JD Edwards EnterpriseOne Orchestrator: A Quick Tour of Recent Enhancements

Quest Webinar

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Product Manager
Oracle JD Edwards EnterpriseOne

May 2, 2019

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Agenda

1. Recap of Orchestrator Sessions at COLLABORATE 19
2. Summary of Orchestrator Enhancements by Release
3. A Quick Tour of Enhancements
4. Q & A

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COLLABORATE 19 Conference: 29 Orchestrator Sessions

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Go Collaborate: Orchestrator & Notifications Sessions

Thursday		
8:00 AM–12:00	Emera Soluti	
8:00 AM–9:00	Fluidm Platin	

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Go Collaborate: Orchestrator & Notifications Sessions

Wednesday		
8:00 AM–9:00	Oracle	
8:00 AM–9:00	ERP Su	
9:15 AM–10:15	Oracle	
9:15 AM–10:15	Ford M ERP Su	
12:45 PM–1:45	Oracle Nacio	
12:45 PM–1:45	Terilliu	
2:00 PM–3:00	Oracle	
4:30 PM–5:30	Oracle	
4:30 PM–5:30	Circula	

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Go Collaborate: Orchestrator & Notifications Sessions

Tuesday		
10:30 AM–11:30	Oracle	Setting Up for Success in the Digital Business Economy
10:30 AM–11:30	GSI	
11:30 AM–12:30	Oracle	
12:45 PM–1:45	Oracle	
12:45 PM–1:45	Refina Sal	
12:45 PM–1:45	Oracle	
2:00 PM–3:00	Miche	
2:00 PM–3:00	PCB A	
4:30 PM–5:30	Emera	
4:30 PM–5:30	Penn	

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Go Collaborate: Orchestrator & Notifications Sessions

Sunday		
9:00 AM–12:00	brij	JD Edwards EnterpriseOne Orchestrator Workshop
1:45 PM–2:45	JDE E1 Tech SIG	Round Table - How the Orchestrator is being used
Monday		
9:15 AM–10:15	Michelman, Magic	Manufacturing Business Automation: Our Business Pains and Gains; with a 10 month ROI
9:15 AM–10:15	Terillium	Shop Floor IOT Integration Made Simple!
9:15 AM–10:15	ACBM Solutions	Transform Your Assets Into Smart Users
9:15 AM–10:15	LSB Industries	Implementing Notifications at LSB Chemicals
4:30 PM–5:30	Stanley Engineered Fastening, ERP Suites	Digital Transformation in Action with JDE Tools - The Stanley Implementation Journey
4:30 PM–5:30	Ledcor	Using Open Sourced JavaScript components to give users a refreshed view into existing applications

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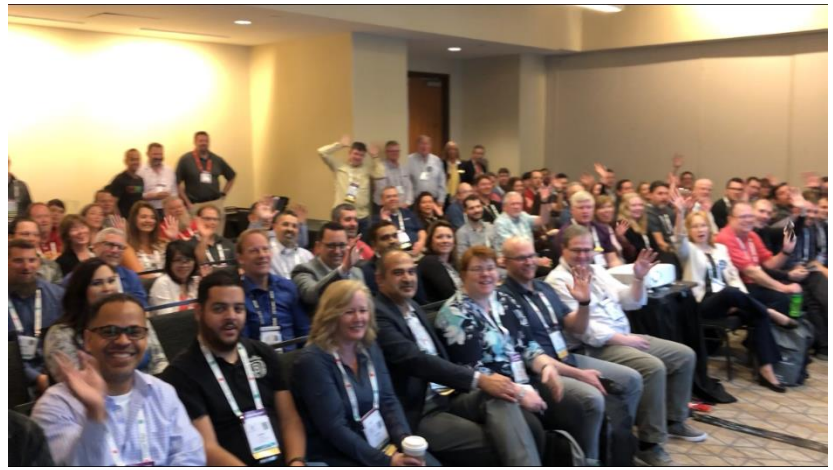

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JD Edwards EnterpriseOne Orchestrator and Notifications

Continuous Stream of Enhancements

2015

9.1.5.5

- Form service
- Rules
- White list
- Cross-reference
- Custom Java

2016

9.2.0.2

- Studio
- Studio home page
- Transformations
- Where used
- Import/Export
- Orchestration UDOs

2017

9.2.1.2, 9.2.2.1

- Studio 6.0.2
- Data service
- AIS Version 2
- Output format
- Message service
- Outbound REST
- Groovy
- Nested orchestrations
- OAuth 2.0 outbound
- Iterate over steps
- Database connector
- Watchlist as a step
- Notifications
- Scheduler

2018

9.2.2.4, 9.2.3.1

- Studio 6.1.0, 7.0
- Process Recorder
- Report as a step
- File transfer
- Confirmed completions
- Studio enhancements
- Assigned subscriptions
- Resilient Scheduler
- Orchestrations launched from business function
- Message Center
- Orchestrator Monitor
- Health Monitor
- Error Handling
- Input from CSV
- Return data from any form

2019

9.2.3.2, 9.2.3.3

- Studio 7.1, 7.2
- OpenAPI spec
- Enhanced output
- XML input & output
- Required inputs
- Paging for high-volume data
- Multiple actions in messages
- Orchestrations & URL as actions
- Launch orchestrations from E1 forms

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What’s New?

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Input from Comma-separated Values (CSV) File

Iterate over a CSV file as input to an Orchestration

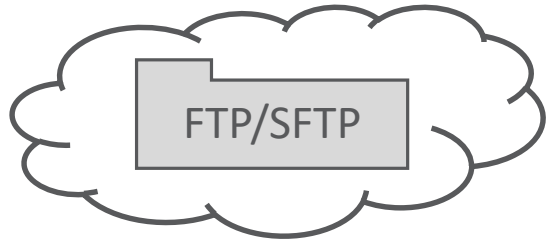
- Configured in the existing FTP Connector in Receive Mode
- Creates an Array to Iterate Over in Next Orchestration Step
- Define CSV Options
  - Location
  - Has Headers?
  - Upload a sample file for Definition or Headers etc.
  - Name the Data Set

Spreadsheet

	A	B	C	D	E	F
1	Equipment Number	Description	Site Number	Serial Number	Product Model	Product Family
2	31970	IoT Forklift	200	SN970	IOT	FORKLIFT
3	31971	IoT Forklift	200	SN971	IOT	FORKLIFT
4	31972	IoT Forklift	200	SN972	IOT	FORKLIFT
5						

Comma-separated value format

```
Equipment Number,Description,Site Number,Serial
Number,Product Model,Product Family
31970,IoT Forklift,200,SN970,IOT,FORKLIFT
31971,IoT Forklift,200,SN971,IOT,FORKLIFT
31972,IoT Forklift,200,SN972,IOT,FORKLIFT
```



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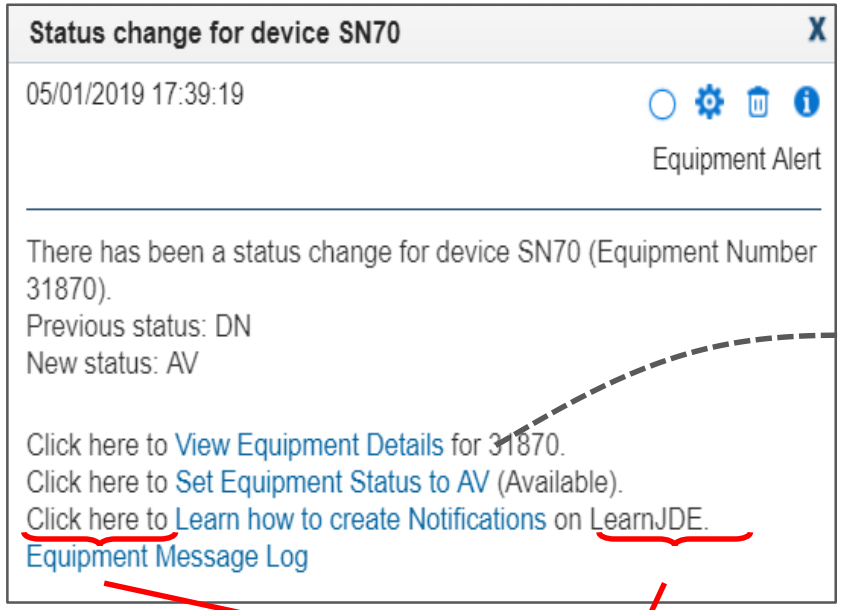
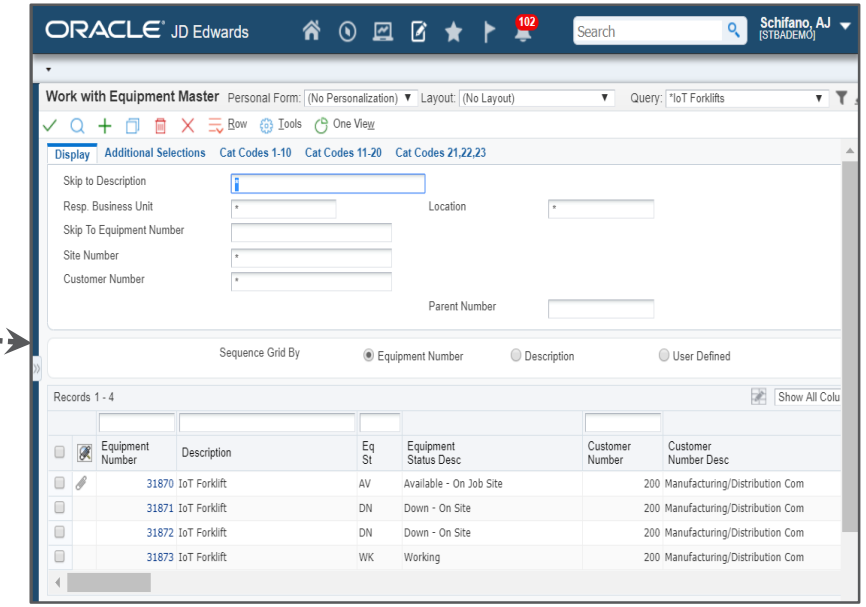
Enhancements to Messages: Orchestrator and Notifications

Tools 9.2.3.2 and Orchestrator Studio 7.1.1

Notification Message





Launch to a personal form: Work with Equipment Master

Multiple Action Links in Messages
In orchestration or notification messages, include links to multiple applications.

Pretext and Posttext for Links
In orchestration or notification messages, add text before and after links.

Specify User-defined Objects in Links
In orchestration or notification messages, specify that the link should launch a personal form or a query.

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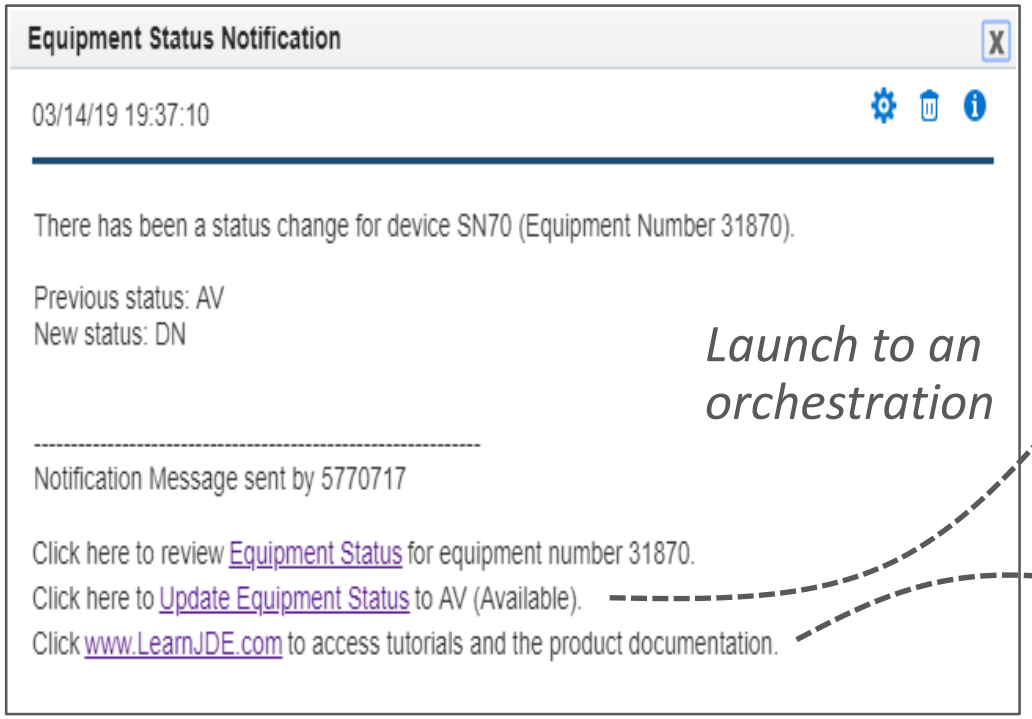
Enhancements to Messages

Tools 9.2.3.3 and Orchestrator Studio 7.2.0

Notification Message

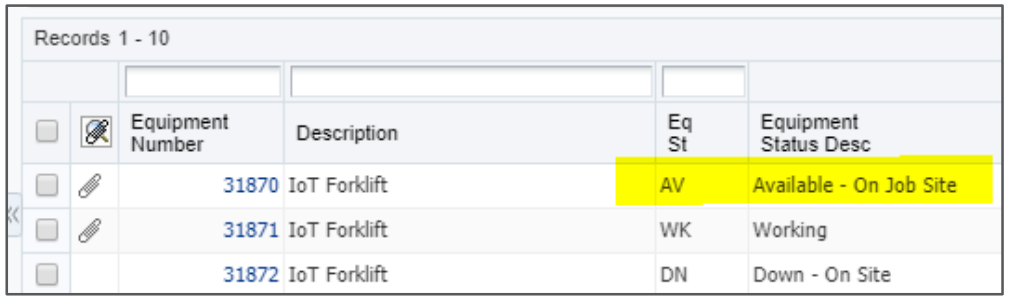


Launch to an orchestration

Set Status to AV

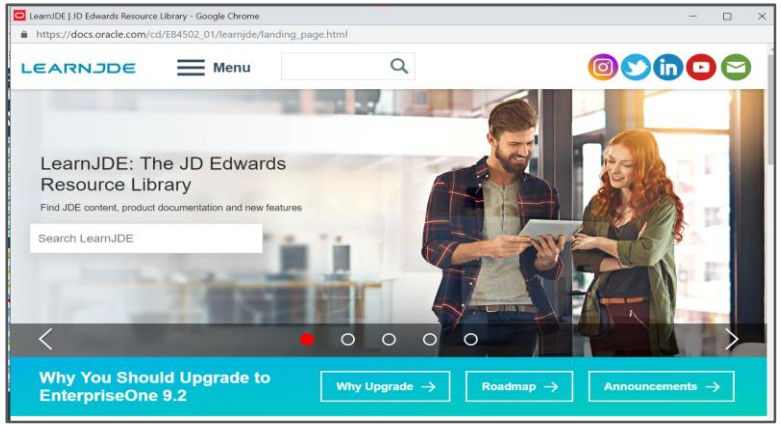
Launch to a URL

Equipment Master



Orchestration Links in Messages

Launch orchestrations from links in messages



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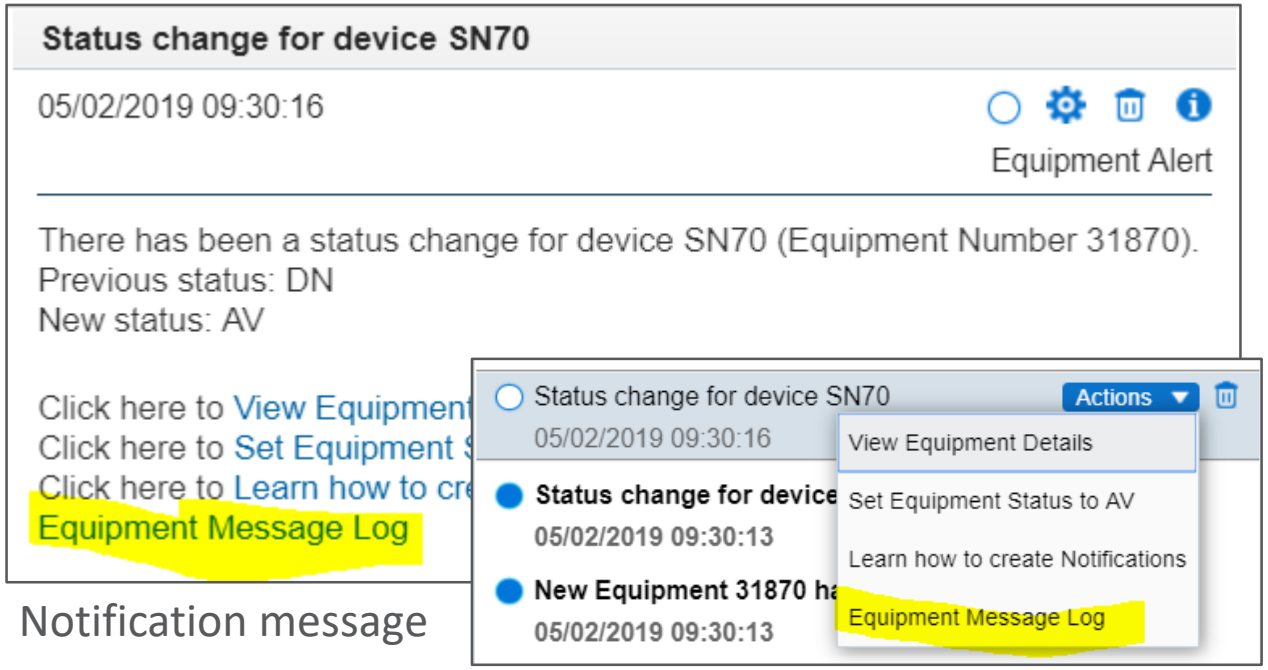
Report Attachments

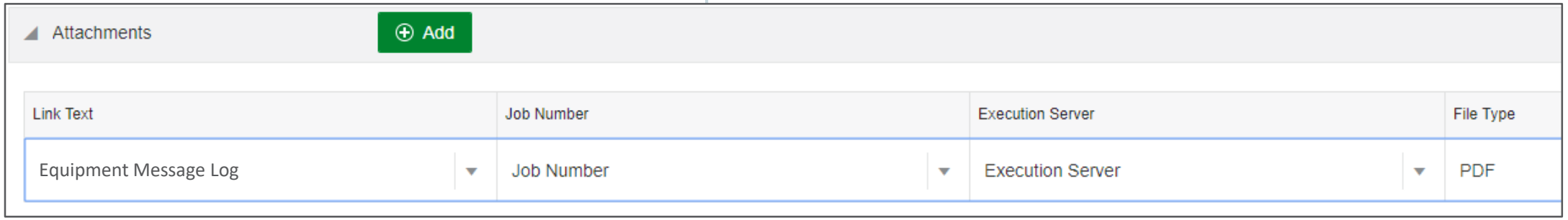
Attach the Report output directly to a message

- Report output attaches to emails
- Provides a link to the report output from the Notification and Message Center



Notification message

Orchestrator Studio



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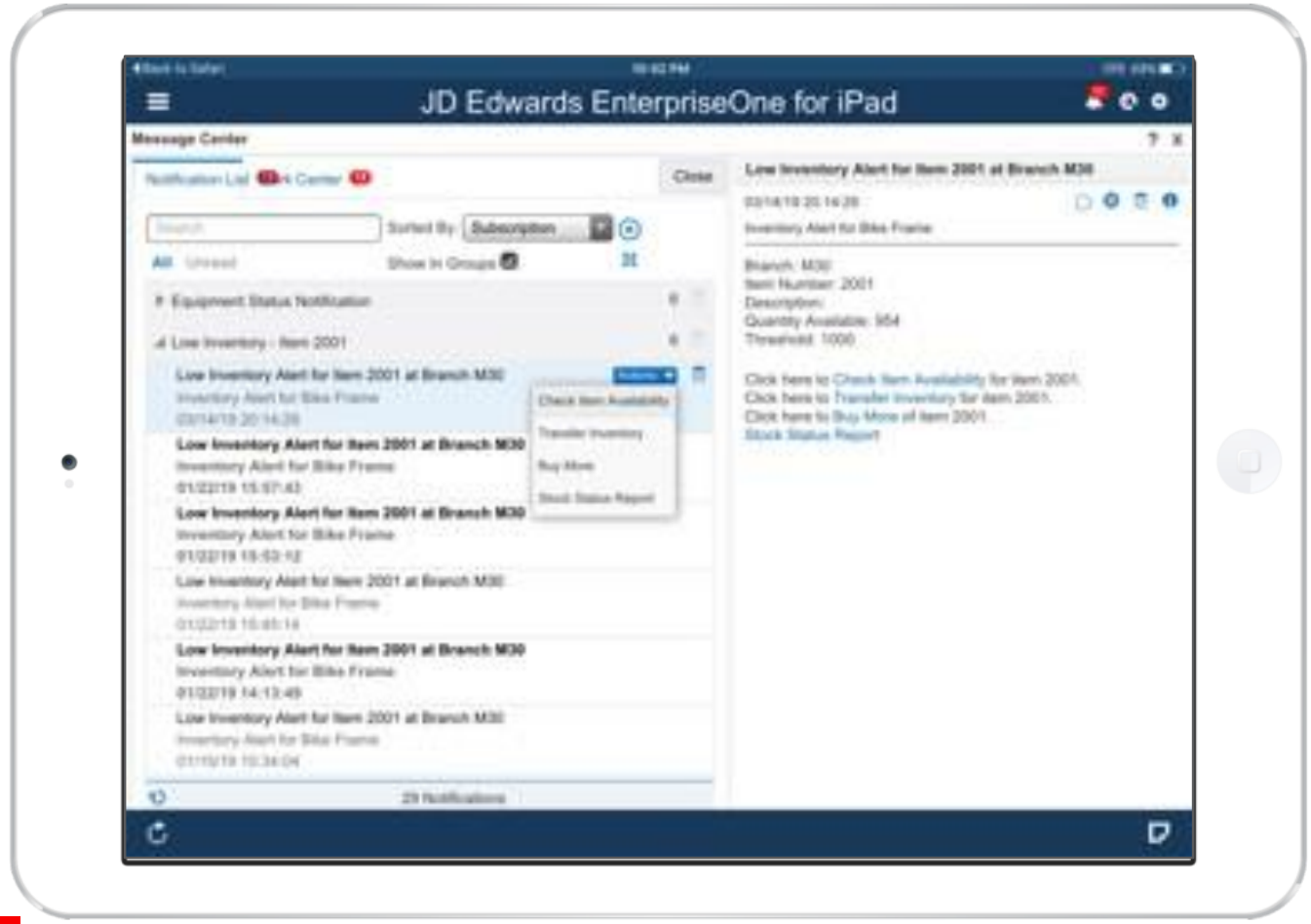
Message Center on iPad

Tools 9.2.3.3 and Orchestrator Studio 7.1.1



Generally equivalent functionality to using Message Center on a desktop browser.

Take your critical alerts with you.

Click the links to take action.

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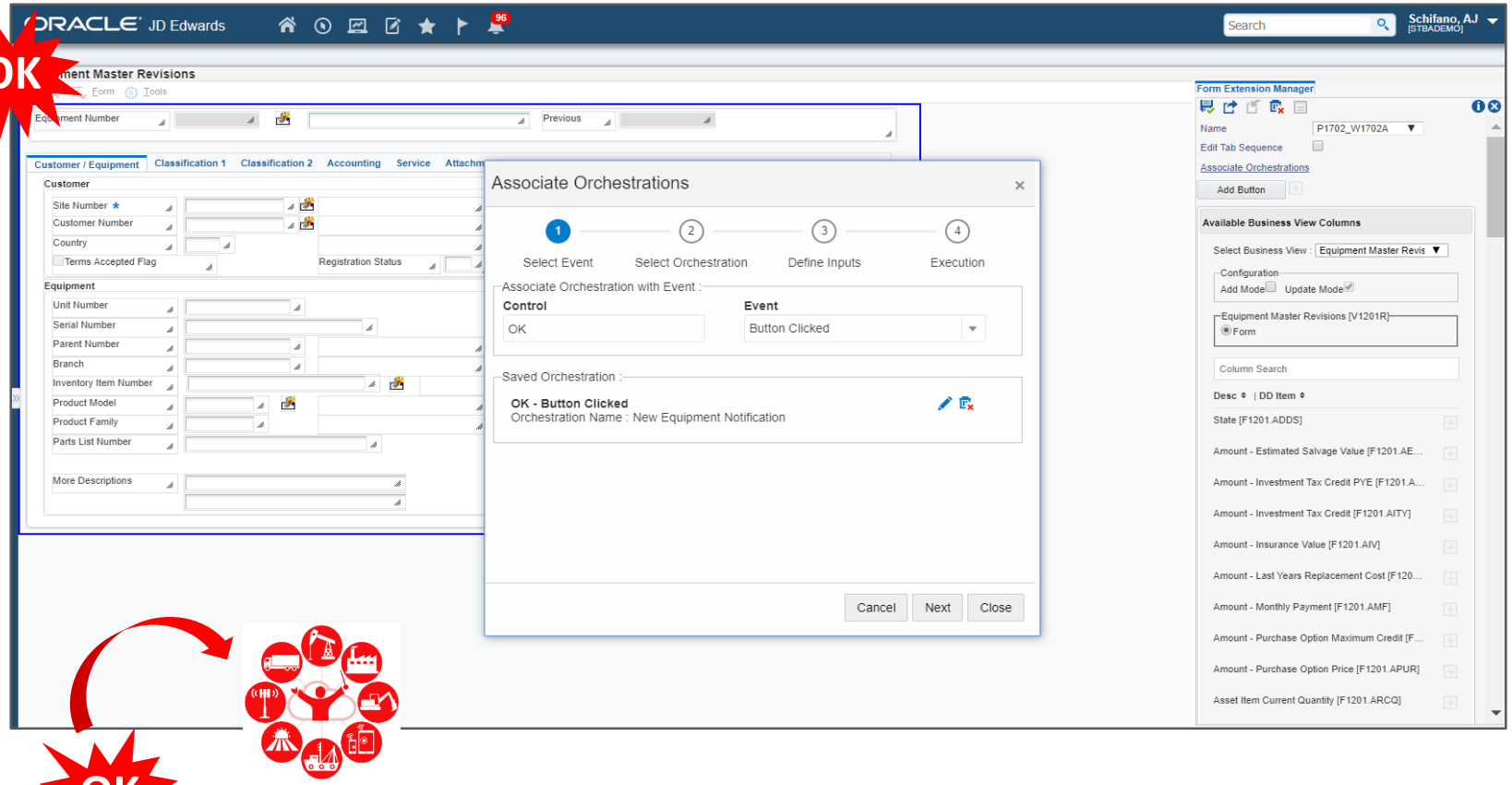
Launch Orchestrations from EnterpriseOne Applications

Tools 9.2.3.3 and Orchestrator Studio 7.2.0



Click OK (or any event) and launch an orchestration.

- Launch an orchestration from an EnterpriseOne form
- Attach to an event (like “OK Button Clicked”) or add a button on the fly
- Map data from the form into the orchestration
- Created “on the glass” as a form extension (UDO), not a customization

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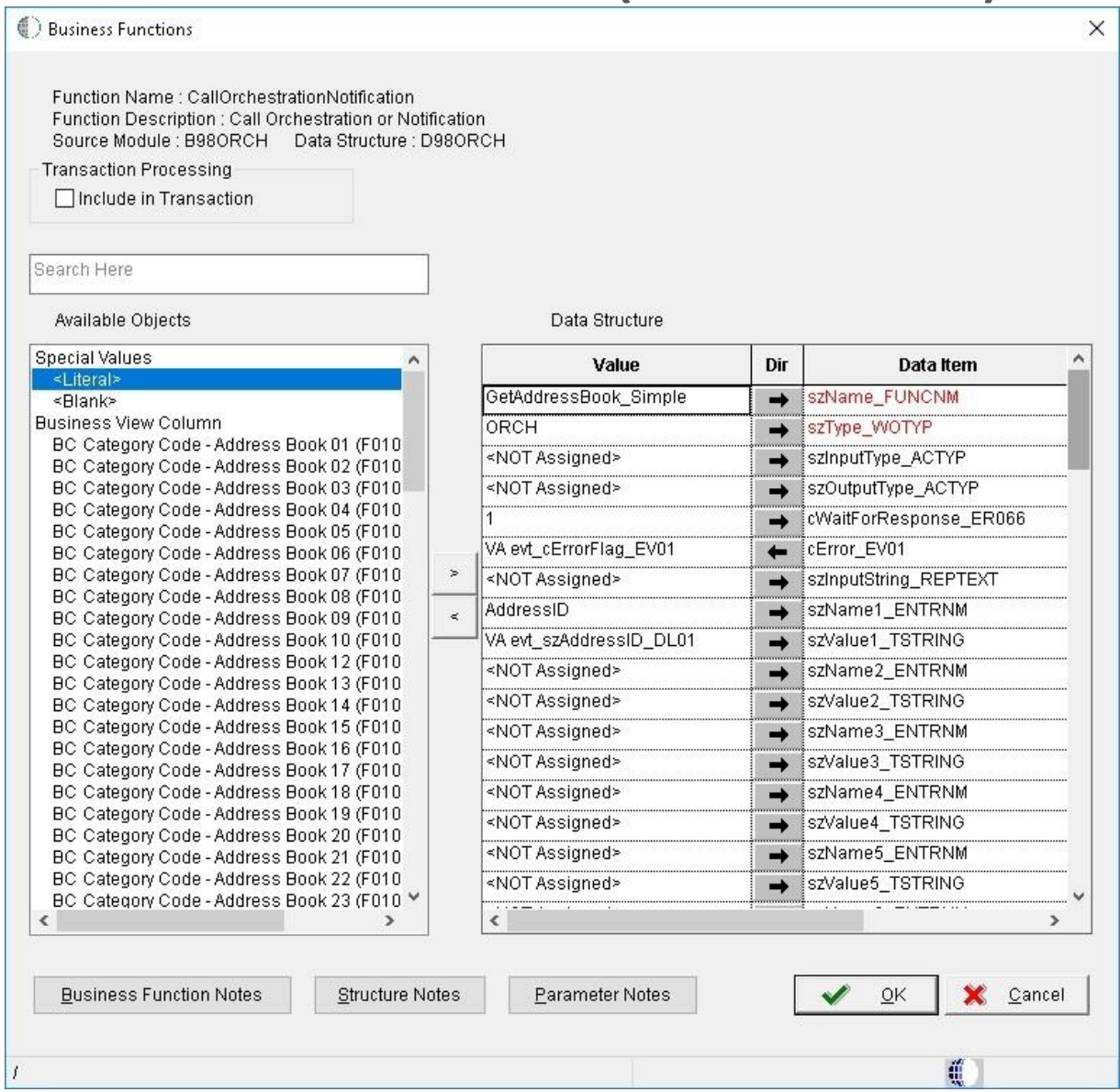
Tools 9.2.3

Launch Orchestrations from a Business Function (B98ORCH)

Supports all JDE development constructs

- Call an Orchestration or Notification from Base JDE Development
  - FDA / RDA / BSFN's / Table Events
- Uses an System BSFN B98ORCH
- Defaults to Asynchronous processing
- Allows mapping of 20 Inputs and 20 Outputs if Synchronous
- Can optionally map full JSON payloads In and Out



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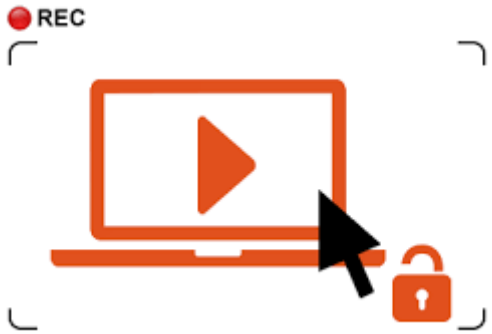
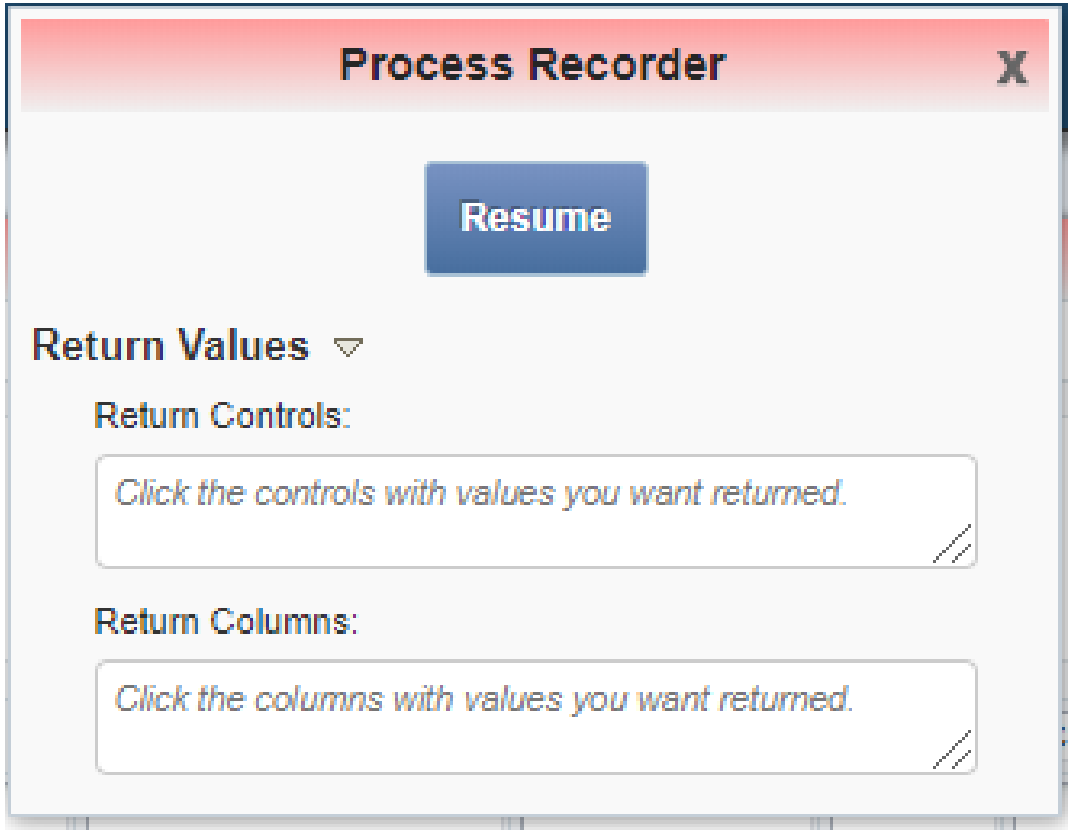
Multiple Output Steps for Application Stack

Return data from any / all forms on the App Stack

- Previously could only define outputs from the last step
- Process Recorder is Supported





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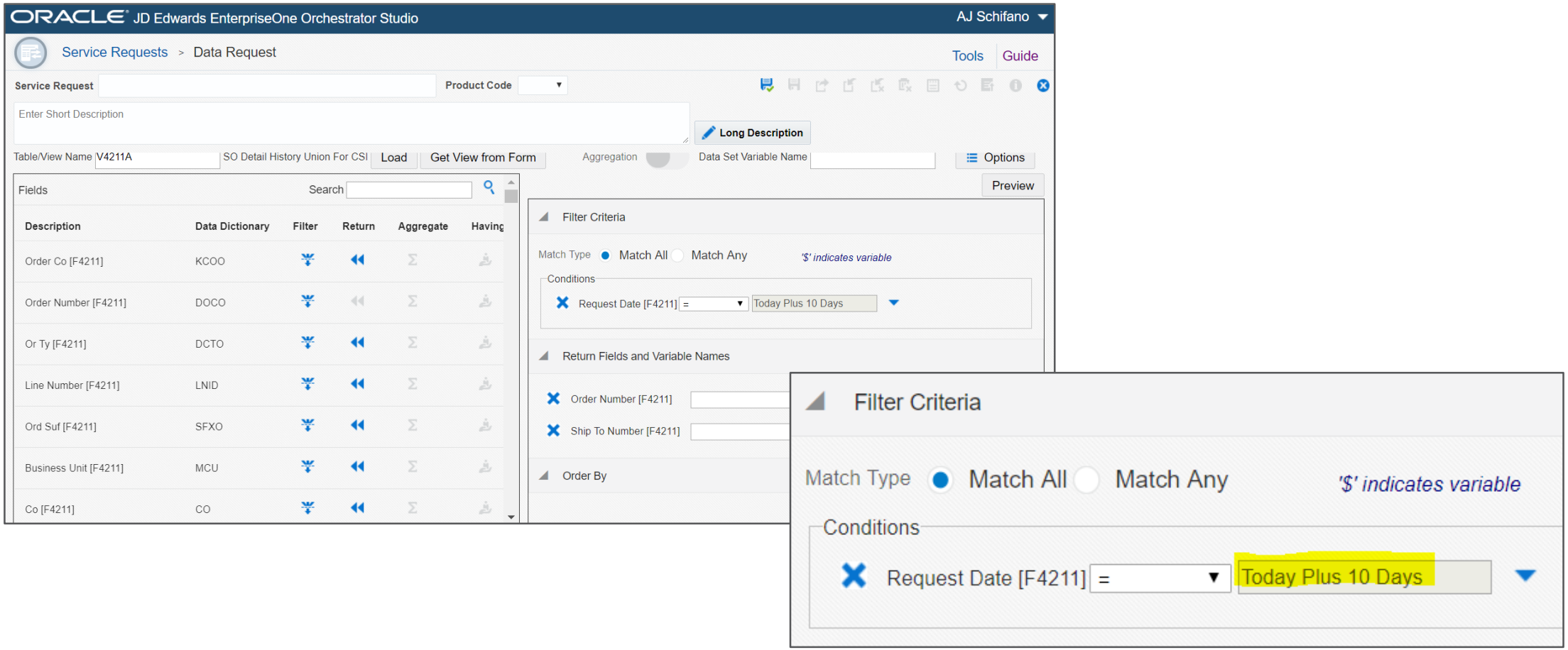
Date Filtering in Data Requests (“Today + 10 Days”)

Tools 9.2.3.2 and Orchestrator Studio 7.1.1



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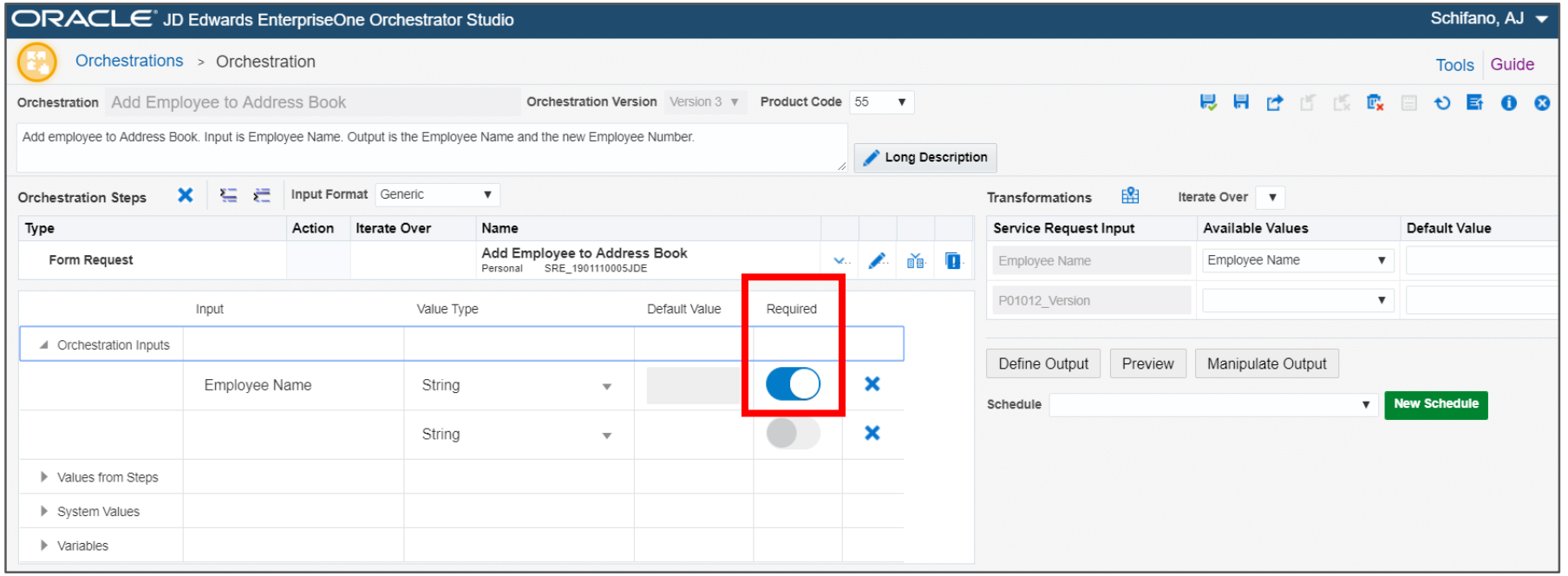
Specify Required Orchestration Inputs

Tools 9.2.3.3 and Orchestrator Studio 7.2.0



A new switch in Orchestrator Studio to designate the input as required.

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Tools 9.2.3.3

Open API Discovery of Orchestrations, Inputs, and Outputs

Tools 9.2.3.3 and Orchestrator Studio 7.2.0

New endpoint: https://server-url.com:1234/jderest/v2/open-api-catalog

Full Open API (“Swagger”) Documentation:

- Server Endpoint Information
- List of Orchestrations
- Definition of Inputs, Outputs, Responses
- Allowed Method (Get / Post)
- Allowed Input (consume) and Output (produce) formats (JSON / XML)

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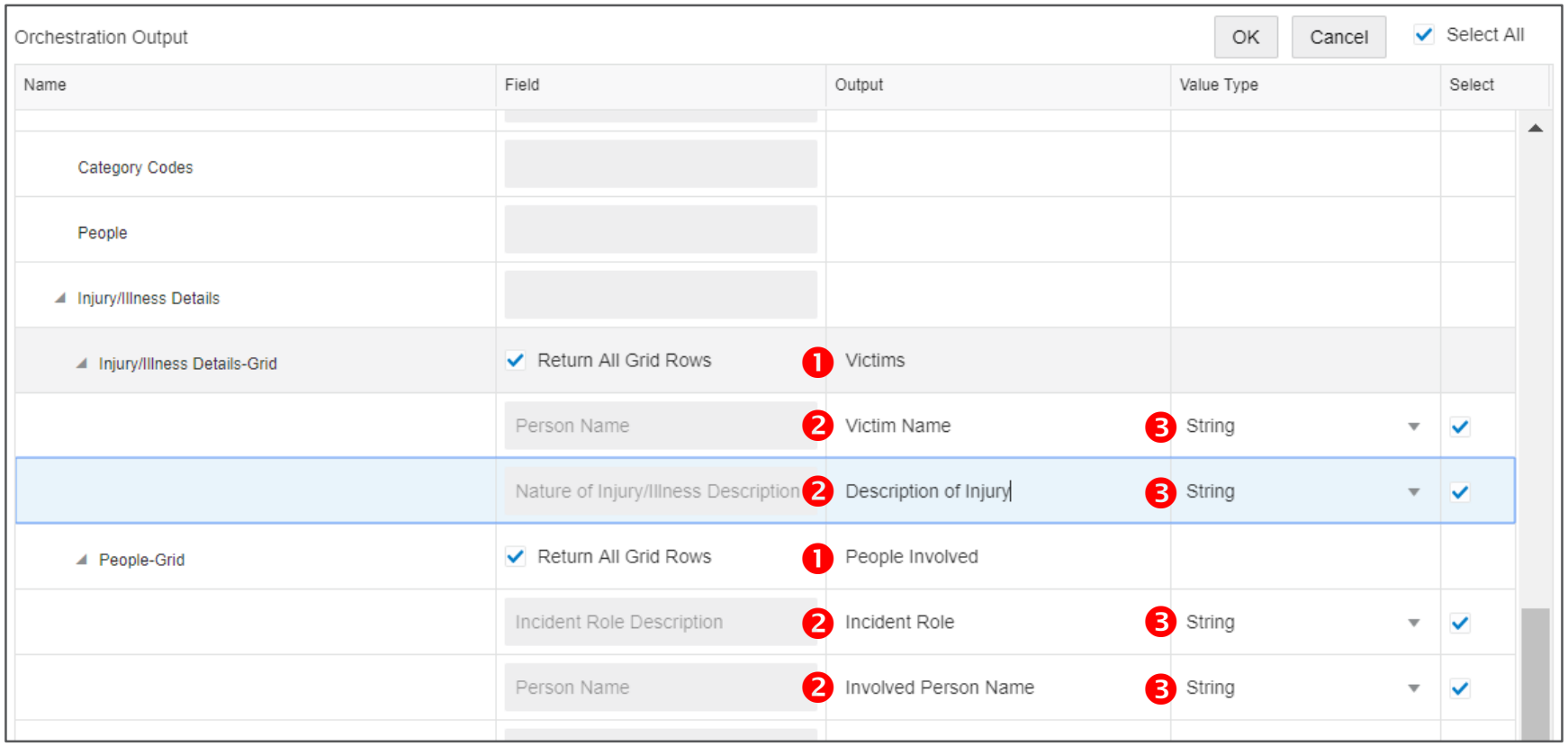
New “Version 3” Orchestrations with Enhanced Output

Tools 9.2.3.3 and Orchestrator Studio 7.2.0



❶ Rename Array Output

❷ Rename Outputs

❸ Define Output Types:
- String
- Numeric
- Boolean
- Date (9 formats, ISO)

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Orchestration Input and Output as XML

Tools 9.2.3.3 and Orchestrator Studio 7.2.0

	Input	Output

JSON	Content-Type = application/JSON
	
	`{"Branch" : "30"},`
	`{"ItemNumber" : "2001"}`
		Accept = application/JSON
		
		`{"QuantityAvailable": 4816,`
		`"Description": "Youth Sport Bike",`
		`"ItemNumber": 230}`

XML	Content-Type = application/XML
	
	`<InventoryCount>`
	`<Branch>30</Branch>`
	`<ItemNumber>2001</ItemNumber>`
	`</InventoryCount>`
		Accept = application/XML
		
		`<?xml version='1.0' encoding='UTF-8'?>`
		`<InventoryCount>`
		`<QuantityAvailable>498</QuantityAvailable>`
		`<Description>Cro-Moly Frame, Red</Description>`
		`<ItemNumber>2001</ItemNumber>`
		`</InventoryCount>`

* Nested arrays are not supported with XML

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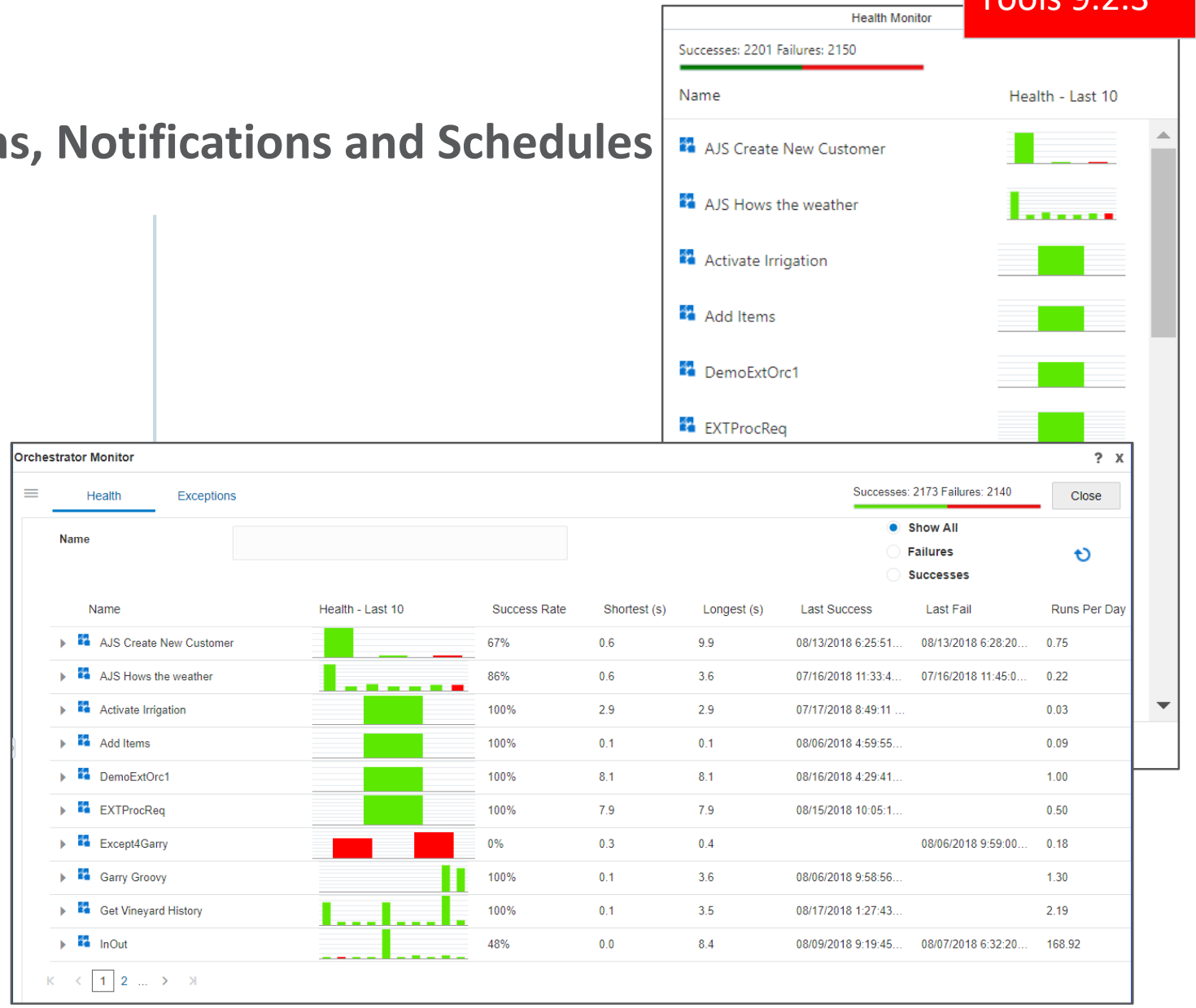
Tools 9.2.3

Orchestrator Monitor

See the Health of your Orchestrations, Notifications and Schedules

- Shows the last 10 run statistics
  - Success Rate %
  - Shortest and Longest Timings
  - Last Failed and Succeeded Date
  - Average Runs per Day
  - Drill into Details for last 10 runs
- Shows Exception Details
  - Drill into Details and Payloads
- Includes Widget for E1 Pages
- Watchlist to alert on errors



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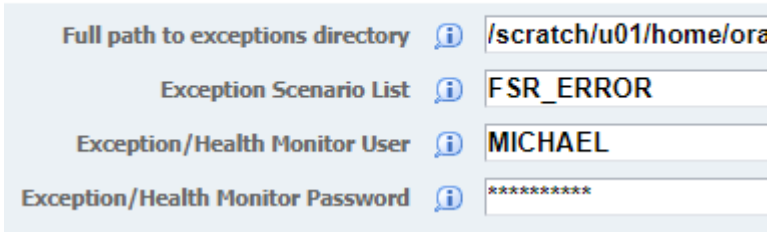
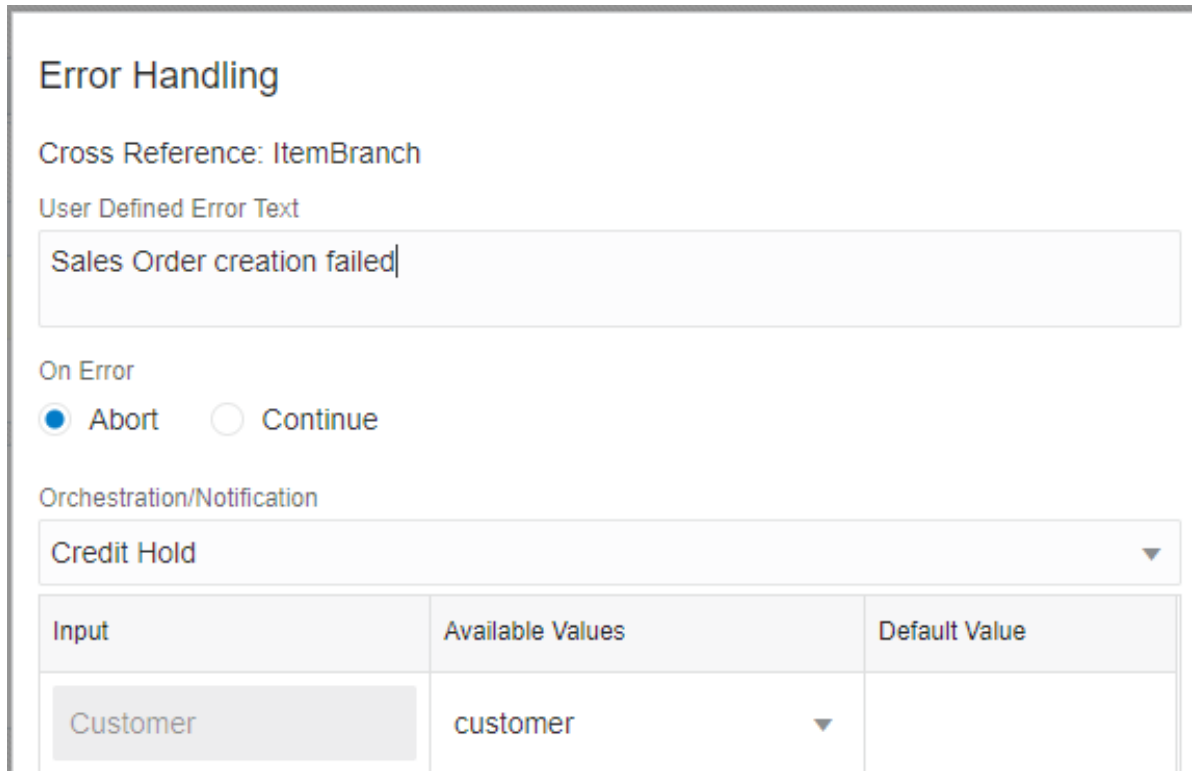
Tools 9.2.3

Improved Orchestration Error Handling and Configuration

Standardize Return Codes from Orchestrations

- Configure Http Return Codes for Form Service Errors and Warning
  - Should they be 200's or 500's?
- Configure how to Handle an Exception at each Step
  - Continue with Execution?
  - Abort with optional Orchestration call?
  - Default is to Abort
- Stored in the JDE DB





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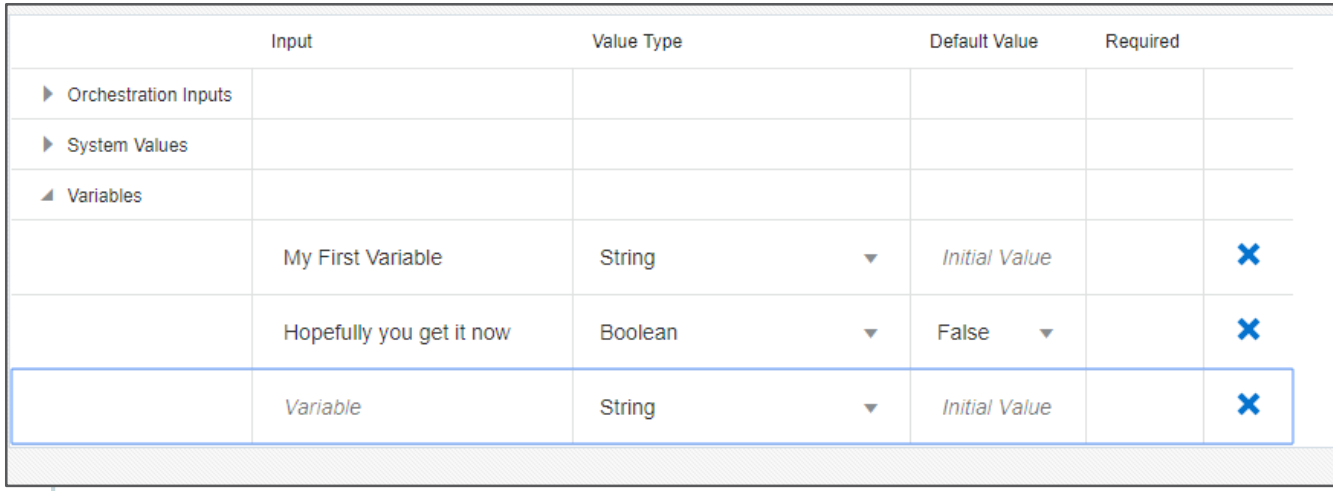
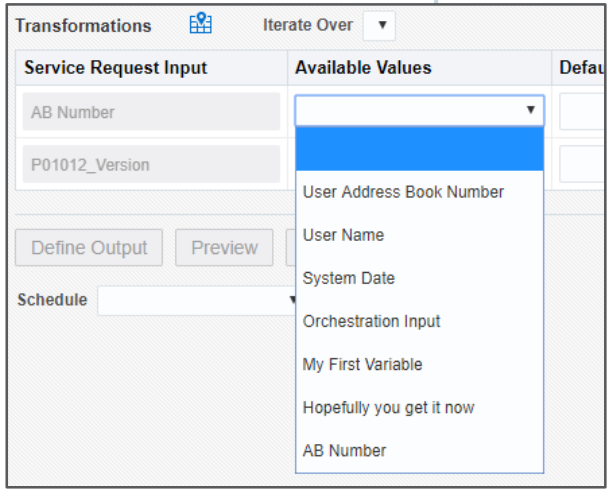
Tools 9.2.3.2

Define Variables in Orchestrations

Want to pass around data between steps and output it?

- Available just as inputs are, but not part of the Orchestration inputs
- Can be set inside steps
- Can be returned as part of the Orchestration output





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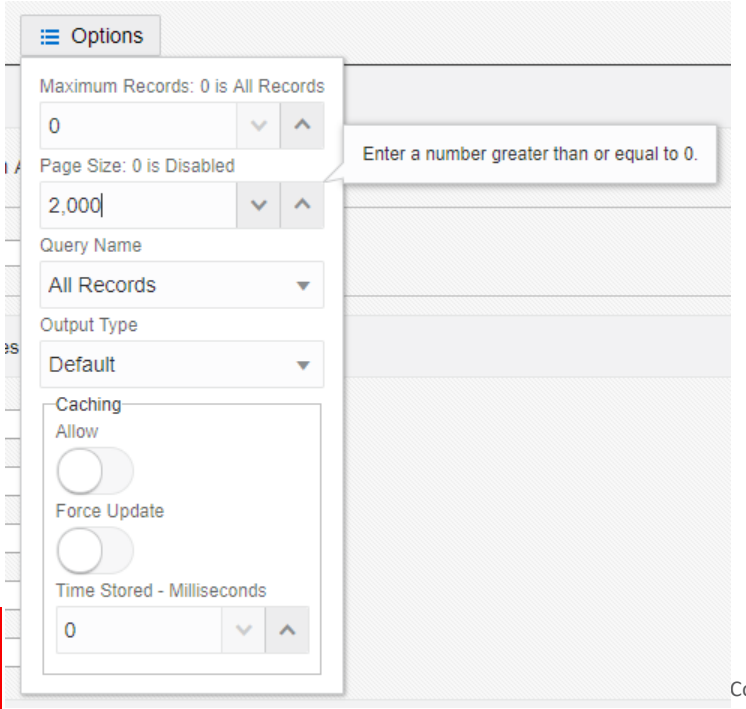
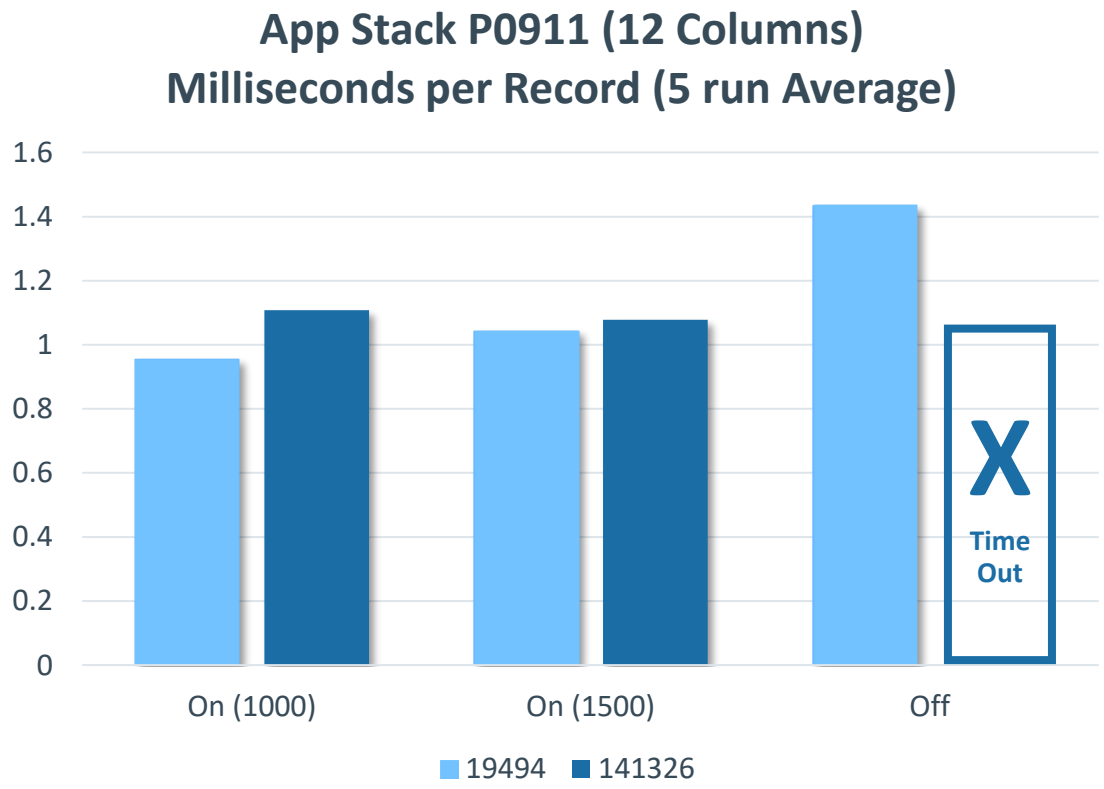
High Volume Data Processing

A little help for high volume Service Requests

- Allow the ability to set a Page Size for data retrieval from JAS either for Form Service or Data Service Requests
- 'Batches' the data from JAS to AIS and AIS accumulates it into a single response





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Q & A

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JD Edwards EnterpriseOne Orchestrator

The Orchestrator is one of the most significant enhancements to JD Edwards EnterpriseOne because it’s not just a new feature—it will transform how you use your entire JD Edwards system. The data that you entrust to your JD Edwards system—your financial records, your inventory, your manufacturing processes, your project data—are the lifeblood of your business and a reflection of your enterprise itself. Your business data is a digital twin of your enterprise. Therefore, it’s of utmost importance to keep that data accurate and up-to-date, to make business decisions based on that data, and to exchange that data in the ever-broadening digital economy. Orchestrator automates the collection, processing, and exchange of data, putting you on the path to Autonomous ERP.

Data Sheet → Success Stories →

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