

AI Agent Studio demo.

Agent Team of type “Workflow”.

Demo using Business Objects and OIC-REST to get the needed parameters for:

“Scan-read PDF from SaaS invoice and generate JSON with LLM”.

Introduction.

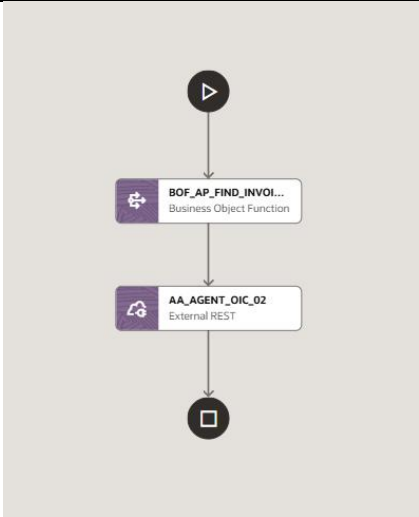
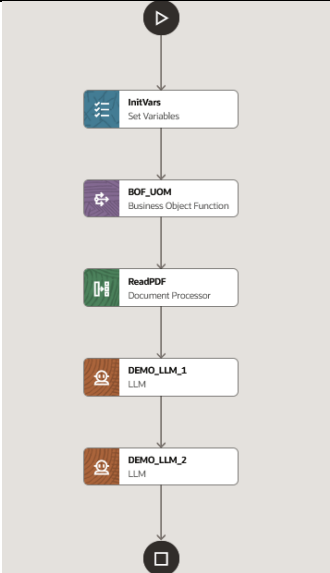
In a previous demo-post named above (document “AI_Fusion_Read PDF attachment 25D.pdf” provided in GitHub, see below), we used “invoice id” and a second parameter searched manually with Postman, as the goal was just to show the Document Processor feature.

In SaaS, users NEVER know of ids. nor hidden strings, so this chapter will take care of this issue using only the invoice number.

To complement the previous, we have built a demo to show how to combine:

- A business object that searches the “invoice id” using the “invoice number” and
- Uses a REST-OIC to find the second parameter

...used to download the PDF file needed to read and generate the JSON.

1	2
The demo in this document look like this, and find the data parameters needed for 2	Scan-read PDF from SaaS invoice and generate JSON with LLM Doc: AI_Fusion_Read PDF attachment 25D.pdf
	

Feel free to combine both, we will do it in the future.

Preparatory steps.

- Oracle Integration Cloud.

Connections.

1. Connection 1.

<

XX_DEMO_REST

Configured - View only

Role
Trigger

Identifier
XX_DEMO_REST

Updated on
Mar 19, 2025, 10:10:43 AM CET

Used in
36 integrations

Security

Security policy
OAuth 2.0 Or Basic Authentication

Access type

☒ Public gateway
Connect to endpoints using the internet.

☐ Private endpoint
Connect to endpoints using your private network.

Configuration progress

100 %

✔ Create connection

✔ Configure connection properties

✔ Select a security policy and enter credentials

✔ Test connection

2. Connection 2.

<

ERP_Cloud_Connection_REST

Configured - View only

Role
Trigger and invoke

Identifier
ERP_CLOUD_CONNECT_REST

Updated on
Oct 28, 2025, 01:11:03 PM CET

Used in
6 integrations

Properties

Connection type
restUrl

Connection URL
https://eqjz.ds-fa.oraclepdemos.com

> Optional properties

Security

Security policy
Basic Authentication

Username
john.dunbar

Password

Configuration progress

100 %

✔ Create connection

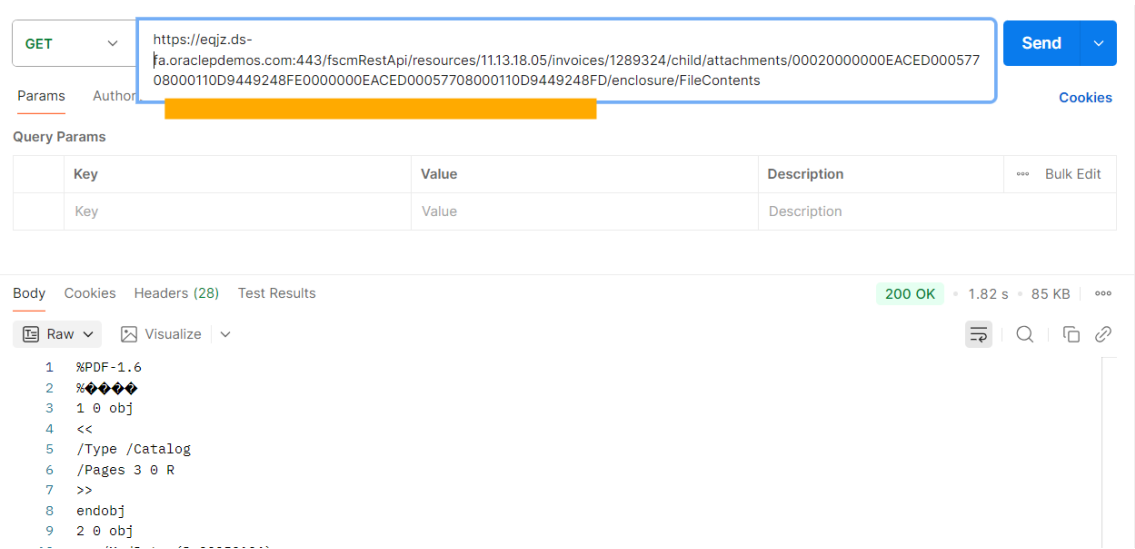
✔ Configure connection properties

✔ Select a security policy and enter credentials

✔ Test connection

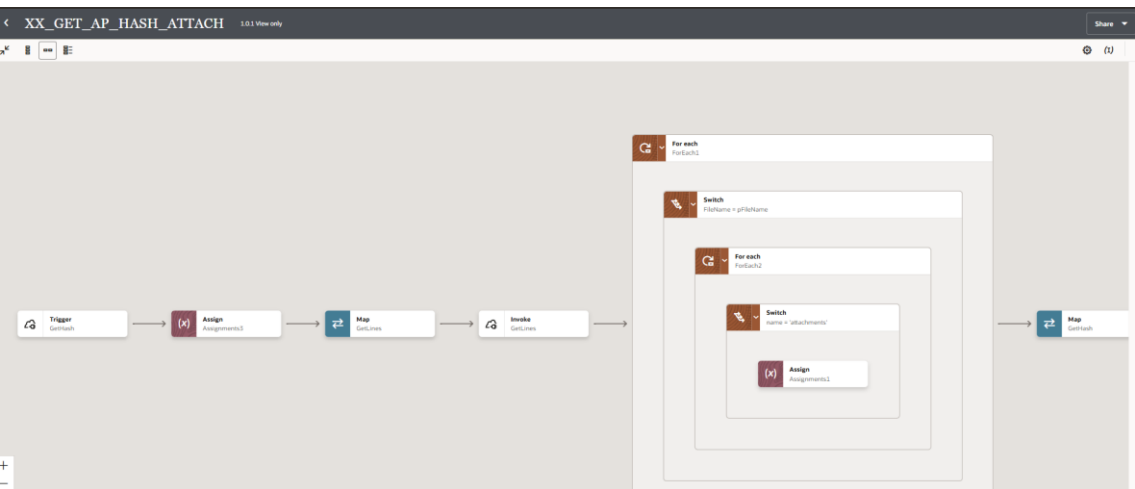
General Overview.

We need to find this string, used to get the file content using REST API.



Details.

We have built this integration, that uses “invoice_id” and “file_name” as parameters, to find the string shown above.



Request parameters.

Enter Sample JSON

```
{ "pFileName": "PO_US165029_0.pdf", "pInvoiceId": 1289324 }
```

Close

Response parameters.



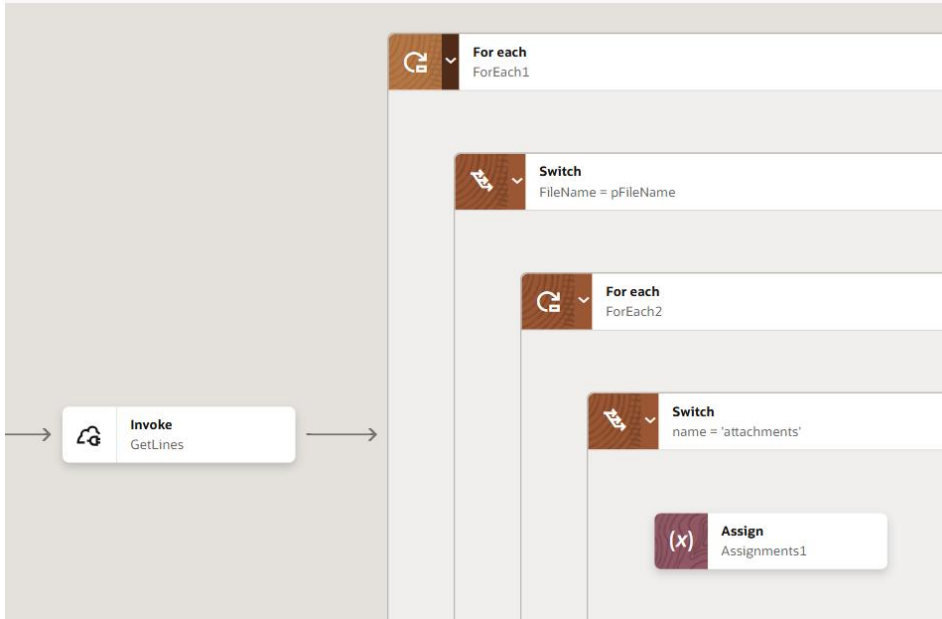
Edit Response

REST trigger

Enter Sample JSON

```
{  
  "HashCode" : "xx"  
}
```

In these loops we do the magic to find the string to use to retrieve the attachment file content.



Steps in AI Agent Studio.

- Business Object 1.

Name: AA_AP_FIND_INVOICE_ID.

Description: Get payables “invoice id”.

Edit businessobject - AA_AP_FIND_INVOICE_ID

Family

FIN

Product

Other

Name

AA_AP_FIND_INVOICE_ID

Code

ORA_FIN_OTHER_AAAPFINDINVOICEID

Resource Type

Monolith resource

Resource Path

/fscmRestApi/resources/11.13.18.05/invoices

Description

Get payables invoice id.

Resource path: /fscmRestApi/resources/11.13.18.05/invoices

Scenario.

Resource Path in scenario:

/fscmRestApi/resources/11.13.18.05/invoices?q=InvoiceNumber='{pInvoiceNumber}'
&onlyData=true&fields=InvoiceId,Supplier,BusinessUnit,ProcurementBU

Business Object Functions			
<div><div><div>+</div></div><div>Add from Specification</div><div><div>📄</div>Import</div></div>			
Name ↕	Description ↕	Resource Path ↕	Actions
GetInvoiceId	Get payables invoice id	/fscmRestApi/resources/11.13.18.05/invoices?q=InvoiceNumber='{pInvoiceNumber}'&onlyData=true&fields=InvoiceId,Supplier,BusinessUnit,ProcurementBU	<div><div>✎</div><div>📄</div><div>🗑</div></div>

Parameters.

Parameters and Business Object Fields

Add Parameter

Add Field

Add Field from Specification

Name	Data Type	Description	Is Parameter
plInvoiceNumber	string	Invoice Number	true
InvoiceId	integer	Invoice ID	false
BusinessUnit	string	Business Unit	false
ProcurementBU	string	Procurement BU	false
Supplier	string	Name	false

Example Usages

+ Add

Description	Sample Payload	Actions
Sample payload	<code>{"plInvoiceNumber":"xx"}</code>	<div><div></div><div></div></div>

- **Agent Team.**

Name: AA_READ_PDF_AND_SHOW.

AA_READ_PDF_AND_SHOW

Details

LLM

Security

Triggers

Variables

Error Handling

Agent Team Name

AA_READ_PDF_AND_SHOW

Agent Team Code

AAREADPDFANDSHOW

Family

FIN

Product

Other

Type

Workflow

Maximum Interactions

Description

Read PDF in payables invoice attachment and show data in JSON format

Triggers (parameters).

AA_READ_PDF_AND_SHOW

Details

LLM

Security

Triggers

Variables

Error Handling

Webhook

+ Add

pFileName

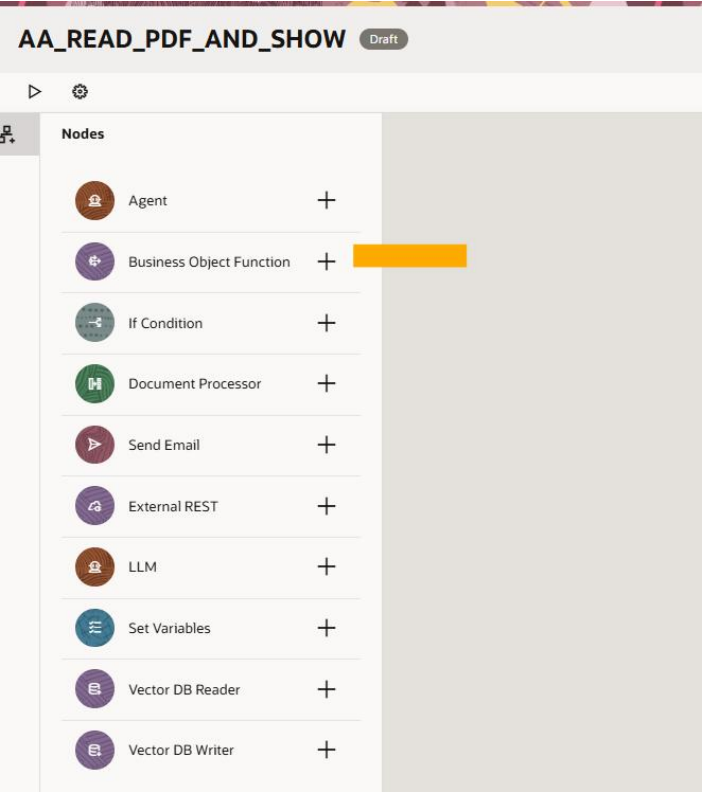
string

pInvoiceNumber

string

- Business Object Function.

Add Business Object Function.



Name: BOF_AP_FIND_INVOICE_ID.

Business Object lined: AA_AP_FIND_INVOICE_ID.

BOF_AP_FIND_INVOICE_ID
Business Object Function

Name BOF_AP_FIND_INVOICE_ID	Code BOFAPFINDINVOICEID	Type Business Object Function
--------------------------------	----------------------------	----------------------------------

Family FIN	Product Other	Business object AA_AP_FIND_INVOICE_ID
---------------	------------------	------------------------------------------

Function
GetInvoiceId

Parameters

plinvoiceNumber	string
-----------------	--------

Output

Output Builder Mode

☒ Specification Mode ☐ Simple Mode

```
Properties
{
  "$schema": "http://json-schema.org/draft-07/schema#",
  "title": "ITEM_LIST",
  "type": "object",
  "properties": {
    "ITEM_LIST": {
      "type": "array",
      "items": {
        "type": "object",
        "properties": {
          "InvoiceId": {
            "type": "string"
          }
        }
      }
    }
  }
}
```

Parameters.

Parameters

Name plInvoiceNumber	Type String
Value {{context.\$triggers.REST.\$input.plInvoiceNumber}}	

Type {{ to start seeing context-sensitive expressions.

{{context.\$triggers.REST.\$input.plInvoiceNumber}}

Output.

```
{
  "$schema": "http://json-schema.org/draft-07/schema#",
  "title": "ITEM_LIST",
  "type": "object",
  "properties": {
    "ITEM_LIST": {
      "type": "array",
      "items": {
        "type": "object",
        "properties": {
          "InvoiceId": {
            "type": "string"
          },
          "BusinessUnit": {
            "type": "string"
          },
          "ProcurementBU": {
            "type": "string"
          },
          "Supplier": {
            "type": "string"
          }
        }
      }
    }
  },
  "required": ["ITEM_LIST"]
}
```

- Tool of type External REST.

Name: AA_AP_ATTACH_STRING.

The screenshot shows a web form titled "AA_AP_ATTACH_STRING" with a "Cancel" and "Save" button in the top right. The form contains several input fields:

- Tool Type:** External REST
- Tool Name:** AA_AP_ATTACH_STRING
- Tool Code:** AAAPATTATCHSTRING
- Family:** FIN (dropdown menu)
- Product:** Other (dropdown menu)
- Description:** Call OIC to get AttachmentsUniqID

Authorization tab.

Instance URL:

`https://oic3-partners-bots4saas-yu.integration.ca-montreal-1.ocp.oraclecloud.com`

Authentication: basic.

The screenshot shows the "Authorization" tab of a configuration form. It includes a "Skip Section" and "Page Actions" button in the top right. The form fields are:

- Instance URL:** https://design.integration.ca-montreal-1.ocp.oracleclou
- Authentication:** Basic (dropdown menu)
- Description:** OIC instance
- Authentication details:**
 - User Name:** juanje
 - Password:** [masked with dots]

Function tab.

Name Endpoint: GetAttachmentsUniqID

Resource path: /ic/api/integration/v1/flows/rest/XX_GET_AP_HASH_ATTACH/1.0/


```
"pFileName": "{pFileName}",
"pInvoiceId": "{pInvoiceId}"
}
```

Sample.

Edit Endpoint

Name

GetAttachmentsUniqID

Operation Type

HTTP POST

Resource Path

/ic/api/integration/v1/flows/rest/XX_GET_AP_HASH_ATTACH/1.0/

Description

Get string

Body Template

```
{
  "pFileName": "{pFileName}",
  "pInvoiceId": "{pInvoiceId}"
}
```

Parameters

Sample Queries

Headers

+ Add

Query

```
{
  "pFileName": "zzzzz",
  "pInvoiceId": 22
}
```

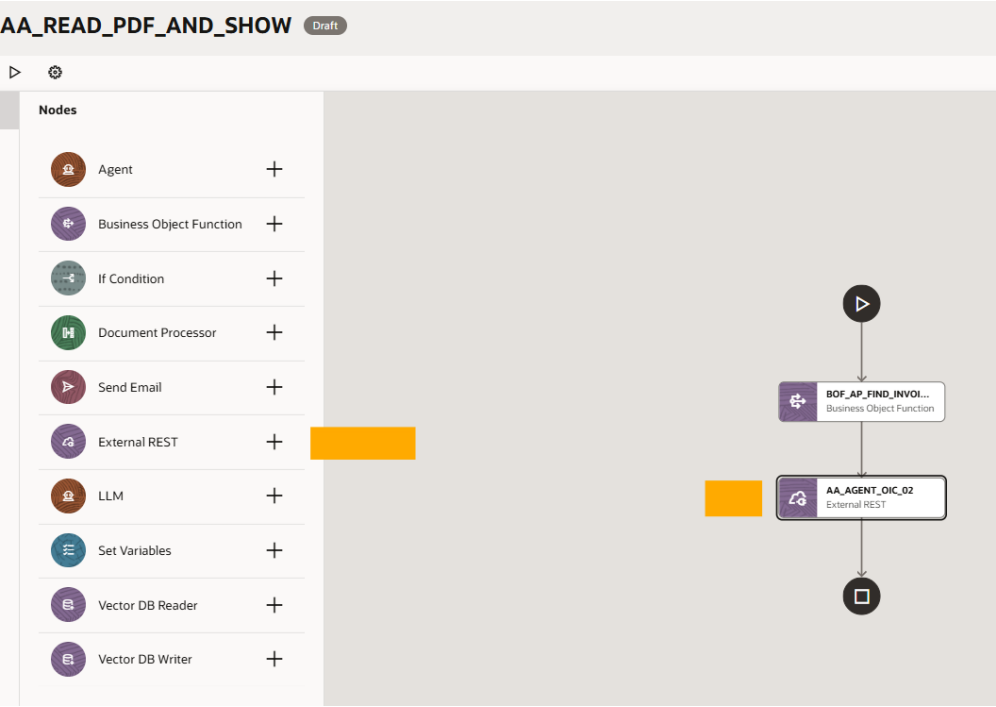
Description

Payload

```
{
  "pFileName": "zzzzz",
  "pInvoiceId": 22
}
```

- Agent Team (cont).

Add “External REST” node.



Name of External REST node: AA_AGENT_OIC_01.

The screenshot shows the configuration form for the "AA_AGENT_OIC_02" External REST node. The form includes fields for Name (AA_AGENT_OIC_02), Code (AAAGENTOIC02), Type (External REST), Family (FIN), Product (Other), and Tool Name (AA_AP_ATTATCH_STRING). The Function dropdown is set to GetAttachmentsUniqID. The Parameters section lists plnvoiceld (integer) and pFileName (string). The Output section shows the Output Builder Mode set to Specification Mode. The Properties section displays a JSON schema snippet.

Parameters.

Parameters	
plnvoiceld	integer
pFileName	string

Detail of parameters.

Parameters

Name	pInvoiceId
Value	{{context.\$nodes.BOFAPFINDINVOICEID.\$output.items[0].InvoiceId}}
Type {{ to start seeing context-sensitive expressions. }}	
Description	

Value: {{context.\$nodes.BOFAPFINDINVOICEID.\$output.items[0].InvoiceId}}

Name	pFileName	Type	String
Value	{{context.\$triggers.REST.\$input.pFileName}}		
Type {{ to start seeing context-sensitive expressions. }}			
Description			

Value: {{context.\$triggers.REST.\$input.pFileName}}

Output.

```
{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "type": "object",
  "properties": {
    "HashCode": {
      "type": "string"
    }
  }
}
```

Test.

```
{
  "pFileName": "PO_US165029_5.pdf",
  "pInvoiceNumber": "LEINV360_"
}
```

Invoice Id. for above invoice number = 1289324

vision

AA_READ_PD

▶

⚙️

+

Nodes

Agent

Busines

If Condi

Input Variables

Trigger Type

Rest

Initial Question

Sample Trigger Input

```
{
  "pFileName": "PO_US165029_0.pdf",
  "pInvoiceNumber": "LEINV360_"
}
```

AA_READ_PDF_AND_SHOW

Output:

```
{
  "items": [
    {
      "InvoiceId": "1289324",
      "Supplier": "Lee Supplies",
      "BusinessUnit": "Supremo US Business Unit",
      "ProcurementBU": null,
      "@context": {
        "key": "1289324",
        "headers": {
          "ETag": "ACED0005737200136A6176612E7574696C2E41727261794C6973747881D21D99C7619D03000149000473697A65787000000001770400000001737200116A6176612E6C616E672E496E746567657212E2A0A4F781873802000149000576616C7565787200106A6176612E6C616E672E4E756D62657286AC951D0B94E08B02000078700000000978"
        }
      },
      "count": 1,
      "hasMore": false,
      "limit": 25,
      "offset": 0
    }
  ]
}
```

Context:

Context

Tools:

BOF_AP_FIND_INVOICE_ID

<>

AA_AGENT_OIC_02

Latency

6.14 seconds

Input:

```
{
  "pInvoiceId": "1289324",
  "pFileName": "PO_US165029_5.pdf"
}
```

Output:

```
{
  "HashCode": "000200000000EACED00057708000110D9449249000000000EACED00057708000110D9449248FF"
}
```

Context:

Context

Tools:

AA_AGENT_OIC_02

<>

```
{
  "HashCode": "000200000000EACED00057708000110D9449249000000000EACED00057708000110D9449248FF"
}
```

Conclusion.

At this point you have available for the next steps the 2 needed parameters in demo “Scan-read PDF from SaaS invoice and generate JSON with LLM.”

We will simulate a node for variables to show both needed variables are available.

Feel free to put both demos together for learning purposes.

- First node provides “invoice id”

```
{{ $context.$nodes.BOFAPFINDINVOICEID.$output.items[0].InvoiceId }}
```

- Second node provides the string needed for finding the attachment.

```
{{ $context.$nodes.AAAGENTOIC02.$output.HashCode }}
```

Technical

Code example	Comments
XX_GET_AP_HASH_ATTACH_01.00.0002.iar	Integration to be used in demo Make refinements at will.
AI_Fusion_Read PDF attachment 25D.pdf	Document explaining demo which this is complementary. In our GitHub.