Integrating Project Management Software with JDEdwards
(Low-Code / No-Code Solutions)

Session ID: P-049269

Presenter: Doug Roesch, Grant Thornton Advisors LLC

About Me – Doug Roesch

- Experienced Manager with Grant Thornton in the Technology Modernization practice.
- Over 25 years of experience working extensively in implementing and management of mid to large scale ERP systems, business intelligence applications and document management solutions.
- Specializes in systems integrations, conversions, custom reporting and configuring user security for SOX compliance.
- Experience with the processes and configuration of the JDE Financials, Fixed Assets, Procurement, and Real Estate Management modules.

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- **135+** countries
- **$7.45 bn** revenue

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- **$2.34 bn** revenue

*Global refers to Grant Thornton International Ltd (GTIL) member firms (statistics as of Sept. 30, 2023). United States refers to professionals in Grant Thornton LLP, Grant Thornton Advisors LLC and GT US Shared Service Center India Private Limited and Grant Thornton Knowledge and Capability Center India Private Limited, both affiliates of Grant Thornton LLP that provide services to Grant Thornton LLP and Grant Thornton Advisors LLC (statistics as of Dec. 31, 2023) . All revenues listed are USD.

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- **41%** **Fortune 500** companies served
- **37%** **Fortune 1000** companies served

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(2011 - Present)
- for number of commercial IPOs completed
- commercial IPOs for companies with $500 million or more in market cap

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of the top underwriters have completed IPOs with us

Agenda

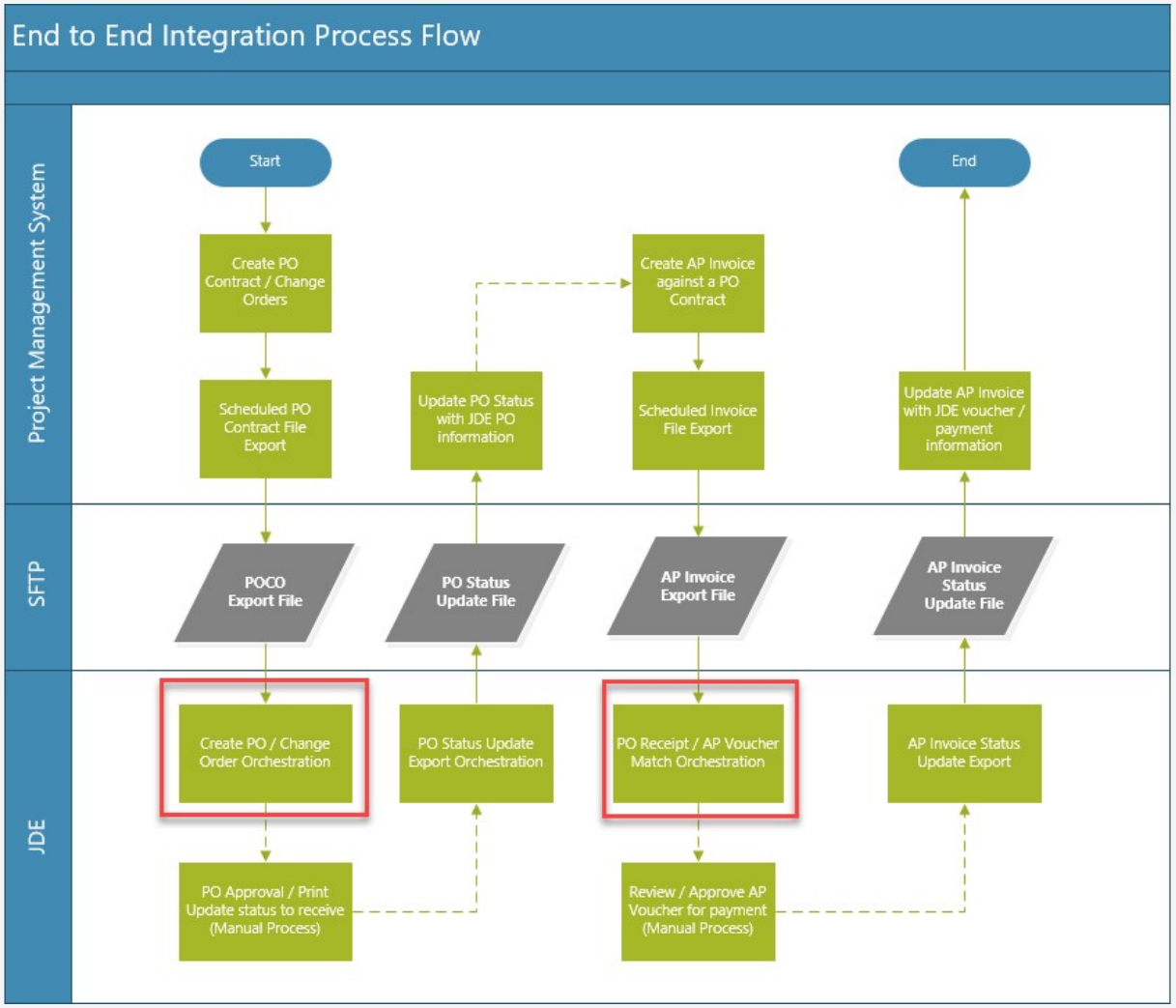
- Preparation / Design Documentation
- Integration Solution Overview
- Purchase Order / Change Order Orchestration Process
- PO Receipt / AP Voucher Match Automation Orchestration Process
- User Acceptance Testing
- Go Live Support – Lessons Learned
- Q & A

Preparation / Design Documentation

- Why is documentation so important?
- Define a solid approach and detailed requirements.
- Functional Design Specifications Document
  - Process Flow Diagrams
  - Data File Formats and Z Table Mappings
  - JDE Configuration and Security Setup
  - Unit Test Requirements , Reporting and Error Handling
- Good documentation can reduce issues during development and testing.
- Documentation required for change control and future reference.

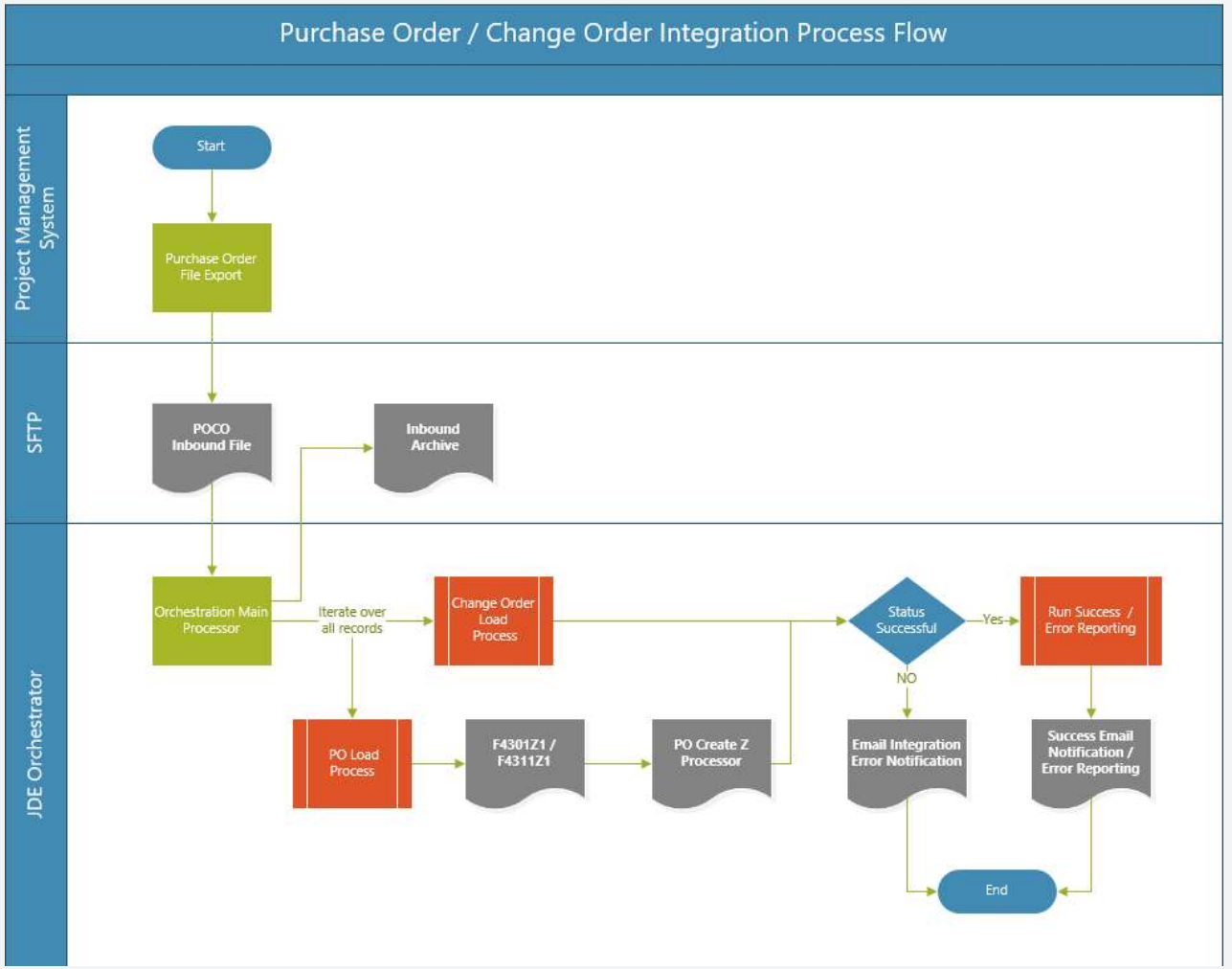
Integration Solution Overview

- Eliminate dual entry of data and ensure accuracy of data in both systems.
- Used Orchestrator tools for inbound POs / Voucher Match and outbound for status updates of JDE POs / Invoices.
- SFTP and scheduled jobs to transmit and launch processes.
- PO / Invoice approvals managed within JDE.

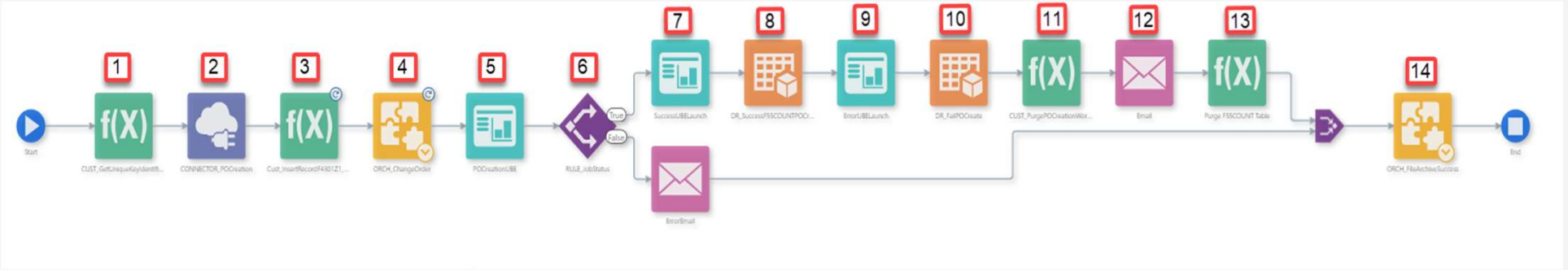


PO/Change Order Process Flow

- Inbound file contains both POs and Change Orders.
- Used Z tables for PO creation.
- Change Order used P4310 Forms Request to process.
- Error reporting and email status notification.
- File archiving.

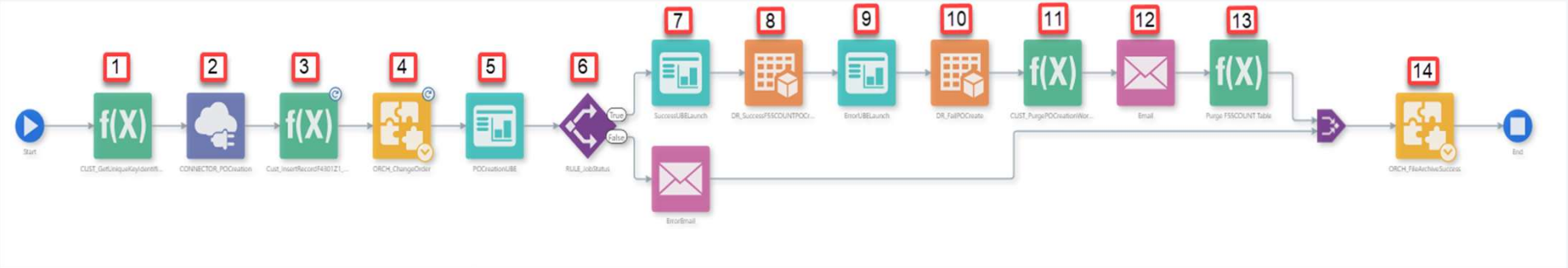


PO / Change Order Orchestration



- (1) Custom NER Function called to get next batch number. *Could use Logic Extension.*
- (2) FTP Connection to load PO text file into array.
- (3) Custom NER Function called to transform records / validate errors from PO text file and insert into Z Tables F4301Z1 and F4311Z1 for inbound purchase order processing. *Could use Logic Extension.*
- (4) Call to a "sub" orchestration for processing change orders using Forms Request component on P4310 application.
- (5) Call UBE R4311Z1I "Z Processor" to process purchase orders into standard tables F4301 and F4311.

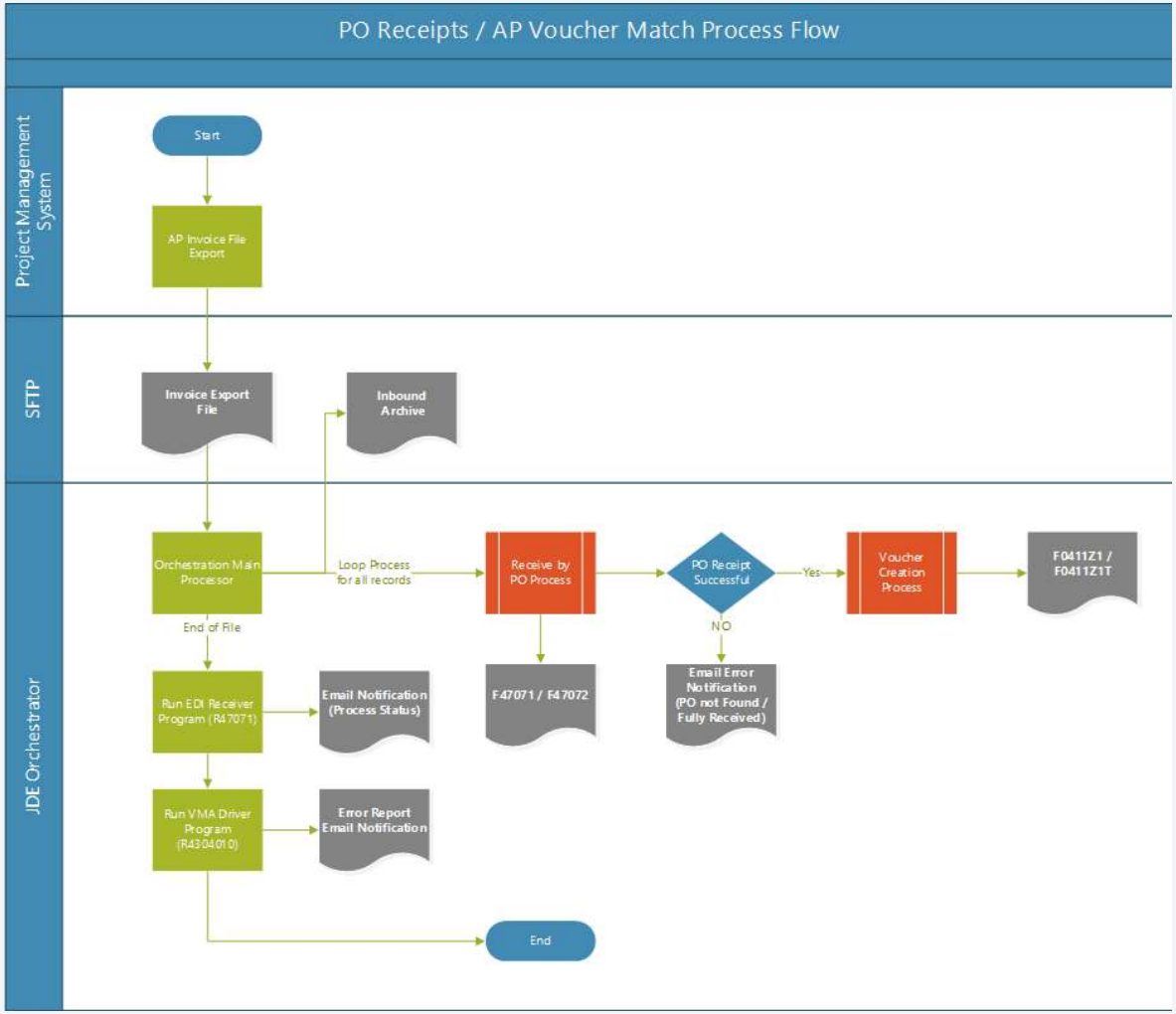
PO / Change Order Orchestration – Continued



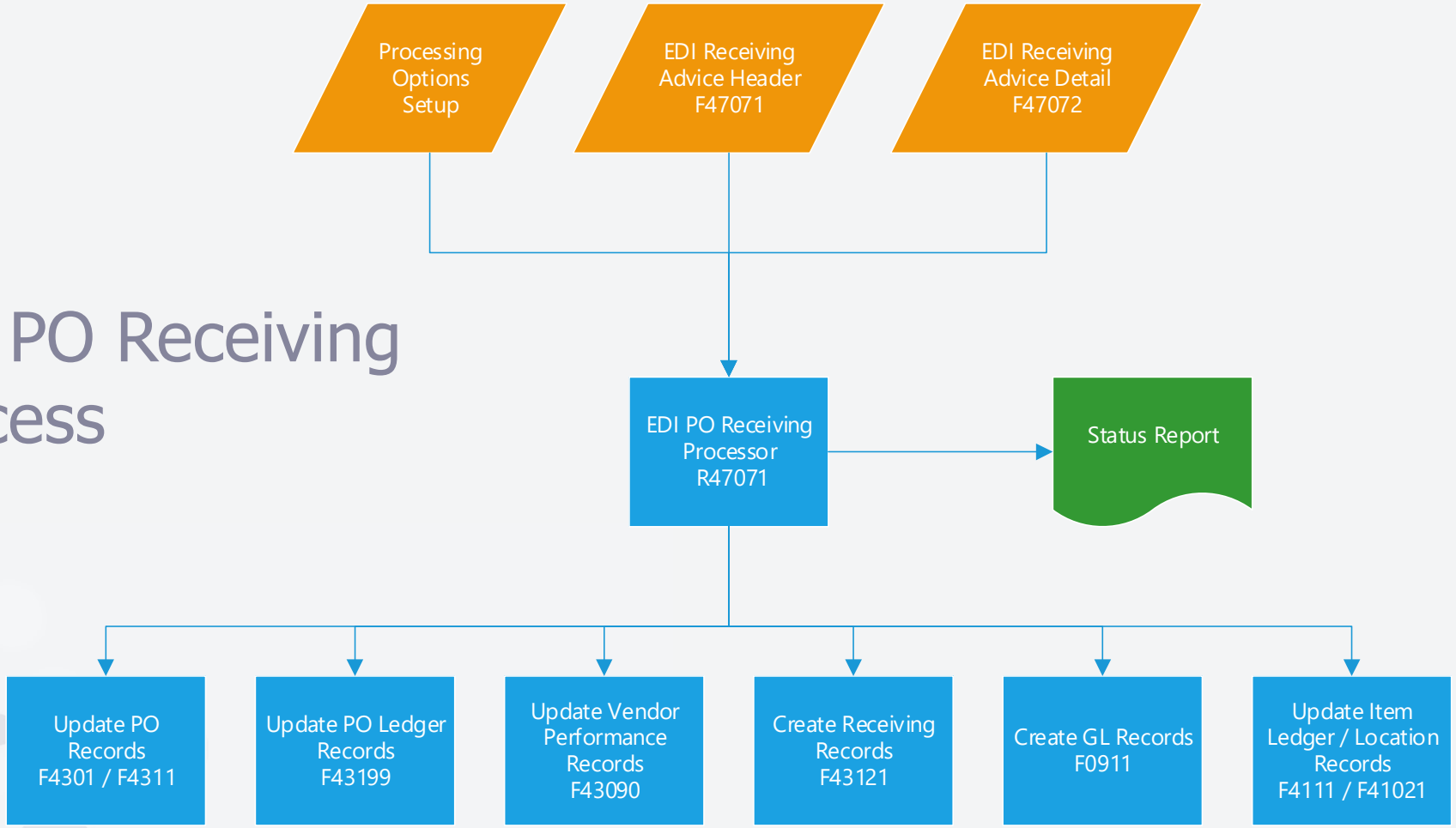
- (6) Decision rule for job status, if no errors then "True" continue with email success notification reports else "False" send error email and end process.
- (7/8, 9/10) Run custom UBEs for successful PO Create Details and PO Error status reports. Data requests used to fetch record counts for success / errors from worktables.
- (11) Custom NER function to purge worktables. *Could use Logic Extension component.*
- (12/13) Send email with record process counts, custom reports for success and errors as attachments. Purge worktable for record counts.
- (14) Call "sub" orchestration to archive successfully process file and clear from SFTP folder.

PO Receipt / AP Voucher Match Process Flow

- Inbound file contains both PO Receipt and AP Invoice info.
- Use EDI PO Receipt processor for a (Pseudo 3-way match).
- Use Z tables and VMA processor to match receipt and create AP Voucher.
- Error reporting and email status notifications.
- File archiving.

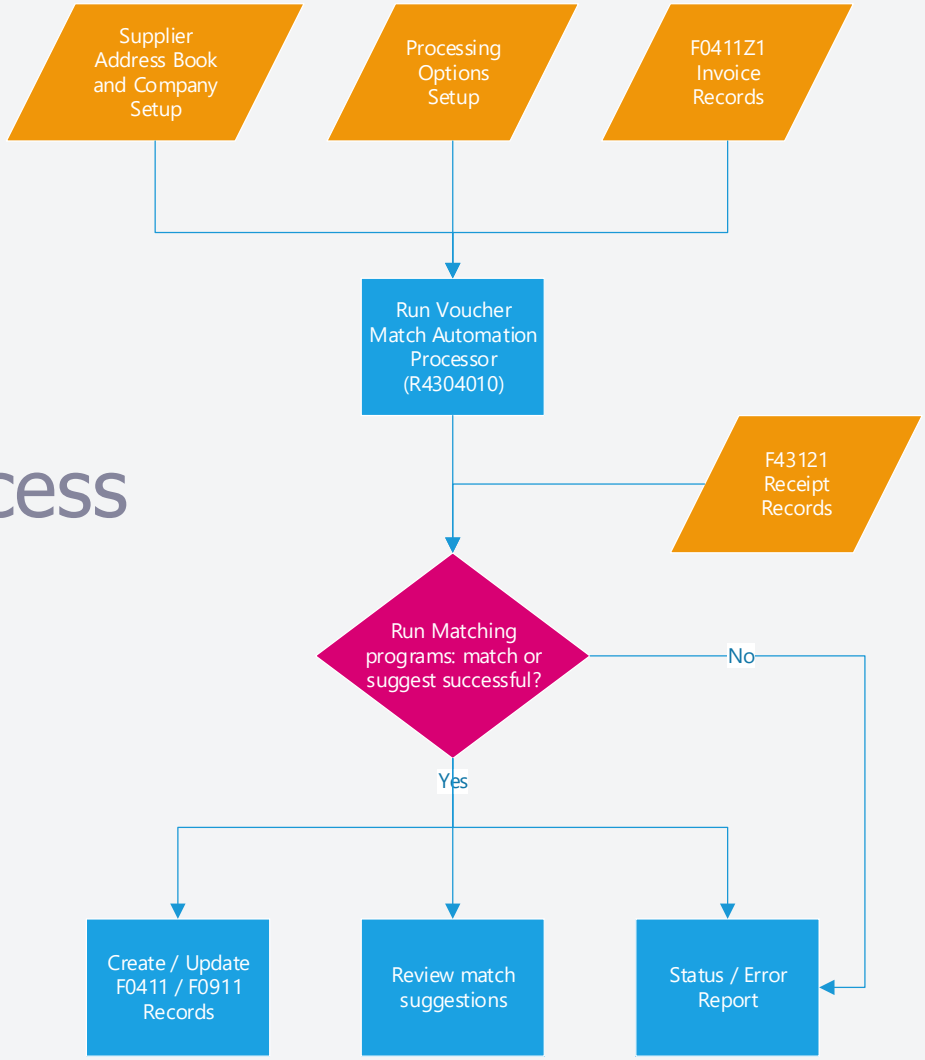


EDI PO Receiving Process

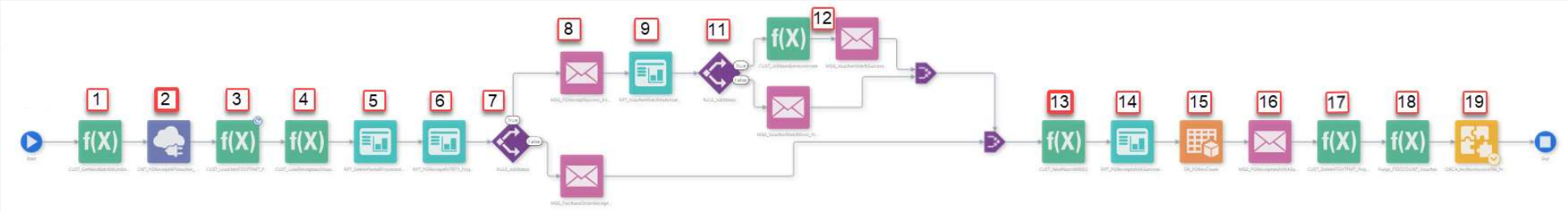


Voucher Match Automation Process

(3-Way or 2-Way)

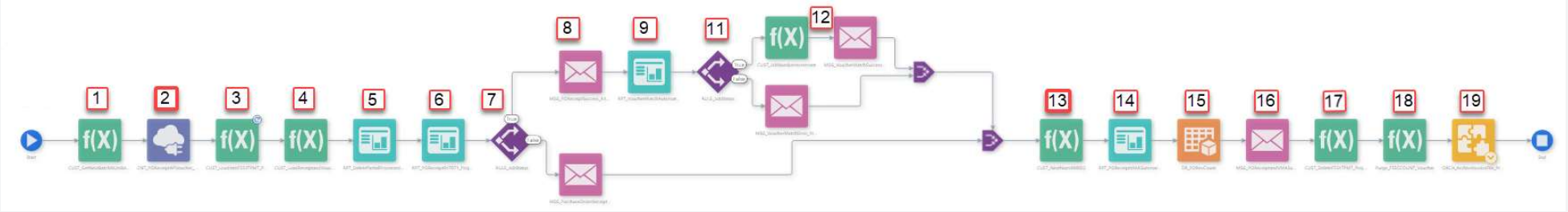


PO Receipt / AP Voucher Match Orchestration



- (1) Custom NER Function called to get next batch number. *Could use Logic Extension component.*
- (2) FTP Connect to load invoice text file into array.
- (3) Custom NER Function called to validate records and load in custom worktable for inbound processing.
- (4) Custom NER Function called to process records from worktable and insert into EDI Receipt tables F47071 / F47072 and Voucher Match Z tables F0411Z1/F0411Z1T. *Could use Logic Extension component.*
- (5) Custom UBE called to delete all records from Z tables F47071, F47072, F0411Z1, F0411Z1T that had errors during validation in step 4 above. *Could use Logic Extension component.*
- (6) Call UBE R47071 to process EDI Receipts records in tables F47071 and F47072.
- (7) Decision rule for job status. If PO receipts processed with no critical errors, then "True" continue with VMA processing else "False" send error email message and end process.

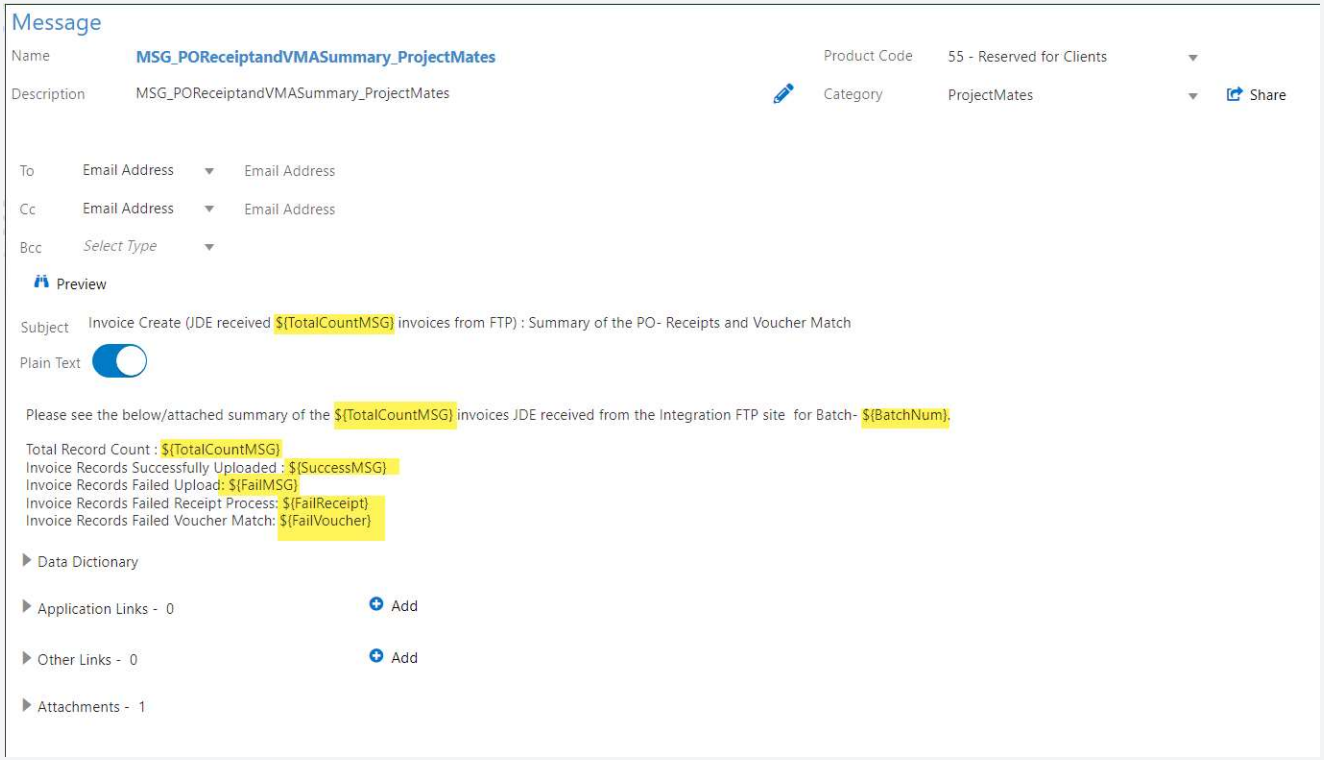
PO Receipt / AP Voucher Match Orchestration – Cont'd



- (8) Email message for PO Receipts Success with detailed EDI processor report attached from step 6.
- (9) Run Voucher Match Automation batch processor R4304010 to create vouchers and match to PO receipts.
- (11) Decision rule for job status. If voucher match processed with no critical errors, then "True" continue with orchestration else if "False" send error email message and end process.
- (12) Custom NER function to get job number for VMA report R4304020 and send successful process email with report as attachment.
- (13/14/15/16) Get batch number, run integration summary status report and get record counts. Send integration summary email with records counts and report as attachment.
- (17/18) Custom NER Functions called to clear temporary worktables. *Could use Logic Extension.*
- (19) Call "sub" orchestration to archive successfully process file and clear from SFTP folder.

Orchestration Email Status Notifications

- Summarizing status of all integration steps.
- Passing in record counts and error status as variables to the subject line and body of email notifications.
- Code format for variable is defined as ${Variable}
- Attach status reporting for review and detailed support.



User Acceptance Testing

- Document a detailed test plan with resources assignments.
- Scenario Test Scripts.
  - Detailed steps for data preparation.
  - Include “negative” testing for error handling, etc.
  - Track expected and actual results with supporting screen shots.
  - Document user comments and “Pass / Fail” status.
- Large data volume “stress” testing.
- Schedule time for multiple testing cycles to address “break/fix” situations.

Go Live Support – Lessons Learned

- Schedule adequate support for initial post go-live.
- Have error handling and resolution processes documented.
- Plan for worse case "roll-back" situation.
  - What do you do if your integration has a catastrophic failure?
  - How do you revert to your previous business process?
  - Have a documented plan in place for re-testing.
- Continue updating design documentation with future changes / enhancements.

Grant Thornton's sessions at INFOCUS 2024

Joint ventures with JD Edwards
Date/Time: Tuesday, October 1 | 12:45 p.m. MT
Speakers: David Kratzke and Craig Davied, Grant Thornton

Real Estate SIG Meetup
Date/Time: Tuesday, October 1 | 2:00 p.m. MT
Speakers: David Kratzke, Grant Thornton and Kelly Fabijanic, Boston Properties

Auto Carrier Tendering and other solutions to extend JDE Transportation
Date/Time: Tuesday, October 1 | 3:15 p.m. MT
Speakers: Craig Davied, Grant Thornton and Varun Vijaya Kumar, Atkore

Integrating project management software with JDE (Low-code/No-code solutions)
Date/Time: Wednesday, October 2 | 8:00 a.m. MT
Speaker: Doug Roesch, Grant Thornton

Unlock ultimate efficiency: Event-based orchestrations for seamless business automation
Date/Time: Wednesday, October 2 | 1:00 p.m. MT
Speaker: Jordan Myers, Grant Thornton

How to design job cost code structures to increase project profitability
Date/Time: Thursday, October 3 | 8:00 a.m. MT
Speakers: David Kratzke and Craig Davied, Grant Thornton

Exploring Release 24 innovations: Enterprise automation
Date/Time: Thursday, October 3 | 1:30 p.m. MT
Speaker: Dwight Moore, Grant Thornton

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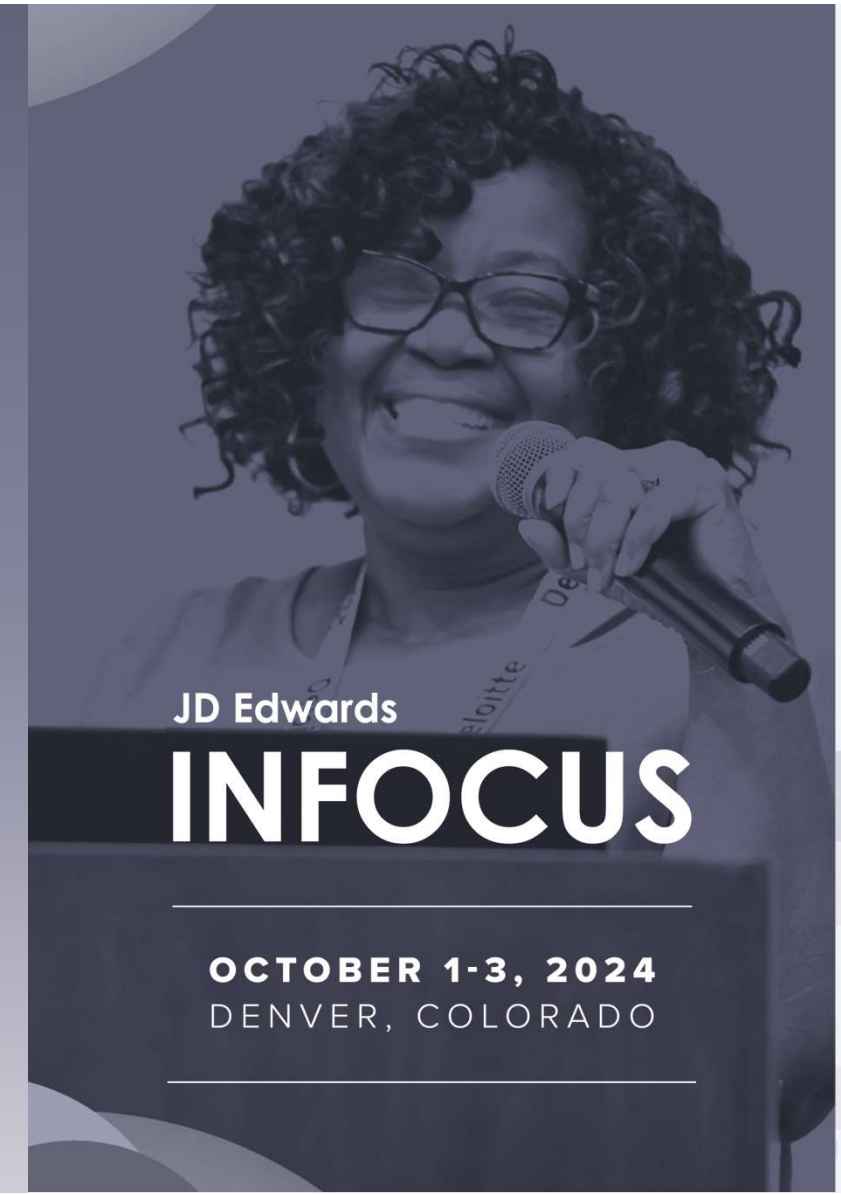
Connect with Grant Thornton at our annual INFOCUS happy hour celebration at Earl's Kitchen + Bar from 6-9 p.m. on Wednesday, October 2.

Just a 5-minute walk from the conference hotel! Scan to RSVP.



Contact me:

Doug Roesch

Doug.Roesch@us.gt.com

818-219-3566

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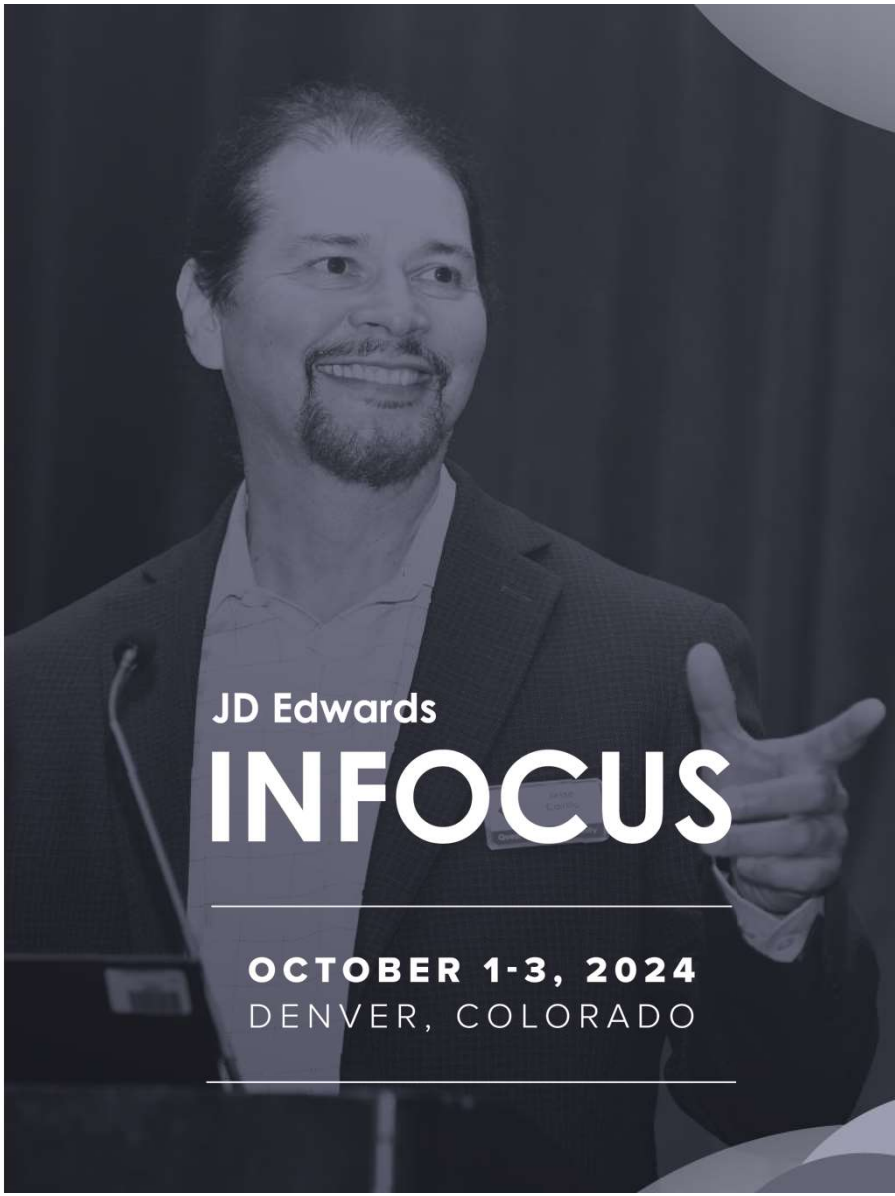

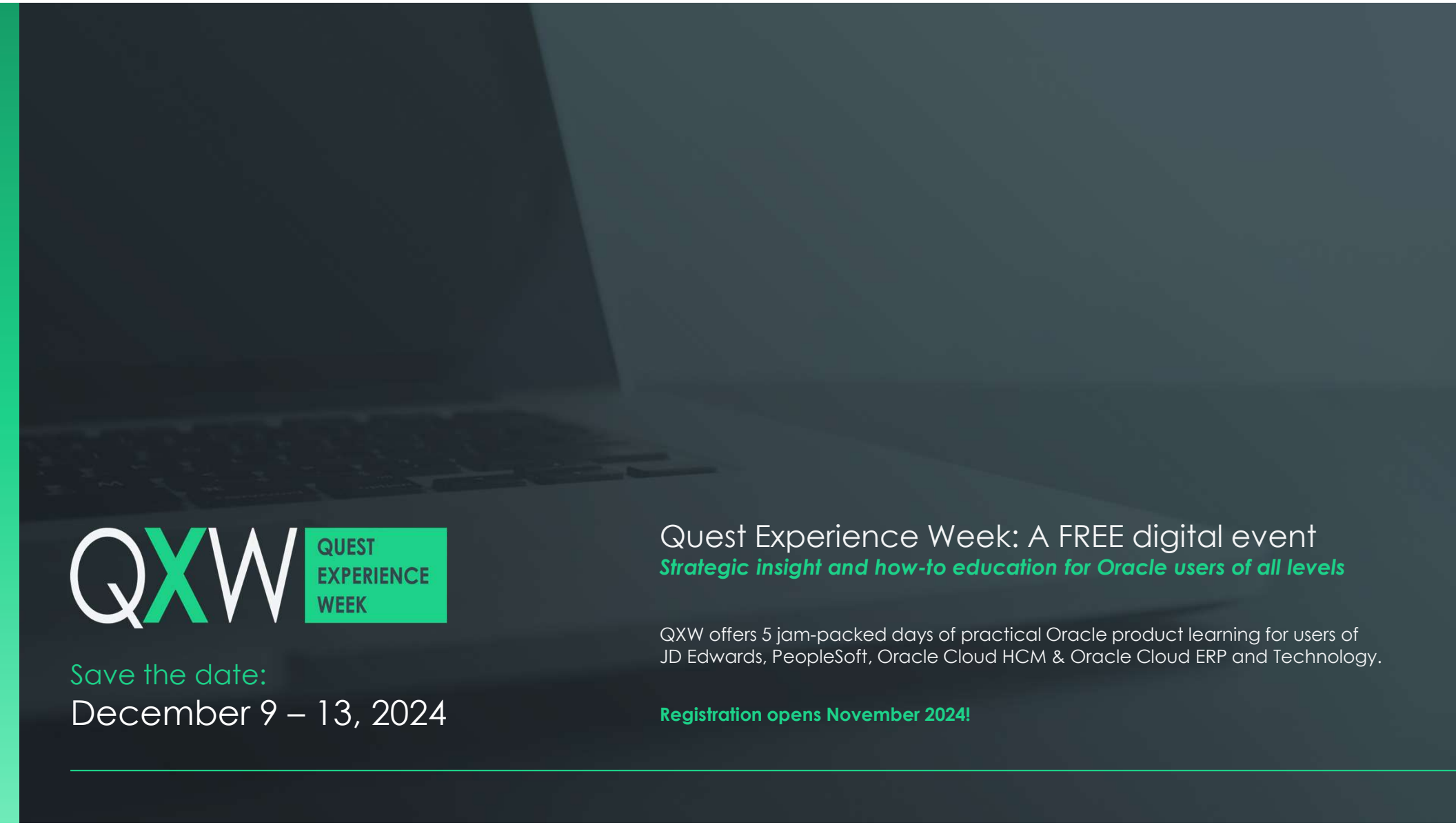
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