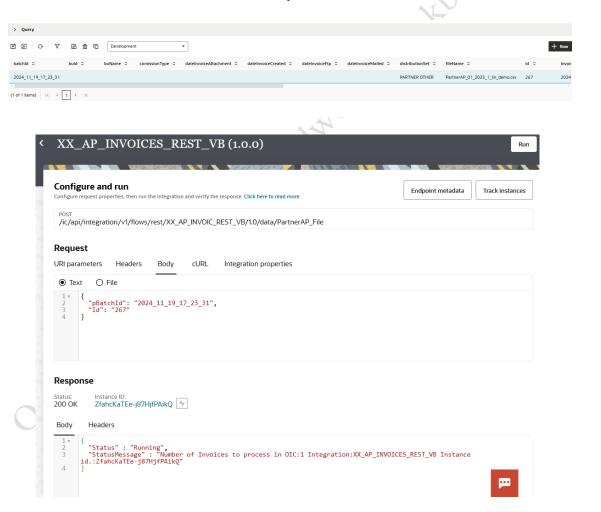


- The process will be synchronous, at the end of the integration we return the status and more data.
- Remember this is a POC, we are assuming that we will not have thousands of records in the file but a few.



Basic testing for Oracle Integration side.

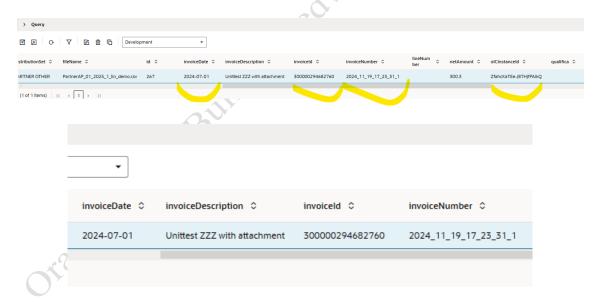
For this "Batch Id" in Visual Builder Business Object.



Internal request from OIC debug for creating the Invoice with REST.

Response (from debug OIC) after creating the invoice with REST API.

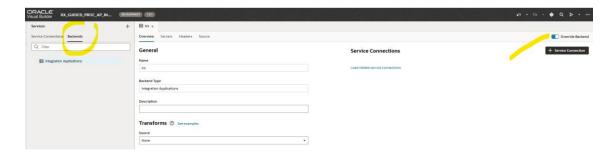
Notice the fields updated in Business Object in Visual Builder:



Visual Builder side.

• Connections.

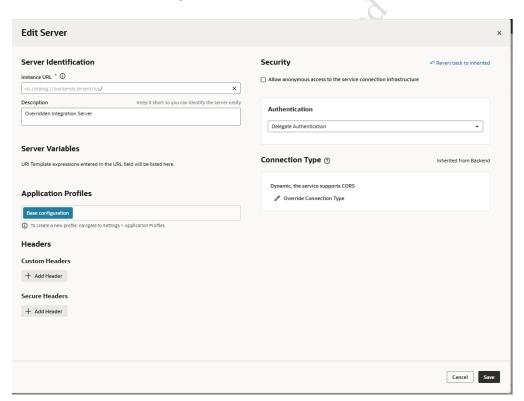
Select "Backends" as shown.



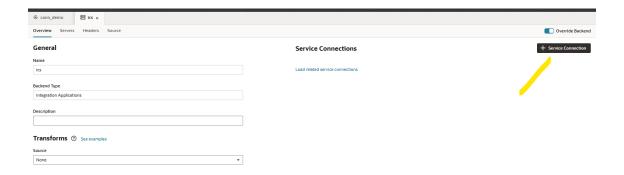
Click "Override" as shown above, then navigate to Tab "Servers".



Edit Server and select "Delegate Authentication".



After that step we can create connection to OIC directly from backend:



After clicking the button. Assign a name and select your Endpoint.



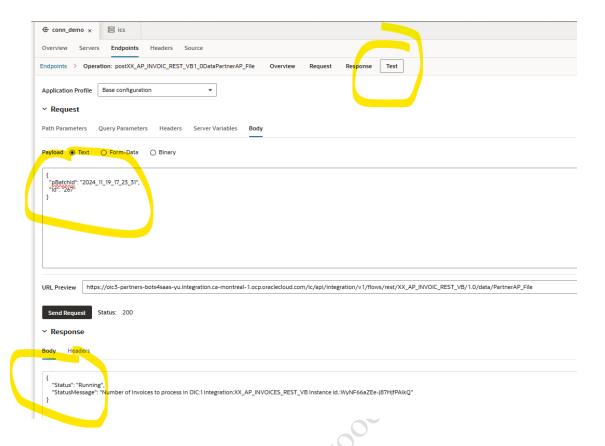
We can now test the call to Oracle Integration REST API from Visual Builder.



Example payload.

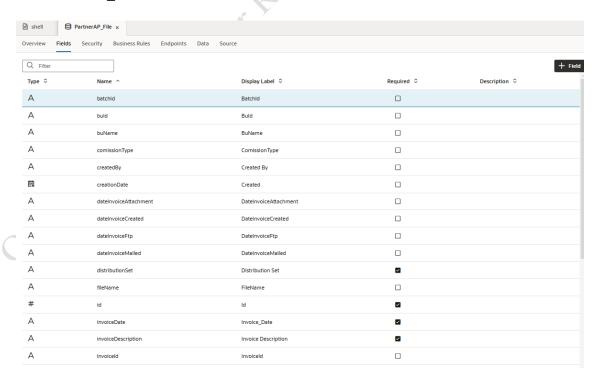
```
21 sample 1.txt
{
    "pBatchId": "2024_11_19_17_23_31",
    "Id": "267"
}
```

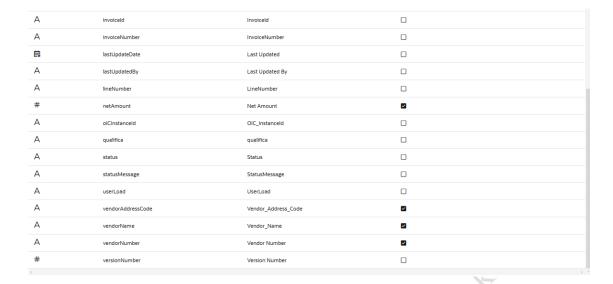
A quick test from Visual Builder side.



• Business objects definition:

PartnerAP_File. Fields.





The Business Object used has no relations with other Business Objects.

Main points to consider

This chapter will not describe step by step, as it would take many pages, but the main features and where to investigate deeper in the code.

The complete code will be provided.

1) JavaScript library to include in Json in root node. Used to manage csv import.

```
¬ vbredwoodapp ×

Welcome
Diagram
                               Action Chains Event Listeners Events Types Variables (1) HTML
                                                                                                                                                                                                                                                    JavaScript
                                                                                                                                                                                                                                                                                         JSON
                                                                                                                                                                                                                                                                                                                 Settings
                            "id": "starter",
"description": "Starter VB app",
"defaultPage": "shell",
                              "routerStrategy": "path",
                             "chains": {},
"configuration":
                                   "profile": "DT"
                                     "paths": {
                                          "oj-fa-bigjs": "https://static.oracle.com/cdn/spectra-ui/3rdParty/2404.0.0/big.js-6.2.1/",
"oj-oacp": "https://static.oracle.com/cdn/oars/packs/oj-oacp/2410.0.2/min",
"oj-oars": "https://static.oracle.com/cdn/oars/packs/oj-oars/2410.0.2/min",
    13
                                          "oj-sp": "https://static.oracle.com/cdn/spectra-ui/oj-sp/2410.0.3/",
"oj-dynamic": "https://static.oracle.com/cdn/jet/packs/oj-dynamic/16.1.6/min/",
    18
                                            "papa": "https://unpkg.com/papaparse@5.3.2/papaparse.min
    21
                                      "bundles": {
                                             oj-dynamic/common-bundle": [
                                                   "oj-dynamic/providers/AdfBCExtension",
                                                  "oj-dynamic/providers/ComponentLayoutProvider"
                                                  "oj-dynamic/providers/ContainerLayoutProvider"
                                                 "oj-dynamic/providers/Container Metadata Provider Factory", where the description of the provider of the description of the d
                                                  "oi-dynamic/providers/DefaultFetchable".
                                                  "oj-dynamic/providers/DynamicDataProvider
                                                 "oj-dynamic/providers/DynamicLayoutMetadataProvider",\\
                                                   "oi-dynamic/providers/DynamicLayoutMetadataProviderFactory",
                                                  "oj-dynamic/providers/Explodable",
    33
                                                   "oi-dynamic/providers/Extension"
```

2) JavaScript library to include in html in root node. Used to manage csv import.

```
□ process_guided-start □ vbredwoodapp ×
Q Filte
                                                  Diagram Action Chains Event Listeners Events Types Variables (1) HTML JavaScript JSON Settings
                                                          <!-- Copyright (c) 2023, Oracle and/or its affiliates -->
▼ □ vbredwoodapp
                                                          <!DOCTYPE html>
<html class="oj-html" lang="en">
<head>
<title>Oracle Applications</title>
  ▼ 🖺 main default
        main-start default
                                                             process_guided-edit-partner-apfile2
        process_guided-partner-apfile-detail
        process_guided-start_default
                                                             <script src="https://cdnjs.cloudflare.com/ajax/libs/xlsx/0.16.0/xlsx.full.min.js"></script>
  ▶ 🖺 review

<
  ▶ 🖺 Fragments
  ▶ 🏲 Resources
                                                            </body>
                                                          </html>
```

3) JavaScript code in this page (also provided):

```
process_guided-start x
Page Designer Action Chains (21) Event Listeners (16) Events Types (15) Variables (26) JavaScript JSON Settings
      * Copyright (c)2020, 2021, Oracle and/or its affiliates.
       * Licensed under The Universal Permissive License (UPL), Version 1.0
       * as shown at https://oss.oracle.com/licenses/upl/
      define(['knockout', 'ojs/ojkeyset', 'papa'], function (ko, keySet, Papa) {
        "use strict";
10
       var PageModule = function PageModule() {
11
        this.selectedItems = ko.observable({
12
          row: new keySet.KeySetImpl(),
13
           column: new keySet.KeySetImpl()
 14
        ···});
 15
       };
```

Code:

21 sample 2.txt

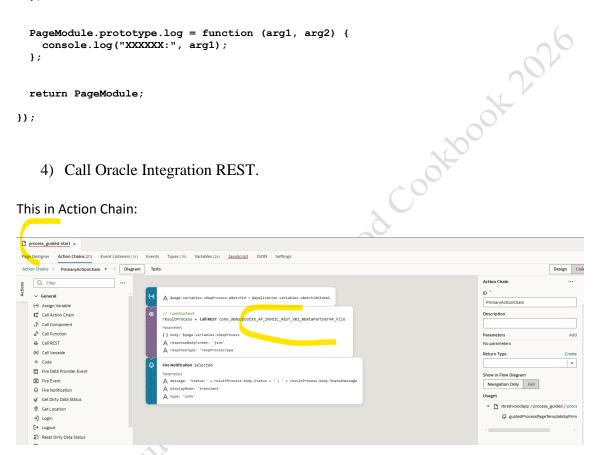
```
* Copyright (c) 2020, 2021, Oracle and/or its affiliates.
* Licensed under The Universal Permissive License (UPL), Version 1.0
 * as shown at https://oss.oracle.com/licenses/upl/
define(['knockout', 'ojs/ojkeyset', 'papa'], function (ko, keySet, Papa) {
  "use strict";
  var PageModule = function PageModule() {
   this.selectedItems = ko.observable({
     row: new keySet.KeySetImpl(),
      column: new keySet.KeySetImpl()
   });
  };
 PageModule.prototype.processFilePapa = function (fileSet) {
   return new Promise(function(resolve, reject) {
       Papa.parse(fileSet, {
            complete: function(results) {
                console.log(results.data);
                resolve(results.data);
           header: true
```

```
});
   });
  };
  PageModule.prototype.processFile = function (fileSet) {
    //var reader = new FileReader();
   return new Promise(function (resolve, reject) {
      let fileReader = new FileReader();
      fileReader.readAsBinaryString(fileSet);
      fileReader.onload = (event) => {
        let data = event.target.result;
        let workbook = XLSX.read(data, { type: "binary", cellText:false, cellDates:true
});
        workbook.SheetNames.forEach(sheet => {
          if (sheet === 'Sheet1') {
            //let rowObject = XLSX.utils.sheet to json(workbook.Sheets[sheet]);
            let rowObject =
XLSX.utils.sheet_to_json(workbook.Sheets[sheet], {header:0,raw:false,dateNF:'yyyy/mm/dd'}
            //let rowObject =
XLSX.utils.sheet_to_json(workbook.Sheets[sheet],{header:0,raw:false,dateNF:'yyyy-mm-
dd'}):
            console.log(rowObject);
            resolve(rowObject);
       });
      };
   });
  };
  PageModule.prototype.createColumnsArray = function (jsonArr) {
   for (var key of Object.keys(jsonArr[0])) {
      // aqui se puede meter condicional para la fecha
      console.log("HI:"+key);
      x.push({ "headerText": key, "field": key });
   return x;
  };
  PageModule.prototype.stringToArray = function (x_string) {
   return x_string.split(",");
  PageModule.prototype.reload = function (force) {
   window.location.reload(force);
  PageModule.prototype.getBatchId = function () {
   var today = new Date();
    var mo = (today.getMonth()+1);
   if (mo < 10) {
     mo = '0' + mo;
    var da = today.getDate() ;
   if (da < 10) {
      da = '0' + da;
   var hh = today.getHours() ;
   if (hh < 10) {
     hh = '0' + hh;
   var mi = today.getMinutes() ;
   if (mi < 10) {
     mi = '0' + mi;
```

```
var ss = today.getSeconds() ;
   if (ss < 10) {
     ss = '0' + ss;
   var date = today.getFullYear()+' '+mo+' '+da;
   var time = hh+'_'+mi+'_'+ss;
   console.log(date+time);
   return (date+'_'+time);
  };
 PageModule.prototype.log = function (arg1, arg2) {
   console.log("XXXXXX:", arg1);
 return PageModule;
});
```

4) Call Oracle Integration REST.

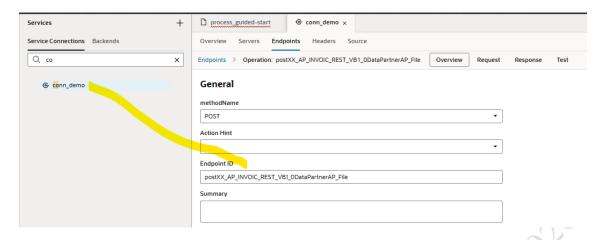
This in Action Chain:



See code:

```
$page.variables.xReqProcess.pBatchId = $application.variables.xBatchIdGlobal;
  construesuitProcess = await Actions.callRest(context, {
    endpoint: 'conn_demo/postXX_AP_INVOIC_REST_VB1_0DataPartnerAP_File',
    responseBodyFormat: 'json',
    responseType: 'respProcessType'
--//-runMainRest
const resultProcess = await Actions.callRest(context, {
  body: $page.variables.xReqProcess,
}, { id: 'runMainRest' });
```

must match here:



Detailed test

Preview the page:

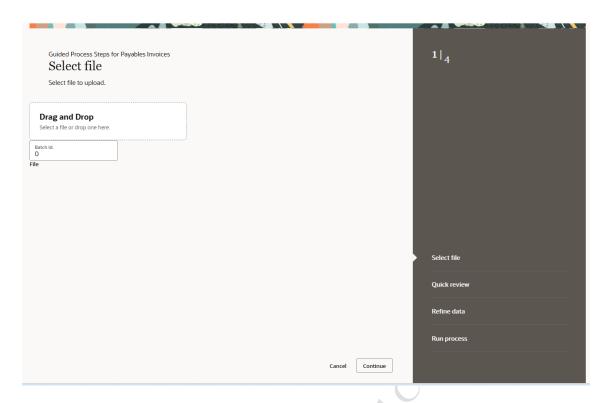


Select and load the file:

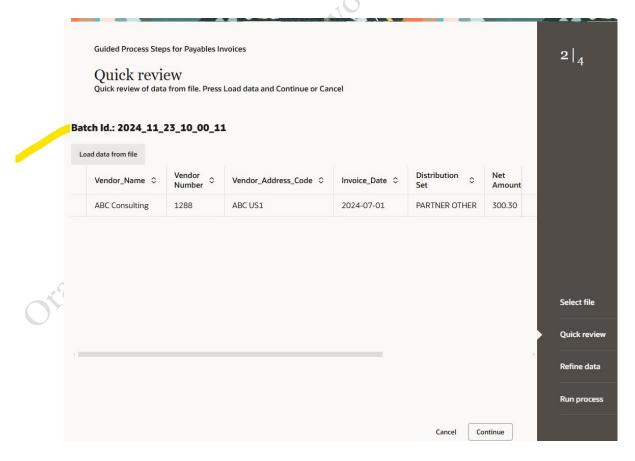
21 PartnerAP 01 2025 1 lin demo.csv

Vendor_Name,Vendor_Number,Vendor_Address_Code,Invoice_Date,Distribution Set,Net Amount,qualifica,Invoice Description ABC Consulting,1288,ABC US1,2024-07-01,PARTNER OTHER,300.30,MONOMANDATARIO,Unittest ZZZ with Appendix

Select file.

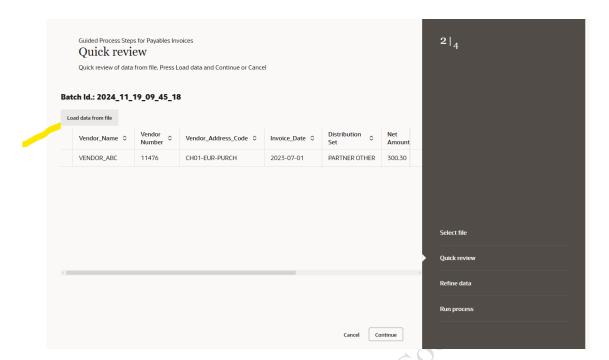


Press the button "Continue", in this step we will generate a "Batch_id" to use in the rest of the process.

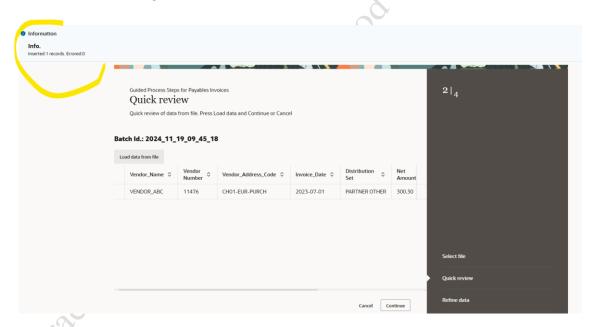


Click "Load data from file" button.

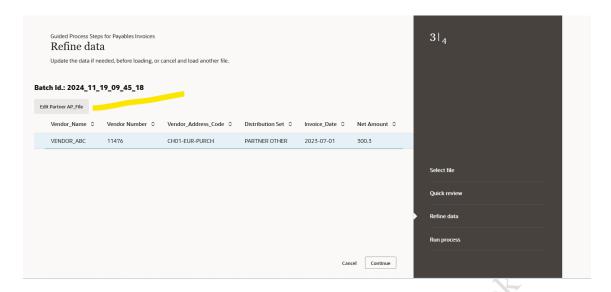
Note: this will store the data of the file in the internal Business Object.



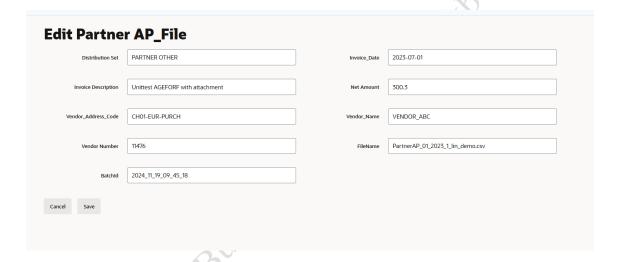
Now we see the message above in the screen.



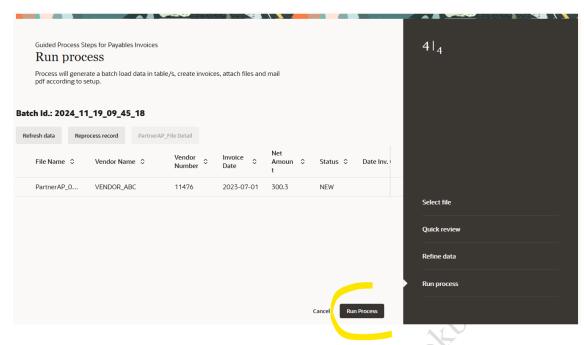
Now clicking the button as shown, we can make modifications to the data loaded if we consider it is not correct.



Edit Data if needed.



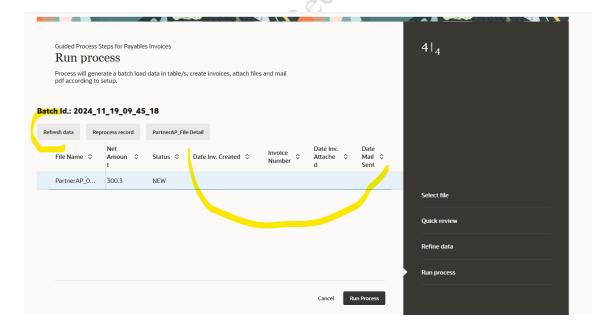
And click "Run Process" button.

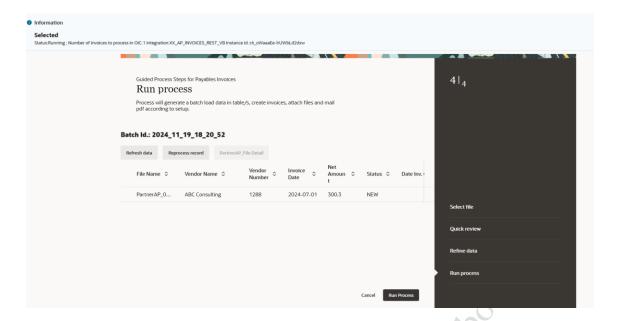


At this point the OIC integration will be run, and the REST API to create payables invoice will be run.

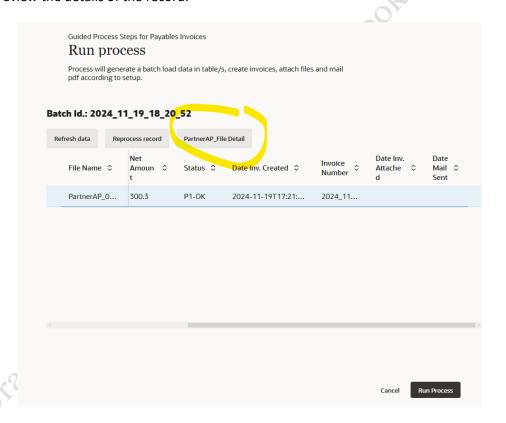
When the integration finishes the result success/error will be updated in the internal Visual Builder Business Object that has stored the data of the file.

More data apart from success/error will be stored, as shown in screenshot





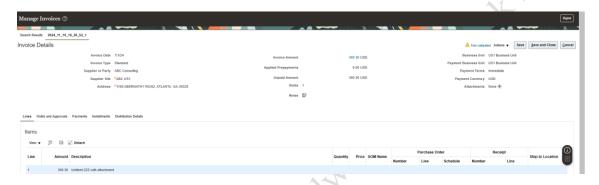
Let's review the details of the record.



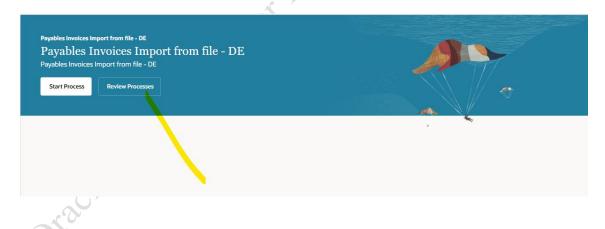
Notice the id of the invoice generated:

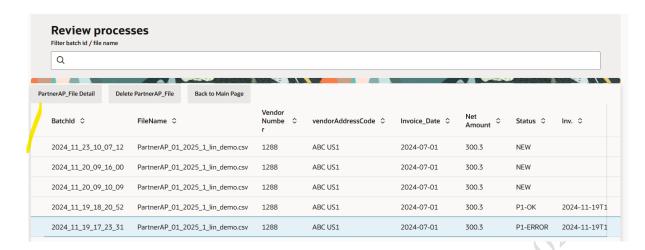


And also, we can see the invoice in SaaS/Fusion Applications.

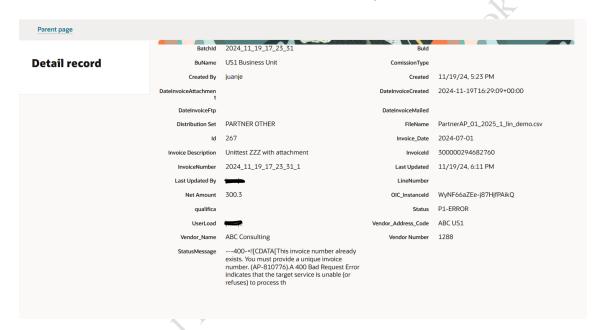


There is also available a screen to review processes, as shown, press the button "Review Processes" to access:





In case of error, we can now review data in the Business Object record.



Conclusion.

We have shown the details of a complete POC that uses Visual Builder and Oracle Integration to create SaaS/Fusion Applications payables invoices from csv file and updates data in Visual Builder Business Objects.

Technical

Code example	Comments
XX_AP_INVOIC_REST_VB_01.00.0001.iar	Oracle Integration used in demo
21_GUIDED_PROC_AP_INV-1.0.3.zip	Visual Builder application used in demo
21_PartnerAP_01_2025_1_lin_demo.csv	Sample file

Code example	Comments
21_PapaParse-1.0.zip	Visual Builder application for our learning.
	Based in:
	https://satishkumar.hashnode.dev/how-to-parse-csv-data- in-oracle-visual-builder-using-js-library
	https://github.com/satishkmrd/vbcs-cc/tree/main/PapaParse
oracle oracle	cc/tree/main/PapaParse