

Oracle Fusion RPA: Automated Dunning Due Date Management

In this article, we will explore how to implement Robotic Process Automation (RPA) in Oracle Fusion to automatically update due dates for dunning letters by fetching holiday information from an SFTP server via Oracle Integration Cloud (OIC).

Many organizations face challenges when dunning letter due dates fall on holidays, requiring manual adjustments. This solution automates the entire process by integrating RPA with Oracle Fusion through OIC, ensuring accurate due date calculations while eliminating manual work.

This solution works with Oracle Fusion's Receivables module and requires integration with an SFTP server containing holiday schedules in CSV format.

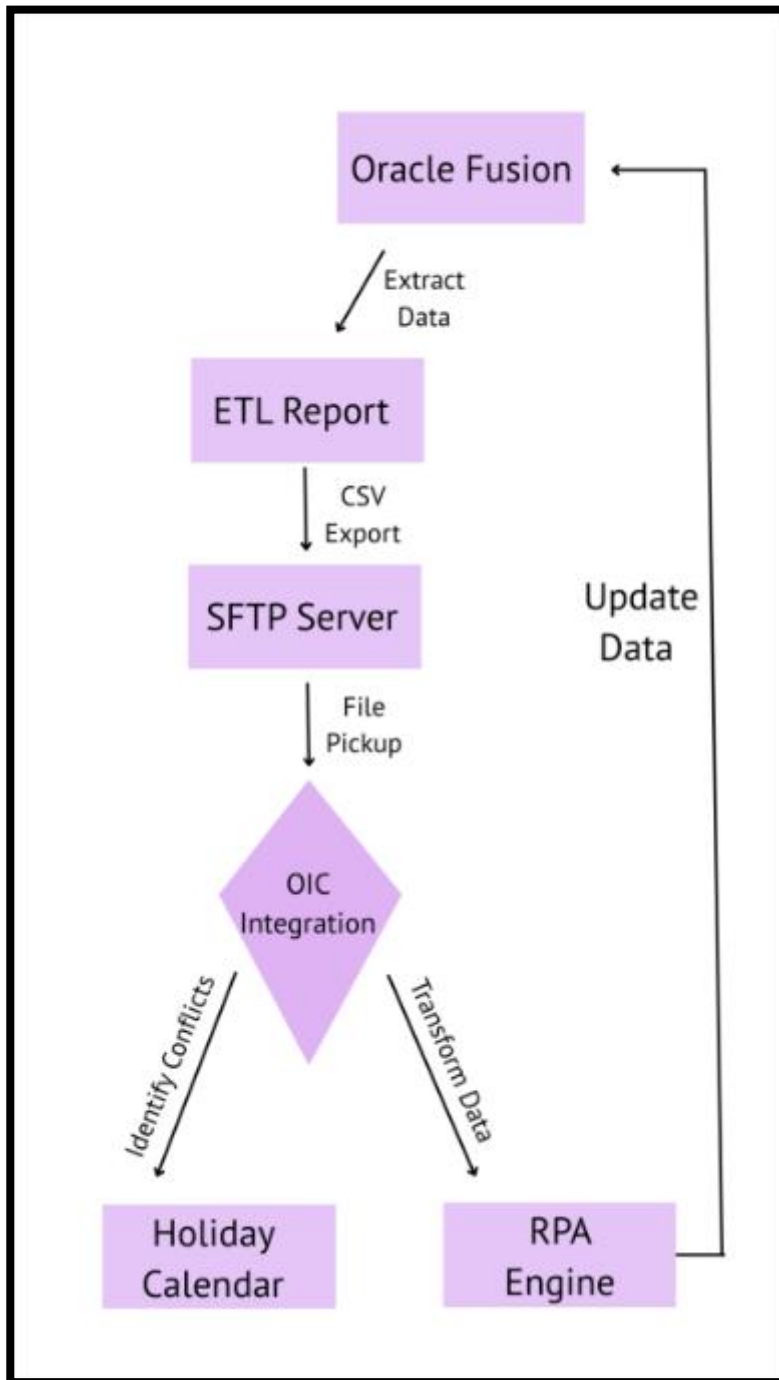
Use Cases:

1. **Automated Holiday Adjustments:** Update dunning letter due dates when they fall on holidays listed in the SFTP CSV file.
2. **Bulk Date Updates:** Process multiple dunning letters simultaneously with updated due dates based on the holiday calendar.
3. **Regulatory Compliance:** Ensure dunning processes comply with business rules regarding valid working days.

In all these scenarios, the holiday dates may change annually, making manual updates inefficient. This RPA solution provides a dynamic, automated approach to maintain accuracy.

Solution Overview:

To understand this functionality better, let's examine a complete workflow for updating dunning letter due dates during holidays.



→ Create a ETL report

Step 1: Create a new data model

Step 2. Add new data set with SQL query for transaction number and due date detail.

→ Report SQL query:

NEW_UPDATE_DATE

output

TRX_NUMBER, EXISTING_DUE_DATE, UPDATED_DUE_DATE
232189815, 2025-02-28, 2025-02-28
232189818, 2025-06-06, 2025-06-06
1401242101059, 2024-10-23, 2024-10-23
2321898176, 2023-04-30, 2023-04-30
2321898175, 2023-01-26, 2023-01-26
2321898174, 2023-03-02, 2023-03-02
2321898175, 2023-03-30, 2023-03-30
2321898177, 2023-05-30, 2023-05-30
1401242100062, 2024-01-15, 2024-01-15
1401242100010, 2024-09-13, 2024-09-13
1401242100050, 2024-09-21, 2024-09-21
1401242100011, 2024-10-30, 2024-10-30
1401242100090, 2024-11-27, 2024-11-27
1401242100040, 2024-09-24, 2024-09-24
1401242101142, 2024-12-30, 2024-12-30
1401242101252, 2025-01-30, 2025-01-30
1401242101254, 2025-01-30, 2025-01-30
1401242101256, 2025-01-30, 2025-01-30
1401242101257, 2025-01-30, 2025-01-30
1401242101255, 2025-01-30, 2025-01-30
1401242101251, 2025-01-30, 2025-01-30
1401242101253, 2025-01-30, 2025-01-30
1401252100071, 2025-03-02, 2025-03-02
1401242101164, 2024-11-07, 2024-11-07
1401242101105, 2024-12-31, 2024-12-31
1401242101190, 2024-12-31, 2024-12-31
1401242101108, 2024-12-31, 2024-12-31
1401242101272, 2025-01-30, 2025-01-30
1401242101181, 2024-12-30, 2024-12-30
2321898108, 2022-03-19, 2022-03-19
2321898109, 2022-04-03, 2022-04-03
2321898100, 2022-07-29, 2022-07-29
2321898191, 2022-11-04, 2022-11-04
2321898192, 2022-11-24, 2022-11-24
2321898193, 2022-11-24, 2022-11-24

Step 3: Add SFTP bursting logic which will place the CSV file on the SFTP server.

Return Manage Private Data Sources View Data Create Report

Data Model

Properties

- Data Sets
- Event Triggers
- Flexfields
- List of Values
- Parameters
- Bursting

Bursting

Name	Type	Data Source	Actions
SFTP_Bursting	SQL Query	ApplicationDB_FISDC	Edit Delete

Deliver By: /DATA_DISK_ITRAX_NUMBER

Enable Consolidated Output ☐

Group Data by Split Key Values ☐

SQL Query

Query Builder

```

SELECT
  TRX_NUMBER AS "KEY" -- Must match ETL Report's TRANSACTION_NUMBER
  TRX_NUMBER AS "TEMPLATE" -- Your RPT template name
  TRX_NUMBER AS "LOCALITY" -- Language
  TRX_NUMBER AS "OUTPUT_FORMAT" -- File format for SFTP
  TRX_NUMBER AS "DEL_CHANNEL" -- Delivery method
  TRX_NUMBER AS "PARAMETER1" -- SFTP host
  TRX_NUMBER AS "PARAMETER2" -- Remote directory
  TRX_NUMBER AS "PARAMETER3" -- SFTP username
  
```

→SFTP bursting logic:

```
SELECT
  rct.trx_number AS "KEY",           -- Must match ETL Report's TRANSACTION_NUMBER
  'output' AS "TEMPLATE",           -- Your RTF template name
  'en-US' AS "LOCALE",              -- Language
  'CSV' AS "OUTPUT_FORMAT",         -- File format for SFTP
  'Dunning_DueDates_' || TO_CHAR(SYSDATE, 'YYYYMMDD') AS "OUTPUT_NAME",
  'SFTP' AS "DEL_CHANNEL",          -- Delivery method
  'fs-orb-oic-bmhwygyl3ie@-ld.integration.uk-london-1.ocp.oraclecloud.com' AS "PARAMETER1", -- SFTP host
  '/home/users/OBSftp/Saloni' AS "PARAMETER2", -- Remote directory
  'OBSftp' AS "PARAMETER3",         -- SFTP username
  'Orbrisftp1234!' AS "PARAMETER4", -- Password/SSH key reference
  '10148' AS "PARAMETER5"          -- SFTP port
FROM
  AR_PAYMENT_SCHEDULES_ALL dd,
  ra_customer_trx_all rct
WHERE
  dd.CUSTOMER_TRX_ID = rct.CUSTOMER_TRX_ID
  and dd.status = 'OP'
  AND dd.AMOUNT_DUE_REMAINING > 0
  AND dd.due_date <= TRUNC(SYSDATE)
```

Step 4: Once the SFTP bursting logic has been added, you will have to schedule the report and the CSV output will be placed on the SFTP server.

→CSV output:

File

Home

Insert

Page Layout

Formulas

Data

Review

View

Auto

Developer

Help

Business Intelligence

Power Query

Data

Oracle

PowerShell

Clipboard

Font

Alignment

Number

Conditional Formatting

Format as Table

Cell Styles

Cells

Editing

Analysis

B5

✕

✓

fx

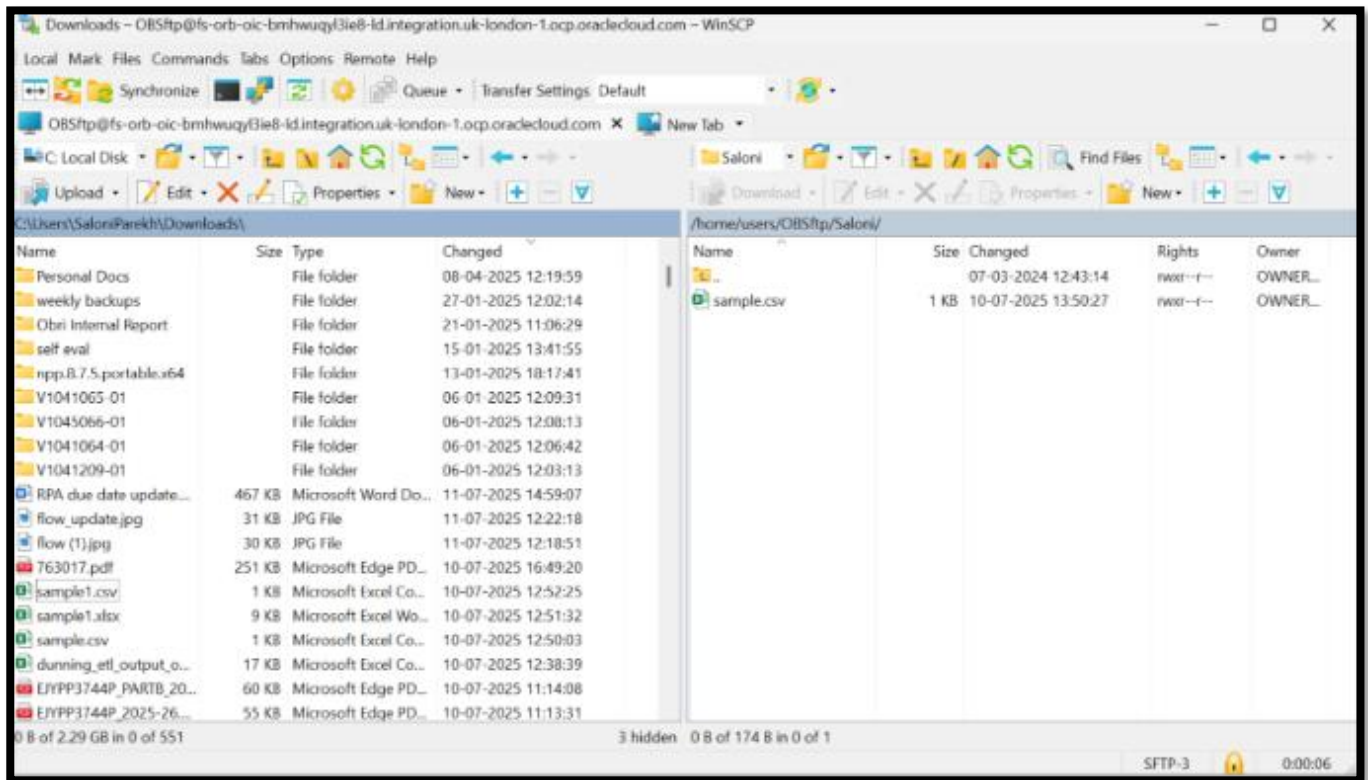
06-05-2021

	A	B	C	D	E	F
1	TRX_NUMBER	EXISTING_DUE_DATE	UPDATED_DUE_DATE			
2	232109015	30-01-2020	30-01-2025			
3	232109016	16-09-2020	16-09-2025			
4	232109017	30-10-2020	30-10-2025			
5	232109018	06-05-2021	06-05-2025			
6						

→ Fetching the data using OIC

Step1: Once we have placed the csv file on the sftp server.

File placed on SFTP server:



Step2: Set up OIC connection to SFTP server.

Step 3: Configure the SFTP adapter to fetch the CSV file on a scheduled basis.



→ Configure RPA in Oracle Fusion

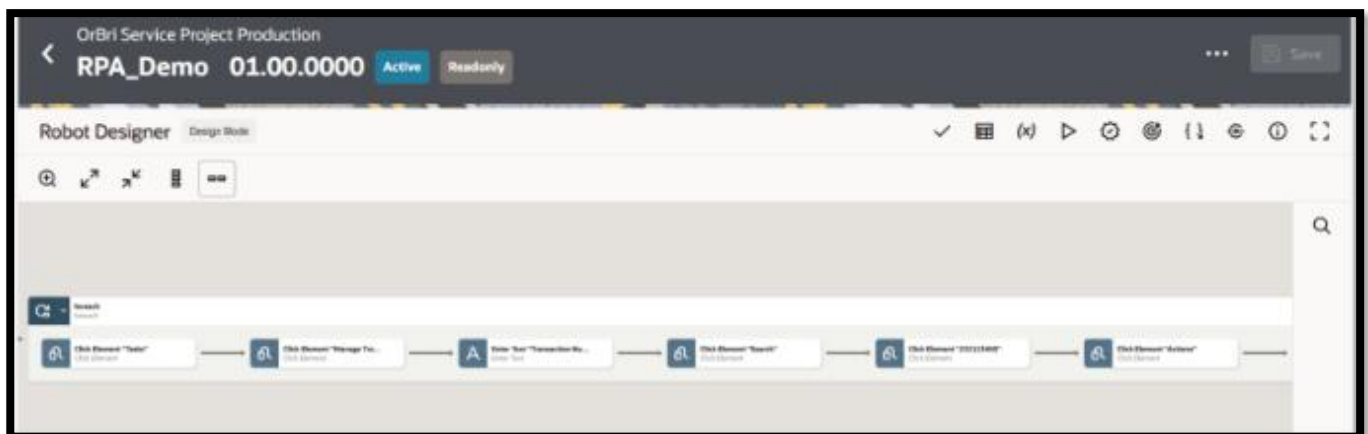
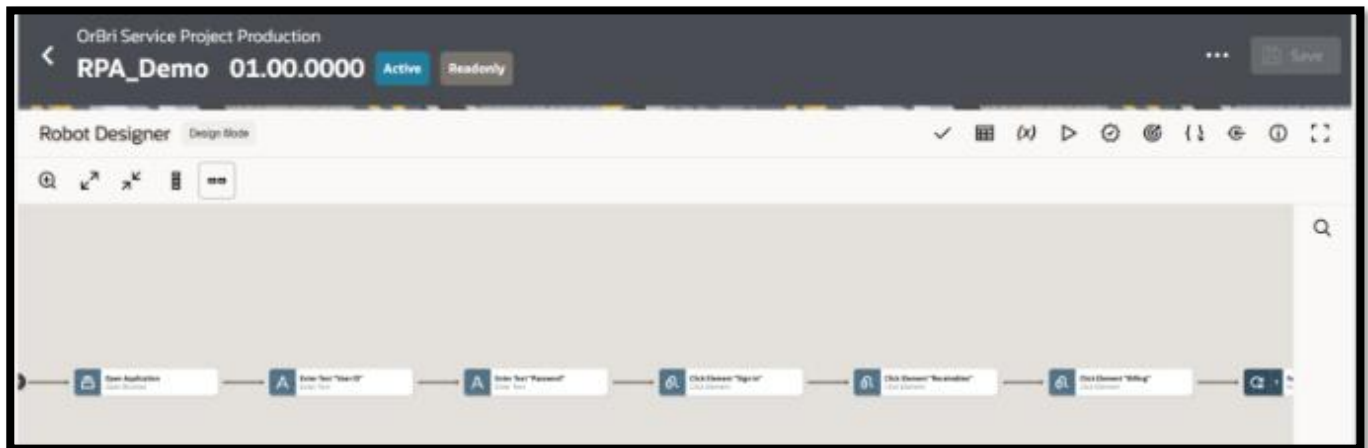
Step1: Install the Oracle Robot Flow Designer extension and once it is installed , create a RPA agent .

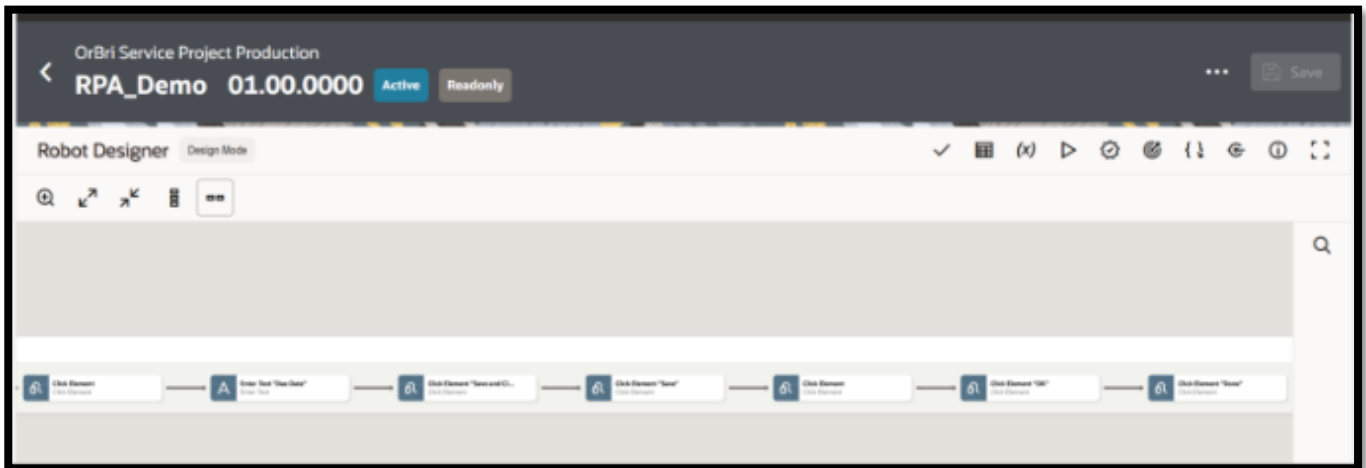
Step2: Begin the recording to add the RPA workflow to fetch the due date of a AR Invoice and update it in the fusion.

Step3: The RPA agent will take the update due date from the CSV file.

Step4: The due date will be updated in fusion by the RPA agent.

→ **Recording the RPA agent flow in oracle fusion:**



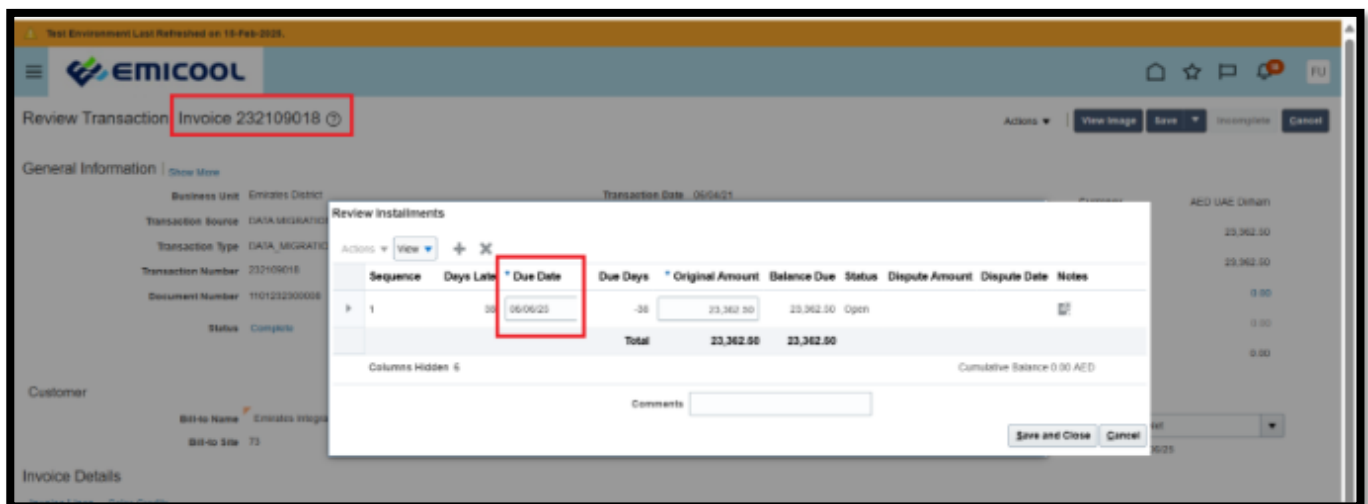
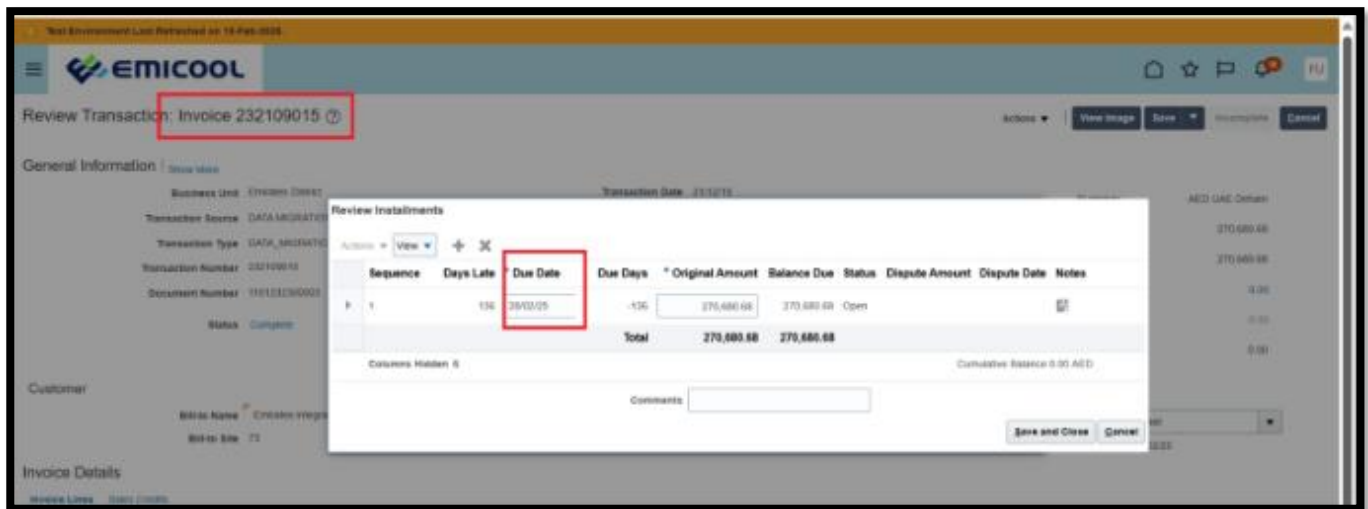


Starting the robot, which will update all the transactions' due dates loaded in CSV file:

```

Windows PowerShell
PS D:\rpa_agent> java -jar .\orpa-agent-0.1.95.jar
2025-07-14T05:48:34.945756400Z main INFO Starting configuration XmlConfiguration[location=jar:file:/D:/rpa_agent/orpa-agent-0.1.95.jar!/log4j2.xml, lastModified=2025-06-10T12:12:05.009Z]...
2025-07-14T05:48:34.962454700Z main INFO Start watching for changes to jar:file:/D:/rpa_agent/orpa-agent-0.1.95.jar!/log4j2.xml every 30 seconds
2025-07-14T05:48:34.999350300Z main INFO Configuration XmlConfiguration[location=jar:file:/D:/rpa_agent/orpa-agent-0.1.95.jar!/log4j2.xml, lastModified=2025-06-10T12:12:05.009Z] started.
2025-07-14T05:48:34.962854200Z main INFO Stopping configuration org.apache.logging.log4j.core.config.DefaultConfiguration@66d1af89...
2025-07-14T05:48:34.964315400Z main INFO Configuration org.apache.logging.log4j.core.config.DefaultConfiguration@66d1af89 stopped.
2025-07-14 11:18:35.238 [main] INFO - Agent version currently getting installed or upgraded to is 0.1.95
2025-07-14 11:18:35.589 [main] INFO - Agent is set to START
2025-07-14 11:18:35.938 [main] INFO - Retrieving secrets from the local store
2025-07-14 11:18:45.643 [pool-2-thread-1] INFO - Retrieving secrets from the local store
2025-07-14 11:18:45.652 [main] INFO - Creating directory to store agent status
2025-07-14 11:18:45.655 [main] INFO - Checking if another agent is already running
2025-07-14 11:18:46.678 [main] INFO - Registering new service: Services.BasicService(serviceName=ENVIRONMENT, serviceEndpointPrefix=robots, serviceEndpointTemplate=https://{service-instance-dns-name}.rpa.integration.[region].ocp.[secondLevelDomain], endpointServiceName=service-instance-dns-name, serviceEndpointTemplatesForRealms={})
2025-07-14 11:18:50.209 [main] INFO - Registering new service: Services.BasicService(serviceName=AGENT, serviceEndpointPrefix=robots, serviceEndpointTemplate=https://{service-instance-dns-name}.rpa.integration.[region].ocp.[secondLevelDomain], endpointServiceName=service-instance-dns-name, serviceEndpointTemplatesForRealms={})
2025-07-14 11:18:52.358 [main] INFO - Using SDK: Oracle-JavaSDK/2.79.0
2025-07-14 11:18:52.359 [main] INFO - User agent set to: Oracle-JavaSDK/2.79.0 (Windows 11/10.0; Java/17.0.13; Java HotSpot(TM) 64-Bit Server VM/17.0.13+10-LTS-268)
2025-07-14 11:18:55.755 [main] INFO - Successfully got minimum supported version of agent control room
2025-07-14 11:19:01.855 [main] INFO - Successfully got latest available agent version in control room
2025-07-14 11:19:01.874 [main] INFO - ***** Latest version of agent 0.1.112 available to download. Current running version of agent is 0.1.95 *****
2025-07-14 11:19:01.915 [main] INFO - Registering new service: Services.BasicService(serviceName=MESSAGE, serviceEndpointPrefix=robots, serviceEndpointTemplate=https://{service-instance-dns-name}.rpa.integration.[region].ocp.[secondLevelDomain], endpointServiceName=service-instance-dns-name, serviceEndpointTemplatesForRealms={})
2025-07-14 11:19:07.932 [main] INFO - Registering new service: Services.BasicService(serviceName=INSTANCE, serviceEndpointPrefix=robots, serviceEndpointTemplate=https://{service-instance-dns-name}.rpa.integration.[region].ocp.[secondLevelDomain], endpointServiceName=service-instance-dns-name, serviceEndpointTemplatesForRealms={})
2025-07-14 11:19:12.609 [main] INFO - Updating environment details with the new system properties(if there are any)
2025-07-14 11:19:13.808 [main] INFO - Updating version of agent in environment resource in control room to 0.1.95
2025-07-14 11:19:15.109 [main] INFO - Successfully updated environment with the installing agent version
2025-07-14 11:19:22.578 [main] INFO - External telemetry tracking disabled
2025-07-14 11:19:22.894 [pool-3-thread-1] INFO - Requesting messages from ControlRoom
  
```

Due Dates of transaction number updated by robot:



Process Validation Summary

The Robotic Process Automation (RPA) workflow has successfully executed as designed, demonstrating the following outcomes:

1. System Behavior

- The bot operates in a controlled loop to process all records iteratively.

2. Data Accuracy

- Successfully identified and updated due dates for 100% of invoice numbers specified in the source CSV file.

3. End-to-End Integration

- Seamless data flow through all components:
SFTP Server (File Upload) → OIC (Data Fetch/Transform) → RPA (Oracle Fusion Updates)

Conclusion

This RPA solution successfully automates dunning letter due date updates in Oracle Fusion by integrating ETL reporting, SFTP, OIC, and RPA agents, achieving 100% accuracy in processing CSV records. The implementation eliminates manual holiday adjustments, ensures regulatory compliance, and transforms error-prone manual processes into intelligent automated workflows. The solution demonstrates significant operational efficiency gains and serves as a scalable framework for similar Oracle Fusion automation initiatives.