



Visualizing and Tracking CA Endevor® SCM with Jenkins Pipeline and Brightside CLI with you

May 2018



Agenda

- 1 INTRODUCTION
- 2 ENDEVOR PLUGIN - BRIGHTSIDE CLI
- 3 JENKINS PIPELINE
- 4 MAINFRAME WEBHOOK SERVER
- 5 APPLICATION LIFECYCLE CONDUCTOR

Introduction



Endevor + Jenkins – Better Together

- CA Endevor SCM is both a SCM and a Lifecycle Tool
- Adding Jenkins Pipeline on top gives you several possibilities

Approaches to Endeavor Integration

- One option to integrate Endeavor with pipeline tools is CA ALC
- Brightside CLI provides another option – scripting the command line to automate Endeavor



Endevor Plugin – Brightside CLI

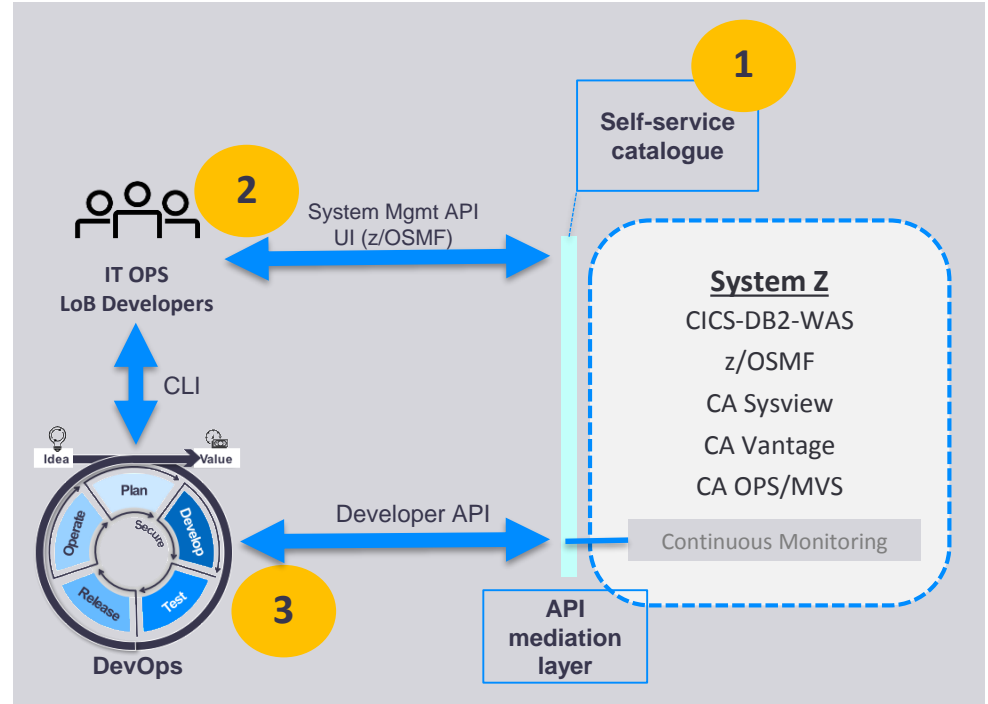


Just Another Platform

Project BrightSide Overview

Scope and Key Use Cases

1. Self-Service catalog & Automation platform
2. Self Service Provisioning
3. Developer Experience



Meet Ravi



His team recently transitioned to an **Agile process**

TASKS	IN PROGRESS	COMPLETED
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When a change is made, steps are **orchestrated** to streamline integration.

Using Brightside's scripts makes this much easier!

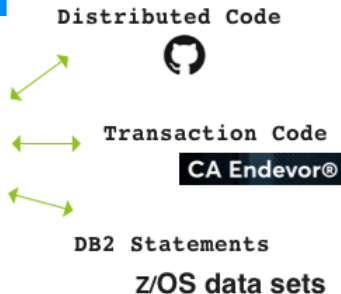


Steps

- 1 _____
- 2 _____
- 3 _____
- 4 _____
- 5 _____
- 6 _____

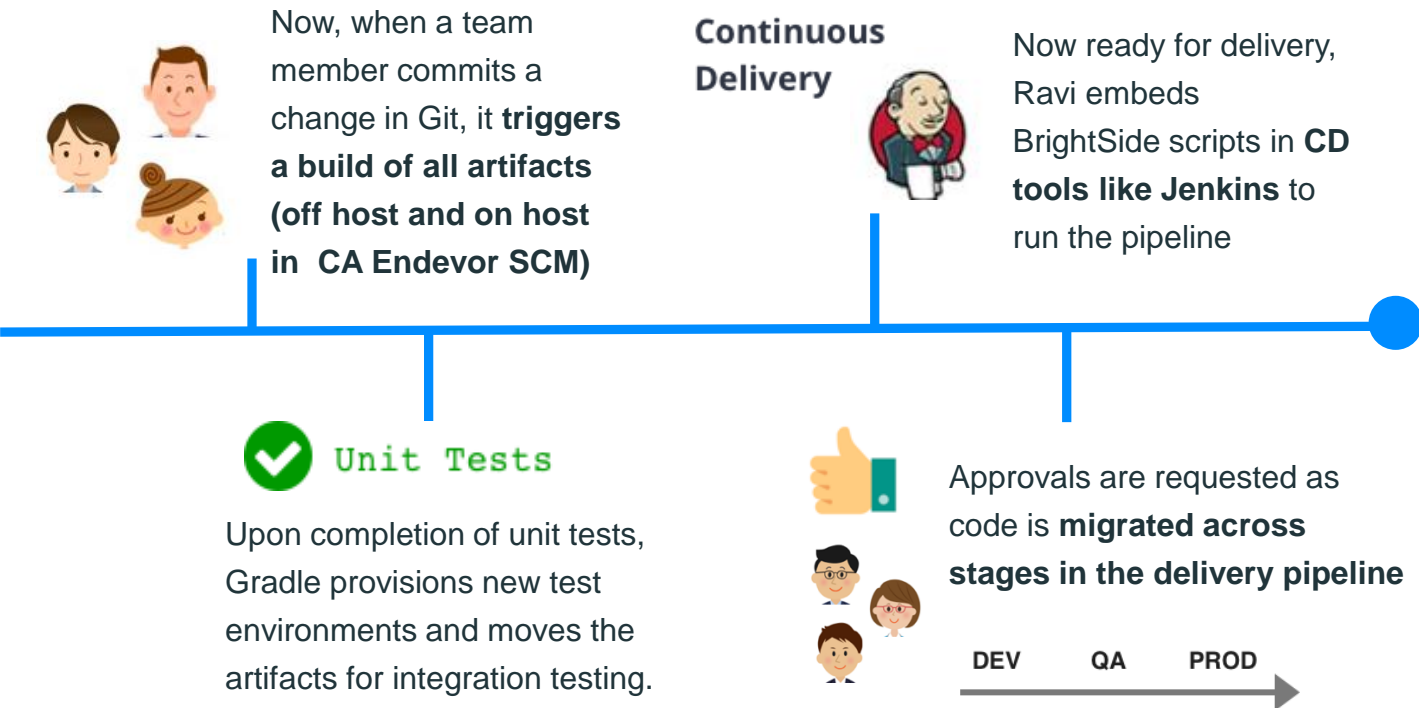
Ravi is a DevOps Architect responsible for **automating continuous integration & delivery**

The app he wants to automate contains **code running on different systems**



Ravi **embeds scripts in Gradle**, but he can use any tool he chooses.

Meet Ravi



Ravi's team's **productivity has increased exponentially** since automating their workflows!

Endevor plugin for Brightside

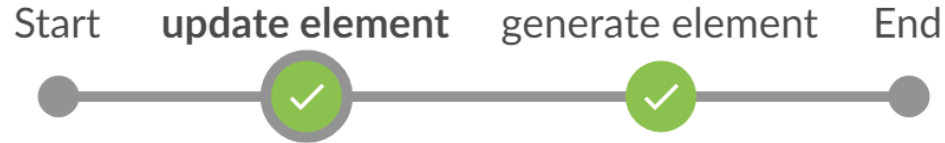
GROUPS

add	Add an Element into CA Endevor® SCM.
approve aprv	Approve a Package in CA Endevor® SCM.
backin	Backin a Package in CA Endevor® SCM.
backout	Backout a Package in CA Endevor® SCM.
cast	Cast a Package in CA Endevor® SCM.
create	Create a Package in CA Endevor® SCM.
delete del	Delete an Element or a Package in CA Endevor® SCM.
deny	Deny a Package in CA Endevor® SCM.
execute	Execute a Package in CA Endevor® SCM.
generate gen	Generate an Element in CA Endevor® SCM.
list	List instances, elements, types, packages and inventory locations in CA Endevor® SCM.
move mv	Move an Element in CA Endevor® SCM.
print p	Print an Element or a Component in CA Endevor® SCM.
profiles	Create and manage configuration profiles
reset	Reset a Package in CA Endevor® SCM.
retrieve ret	Retrieve an Element in CA Endevor® SCM.
signin si	Signin an Element in CA Endevor® SCM.
submit	Submit a Package or a SCL file in CA Endevor® SCM.
transfer tr	Transfer an Element in CA Endevor® SCM.
update	Update an Element or a Package in CA Endevor® SCM.

Jenkins Pipeline



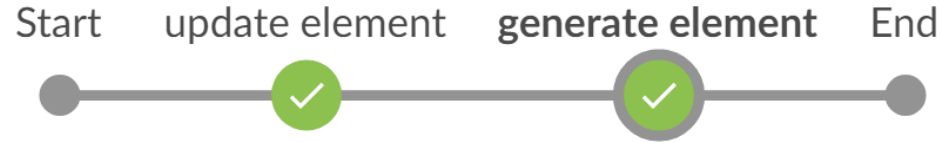
Jenkins Pipeline



```
bright endeavor update element DEMO01 --env DEV
--sn 1 --sys ALC --sub ALCPTC --typ ASM --ccid
PTD-2 --comment "Created by Brightside CLI" --
host usilca32 --port 3480 --user pesar01 --pass
**** -i WEBSALC --ff DEMO01.ASM
```

UPDATE_ELEMENT_CLI.bat

Jenkins Pipeline



```
bright endeavor generate element DEMO01 --env  
DEV --sn 1 --sys ALC --sub ALCPTC --typ ASM --  
ccid PTD-2 --comment "Created by Brightside  
CLI" --host usilca32 --port 3480 --user pesar01  
--pass **** -i WEBSALC
```

GENERATE_ELEMENT_CLI.bat

MAINFRAME WEBHOOK SERVER

1. Watchdog
2. Consume event actions
3. CA EventBroker
4. Content Type
5. Authentication

Edit Webhook

☒ Active

Application: * Endeavor (Element Actions)

Description: * Created for Prague Technology Days

Payload URL: * <http://devops-alc.02.8080/rest/eventhook?processid=6000119>

Content type: * JSON

Watch directory: * /u/users/nfs/Allfusion/endeavor/mf20/ALC/events/elm

☒ Recursive

Events: Add, Delete, Retrieve, Move, Generate, Transfer, **ANY**, Update, Destroy

API Key: apikey=610ff534-cab0-4a96-892f-a94b6ca840fa

Notify email: * pesar01@ca.com

OK **CANCEL**

Jenkins Pipeline – Simple Script Example

Execute shell

Command

```
#!/bin/sh

#profile
bright zosmf create profile --bpn tso1 --host tso1 --port 443 --user marva09 --pass 12345678 --a 124300000 --ow 2>&1 >/dev/null

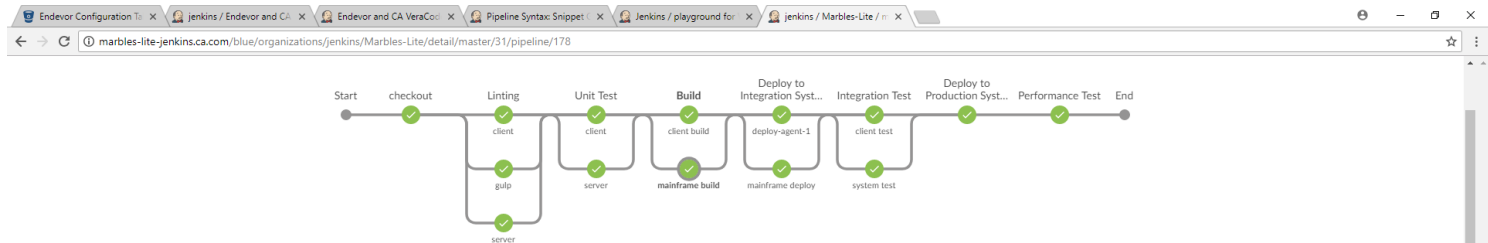
#delete
bright zos-files delete ds "marva09.demo.devops" -f

#create
result=$(bright zos-files create loadlib "marva09.demo.devops")
echo $result
```

[See the list of available environment variables](#)

Advanced...

Jenkins Pipeline – Production Script Example



Steps mainframe build

✓	› Start mainframe setup process — Print Message	<1s
✓	› General SCM	15s
✓	› echo 'jenkins' sudo -S apt-get install -y nodejs — Shell Script	2s
✓	› echo 'jenkins' sudo -S npm install npm --global — Shell Script	12s
✓	› npm install — Shell Script	12s
✓	› echo 'jenkins' sudo -S npm run global-install — Shell Script	34s
✓	› chmod +x gradlew — Shell Script	<1s
✓	› cp gulpExample.properties.yaml gulp.properties.yaml — Shell Script	<1s
✓	› gulp bright --init --username MBAUTO --password BRIGHT12 --verbose — Shell Script	10s
✓	› git config --global user.name mbauto — Shell Script	<1s
✓	› git config --global user.email mbauto@ca.com — Shell Script	<1s
✓	› echo 'jenkins' sudo -S gulp endevor --createProj --verbose — Shell Script	32s
✓	› gulp deprovision --instance CICS_MARBLE00 --verbose — Shell Script	3m 28s

```

1 [Marbles-Linux-master~LFCYJUZL0AUI@QZSWA0008HASEU0000VQXUJG5ETKQZM2Q] Running shell script
2 * gcp deployment - Instance CICS_MARBLE00 - verbose
3 13:54:31 Using gcpfile://home/jenkins/workspace/Marbles-Linux-master~LFCYJUZL0AUI@QZSWA0008HASEU0000VQXUJG5ETKQZM2Q/gulpfile.js
4 13:54:33 Starting 'deployment'...
5 Try to deployment Instance: CICS_MARBLE00
6
7 Executing BrightSide Command:
8 bright pv perf act CICS_MARBLE00 deployment --response-format=json
9
10 Checking the state of the instance CICS_MARBLE00 ...
11 Instance: CICS_MARBLE00 state: being-deprovisioned
12 sleeping for 3000ms

```



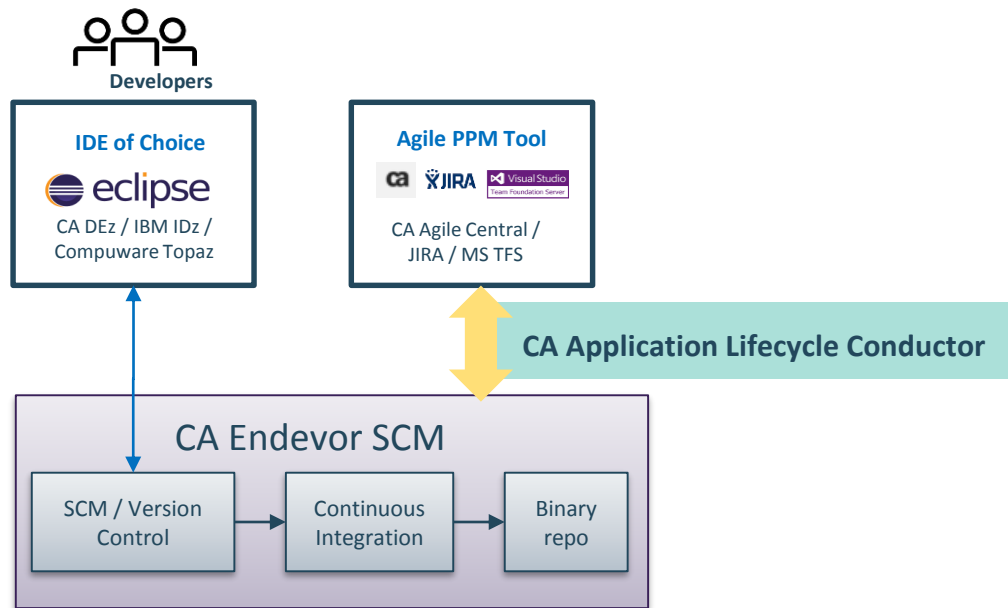

Application Lifecycle Conductor



Enabling Changeset Traceability with CA Endevor SCM

- CA Mainframe Webhook Server has been equipped to send element level events to a webhook consumer
- CA Application Lifecycle Conductor has new out-of-the-box workflows to consume those webhooks for Agile PPM tools like CA Agile Central or Atlassian JIRA
- Customers only need to turn on Element logging and point the webhook server to process the events via ALC

Changeset Traceability – Architecture



Mainframe Webhook Server

CA Mainframe Webhook Server Configuration

CA Mainframe Webhooks Server Configuration

Mainframe Webhooks

+

Settings

Application	Description	API Key	Notify	Last Modified	Active
Endevor (Element Actions)	MOVE - OOTB Workflow Logging	0b3fcda7-9b94-4cf8-b503-05a92b18afc5	newna02@ca.com	2017-03-01 6:36 AM -0800	OFF
Endevor (Element Actions)	Endevor MOVE processing - alccat01	a19afdbc-befd-48ce-89bc-6751c7b69f75	vaughn.marshall@ca.com	2017-05-18 1:56 PM -0700	ON
Endevor (Element Actions)	ADD - OOTB Workflow Logging	0b3fcda7-9b94-4cf8-b503-05a92b18afc5	newna02@ca.com	2017-02-28 6:45 AM -0800	OFF
Endevor (Element Actions)	Test - Nakesha Test for MOVE May 18 - Works!	97a70e24-d2fe-46e2-9899-1d430a814ba2	newna02@ca.com	2017-05-18 10:22 AM -0700	OFF
Endevor (Element Actions)	Move Logging 503	97a70e24-d2fe-46e2-9899-1d430a814ba2	newna02@ca.com	2017-04-25 2:03 AM -0700	OFF
Endevor (Element Actions)	Testing Zfs	97a70e24-d2fe-46e2-9899-1d430a814ba2	newna02@ca.com	2017-03-28 12:27 PM -0700	OFF
Endevor (Element Actions)	GEN - OOTB Workflow Logging	0b3fcda7-9b94-4cf8-b503-05a92b18afc5	newna02@ca.com	2017-02-28 6:45 AM -0800	OFF
Endevor (Element Actions)	Generate Logging 503	97a70e24-d2fe-46e2-9899-1d430a814ba2	newna02@ca.com	2017-03-04 6:13 PM -0800	OFF
Endevor (Package Actions)	Trigger CA RA/CDE Package Automation	a19afdbc-befd-48ce-89bc-6751c7b69f75	newna02@ca.com	2017-02-13 1:58 PM -0800	OFF
Endevor (Package Actions)	Test Event 2	97a70e24-d2fe-46e2-9899-1d430a814ba2	newna02@ca.com	2017-05-12 8:34 AM -0700	OFF
Endevor (Package Actions)	Trigger Package Execute after CAST action 503	97a70e24-d2fe-46e2-9899-1d430a814ba2	newna02@ca.com	2017-05-18 10:40 PM -0700	OFF
Endevor (Package Actions)	Post CAST event for Auto EXECUTE	a19afdbc-befd-48ce-89bc-6751c7b69f75	vaughn.marshall@ca.com	2017-05-18 10:47 PM -0700	ON

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CA Agile Central with Endeavor Changesets

US160: Create public mobile payment API

Changesets

NAME	MESSAGE	AUTHOR	COMMIT TIMESTAMP	CHANGES	BUILDS
CA ALC (Payment Team):Changeset ID 256	US160 - CA World		2017-10-14 02:21 PM 286	MOVE - SMPLEST/2/FINANCE/ACCTPAY/COBOL/CAWA01 MOVE - SMPLEST/2/FINANCE/ACCTPAY/COBOL/CAWA03 MOVE - SMPLEST/2/FINANCE/ACCTPAY/COBOL/CAWA04 MOVE - SMPLEST/2/FINANCE/ACCTPAY/COBOL/CAWA05 MOVE - SMPLEST/2/FINANCE/ACCTPAY/COBOL/CAWA02	
CA ALC (Payment Team):Changeset ID 254	US160 - CAW17		2017-10-14 01:20 PM 286	MOVE - SMPLEST/2/FINANCE/ACCTPAY/COBOL/CAWAPP1A	
CA ALC (Payment Team):Changeset ID 252	US160 - CAW17 No Pkg		2017-10-14 01:17 PM 286	MOVE - SMPLEST/2/FINANCE/ACCTPAY/COBOL/FINAPP02	
CA ALC (Payment Team):Changeset ID 249	US160 - CAW17		2017-10-14 01:13 PM 286	MOVE - SMPLEST/2/FINANCE/ACCTPAY/COBOL/FINAPP02	CA ALC: Build for 'Endevor Package' Build ID: CAW17 #250 - Success
CA ALC (Payment Team):Changeset ID 246	US160 - CAW		2017-10-14 12:07 PM 286	MOVE - SMPLEST/2/FINANCE/ACCTPAY/COBOL/FINAPP02	CA ALC: Build for 'Endevor Package' Build ID: CAWTEST ... - Success
CA ALC (Payment Team):Changeset ID 243	US160 - CAW2017		2017-10-14 11:41 AM 286	MOVE - SMPLEST/2/FINANCE/ACCTPAY/COBOL/FINAPP01	

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Thank You.



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