



# The steps to JD Edwards Orchestrator

Presented by:

Anthony Palmisano, Grant Thornton, LLP

**Session ID** 

100940

#### Anthony Palmisano Grant Thornton, LLP Manager, Technology Transformation

- Specializes in:
  - Project Management
  - EnterpriseOne Upgrades
  - Orchestrator
  - Multiple E1 Modules
- Industries:
  - Energy
  - Retail
  - Manufacturing
  - Construction



### About Grant Thornton

Thriving since 1924, our U.S. firm is people-focused and purpose-driven. We believe business should be more personal and that the strongest results start with trust.

# Who we serve: Fortune 100 companies Fortune 500 companies Fortune 500 companies Fortune 1000 companies







**53** offices

<sup>\*</sup> Statistics as of July 31, 2020

### Our Oracle Practice



**ERP and SCM** 

Financials | Revenue management | Accounting hub | Project accounting | Risk management | Project execution

Procurement | Inventory management | Cost management | Maintenance | Manufacturing | Order management | Product

lifecycle and data management | Supply chain collaboration and planning



**EPM Analytics** 

Planning and budgeting | Profitability and cost management | Financial close and consolidation | Tax reporting and provisioning Management and operational analytics | Narrative reporting | Account reconciliation | Enterprise data management



**HCM** 

Culture journey | Talent acquisition | Workforce administration | Talent management | Workforce development Alumni network

#### Data governance & cloud integration

#### PaaS

#### Solution delivery center (off-shore and on-shore)

#### Industries

Construction, Real Estate & Hospitality Consumer And Industrial Products

Energy

Financial Services Healthcare And Life Sciences

Not-For-Profit Organizations

Private Equity

Public Sector

Technology

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### Oracle Partner Excellence Awards







- Grant Thornton is the proud recipient of the Oracle JD Edwards 2020 Partner Excellence Awards in three categories: Application Optimization, Process Automation, and Building a Cloud Culture.
- The awards recognize Grant Thornton's ability to combine business strategy with JD Edwards' functional and technical capabilities to deliver value.
  - The 2020 Partner Excellence Awards are the latest in a long line of accolades Grant Thornton has received over decades of collaborating with JD Edwards.

### About Grant Thornton JDE

JD Edwards practice – 80+ dedicated professionals in U.S.

Project management and functional expertise

- Specialized functional resources
- •Project management office •Business process re-
- Implementations
- Upgrades
- Mobile applications

- •Third party integration architecture
- Business process reengineering
- Managed services (functional)
- User materials and training

- Financials
- Distribution
- Manufacturing
- •HR / Payroll
- ·CAM
- Project advisory

**Technical** 

- ·CNC
- Development
- Workflow
- Security management
- Technical management
- Database management
- Infrastructure / hosting
- Managed services (technical)

- Private cloud
- Disaster recovery
- Security
- Development (FRICE)

Trusted business advisor

- Gap assessment
- Transformation
- Industry point of view
- Proven methodologies
- Process excellence

- Benchmarking
- •ERP governance
- Data governance
- Master data management
- Reporting strategy

- Change management
- Cloud roadmap / strategy
- FASB planning
- Chart of accounts optimization



#### Oracle leadership

- The Leading Oracle Platinum Partner presenter at COLLABORATE, INFOCUS and OpenWorld conferences (more presentations than any other Platinum partner in the past 3 years)
- Featured in PROFIT magazine JD Edwards Special Issue
- Teaming with JDE product development we work with JD Edwards on enhancing the code base for customers (e.g. OneView Reporting, Revenue Recognition, Leasing Standards, Configurator)

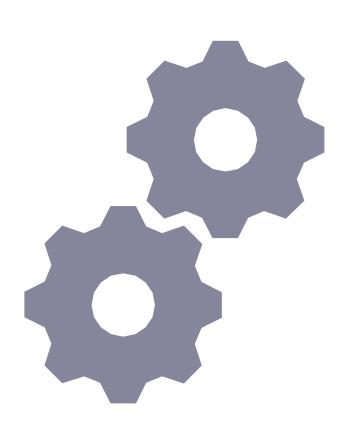


#### Experience and recognition

- More than 250 JD Edwards implementations and upgrades as a practice
- Over 20 implementations in the past 5 years
- Over 50 upgrades in the past 5 years
- 2017 JD Edwards Partner Excellence Award for **User Adoption**
- 2016 JD Edwards Partner Excellence Award for Vertical Industries
- Oracle JD Edwards recognized Grant Thornton with its 2014 and 2015 JD Edwards Partner Excellence Award for Outstanding Upgrades

### Agenda

- Orchestrator Overview
- Build an Orchestration
- Testing & Debugging
- Form Extension Implementation
- Summary
- Questions

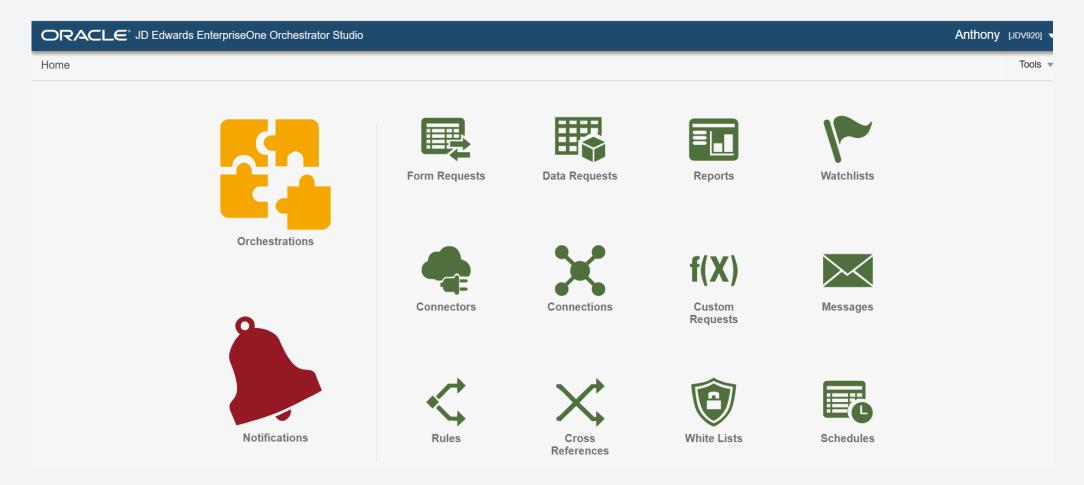


### Orchestration Overview

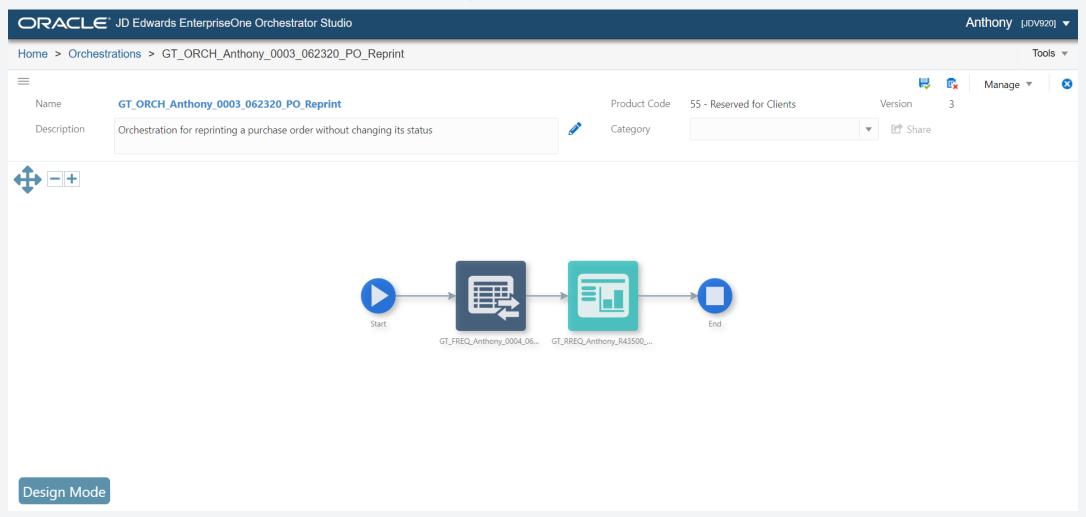
### Orchestrator Components

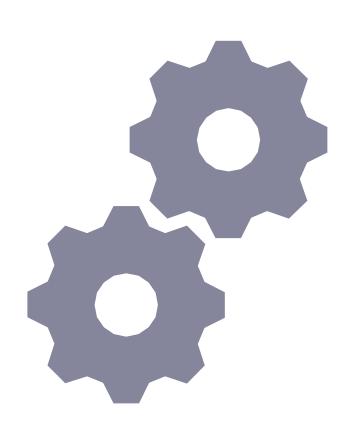
Orchestration Component	Description
Orchestrations	Containers that hold all components and define the sequence and inputs of the orchestration events
Service Requests	Services that can interact with JDE Applications, Reports, and Data. Service requests can also be used to send messages and connect with external systems
Rules	Define conditions to compare data and values against to make decisions within an orchestration
Notifications	Notifies uses via internal JDE notifications or external communications of business events occurring within JDE
Schedules	Define schedules to execute notifications and orchestrations
Recordings	Used to quickly record form service events

### Orchestrator Components



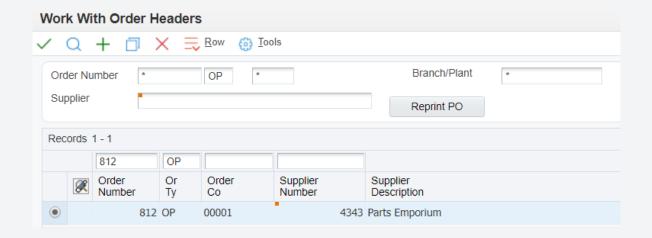
### Orchestrator Example





### Building an Orchestration

### Use Case



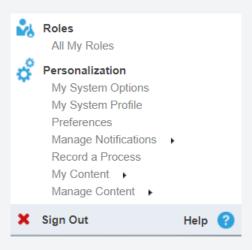
- Create orchestration to reprint a Purchase Order without advancing status
  - this can be done through a menu exit but we want to create a button on P4310 to save steps
- Orchestration to include:
  - Form Request grab PO data from P4310 while on the form
  - Report Request use inputs from Form Request as data selection on R43500 version (no status change)
- Create a Button via Form Extension to link the orchestration to

### Steps to Creating the Orchestration

- Step 1 Create the Orchestration
- Step 2 Create the Form Request
- Step 3 Create the Report Request
- Step 4 Map the Inputs and Variables

# Consider the Process – Teach the Orchestrator

- When designing an Orchestration always best to manually walk through the process you are trying to orchestrate and note each step, application, version, input, etc.
- Can "Record a Process" to assist in creating the orchestration
  - Caution: they do not always turn out exactly as you need them to



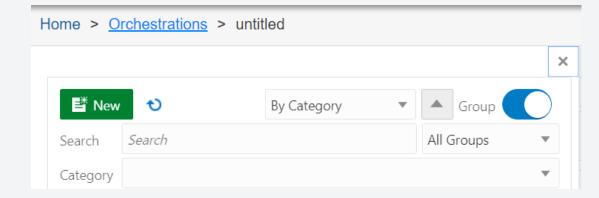
### Let's Build! - Step 1

### Start by Creating an Orchestration

Click on "Orchestrations"

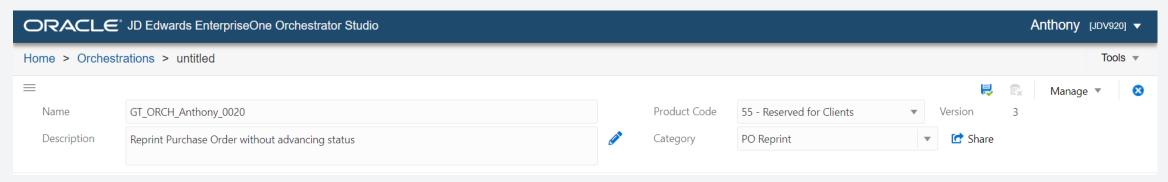


Click "New"



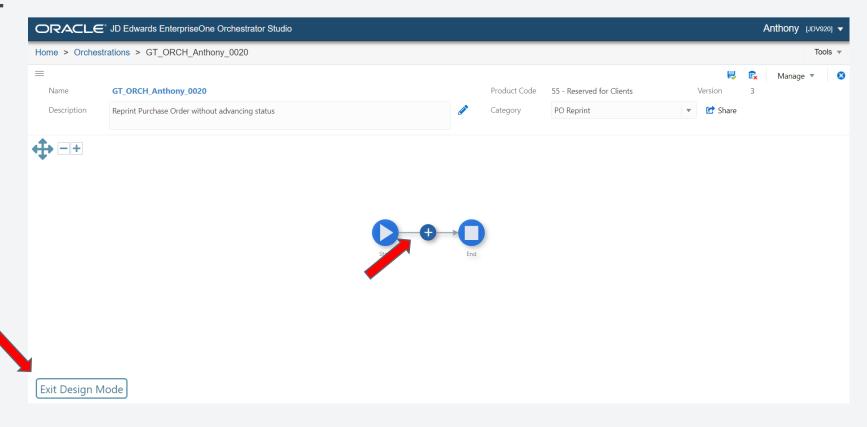
#### Start by Creating an Orchestration

- Fill out Orchestration Header info
  - Use consistent naming convention "Org\_Type\_Name\_NextNumber"
  - Use "Category" field to help find Orchestration when searching
  - Product Code should stay 55 unless change required
  - Save the Orchestration



### Let's Build! – Step 2

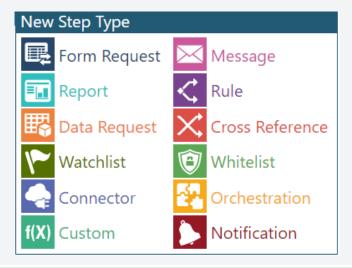
- Click "+"
  - if not + then make sure you are in "Design Mode"

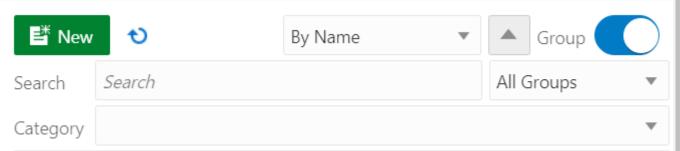


#### **Create Form Request**

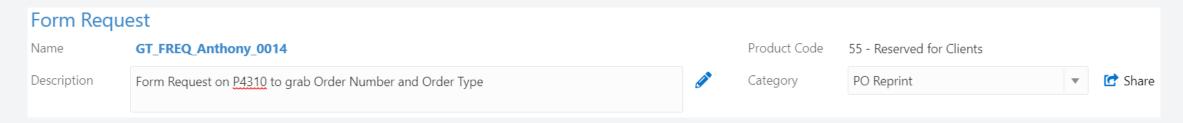
 Choose "Form Request"

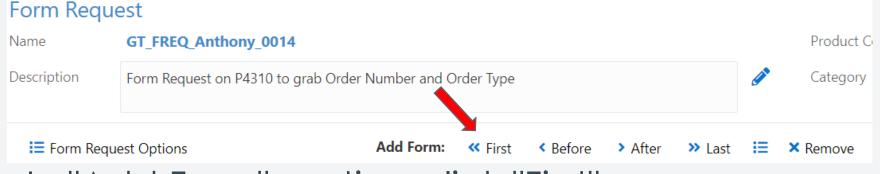
 Click "New" to create new Form Request



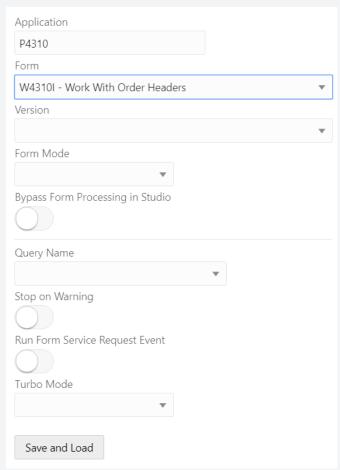


- Fill out:
  - Name Required
  - Description
  - Category



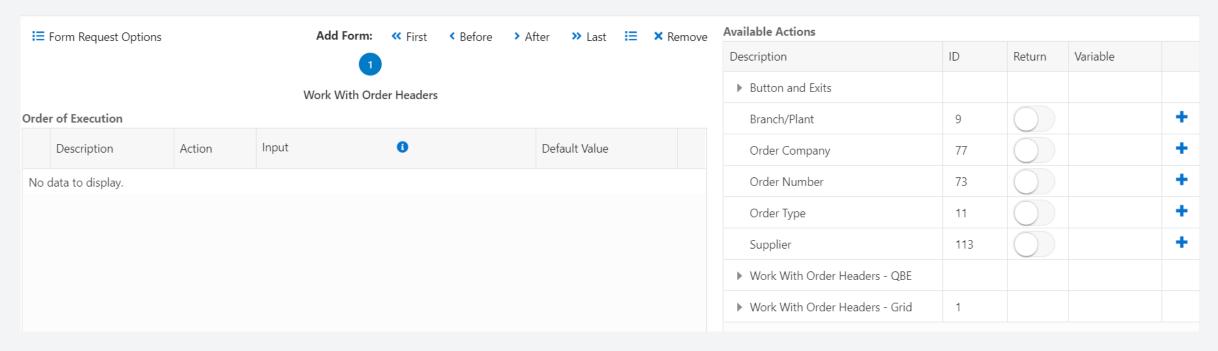


- In "Add Form" section click "First"
- Fill out:
  - Application: P4310
  - Form: W4310I
- Click "Save and Load"



#### **Create Form Request**

• "Available Actions" should have appeared with options for P4310



- We need to work with QBE input this Form Request will take the user defined input in QBE, find the PO, and grab the Order Type and Order Number
- The actions we select will be performed in the order they are listed in the "Order of Execution" section

- From "Work with Order Headers QBE", expand section and select:
  - Click "+" next to:
    - Or Ty
    - Order Number

AVAIIADIE ACTIONS				
Description	ID	Return	Variable	
▲ Work With Order Headers - QBE				
Amount	21			+
Branch/ Plant	52			+
Buyer	29			+
Curr	23			+
Foreign Amount	22			+
Hd CD	78			+
Or Ty	20			+
Order Co	32			+
Order Date	33			+
Order Number	19			+

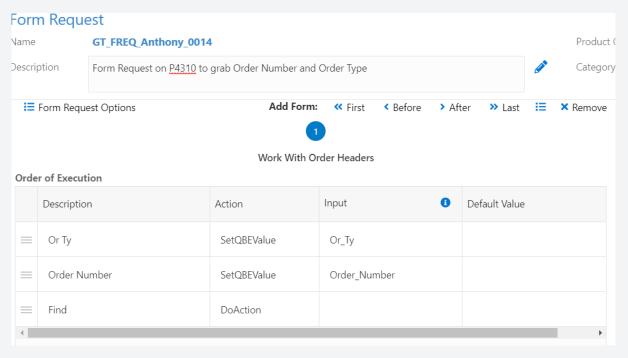
- From "Buttons and Exits", expand and select:
  - Click "+" next to:
    - Find

Available Actions				
Description	ID	Return	Variable	
▲ Button and Exits				
Add	13			+
Add Change Order	106			+
Close	5			+
Сору	43			+
Delete	61			+
Detail Revision	62			+
Financial Status	102			+
Find	12			+

#### **Create Form Request**

Order of Execution should look like this after choosing actions for

QBE line and Buttons/Exits



#### **Create Form Request**

 Now we need to return the values from the grid that were found from the first 3 steps.

• In the "Available Actions" go to and expand "Work with Order

Headers - Grid"

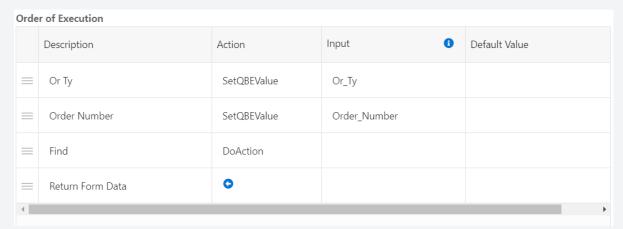
Click "Return" button next to:

- Or Ty
- Order Number

Description	ID	Return	Variable	
Curr	23			
Foreign Amount	22			
Hd CD	78			
Or Ty	20			
Order Co	32			
Order Date	33			
Order Number	19			
Ordered By	55			
Reference	30			
RMA Number	119			
RMA Ty	120			

#### **Create Form Request**

Order of Execution should now have a "Return Form Data" section



Click blue arrow to open the Return Form Data view

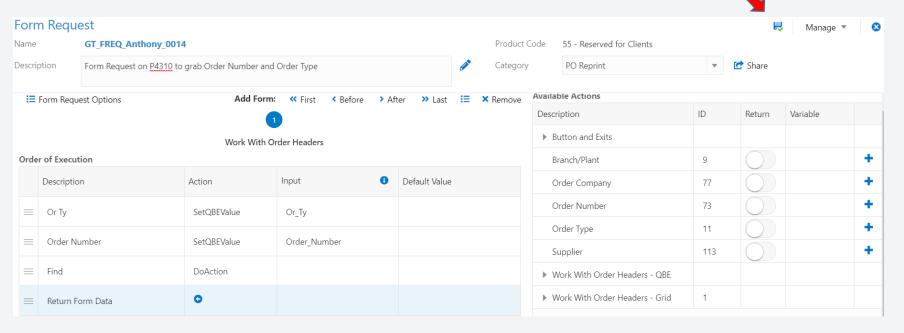
#### **Create Form Request**

 In the "Variable" column enter a name for each: Or Ty and Order Number.

We will use these later

• Add			
ID	Description	Variable	
1	Work With Order Headers - Grid		×
20	Or Ty	OrderType	×
19	Order Number	OrderNumber	×

- We are done with the Form Request!!
- Click "Save"
- Then "X"



### Let's Build! - Step 2 (Review)

#### **Create Form Request**

Orchestration should now look like this



### Let's Build! – Step 3

#### **Create Report Request**

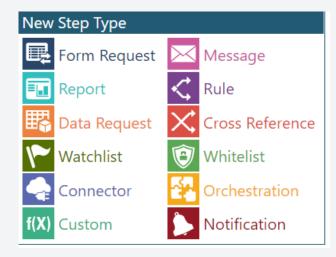
 Click "+" to right of Form Request to add a Report Request after it in the orchestration



#### **Create Report Request**

Select "Report"

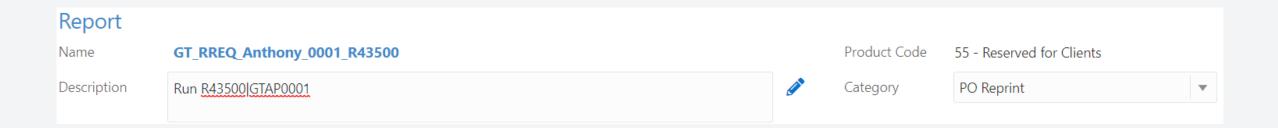
Click "New"





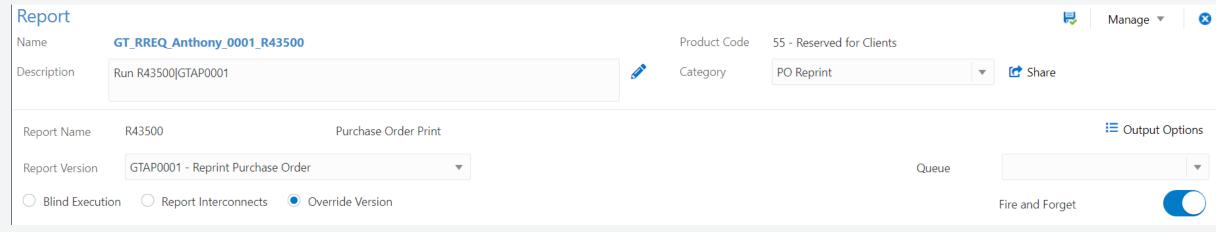
#### **Create Report Request**

- Fill out the Report Request header
  - Version R43500 | GTAP0001 was a copy of XJDE0002 with additional data selection added. You will need to create your own R43500 version



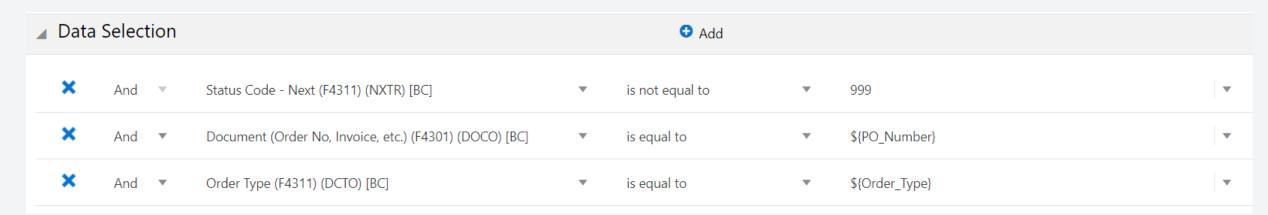
### **Create Report Request**

- Enter R43500 in the "Report Name" field
- Enter your custom version of R43500 in "Report Version" field
- Click "Override Version" so we can use inputs from Form Request in the data selection



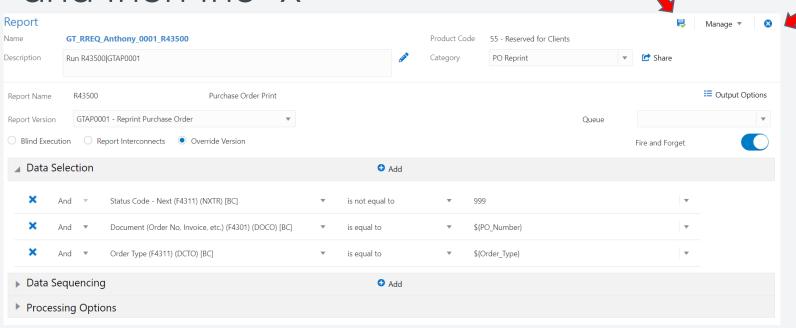
### **Create Report Request**

- We need to define our Data Selection
- Click in operand field for each variable and enter \${ }
- Between { } enter the name you want to give variable. Make it something recognizable. Click Save



#### **Create Report Request**

- We are done with the Report Request!!
- Click "Save" and then the "X"



### Let's Build! - Step 3 (Review)

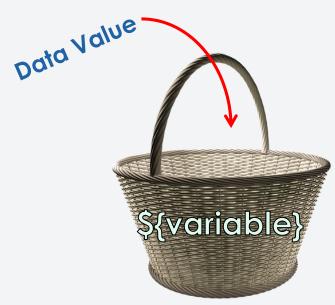
#### **Create Report Request**

Your Orchestration should look like this



### Let's Build! - Step 4

- Each step of the orchestration has Input Variables
- Think of Input Variables as baskets that carry values through the process
- Our variables were:
  - chosen from the Form Request on P4310
  - defined with \${ } in the data selection of R43500
- Now we have to link them all



# Let's Discuss Inputs and Variables

- Inputs are the data received –
   Triangles, Cubes, Stars, etc
- Variables are the spaces they fit in (basket, puzzle holes)
- Imagine that the basket is shaped like the Cube
- Puzzle = Orchestration

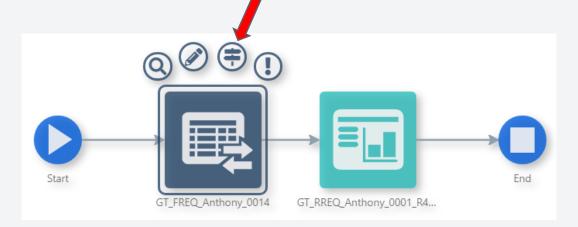


#### **Assigning Inputs**

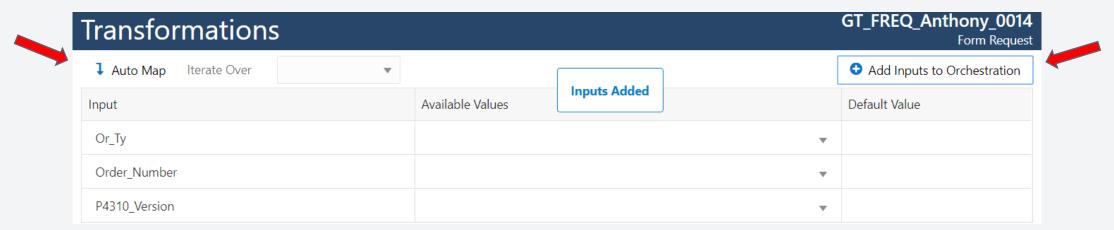
 Our inputs to the QBE line in P4310 are taken from outside our Orchestration thus they need to be set up in the "Start" button

• First click on the Form Request tile then the "Transformations" sign

post button



- In the "Transformation" window click "Add Inputs to Orchestration"
- This assigns these variable as inputs to the Orchestrations
- Then click "Auto Map" to map these variables to the Orchestration inputs



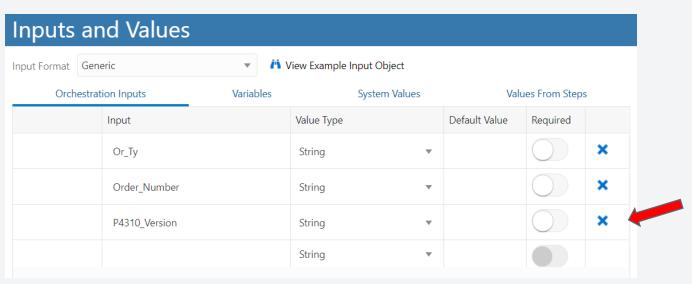
- Your screen should look like this
- To clear the "P4310\_Version" to blank click the down arrow and select blank. There is no need to map the P4310 version



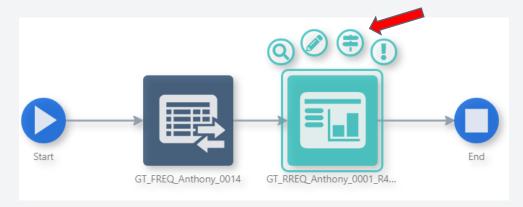
- Click 'Save"
- Click the "Start" button and click the "Inputs and Values" button



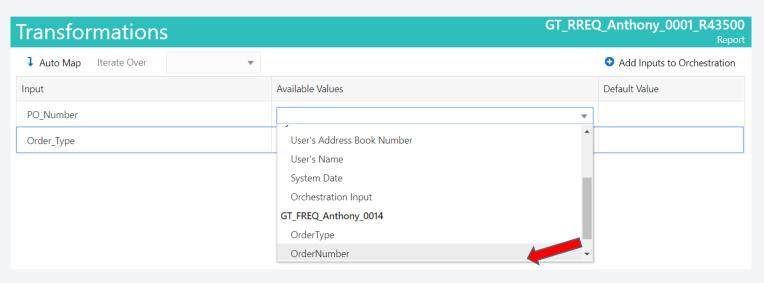
- These are the external inputs that the Orchestration will get from the Form
- Click the "X" next to the P4310\_Version to remove this Input



- Click on the Report Request and then the "Transformations" button
- In the Report Request Transformations we do not want to click "Add Inputs to Orchestration" because we want our inputs from the Form Request on P4310



- In the "Available Values" column click the down arrow for "PO\_Number" and find the values from the Form Request
- Select the "OrderNumber" value.



- Repeat process and map "Order\_Type"
- Your Report Request Transformations should look similar to this
- Click "Save"



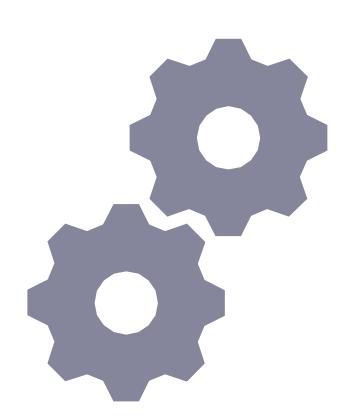
### Steps to Creating the Orchestration

- Step 1 Create the Orchestration
- Step 2 Create the Form Request
- Step 3 Create the Report Request
- Step 4 Map the Inputs and Variables

### Let's Build!

#### **Orchestration Built!**

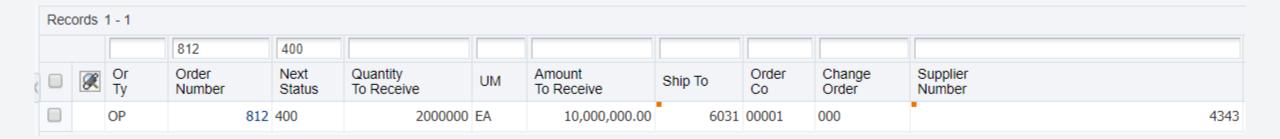
- We have finished building our Orchestration.
- Now we need to test



# Testing and Debugging

#### In EnterpriseOne

 We need to get an open order to be sure the status doesn't advance when run the Orchestration



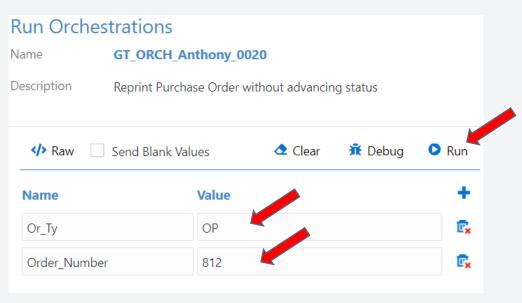
#### In Orchestrator

- Click "Start" button on your Orchestration
- Click "Run Orchestration" button



#### In Orchestrator

- In the "Run Orchestrations" screen enter the values for each variable using the Open Order we found in E1
- Click "Run"

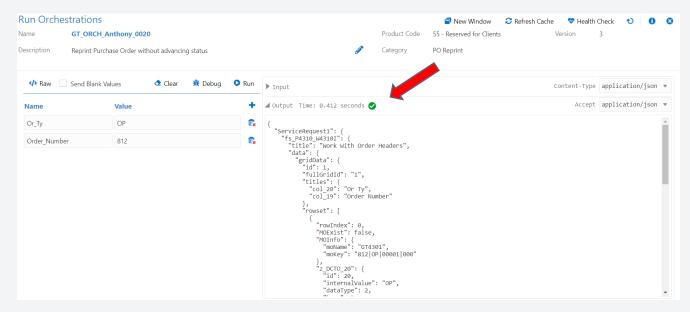


#### In Orchestrator Studio

Green checkmark means it processed successfully

JSON output can be read to determine what happened – helpful

for debugging



#### In EnterpriseOne

Recent Reports should show the R43500 version we are using



The test order should not have advanced

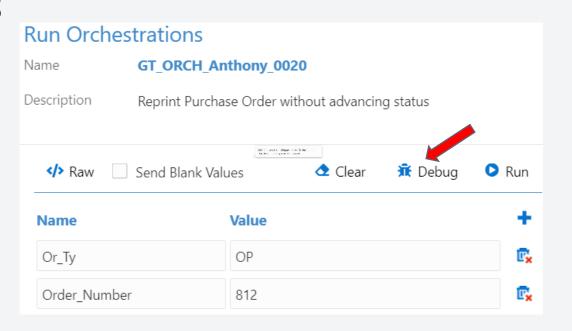


### Debugging

#### In Orchestrator

• To use debug, in "Run Orchestrations" click "Debug" after you enter

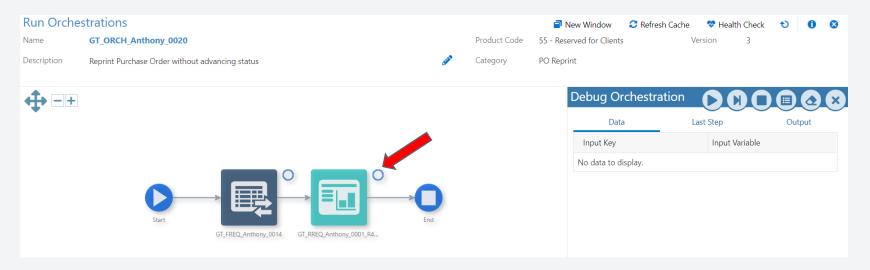
your input values



### Debugging

#### In Orchestrator

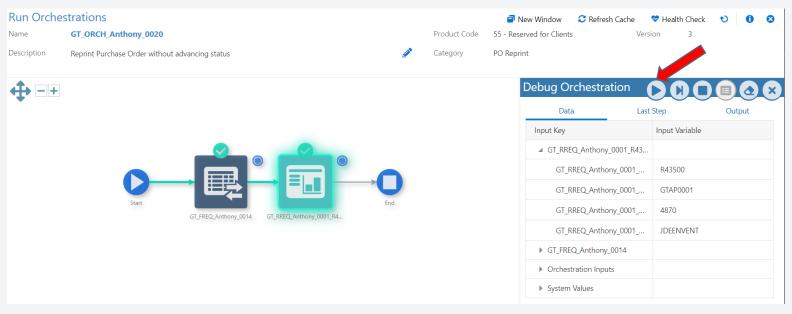
- In the "Run Orchestrations" screen your Orchestration now appears with radio buttons above each component.
- These buttons can be turned on to set breakpoints

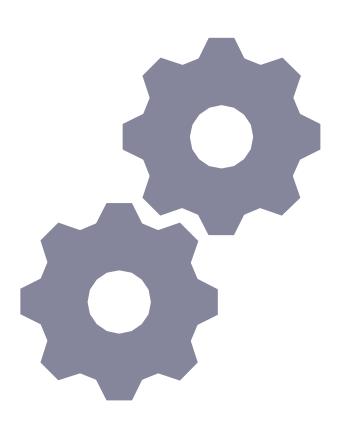


### Debugging

#### In Orchestrator

 Once you set the break points you want to test click the "Run/Resume" button. Repeat to process through each step

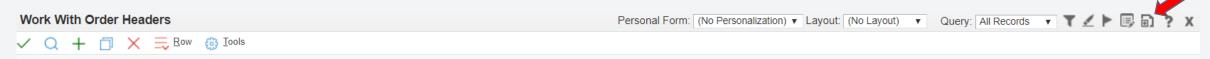




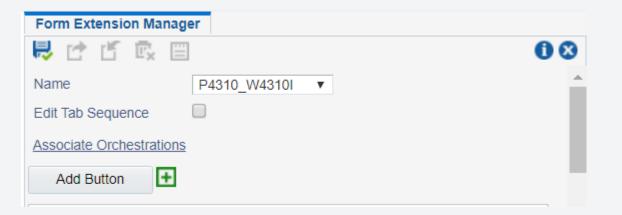
### Form Extension Implementation

#### In EnterpriseOne

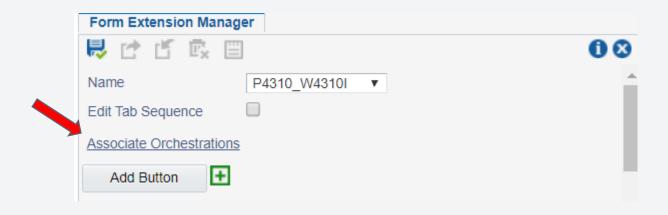
Go to P4310, click on the "Form Extension" button



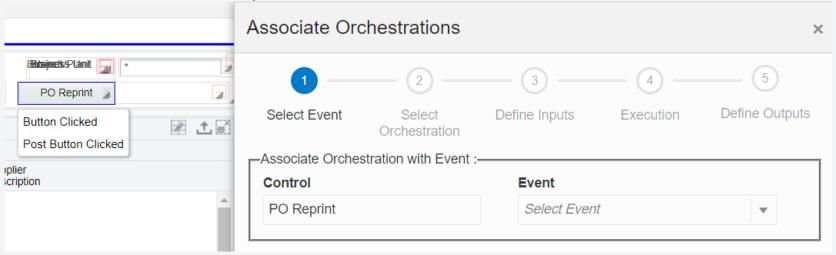
Drag "Add Button" onto P4310 Form



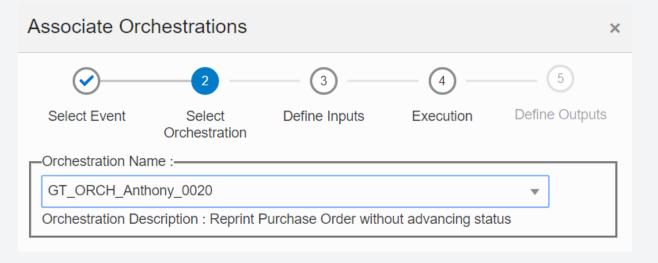
- Name your Form Extension Button double-click to rename
- Click "Associate Orchestration" in the Form Extension Manager pane



- In the "Associate Orchestrations" window click in the "Control" field
- To select control click on the button we created.
  - choose the "Post Button Clicked" option
- Click "Next"

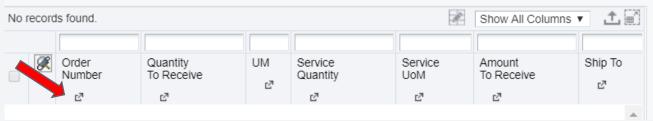


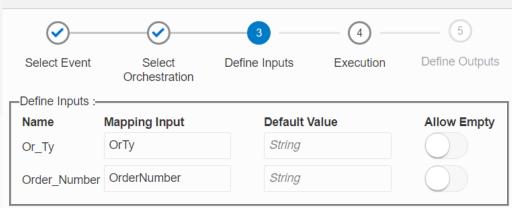
- In the "Associate Orchestrations" window, Step 2 Select Orchestration
- Choose the Orchestration we created
- Click "Next"



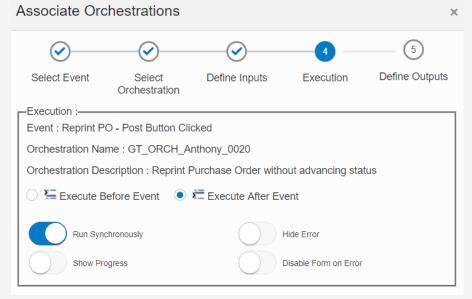
- In the "Associate Orchestrations" window, Step 3 Define Inputs
- Click in the "Mapping Input" field for the "Or\_Ty" variable
- Then select "Or\_Ty" field in the grid, click the symbol under the name

  Associate Orchestrations
- Repeat process for "Order\_Number"
- Click "Next"



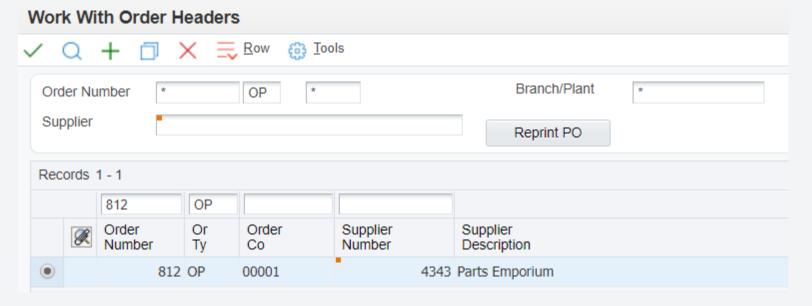


- In the "Associate Orchestrations" window, Step 4 Execution
- Setup the Execution like below, common setup for this process
- Click "Next"
- Click "Save" in Step 5
- Click "Save" in Form Extension Manager
   then "X"



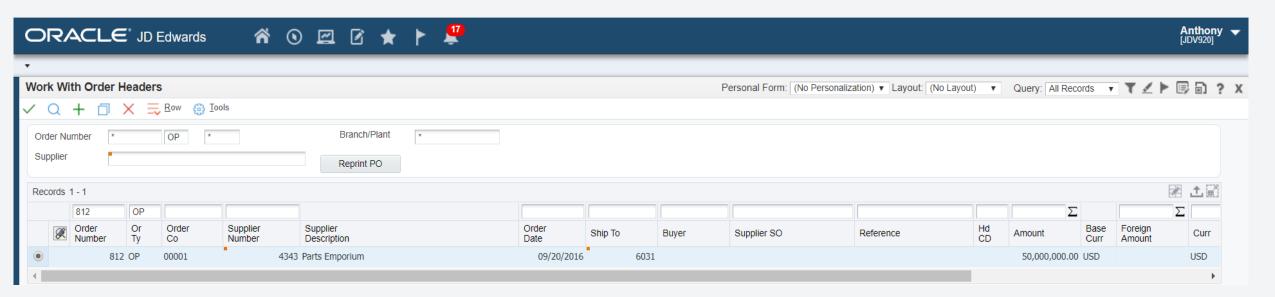
- In P4310, find a purchase order and click the new button
- Report should be in your "Recent Reports"

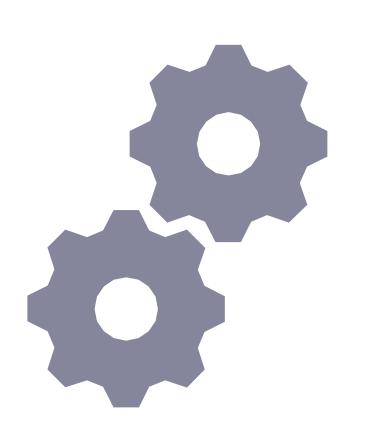




### P4310 Screen

- In P4310, find a purchase order and click the new button
- Report should be in your "Recent Reports"





### Summary

### Summary

- TIP: Use recorder to record your process and/or help troubleshoot your orchestration
- TIP: Start with building the orchestration first then creating the components within the orchestration. Try not to create the components in a silo.
- TIP: Use category to help find the components when searching later.
- TIP: To define a variable use \${ variable name }
- TIP: Think of variables like baskets that carry the data

### Orchestrator Examples

- 1. Address Book Workflow
- 2. Fixed Asset Information Uploads
- 3. Automate Report Generation & Distribution
- 4. Import CSV & Update Master Data
- 5. Exchange Rate Import
- 6. Positive Pay Flat File Transmission
- 7. Multiple Batch Approval
- 8. Auto Substitute Sales Order Lines

- 9. Purchase Order Reprint
- 10. Work Center Error Notification
- 11. Export to Data Warehouse
- 12. Live Import from Excel: Address Book Records
- 13. Live Import from Excel: Load Journal Entries
- 14. Live Import from Excel: Pull G/L Range
- 15. Live Export from Excel: Price Check

### **Hear more from Grant Thornton**

#### **Tuesday**

- Automating positive pay with
   Orchestrations | Mohammad Shujaat | 8:15
   a.m. CT
- Designing job cost code structures for effective cost management | Craig Davied | 11:15 a.m. CT
- Unleash the power of EDI 852 | Shrikant Gogate | 11:15 a.m. CT
- Use form extensions to turbocharge JD Edwards 9.2 | Mohammad Shujaat | 1:15 p.m. CT
- Using enhanced RMA | Shrikant Gogate | 3:15 p.m. CT
- A simplified guide to implementing lease accounting | Sam Johnson | 3:15 p.m. CT
- Extend JDE reporting with Oracle
   Analytics | Jeffrey Silverman and Matt
   Elfeldt, Greer Labs | 3:15 p.m. CT

#### Wednesday

- JDE's advanced pricing can handle the most complex pricing structures | Craig Davied | 7:30 a.m. CT
- Creating workflows with JD Edwards
   Orchestrator | Dwight Moore | 8:45 a.m. CT
- The steps to JD Edwards Orchestrator | Anthony Palmisano | 12:45 p.m. CT
- How general ledger can improve sales and operational reporting | Craig Davied | 2:00 p.m. CT
- A Covid migration: World to EnterpriseOne upgrade | David Kratzke | 4:00 p.m. CT
- Utilizing Orchestrator Studio for real estate | Sam Johnson | 4:00 p.m. CT

#### **Thursday**

- Paperless AP automation journey An Orchestrator case study | David Kratzke and Matt Marfice, Watson Land Company | 8:15 a.m. CT
- Stop Integrating & start InteGreat-ing|
   Mohammad Shujaat | 8:15 a.m. CT
- The benefits from upgrading from World to EnterpriseOne | Craig Davied | 10:00 a.m. CT
- Step by step: Evaluate the effectiveness of your EAM/CAM asset maintenance program | Steve Yniguez | 11:15 a.m. CT
- loT methods for reporting, dashboarding & customer portal using Orchestrator and CafeOne | Jordan Myers | 11:15 a.m. CT
- Manage your joint venture needs in JDE |
   Craig Davied | 1:15 p.m. CT





# Any Questions?



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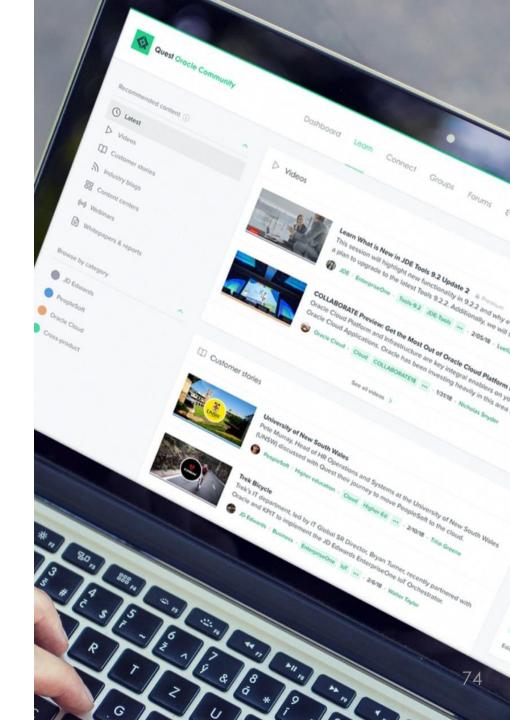
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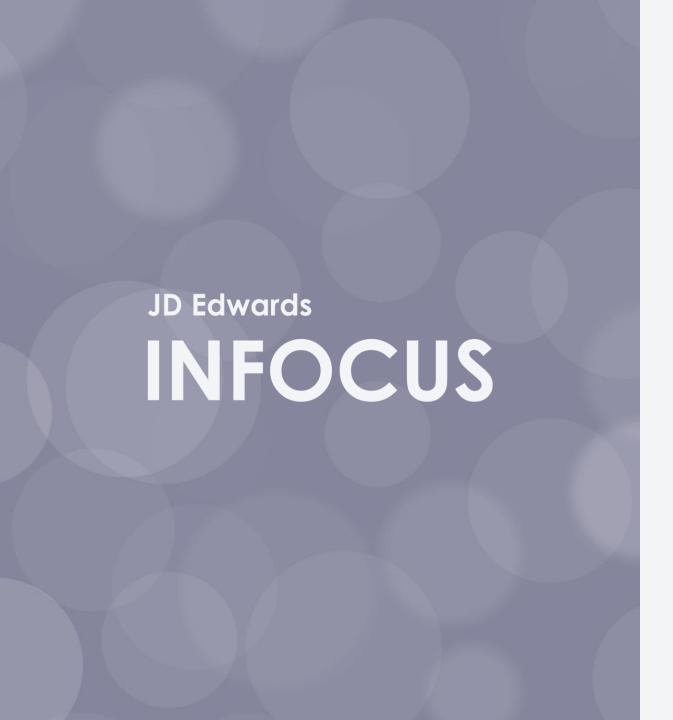
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