

zTPF DevOps Tool Chain for Travelport

Manish Limaye
Suganthi Manonmani

April 2018



Agenda

- Need for DevOps @Travelport
 - Why?
 - Project Execution Approach
 - Why Partner with TSI?
- zTPF DevOps Toolchain - Technical Solution
 - Minimum Viable Product & SDLC Gates for the MVP Product
 - 2016: Impact Analysis Tool
 - 2018: Git, Jenkins, Activiti BPM
 - The end to end Process
- Product Demo and Screenshots
- Key Take-Aways and Questions

Need for DevOps @Travelport

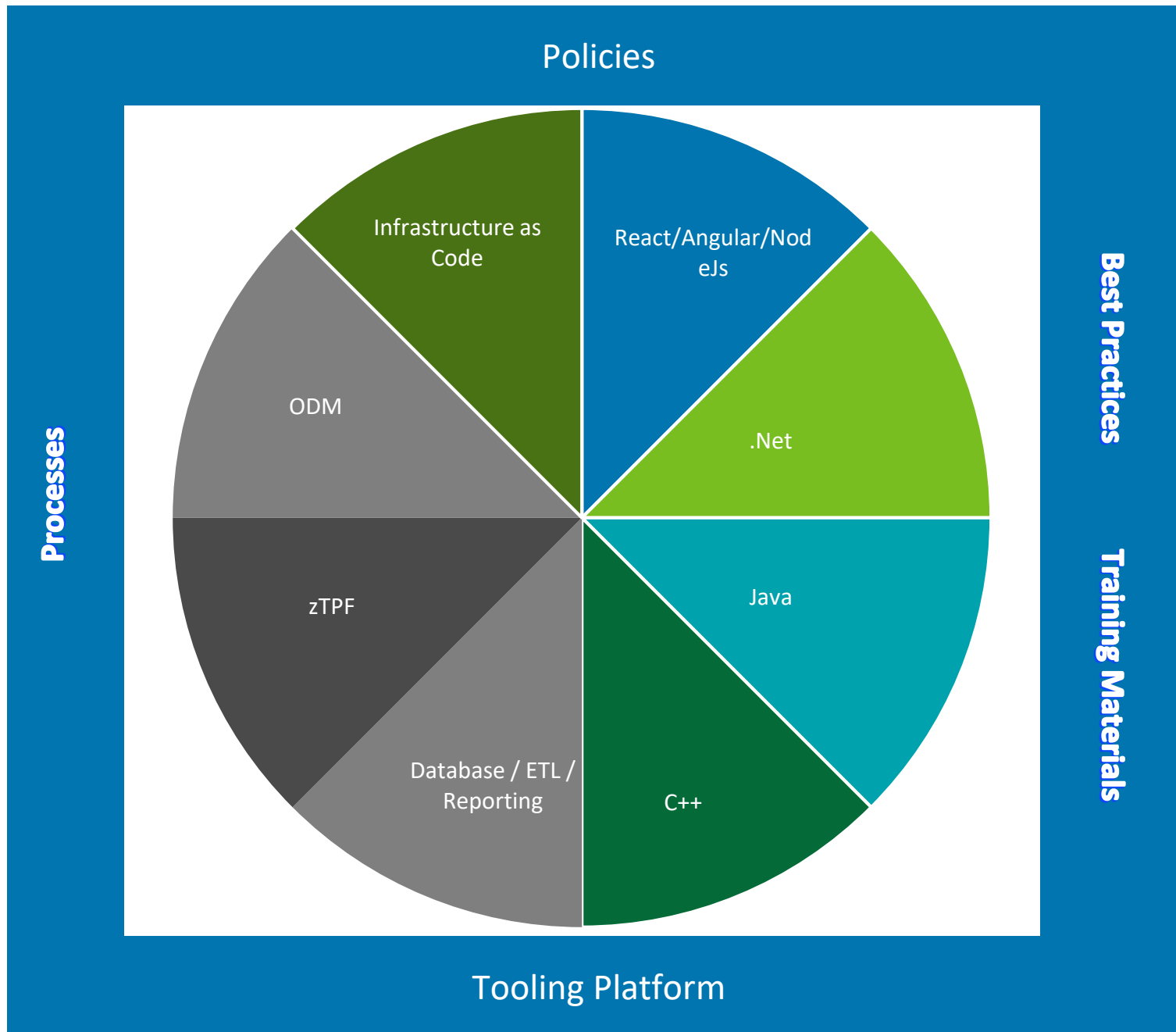
Travelport powers technology solutions for the global travel industry.

The power of the platform



Engineering Led Development / Testing

- Travelport is on a journey to take software/infrastructure development process to next level by fully embedding engineering practices into all development.
- We have set the bar as “24 hours from ideas to production, no defects, no downtime”. Strategy is to introduce a set of:
 - **Policies & Procedures:** know what “excellent” looks like
 - Design & coding standards
 - Repeatable processes
 - **Practices:** eliminate waste & rework
 - Design / code reviews
 - Version control & configuration management
 - Stop on test failure
 - Escaped defect analysis & feedback
 - **Automation:** make build / test / deploy “free, perfect, and now”
 - Continuous integration
 - Static code quality & security analysis
 - Multiple levels of automated testing (unit / acceptance / load)
 - Release & install packaging
 - **Measurement:** objectively measure quality & velocity



- TPF is a mission critical operating system for Travelport, and bringing modern engineering practices to TPF is as important as doing so in Cloud.
- The tools and processes that support the TPF development staff were developed over 20+ years using REXX and CMS Pipes, and not suited for nature of Agile development and CI/CD automation.

Project Execution Approach

- Challenged status quo and start with industry standard best practices, not what we do today.
- Created single DevOps end-to-end workflow for all our TPF Systems in collaboration with SMEs
- Built on top of Open Source Tools.

- Multi year project
 - Wave 1 : POC and Research Analysis tool
 - Wave 2 : End to end MVP focusing on migration of IBM systems code
 - Wave 3 : Migration of TPF application
 - Wave 4: Finish application migration and work on non-MVP features

- The solution under development is owned by Travelport

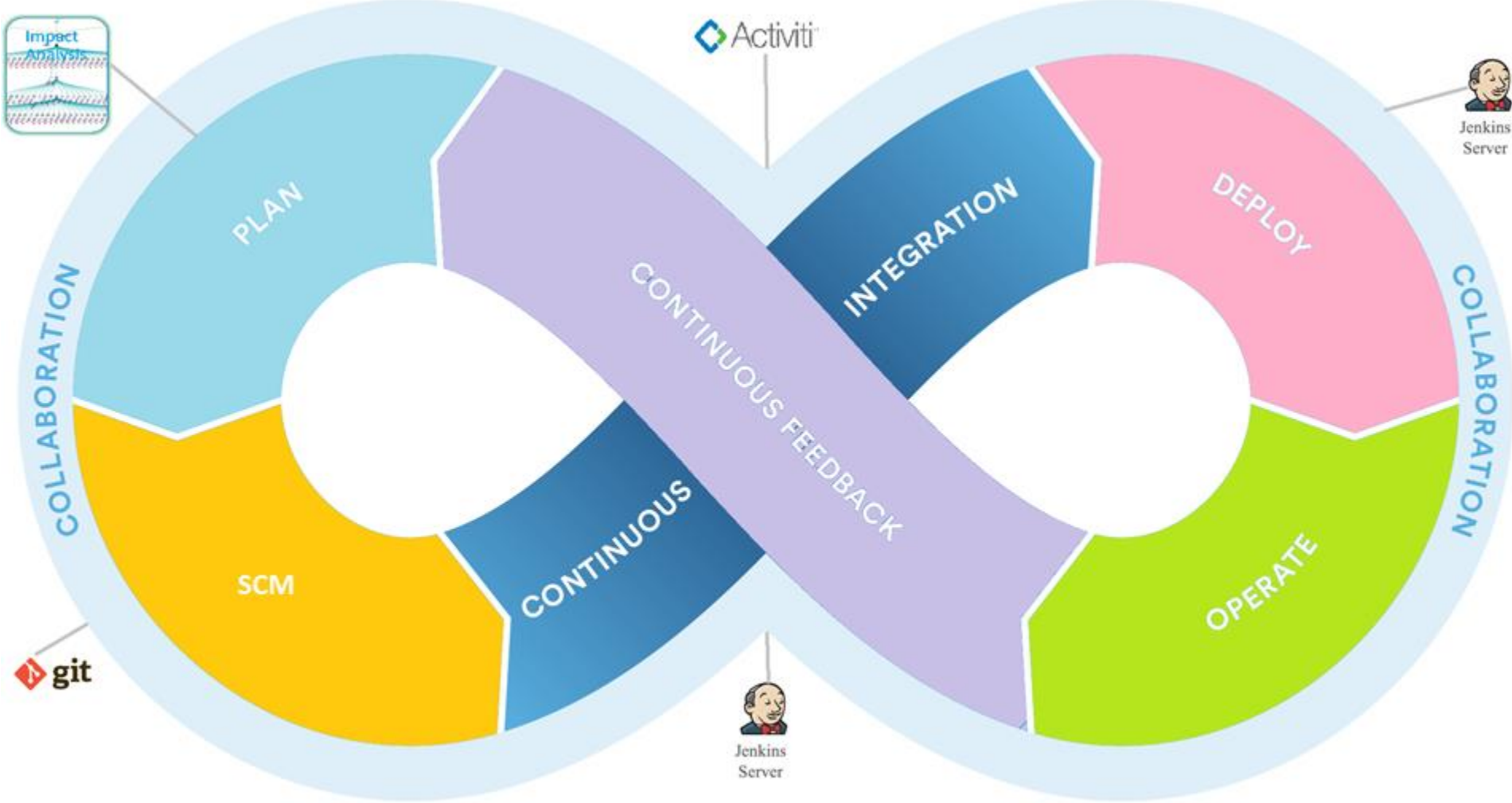
Why Partner with TPF Software Inc.(TSI)?

Travelport chose TSI for building the solution because:

- TSI has shown leadership in DevOps for TPF conducting a DevOps Symposium in January 2016 for the TPF user community.
- TSI's technology and vision closely align with Travelport's long term tools' strategy.
- TSI's brought in new talent to create a right mix of TPF and Open source skills. In addition, their background in TPF tools development has been of great help.
- TSI's POC showed innovation and talent
- TSI has shown their flexibility in working with Travelport in identifying and addressing user requirements.

zTPF DevOps Toolchain – Technical Solution

zTPF DevOps Tool Chain



zTPF DevOps Tool Chain - Updates

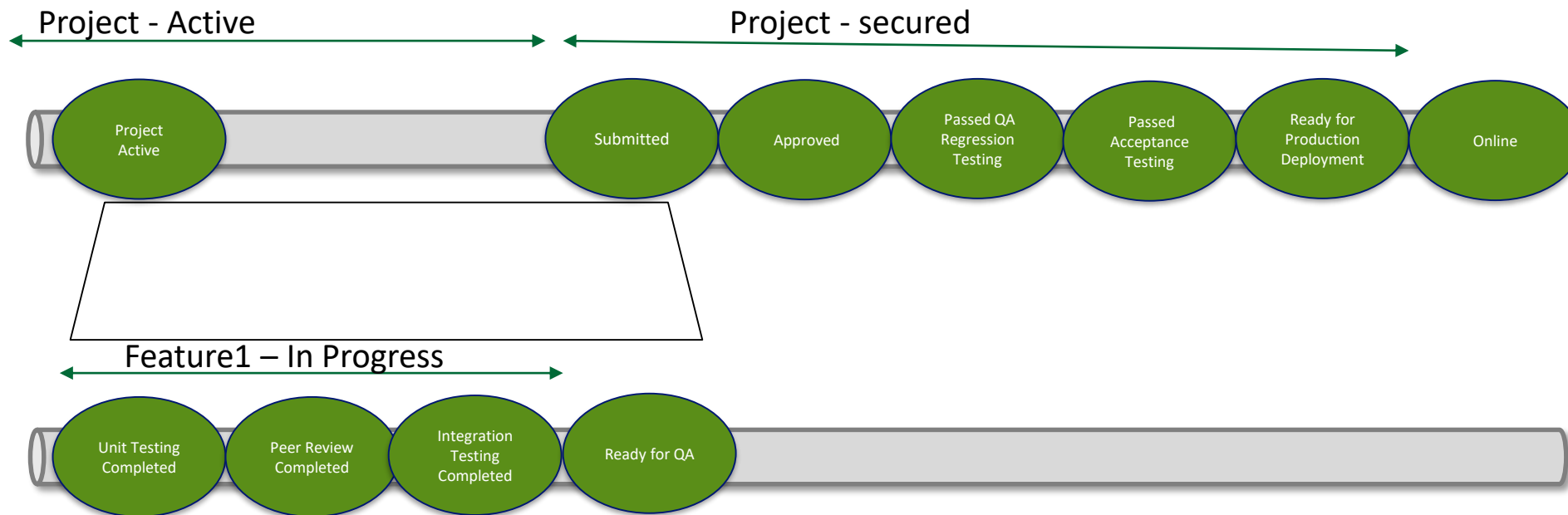
- 2017: Impact Analysis developed and rolled out to users
- 2018: zTPF DevOps Toolchain was used to develop, build and deploy the following in zTPF Production
 - DFDL schema
 - Assembler segments
 - C segments
 - DBDEFs

Minimum Viable Product (MVP)

The first version of this zTPF DevOps toolchain which covers the end to end process was deployed in Production on 22nd March and has been rolled out to Travelport's Systems team, File Support team. The Minimum Viable Product(MVP) that is currently in production has the following value adds:

- State-of-art SCM in GIT
- Build using Jenkins
- Positioned for Continuous Integration
- Source Contention Management
- Divergence and Convergence
- File Sync
- Workflow using Activiti BPM
- Peer Review
- Production build and load improvements
- Robust Dependency Analysis from code check-out until loaded to production
- Production online status notification

SDLC Gates for a project developed and deployed using the zTPF DevOps Toolchain



Impact Analysis – current VM based tools (hyperlinks in images)

```
TPF Cross Reference for Assembler
Key ==> LNA0
Filters: APO Core APZ PRE Core PRZ Segment Display Limit Line Index 392
        APO Core APZ PRZ IFQ FQS VSS PGZ
Calls Segments:
ENTRC-LNA1 ENTRC-LNAE ENTRC-LNAE ENTRC-LNAE ENTRC-LNAE ENTRC-LNAE
ENTRC-LNAX ENTRC-LNAX ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1
ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA3 ENTRC-LNA3 ENTRC-LNAB ENTRC-LNAB
Called by:
LNAAG LNAAFE LNAAC29 LNALBR LNAL15 LNAV01 LNAV0A
LNAYKO LNAYON LNB2ND LNB218 LNDYMO LNDY05
Uses:
#ACPDNR #DD #EDD #EIF #ELIF #ELSE #G0TD #IF
#LOCA #LR02FEA #LR025DD #QT00BFQ #QT00EDI #QT00SDD #QT00SPT #SFM
#TPFDBNR @ APLID CALLA CALOC DATAS DBIFB DBIFD
ENTRC ENTRC EPROA GW001G GW001GAO KEY1=(PK LCLA LNA
LNAB LNAN LNAC LNAG LNAA LNAB LNAB LRC2SR
MACRO MEND PROCA PROT QR00CR QR01CR QT00CR QT01CR
SERRC SETA SW00SR 3800DF
Segments referenced:
LNA0UN LNA09H
PF1=Help 2=Select Key 3=Exit 4=Codescan(PS) 5=Prev Key 6=Save
PF7=Page Up 8=Page Down 9=Page Top 10=Page Bottom 11=Xedit SRC 12=Exit
Place cursor on any key and hit PF2 to select or simply overwrite the key field
```

MX tool used in 1st system

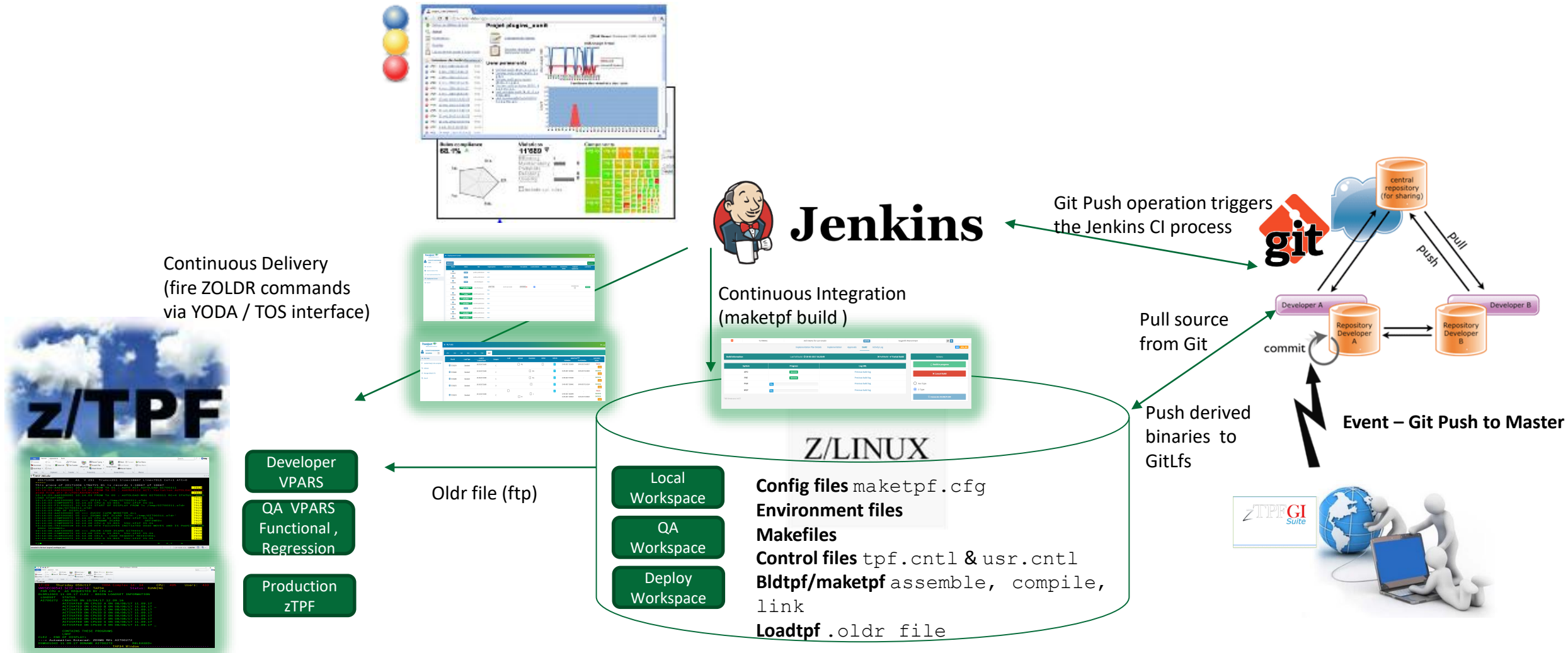
```
HELP OPTIONS SUBMIT LANGUAGE
=11.4 Program/Program Cross Reference 12:11:45
Sea
_Program/Program Cross Reference as of 07/03/17: All versions
Pro
Data does not include Time Initiated or DIR activations.
Lim
AQA2 is entered via ENTRC by:
Sta
AQAIA0 AQAIA1 AQA0AG AQA0AH AQA0AI AQA0FO AQA0MO
End
Sel
F9=Print F12=Cancel
Press PF2 to display information.
Command ==>
F1=Help F2=Submit F3=Exit F10=Actions F11=Retrieve F12=Cancel
```

Workbench used in 2nd system

```
HELP OPTIONS SUBMIT LANGUAGE SYSTEM INPUT_MODE
=CAPM54 Program/Program Cross Reference 12:13:05
Sea
_Prog - Prog Cross Ref. as of 07/03/17 - RES-4.1: All version
Pro
Data does not include Time Initiated activations.
Lim
KRDO is entered via ENTRC by:
Sta
KRDKHE KRD2IN
End
Sel
KRDO is entered via ENTRC by:
KRDIST KRDI46
F9=Print F12=Cancel
Command ==>
F1=Help F2=Submit F3=Exit F10=Actions F12=Exit Xref F15=Exit A11
```

CAPM54 used in 3rd system

The end to end Process using Git, Jenkins, Activiti BPM – Delivered in 2018 (hyperlinks in images)



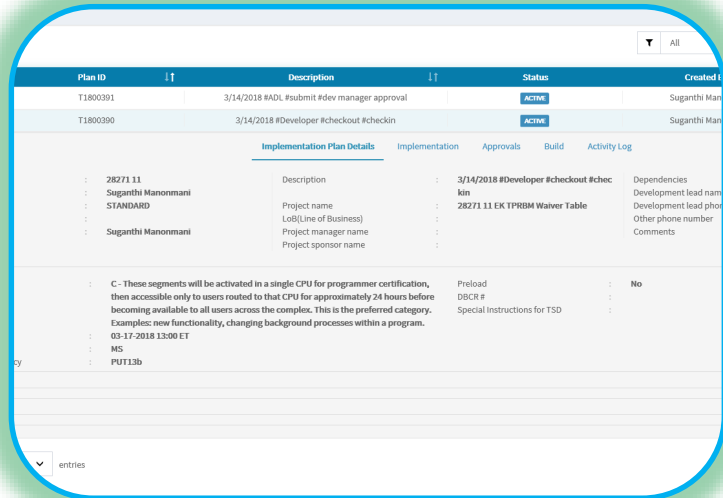
zTPF DevOps Tool Chain - Configured Open Source Tools for zTPF

- Built the solution using Open Source Technology
- Impact Analysis tool was built in-house
- Used Industry Standard Practices to solution the problem
- Customized these Open Source tools to address that which makes zTPF Special
 - Build Dependency: large code base
 - Single Source, multiple objects
 - Deployed to multiple target systems
 - Dependencies, Date Audits
- Configured Open Source Tools for zTPF
- Appropriate design patterns to enable appropriate usage in zTPF

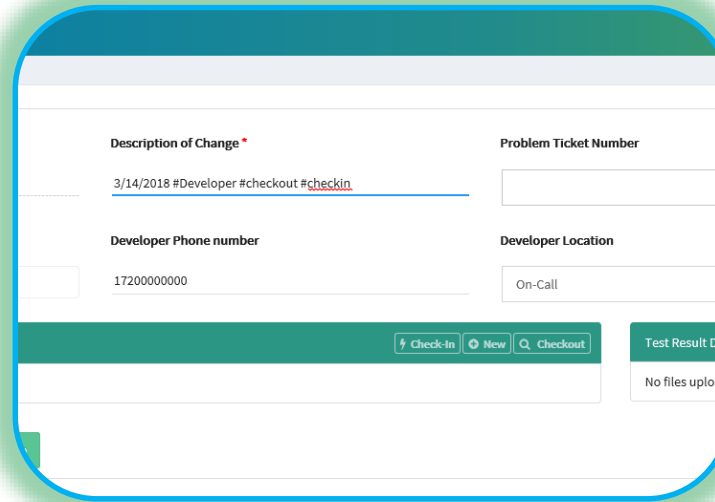


Product Demo and Snapshots

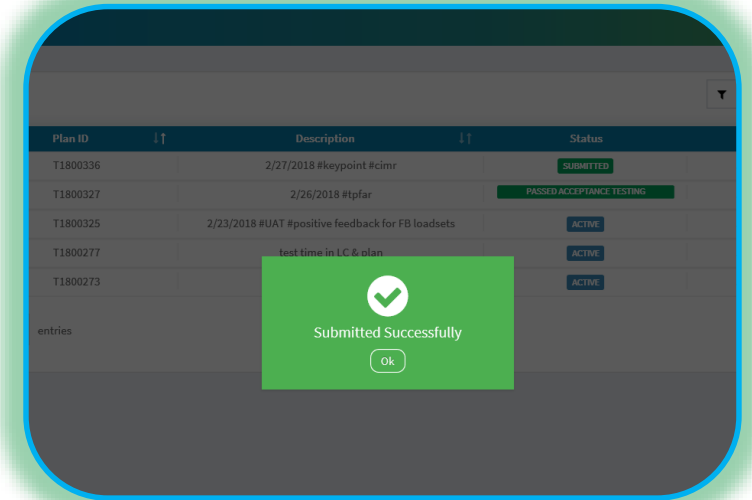
Application Developer Lead(ADL) Role (hyperlinks in images)



Creates Project

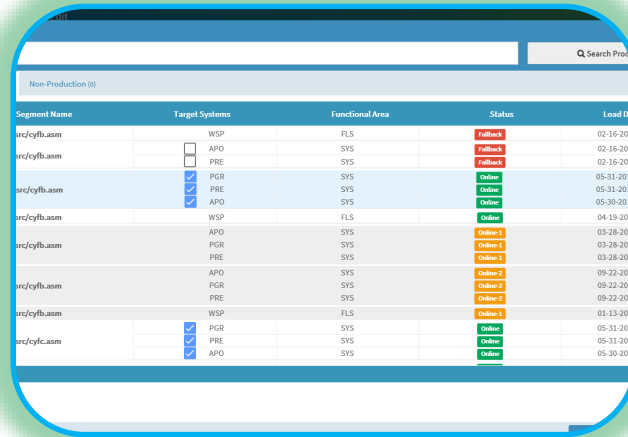


Creates Features –
Assign Developers

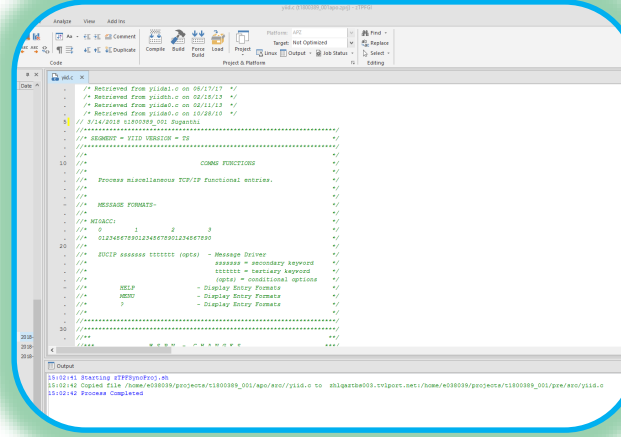


Submits Project
Plan (secures)

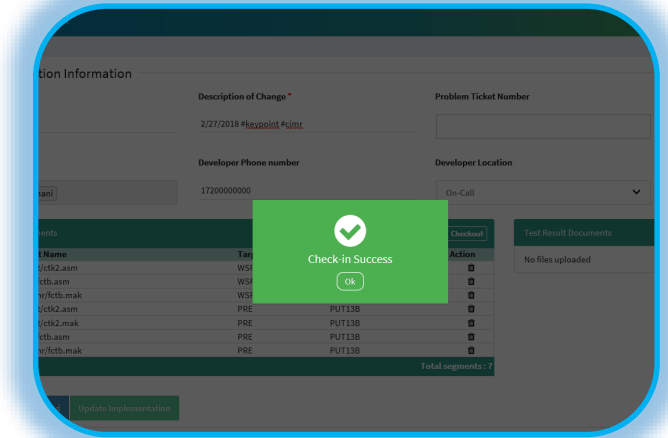
Developer Role (hyperlinks in images)



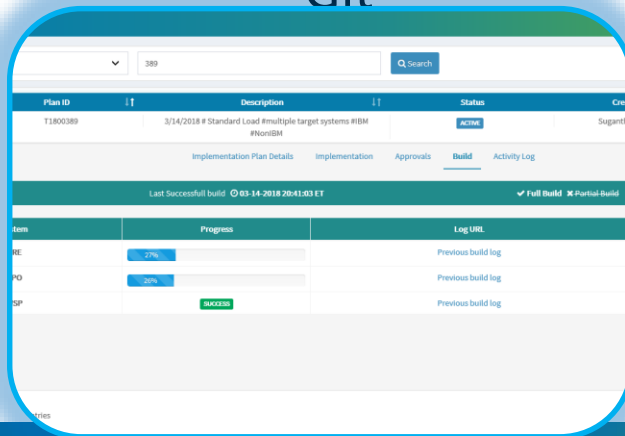
Search and Checkout
Source artifact from
Git



Update code in IDE,
File Sync, Local Build –
Performs unit testing

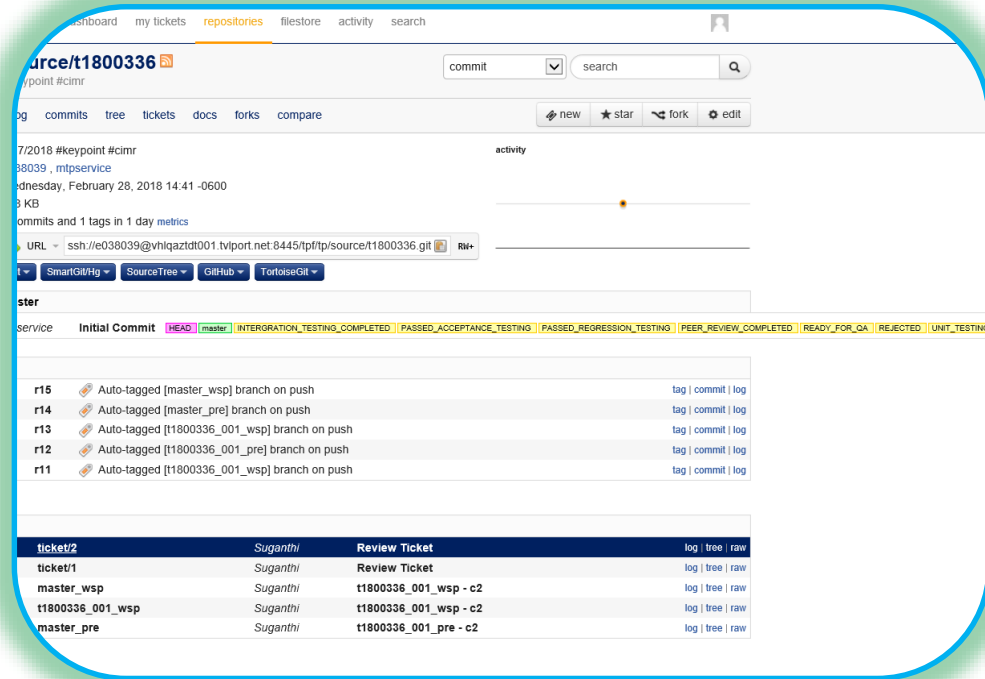


Commit, Checkin
Source artifact

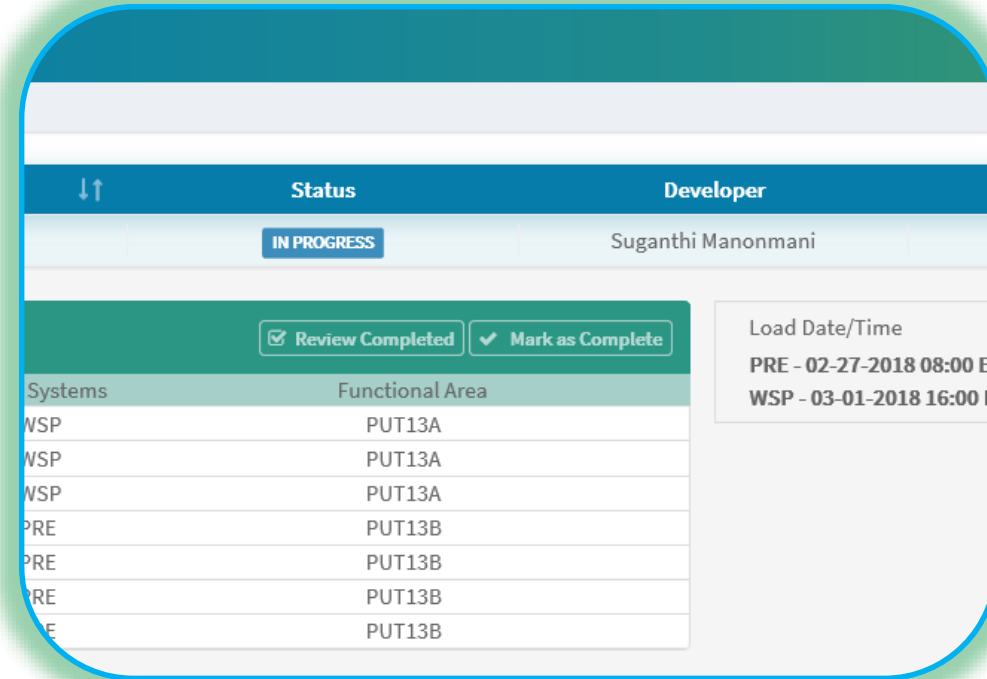


Devl Build – Performs
Integration testing

Reviewer Role (hyperlinks in images)

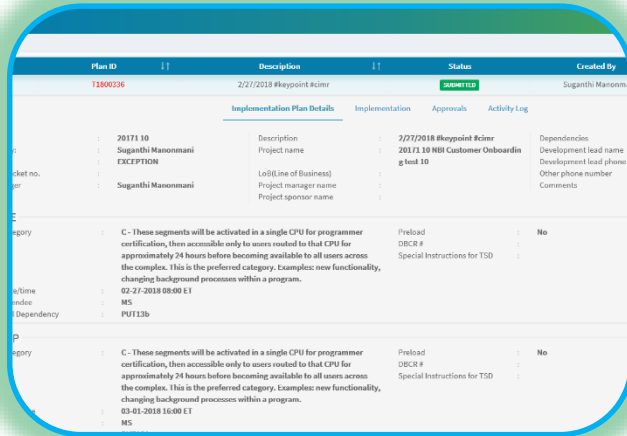


Reviews the source artifacts and documents the comments in Gitblit tickets

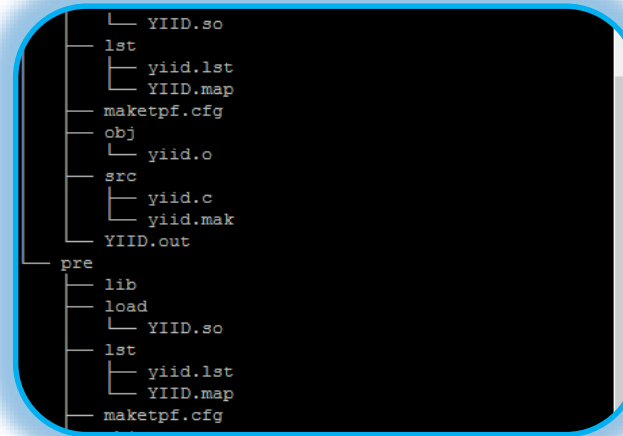


Marks the Feature as Peer Review Completed

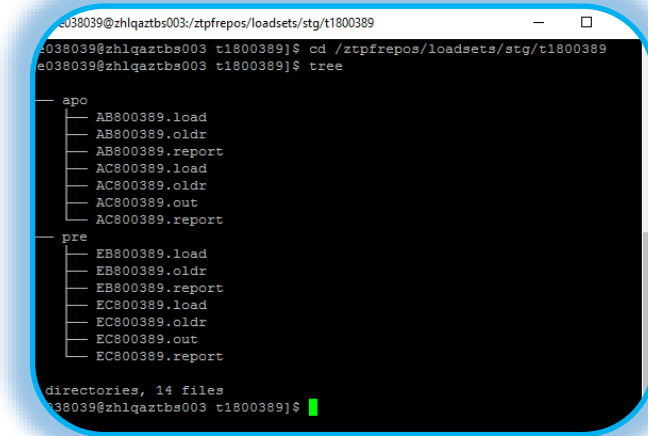
Dev Manager Role (hyperlinks in images)



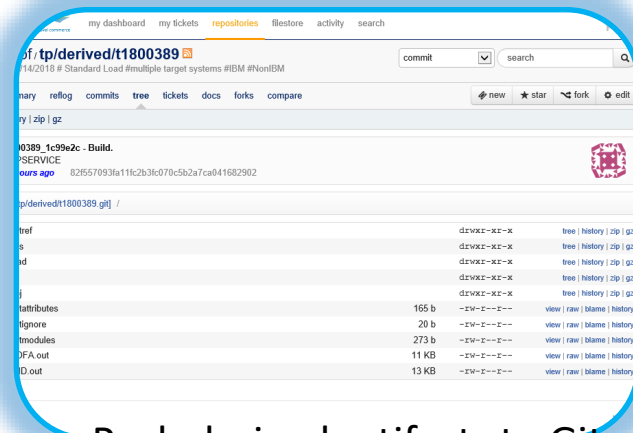
Approves Project



Staging Build done



Staging loadset & fallback loadset generated (same loadset used for QA, Pre-Prod and Production deployment)



Push derived artifacts to Git
Derived repository

QA Role (hyperlinks in images)

Staging loadsets deployed to QA Regression test systems

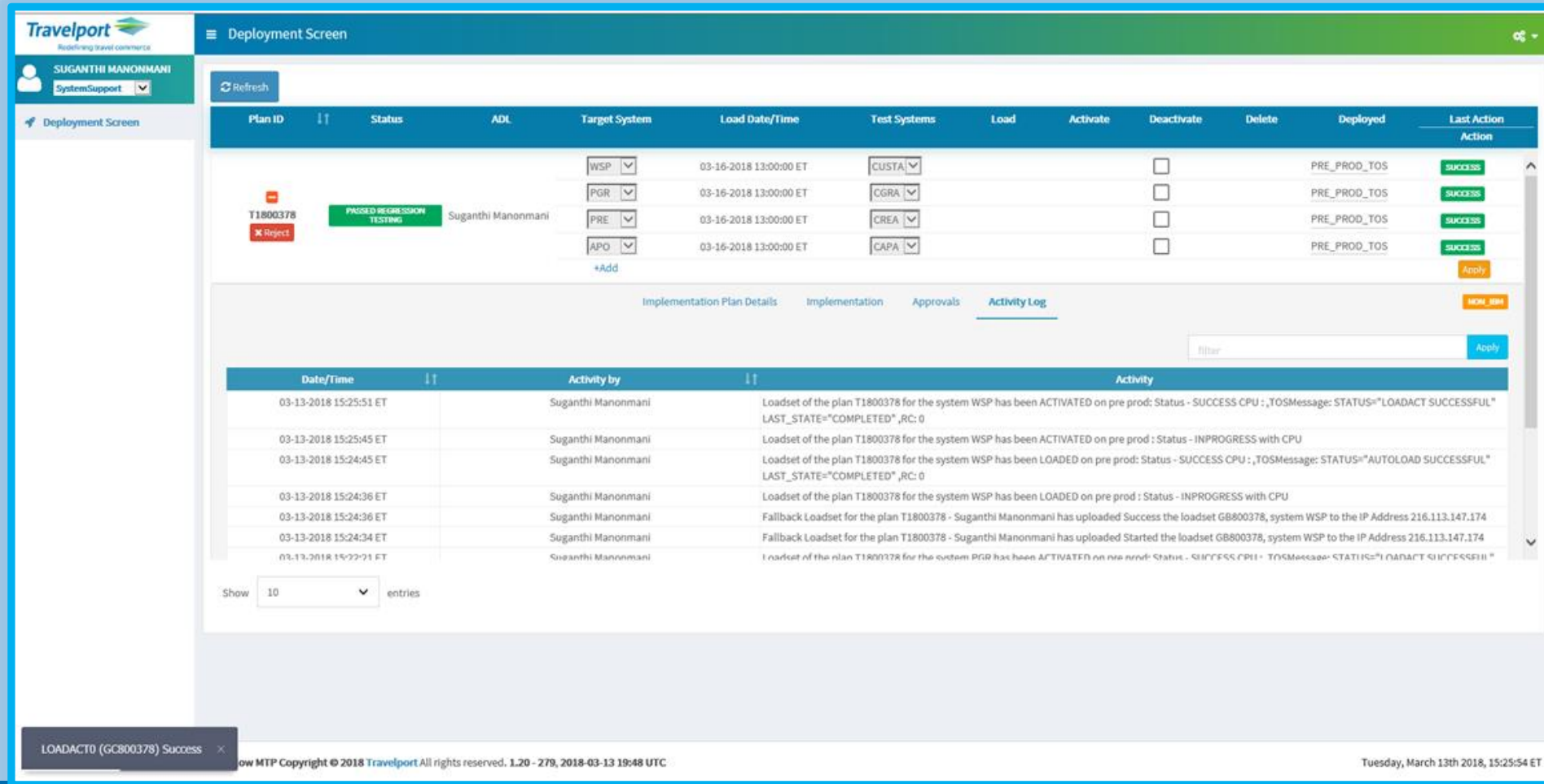
Redefining travel commerce
Deployment Screen

SUGANTHI MANONMANI
QA
Refresh
Submit

Plan ID	Status	ADL	Target System	Load Date/Time	Test Systems	Load & Activate	Activate	Deactivate	Deactivate & Delete	Deployed	Last Action
+Add											
T1800338	APPROVED	Ryan Braden	+Add								
			APO	03-12-2018 13:00:00 ET	TAPC			<input type="checkbox"/>	<input type="checkbox"/>	PRIVATE	SUCCESS
			<input checked="" type="checkbox"/> <input type="checkbox"/>	PASSED							
+Add											
			PGR	03-12-2018 13:00:00 ET	TGRA			<input type="checkbox"/>	<input type="checkbox"/>	PRIVATE	SUCCESS
			<input checked="" type="checkbox"/> <input type="checkbox"/>	PASSED							
+Add											
			PRE	03-12-2018 13:00:00 ET	TREA			<input type="checkbox"/>	<input type="checkbox"/>	PRIVATE	SUCCESS
			<input checked="" type="checkbox"/> <input type="checkbox"/>								

Test System Support Role (hyperlinks in images)

Staging loadsets deployed to Pre-Prod COPY systems



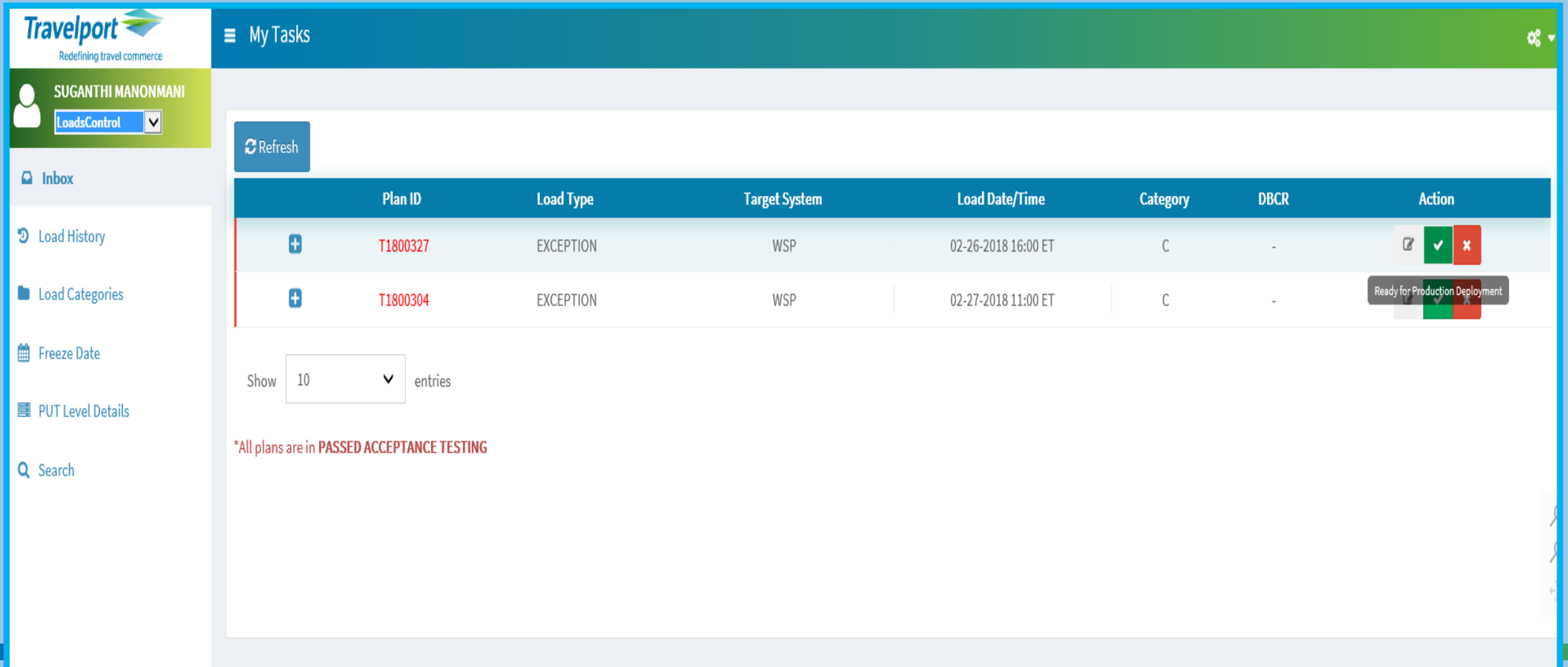
The screenshot displays the 'Deployment Screen' in the Travelport system. The user is SUGANTHI MANONMANI, role SystemSupport. The main table lists deployment plans with columns for Plan ID, Status, ADL, Target System, Load Date/Time, Test Systems, Load, Activate, Deactivate, Delete, Deployed, and Last Action. A specific plan T1800378 is highlighted with a 'PASSED REGRESSION TESTING' badge. Below the table, the 'Activity Log' tab is active, showing a list of activities with columns for Date/Time, Activity by, and Activity. A notification at the bottom left indicates 'LOADACT0 (GC800378) Success'. The footer shows 'Tuesday, March 13th 2018, 15:25:54 ET'.

Plan ID	Status	ADL	Target System	Load Date/Time	Test Systems	Load	Activate	Deactivate	Delete	Deployed	Last Action
T1800378	PASSED REGRESSION TESTING	Suganthi Manonmani	WSP	03-16-2018 13:00:00 ET	CUSTA		<input type="checkbox"/>			PRE_PROD_TOS	SUCCESS
			PGR	03-16-2018 13:00:00 ET	CGRA		<input type="checkbox"/>			PRE_PROD_TOS	SUCCESS
			PRE	03-16-2018 13:00:00 ET	CREA		<input type="checkbox"/>			PRE_PROD_TOS	SUCCESS
			APO	03-16-2018 13:00:00 ET	CAPA		<input type="checkbox"/>			PRE_PROD_TOS	SUCCESS

Date/Time	Activity by	Activity
03-13-2018 15:25:51 ET	Suganthi Manonmani	Loadset of the plan T1800378 for the system WSP has been ACTIVATED on pre prod: Status - SUCCESS CPU ; ,TOSMessage: STATUS="LOADACT SUCCESSFUL" LAST_STATE="COMPLETED" ,RC: 0
03-13-2018 15:25:45 ET	Suganthi Manonmani	Loadset of the plan T1800378 for the system WSP has been ACTIVATED on pre prod: Status - INPROGRESS with CPU
03-13-2018 15:24:45 ET	Suganthi Manonmani	Loadset of the plan T1800378 for the system WSP has been LOADED on pre prod: Status - SUCCESS CPU ; ,TOSMessage: STATUS="AUTOLOAD SUCCESSFUL" LAST_STATE="COMPLETED" ,RC: 0
03-13-2018 15:24:36 ET	Suganthi Manonmani	Loadset of the plan T1800378 for the system WSP has been LOADED on pre prod: Status - INPROGRESS with CPU
03-13-2018 15:24:36 ET	Suganthi Manonmani	Fallback Loadset for the plan T1800378 - Suganthi Manonmani has uploaded Success the loadset GB800378, system WSP to the IP Address 216.113.147.174
03-13-2018 15:24:34 ET	Suganthi Manonmani	Fallback Loadset for the plan T1800378 - Suganthi Manonmani has uploaded Started the loadset GB800378, system WSP to the IP Address 216.113.147.174
03-13-2018 15:22:21 ET	Suganthi Manonmani	Loadset of the plan T1800378 for the system PGR has been ACTIVATED on pre prod: Status - SUCCESS CPU ; ,TOSMessage: STATUS="LOADACT SUCCESSFUL" LAST_STATE="COMPLETED" ,RC: 0

Loads Control Role (hyperlinks in images)

Staging loadsets ftp'ed to zTPF Production System



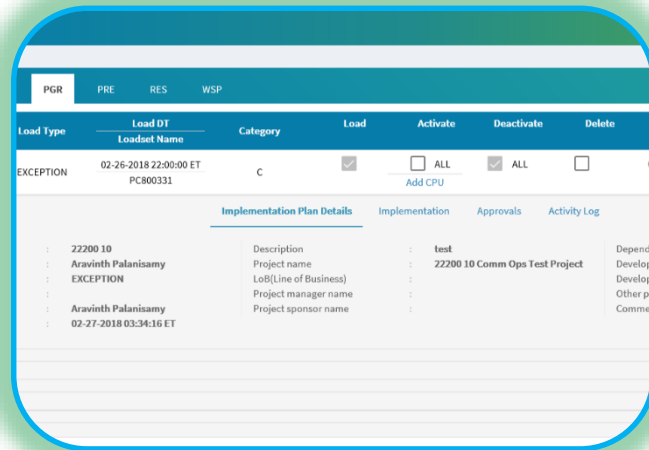
The screenshot displays the 'My Tasks' page in the Travelport system. The user is SUGANTHI MANONMANI, with the role 'LoadsControl'. The interface includes a sidebar with navigation options: Inbox, Load History, Load Categories, Freeze Date, PUT Level Details, and Search. A 'Refresh' button is located above the table. The table lists two load plans, both of type 'EXCEPTION' targeting the 'WSP' system. The first plan, T1800327, is dated 02-26-2018 16:00 ET. The second plan, T1800304, is dated 02-27-2018 11:00 ET and has a 'Ready for Production Deployment' tooltip. A note at the bottom states '*All plans are in PASSED ACCEPTANCE TESTING'.

	Plan ID	Load Type	Target System	Load Date/Time	Category	DBCR	Action
+	T1800327	EXCEPTION	WSP	02-26-2018 16:00 ET	C	-	✎ ✓ ✖
+	T1800304	EXCEPTION	WSP	02-27-2018 11:00 ET	C	-	✎ ✓ ✖ Ready for Production Deployment

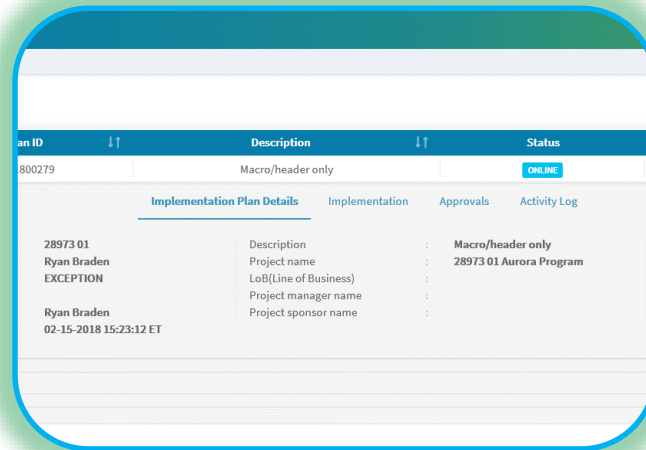
Show entries

*All plans are in PASSED ACCEPTANCE TESTING

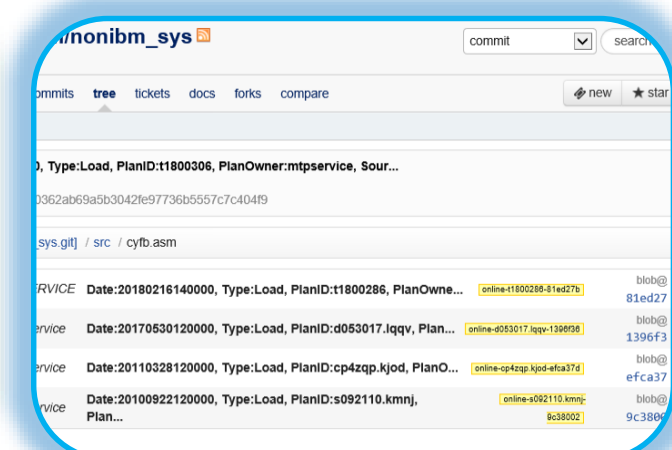
Technical Service Desk(TSD) Role (hyperlinks in images)



Zoldr actions – Staging loadsets deployed in zTPF Production system

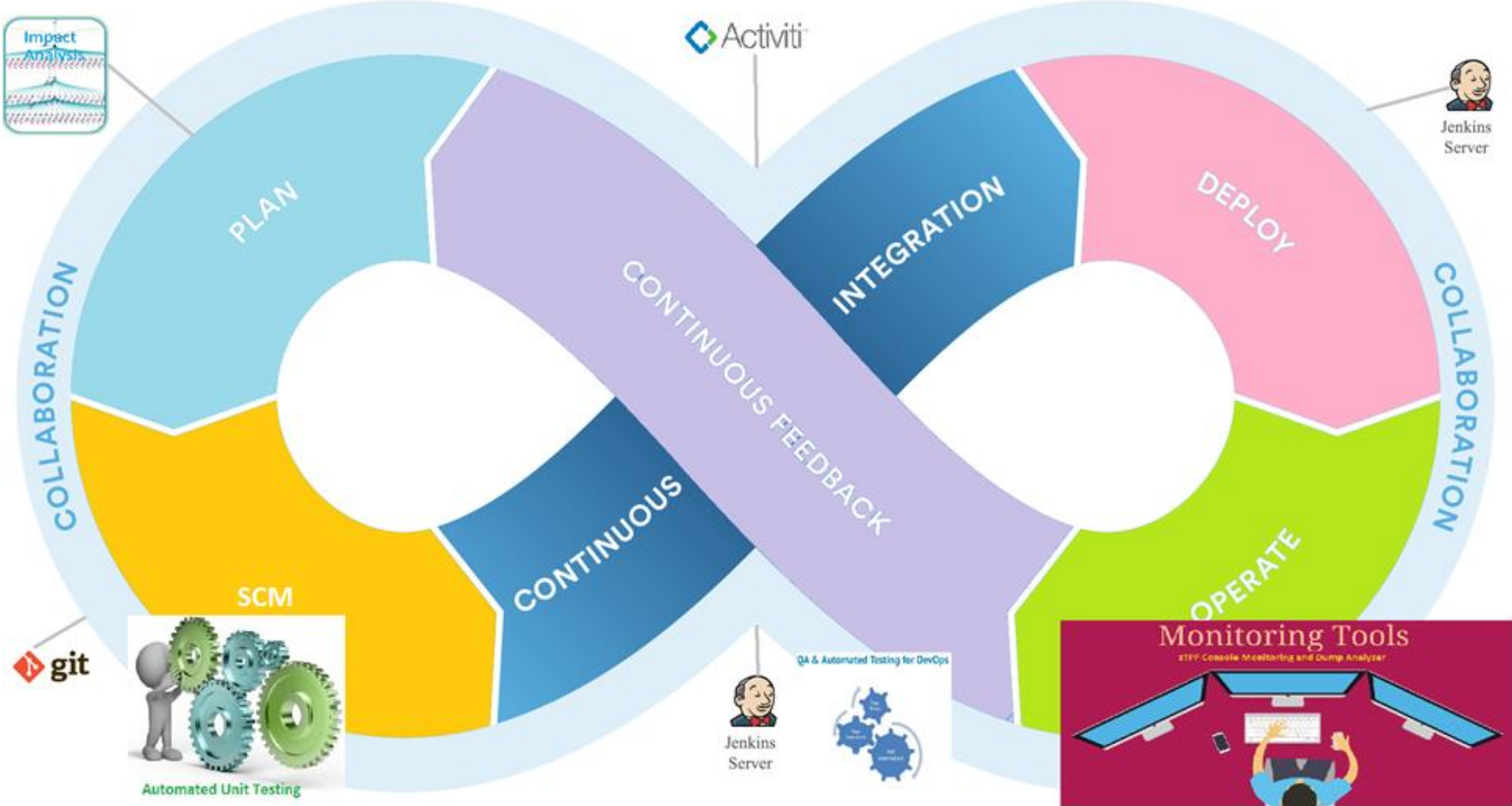


zTPF Online feedback – Project marked as Online.



Artifacts merged to Production Git Repository

zTPF DevOps Tool Chain – The journey continues...



Key Take-Aways and Questions

Key Take-Aways

- Modern automated software engineering practices are equally applicable to TPF and mainframe in general.
 - Consistent and connected software engineering across the organization
 - Productivity improvements in TPF development through implementing common processes and modern tools.
 - Learning curve for new hires shortened by leveraging Open Source Tools that are taught in colleges today.
 - Enforce business processes and development best practices through automation of repetitive tasks in a more consistent manner.
- Engage subject matter experts early on and gain their trust to discussion and demonstration.
- Separate needs from habits.
- Build incrementally and show value.
- Gain support of leadership.

Thanks!



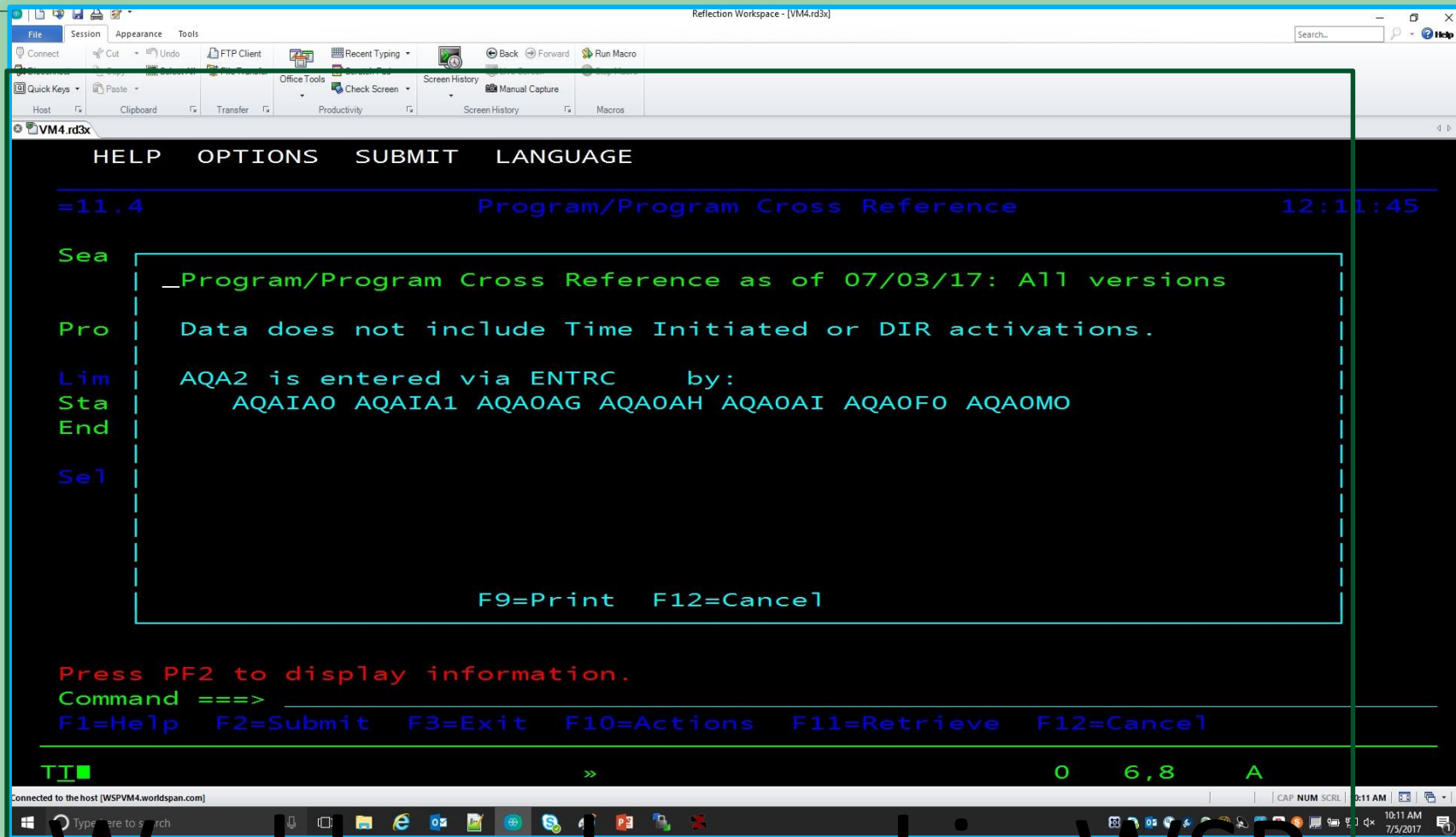
Appendix – Enlarged images

MX tool used in T4 (hyperlinks in images)

```
TPF Cross Reference for Assembler
Key ==> LNA0
Filters: APO Core APZ PRE Core Segment Display Limit >
APO APZ PRZ IFQ FQS VSS PGZ <
Index 392
Line 1 of 17
Calls Segments:
ENTNC-LNA1 ENTRC-LNAE ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1
ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1
ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1 ENTRC-LNA1
Called by:
LNAAG LNAAFE LNACNE LNAC29 LNALBB LNAL15 LNAVO1 LNAV0A
LNAYKO LNAYON LNB2NO LNB218 LNDYMO LNDY05
Uses:
#ACPDNR #DO #EDO #EIF #ELIF #ELSE #GOTO #IF
#LOCA #LR02FEA #LR02SDD #QT00BFQ #QT00EDI #QT00SDD #QT00SPT #SPM
#TPFDNR @ APLID CALLA CALOC DATAS DBIFB DBRED
ENTNC ENTRC EPROA GW001G GW001GA0 KEY1=(PK LCLA LNA
LNAE LNaN LNAX LNA0 LNA1 LNA3 LNA8 LR02SR
MACRO MEND PROCA PROT QR00CR QR01CR QT00CR QT01CR
SERRC SETA SW00SR 3800DF
Segments referenced:
LNAOUN LNA03H
PF1-Help 2-Select Key 3-Exit 4-Codescan(PS) 5-Prev Key 6-Save
PF7-Page Up 8-Page Down 9-Page Top 10-Page Bottom 11-Xedit SRC 12-Exit
Place cursor on any key and hit PF2 to select or simply overtype the key field
TI 0 2,10 A
```

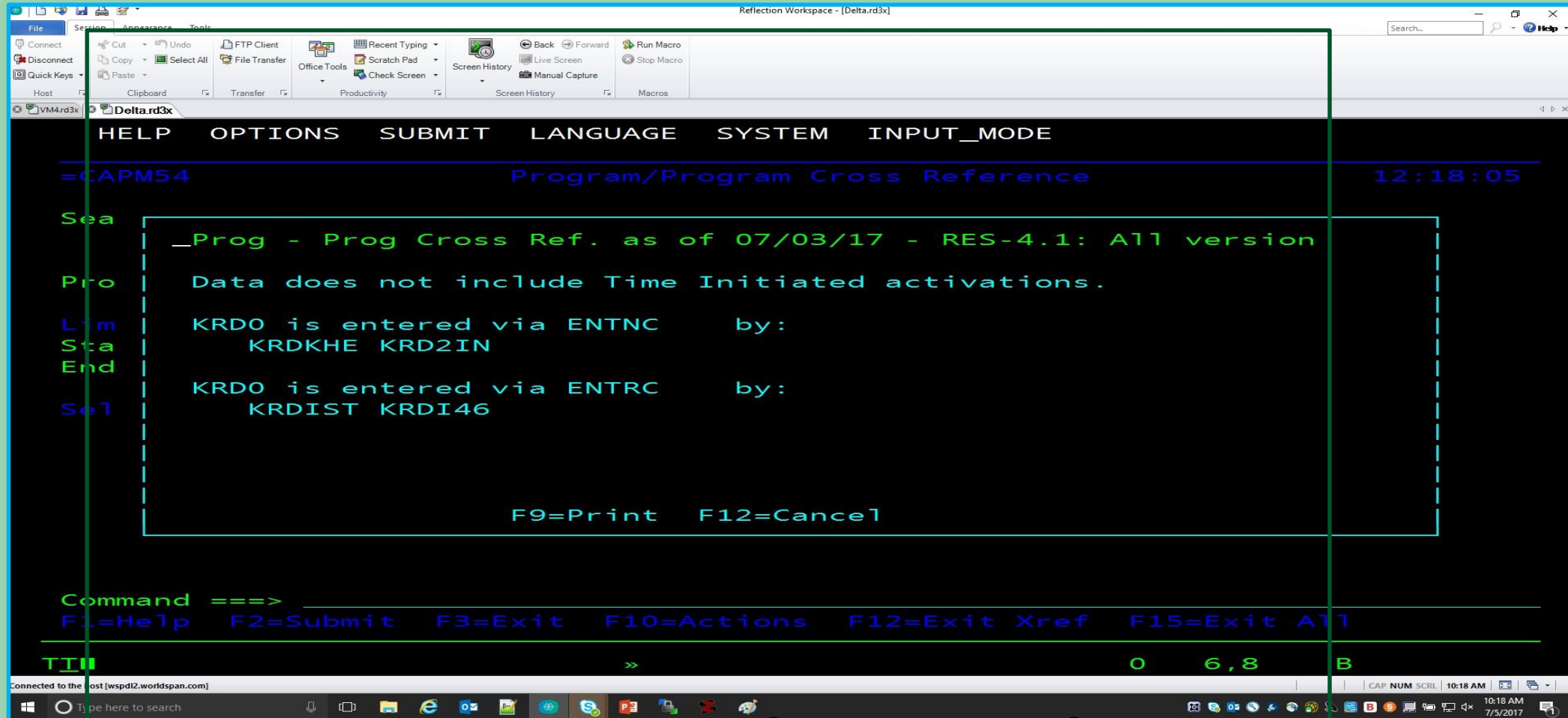
MX tool used in T4

Workbench used in WSP (hyperlinks in images)



Workbench used in WSP

CAPM54 used in Delta (hyperlinks in images)



The screenshot shows a terminal window titled "Reflection Workspace - [Delta.rd3x]". The terminal displays the following text:

```
HELP  OPTIONS  SUBMIT  LANGUAGE  SYSTEM  INPUT_MODE
=CAPM54          Program/Program Cross Reference          12:18:05

Sea
  _Prog - Prog Cross Ref. as of 07/03/17 - RES-4.1: All version
Pro
  Data does not include Time Initiated activations.
Lim
  KRDO is entered via ENTNC      by:
Sta
  KRDKHE KRDI46
End
Sel
  KRDO is entered via ENTRC      by:
  KRDIST KRDI46

          F9=Print  F12=Cancel

Command ==>
F1=Help  F2=Submit  F3=Exit  F10=Actions  F12=Exit Xref  F15=Exit ATT

TII  >>  0  6,8  B
```

The terminal also shows a Windows taskbar at the bottom with the system clock at 10:18 AM on 7/5/2017.

CAPM54 used in Delta

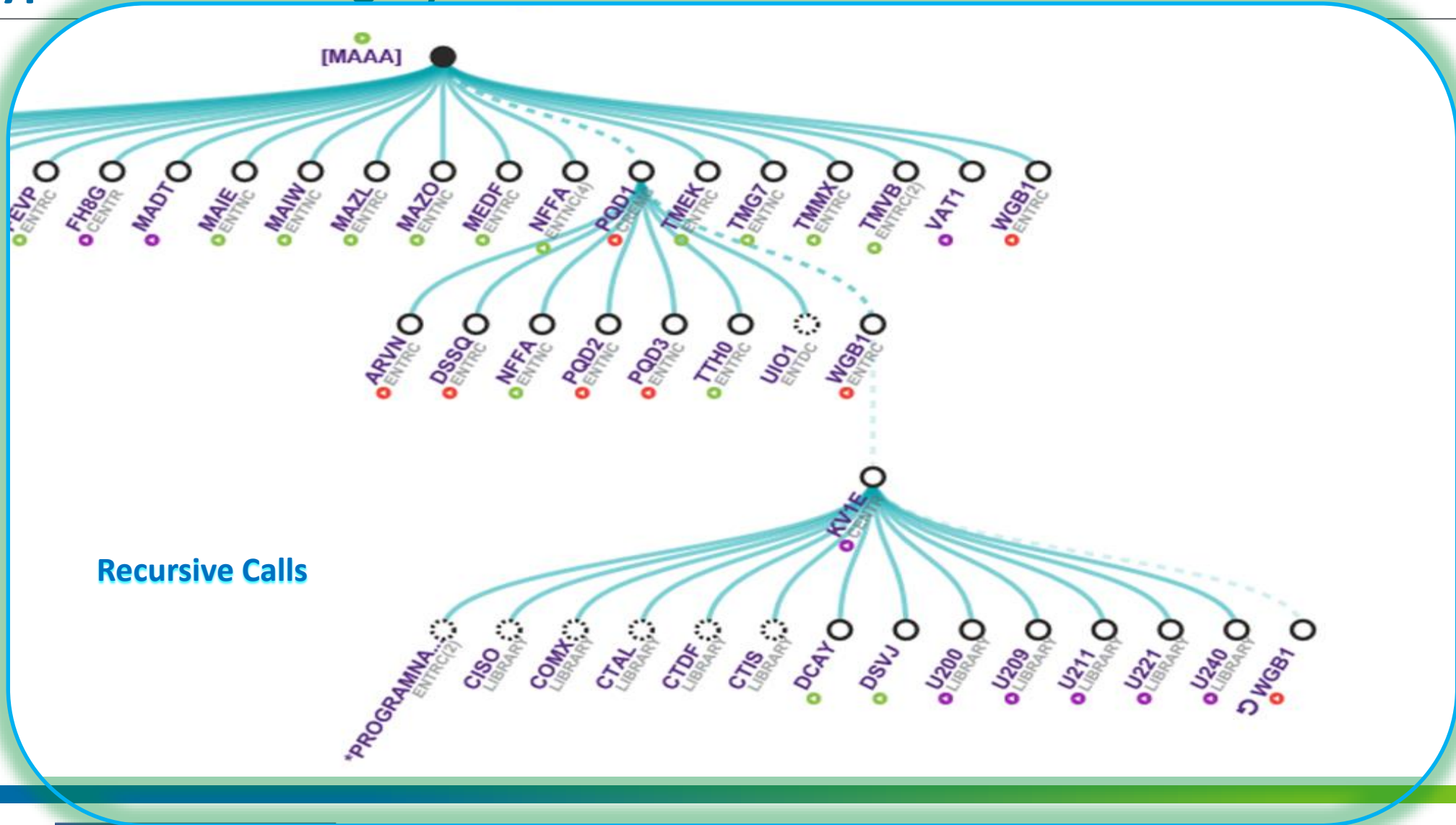
Displays Source (hyperlinks in images)

```
LR      R6,R5          COPY INTO R6 ALSO
BCTR    R6,0          SUBTRACT ONE FOR INDEX
MPY     R6,L'ISTENT    AND INDEX INTO I-STREAM TABLE
AR      R14,R6        ADD THE BASE OF THE I-STREAM TABLE
TM      ISTACTV,L'ISTACTV THIS I-STREAM ACTIVE?
BNO     SWIS020       -NO, CHECK 1ST PREVIOUS
TM      ISTUSE,L'ISTUSE THIS I-STREAM USABLE?
BO      SWIS030       -YES, GO SWISC

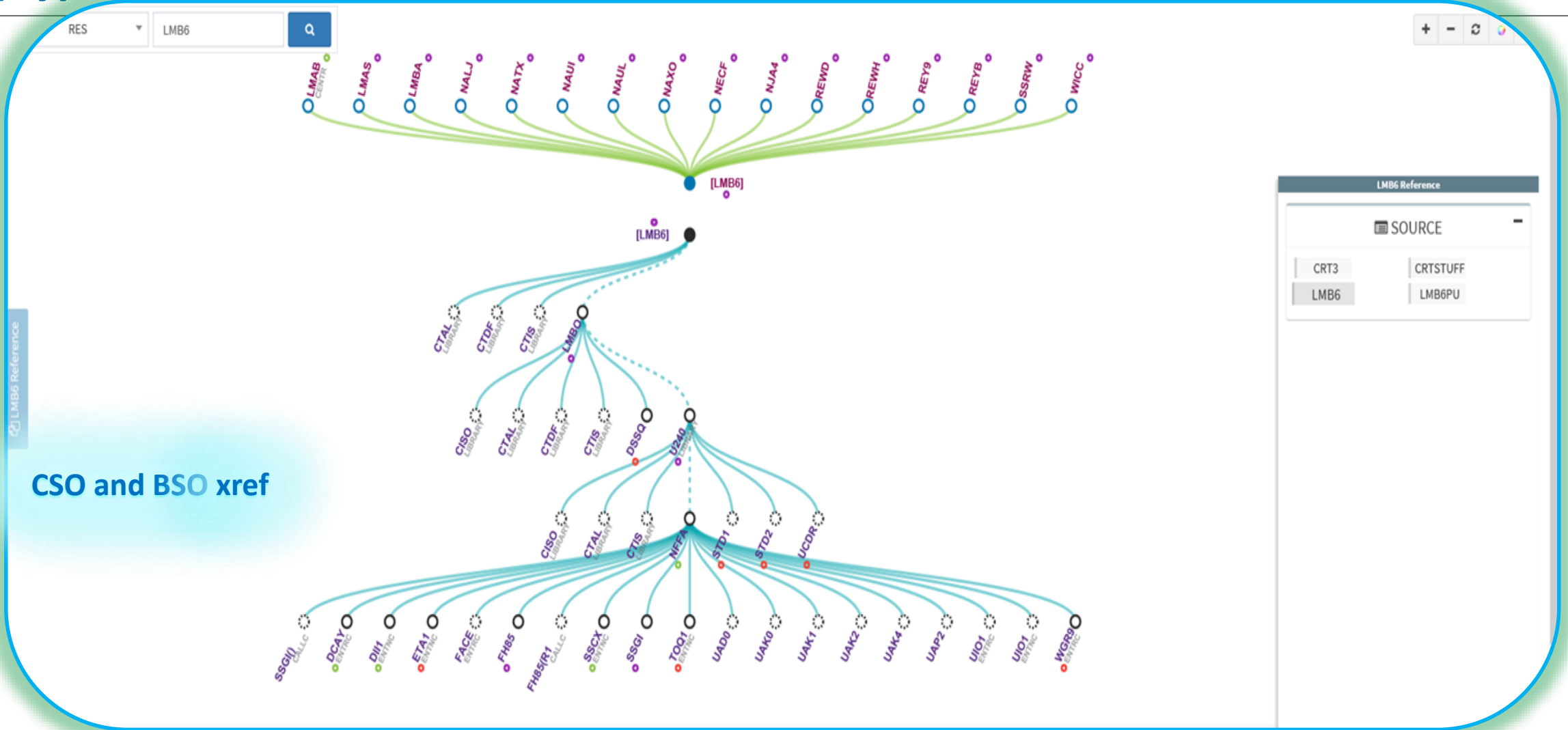
SWIS020 EQU *
LR      R14,R15       REESTABLISH BASE OF I-STREAM TABLE
BCT     R5,SWIS010
SWIS030 EQU *
LH      R6,CE1ISN     DETERMINE WHICH I-STREAM IS PROC
CR      R6,R5         IS THIS ALREADY THE LAST I-STREAM?
BE      SWIS040       YES- DON'T EXECUTE MACRO
SWISC   KRD1,TYPE=ENTER,IS=R5,LEV=D0,D1
```

Displays Source

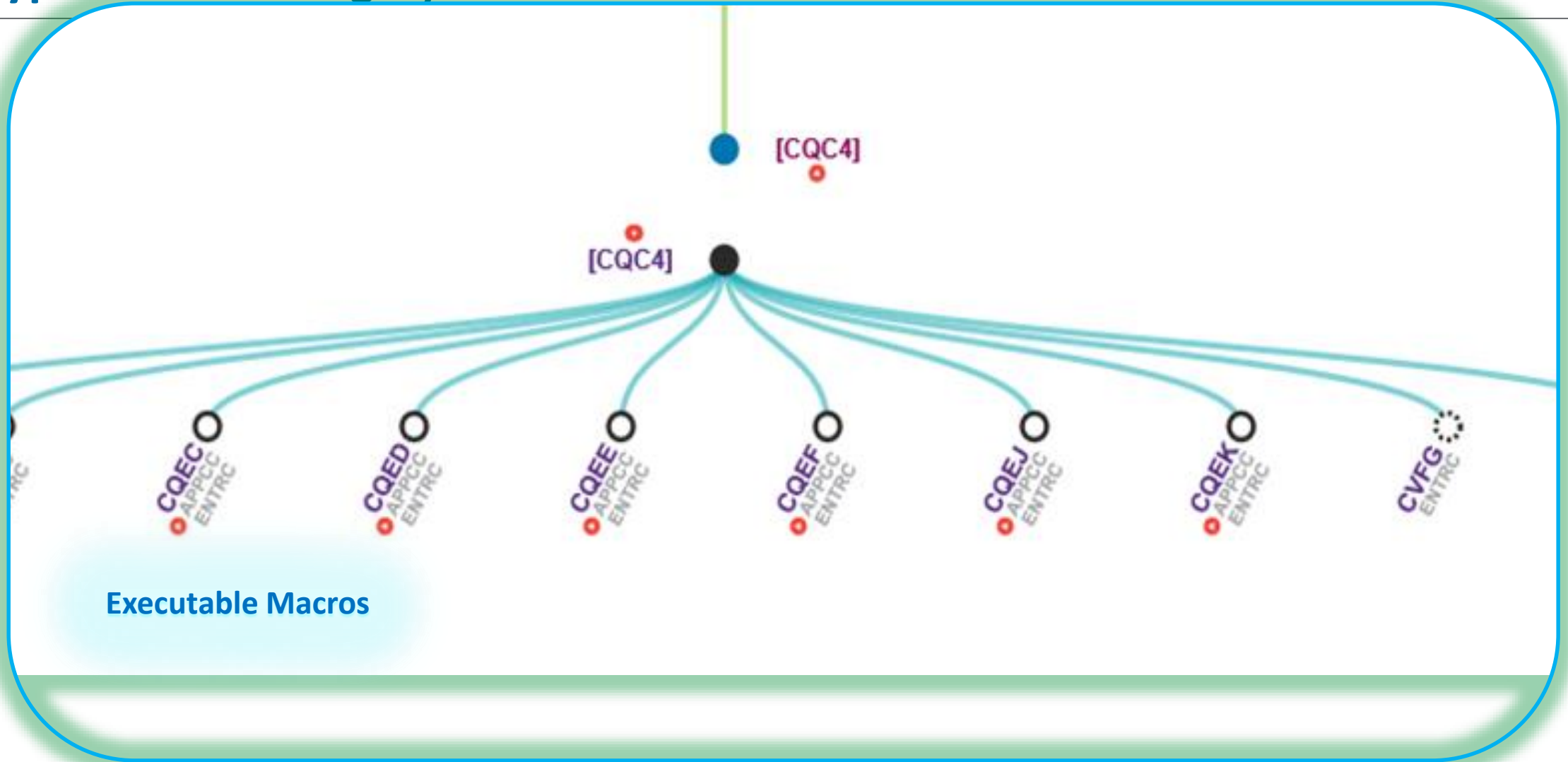
Recursive Calls (hyperlinks in images)



CSO and BSO xref (hyperlinks in images)



Executable Macros (hyperlinks in images)



Build Index Offline (hyperlinks in images)

	Initiated Time	Initiated By	Status
	2017-06-20 03:31:26 MDT	Arul.dhandapani	COMPLETED 🕒 2017-06-20 04:47:36 MDT 👁 view log
	2017-06-20 03:31:26 MDT	Arul.dhandapani	COMPLETED 🕒 2017-06-20 06:39:48 MDT 👁 view log
	2017-06-20 03:31:26 MDT	Arul.dhandapani	COMPLETED 🕒 2017-06-20 06:40:03 MDT 👁 view log

Build Index offline

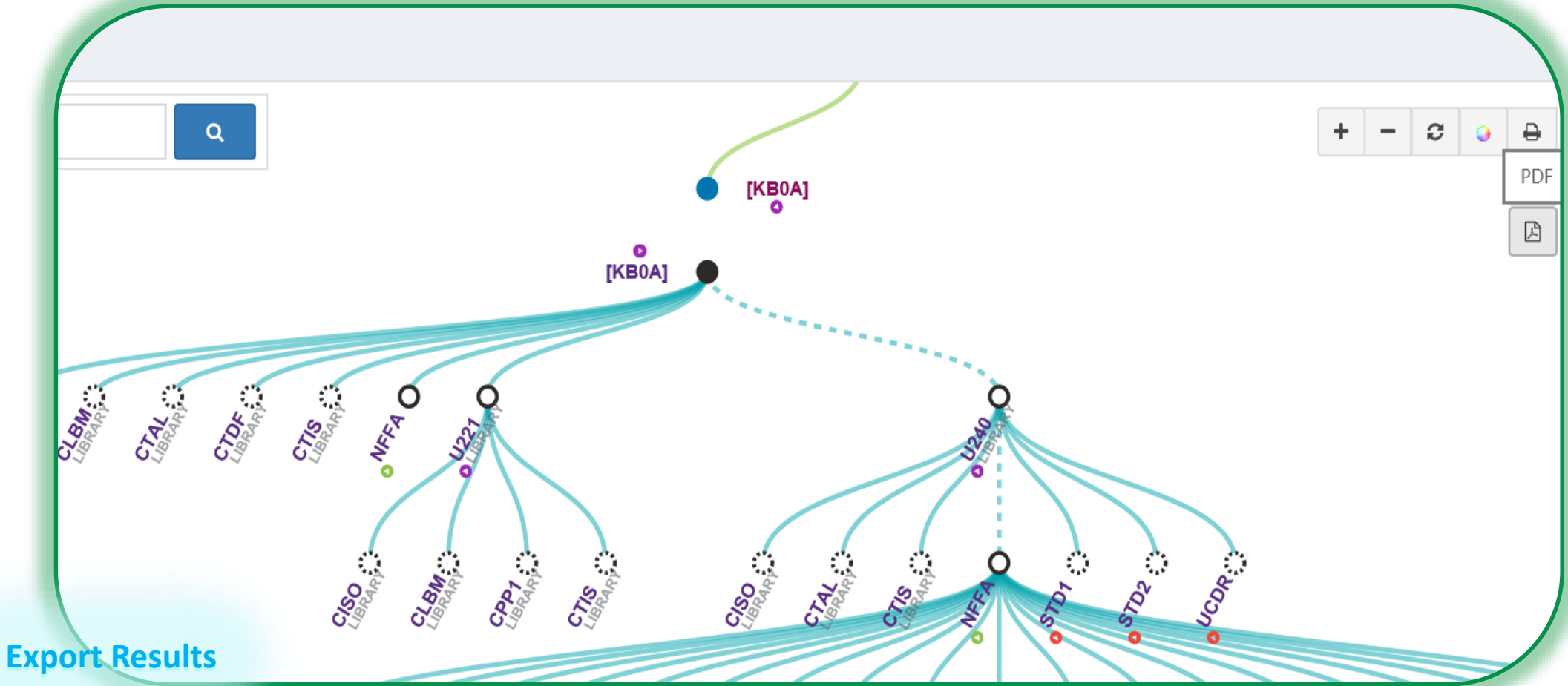
Previous 1 Next

Sabretalk xref (hyperlinks in images)

Select System	RES	Select Key	Include	Include Name
Total Includes: 3				
NBV7600				
LMA4	LMAD	LMAP	LMAT	
LMAW	LMB7	LMB9	LMBW	
NBV7800				
AR2B	ARGM	AS7N	AXE5	
KVUH	KVUI	KW7	KVX1	
MHB4	MHB5	MHB7	SBRC	
VOWW	VOX0	VOXA	VOY9	

Sabretalk

Export results – pdf, xls (hyperlinks in images)



Export Results

Build in devl workspace

Build Information Last full build 10-05-2017 16:20:49 ~~Full Build~~ Partial Build


System	Progress	Log URL
APO	SUCCESS	Previous build log
PRE	SUCCESS	Previous build log
PGR	9%	Previous build log
WSP	8%	Previous build log

*All times are in ET

Actions

- Build in progress
- Cancel Build
- Aux Type
- E-Type
- Generate OLDR/TLDR

Deployment Screen for zTPF Test Systems


Deployment Screen
Log Out


Refresh
Submit

Plan ID	Status	ADL	Target System	Load Date/Time	Test Systems	Load & Activate	Activate	Deactivate	Deactivate & Delete	Deployed Update DSL	Last Action
+ T1700287	ACTIVE	prabhu.prabhakaran	+Add								
+ T1700285	ACTIVE	prabhu.prabhakaran	+Add								
+ T1700284	ACTIVE	arul.dhandapani	+Add								
+ T1700272	READY FOR PRODUCTION DEPLOYMENT	arul.dhandapani	+ APO <input type="text" value="v"/> +Add	10-24-2017 18:00	+ TAP34 <input type="text" value="x"/> +	<input checked="" type="checkbox"/>				<input type="checkbox"/> INTEGRATION	SUCCESS
+ T1700283	PASSED ACCEPTANCE TESTING	aravinth.palanisamy	+Add								
+ T1700282	READY FOR PRODUCTION DEPLOYMENT	aravinth.palanisamy	+Add								
+ T1700280	READY FOR PRODUCTION DEPLOYMENT	aravinth.palanisamy	+Add								
+ T1700281	ACTIVE	prabhu.prabhakaran	+Add								
+ T1700279	READY FOR PRODUCTION DEPLOYMENT	prabhu.prabhakaran	+Add								
+ T1700275	READY FOR PRODUCTION DEPLOYMENT	aravinth.palanisamy	+Add								

zTPF VPARS test systems

```
Reflection Workspace - [GVM.rd3x]
File Session Appearance Tools
Connect Disconnect Quick Keys Host Clipboard Transfer Productivity Screen History Live Screen Manual Capture Run Macro Stop Macro
GVM.rd3x
17:09 Thursday 05Oct17 YODA Complex Id: 34 CPU: 49% Users: 433
VMYSEC0054I SCIF userid: TAP34 Status: RUNNING
FOR CPU A AS REQUESTED BY CPU A+
OLDR1200I 11.09.17 CLE2 - BEGIN LOADSET INFORMATION
LOADSET STATUS
AI700272 CREATED ON 10/04/17 12.09.16
ACTIVATED ON CPUID A ON 08/08/17 11.09.17
ACTIVATED ON CPUID B ON 08/08/17 11.09.17
ACTIVATED ON CPUID C ON 08/08/17 11.09.17
ACTIVATED ON CPUID D ON 08/08/17 11.09.17
ACTIVATED ON CPUID E ON 08/08/17 11.09.17
ACTIVATED ON CPUID F ON 08/08/17 11.09.17
ACTIVATED ON CPUID G ON 08/08/17 11.09.17
ACTIVATED ON CPUID H ON 08/08/17 11.09.17
CONTAINS THESE PROGRAMS
LNHF
CLE2 - END OF DISPLAY+
---> Automation Entered: ZDSMG REL AI700272
DSMG0104I 11.09.17 DDNAME AI700272 RELEASED+
----- TAP34 Window -----
```

TSD Screen for zTPF Production Deployment


My Tasks
Log Out

SUGANTHI MANONMANI

ServiceDesk

My Tasks

- ⚡ Loadset Ready to be accepted
- 🔄 Fallback
- 📁 Manage default CPU
- 🔍 Search

Plan ID	Load Type	Load DT	Category	Load	Activate	Deactivate	Delete	Refresh	Date/Time (GMT)		Last Action
		Loadset Name							Activation	De-Activation	Action
+ T1700279	Standard	10-25-2017 18:00 -	C		<input type="checkbox"/> ALL		<input type="checkbox"/>		10-05-2017 13:19:26	10-05-2017 14:59:37	FAILED Apply
+ T1700282	Standard	10-19-2017 18:00 -	F			<input type="checkbox"/> ALL			10-05-2017 14:18:42	10-05-2017 14:18:36	SUCCESS Apply
+ T1700280	Standard	10-18-2017 18:00 -	C			<input type="checkbox"/> ALL			10-06-2017 07:55:06	-	SUCCESS Apply
+ T1700275	Standard	10-16-2017 18:00 -	X				<input type="checkbox"/>		10-05-2017 13:09:42	10-05-2017 11:31:24	SUCCESS Apply
+ T1700274	Standard	10-12-2017 18:00 -	C	<input type="checkbox"/>	<input type="checkbox"/> M		<input type="checkbox"/> L		10-05-2017 16:59:48 10-05-2017 13:09:19	- 10-05-2017 13:09:26	FAILED SUCCESS SUCCESS Apply

zTPF Production /Native Systems

```
20171006 BROWSE A1 V 251 Trunc=251 Size=18667 Line=7915 Col=1 Alt=0
====>
This piece of 20171006 LTNATV1 B1 is records 1-18667 of 18667
10:14:00-AAES0009I 10.14.00 FROM TA 01 : AUTO ACT AUTOLOAD GI700311 7914
10:14:01-AAES0009I 10.14.01 FROM TA 05 : AAER0412I ACT: Variation AUTOLOAD activ 7915
ated from dir D:\TOS\RAVEN\VAR
10:14:03-AAES0009I 10.14.03 FROM TA 05 : AUTOLOAD-MSG GI700311 RC=4 STATUS="AUTO 7916
LOAD STARTING"
10:14:03-AAES0008I 05 ==> ZFILE ls /tmp/GI700311.olldr 7917
10:14:03-CSMP0097I 10.14.03 CPU-A SS-BSS SSU-1P1P IS-01 7918
10:14:03-FILE0001I 10.14.03 START OF DISPLAY FROM ls /tmp/GI700311.olldr 7919
10:14:03- /tmp/GI700311.olldr 7920
10:14:03-END OF DISPLAY+ 7921
10:14:04-AAES0008I 05 ==> ZUCOV CAPM MONITOR ALL 7922
10:14:05-AAES0008I 05 ==> ZDSMG DEF ZCARD PATH-'/tmp/GI700311.olldr' 7923
10:14:05-CSMP0097I 10.14.05 CPU-A SS-BSS SSU-1P1P IS-01 7924
10:14:05-DSMG0001I 10.14.05 DDNAME ZCARD DEFINED+ 7925
10:14:06-CSMP0097I 10.14.06 CPU-A SS-BSS SSU-1P1P IS-01 7926
10:14:06-TRI30001W 10.14.06 HTH FAILOVER INITIATED 0040 MOVES AND IS PAUSING FOR 7927
0002 SECONDS+
10:14:06-AAES0008I 05 ==> ZOLDR LOAD ZCARD GI700311 7928
10:14:06-CSMP0097I 10.14.06 CPU-A SS-BSS SSU-1P1P IS-01 7929
10:14:06-OLDR1016I 10.14.06 CELA - LOAD REQUEST RECEIVED+ 7930
10:14:06-CSMP0097I 10.14.06 CPU-A SS-BSS SSU-1P1P IS-01 7931
```

TI ■ » 0 2,7 A

Connected to the host [wspvm3.worldspan.com] | CAP NUM SCRL | 12:48 PM

ADL – Creates Project

SUGANTHI MANONMANI
Lead

- Inbox
- New Implementation Plan
- Deployment Screen
- Search

All

Plan ID	Description	Status	Created By	Actions
T1800391	3/14/2018 #ADL #submit #dev manager approval	ACTIVE	Suganthi Manonmani	[Edit] [Add]
T1800390	3/14/2018 #Developer #checkout #checkin	ACTIVE	Suganthi Manonmani	[Edit] [Add]

Implementation Plan Details | Implementation | Approvals | Build | Activity Log

CSR# : 28271 11	Description : 3/14/2018 #Developer #checkout #checkin	Dependencies :
Created By: Suganthi Manonmani	Project name : 28271 11 EK TPRBM Waiver Table	Development lead name : Suganthi Manonmani
Load type : STANDARD	LoB(Line of Business) :	Development lead phone number : 1720000000
Problem ticket no. :	Project manager name :	Other phone number :
Dev Manager : Suganthi Manonmani	Project sponsor name :	Comments :

- PRE


Load category :	C - These segments will be activated in a single CPU for programmer certification, then accessible only to users routed to that CPU for approximately 24 hours before becoming available to all users across the complex. This is the preferred category. Examples: new functionality, changing background processes within a program.	Preload : No
Load date/time :	03-17-2018 13:00 ET	DBCR# :
Load attendee :	MS	Special Instructions for TSD :
Put Level Dependency :	PUT13b	

+ PGR

+ APO

Show 10 entries

ADL – Creates Feature



Implementation > Edit

SUGANTHI MANONMANI
Lead

Inbox
New Implementation Plan
Deployment Screen
Search

Implementation Information

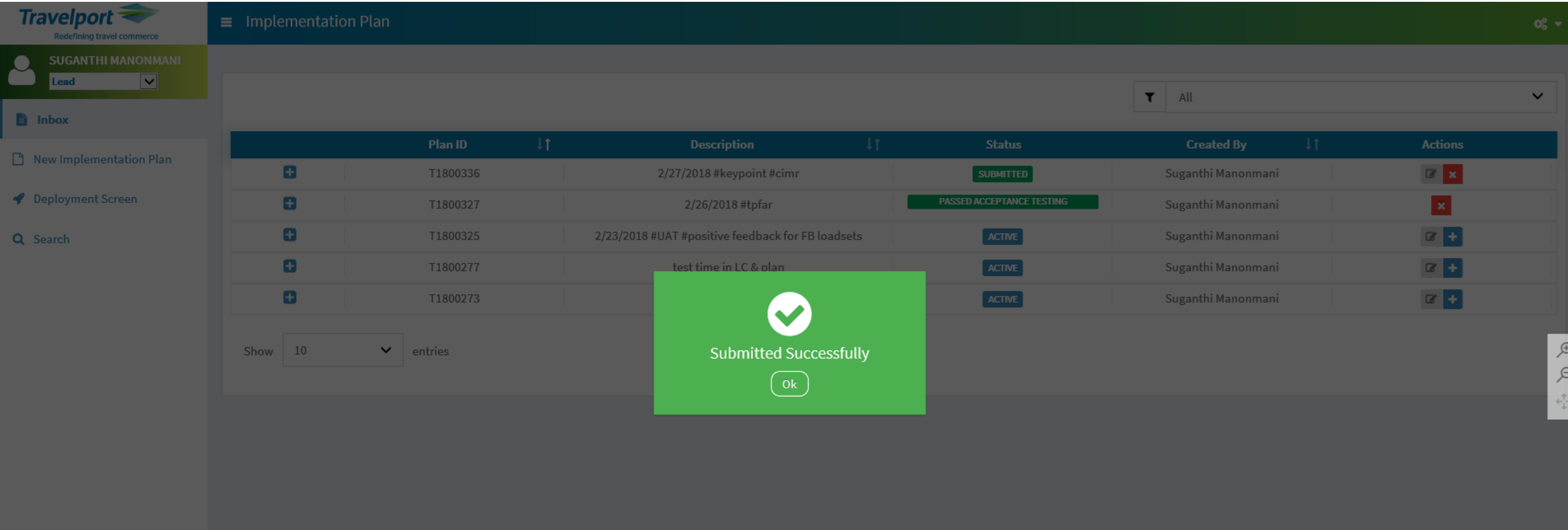
Implementation ID T1800390_001	Description of Change * 3/14/2018 #Developer #checkout #checkin	Problem Ticket Number <input type="text"/>	Peer Reviewer(s) * Prabhu Prabhakaran
Developer Name * Suganthi Manonmani	Developer Phone number 17200000000	Developer Location On-Call	

Checked Out Segments Check-In New Checkout
No segments in workspace

Test Result Documents Choose Files
No files uploaded

Unit Testing Completed Update Implementation Cancel

ADL – Submit Project



The screenshot shows the 'Implementation Plan' section of the Travelport system. The user is SUGANTHI MANONMANI, with a role of 'Lead'. The interface displays a table of implementation plans with columns for Plan ID, Description, Status, and Created By. A modal dialog is overlaid on the table, indicating a successful submission.

Plan ID	Description	Status	Created By
T1800336	2/27/2018 #keypoint #civr	SUBMITTED	Suganthi Manonmani
T1800327	2/26/2018 #tpfar	PASSED ACCEPTANCE TESTING	Suganthi Manonmani
T1800325	2/23/2018 #UAT #positive feedback for FB loadsets	ACTIVE	Suganthi Manonmani
T1800277	test time in LC & plan	ACTIVE	Suganthi Manonmani
T1800273		ACTIVE	Suganthi Manonmani

Submitted Successfully

Ok

Developer – Source code search for Check-out

Implementation > Edit

Search Segments

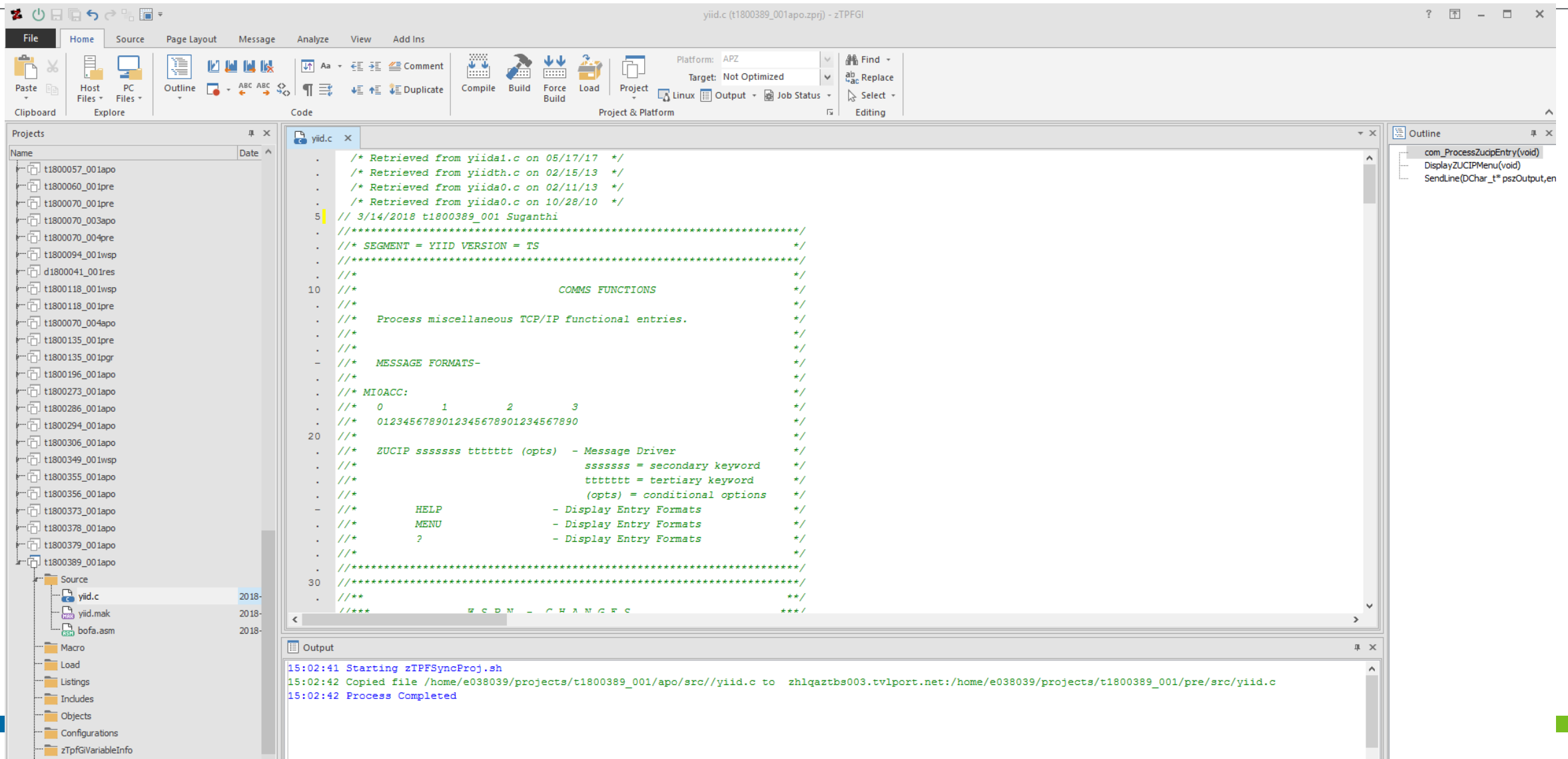
cyf Search Prod/Non-Prod

Production (55) Non-Production (0) IBM Vanilla Files

Segment Name	Target Systems	Functional Area	Status	Load Date/Time
src/cyfb.asm	<input type="checkbox"/> WSP	FLS	Fallback	02-16-2018 09:00 ET
src/cyfb.asm	<input type="checkbox"/> APO	SYS	Fallback	02-16-2018 09:00 ET
	<input type="checkbox"/> PRE	SYS	Fallback	02-16-2018 09:00 ET
src/cyfb.asm	<input checked="" type="checkbox"/> PGR	SYS	Online	05-31-2017 07:00 ET
	<input checked="" type="checkbox"/> PRE	SYS	Online	05-31-2017 07:00 ET
	<input checked="" type="checkbox"/> APO	SYS	Online	05-30-2017 07:00 ET
src/cyfb.asm	WSP	FLS	Online	04-19-2017 07:00 ET
src/cyfb.asm	APO	SYS	Online-1	03-28-2011 07:00 ET
	PGR	SYS	Online-1	03-28-2011 07:00 ET
	PRE	SYS	Online-1	03-28-2011 07:00 ET
src/cyfb.asm	APO	SYS	Online-2	09-22-2010 07:00 ET
	PGR	SYS	Online-2	09-22-2010 07:00 ET
	PRE	SYS	Online-2	09-22-2010 07:00 ET
src/cyfb.asm	WSP	FLS	Online-1	01-13-2005 07:00 ET
src/cyfc.asm	<input checked="" type="checkbox"/> PGR	SYS	Online	05-31-2017 07:00 ET
	<input checked="" type="checkbox"/> PRE	SYS	Online	05-31-2017 07:00 ET
	<input checked="" type="checkbox"/> APO	SYS	Online	05-30-2017 07:00 ET

Total: 55 segments Selected: 2 segments

Developer – Edit, File Sync



The screenshot shows a development IDE with the following components:

- Projects Panel:** Lists various project folders such as t1800057_001apo, t1800060_001pre, and t1800389_001apo. The t1800389_001apo project is expanded to show a Source folder containing yiid.c, yiid.mak, and bofa.asm.
- Code Editor:** Displays the content of yiid.c, which includes header comments, a segment definition (SEGMENT = YYID VERSION = TS), and a section for COMMS FUNCTIONS. The code is annotated with green comments indicating retrieval dates and sources.
- Outline Panel:** Shows a tree view of the code structure, including com_ProcessZucipEntry(void), DisplayZUCIPMenu(void), and SendLine(DChar_t* pszOutput, en).
- Output Panel:** Displays the execution log for the zTPFSyncProj.sh script, showing the start time (15:02:41), the file sync operation (15:02:42), and the completion message (15:02:42 Process Completed).

Developer – Check-in

Travelport
Redefining travel commerce

Implementation > Edit

SUGANTHI MANONMANI
Developer

Inbox
Search


Implementation Information

Implementation ID	Description of Change *	Problem Ticket Number	Peer Reviewer(s) *
T1800336_001	2/27/2018 #keypoint #cimr		Prabhu Prabhakaran
Developer Name *	Developer Phone number	Developer Location	
Suganthi Manonmani	17200000000	On-Call	

Checked Out Segments	Checkout
<input type="checkbox"/> Segment Name	Action
<input type="checkbox"/> base/kpt/ctk2.asm	WSF
<input type="checkbox"/> bss/src/fctb.asm	WSF
<input type="checkbox"/> base/cimr/fctb.mak	WSF
<input type="checkbox"/> base/kpt/ctk2.asm	PRE PUT13B
<input type="checkbox"/> base/kpt/ctk2.mak	PRE PUT13B
<input type="checkbox"/> bss/src/fctb.asm	PRE PUT13B
<input type="checkbox"/> base/cimr/fctb.mak	PRE PUT13B

Local Commit Total segments : 7

Unit Testing Completed Update Implementation Cancel



Check-in Success

Ok

Test Result Documents Choose Files

No files uploaded

Developer – Devl Build



SUGANTHI MANONMANI
Developer

Search

Implementation Plan

Plan ID	Description	Status	Created By	Actions
T1800389	3/14/2018 # Standard Load #multiple target systems #IBM #NonIBM	ACTIVE	Suganthi Manonmani	

Implementation Plan Details | Implementation | Approvals | **Build** | Activity Log

Build Information Last Successfull build 03-14-2018 20:41:03 ET Full Build Partial Build

System	Progress	Log URL
PRE	<div style="width: 27%;"><div style="width: 27%;"></div></div> 27%	Previous build log
APO	<div style="width: 26%;"><div style="width: 26%;"></div></div> 26%	Previous build log
WSP	SUCCESS	Previous build log

Actions

Build in progress

Cancel Build

Aux Type

E-Type

Show entries

Reviewer – peer review comments

Travelport [my dashboard](#) [my tickets](#) [repositories](#) [filestore](#) [activity](#) [search](#)

tpf / tp/source/t1800336

2/17/2018 #keypoint #cimr

summary [reflog](#) [commits](#) [tree](#) [tickets](#) [docs](#) [forks](#) [compare](#) [new](#) [star](#) [fork](#) [edit](#)

description 2/17/2018 #keypoint #cimr
 owners e038039 , mtpservice
 last change Wednesday, February 28, 2018 14:41 -0600
 size 368 KB
 stats 1 commits and 1 tags in 1 day metrics

repository url [RW+](#)

[Git](#) [SmartGit/Hg](#) [SourceTree](#) [GitHub](#) [TortoiseGit](#)

refs/heads/master

[yesterday](#) mtpservice Initial Commit HEAD master INTERGRATION_TESTING_COMPLETED PASSED_ACCEPTANCE_TESTING PASSED_REGRESSION_TESTING PEER_REVIEW_COMPLETED READY_FOR_QA REJECTED UNIT_TESTING_COMPLETED 57db72 d

tags

yesterday	r15	Auto-tagged [master_wsp] branch on push	tag commit log
yesterday	r14	Auto-tagged [master_pre] branch on push	tag commit log
yesterday	r13	Auto-tagged [t1800336_001_wsp] branch on push	tag commit log
yesterday	r12	Auto-tagged [t1800336_001_pre] branch on push	tag commit log
yesterday	r11	Auto-tagged [t1800336_001_wsp] branch on push	tag commit log


all tags...

branches


just now	ticket/2	Suganthi	Review Ticket	log tree raw
yesterday	ticket/1	Suganthi	Review Ticket	log tree raw
yesterday	master_wsp	Suganthi	t1800336_001_wsp - c2	log tree raw
yesterday	t1800336_001_wsp	Suganthi	t1800336_001_wsp - c2	log tree raw
yesterday	master_pre	Suganthi	t1800336_001_pre - c2	log tree raw

all branches...

Reviewer – mark peer review completed



Review Implementation



PRABHU PRABHAKARAN

Reviewer ▼

Review Tasks

Approved Tasks


Implementation ID	Status	Developer	Ticket Number	Ticket Url
T1800336_001	IN PROGRESS	Suganthi Manonmani	2	URL


Segments

 Review Completed
 Mark as Complete

	Segment Name	Target Systems	Functional Area
<input type="checkbox"/>	base/cimr/fctb.mak	WSP	PUT13A
<input type="checkbox"/>	bss/src/fctb.asm	WSP	PUT13A
<input type="checkbox"/>	base/kpt/ctk2.asm	WSP	PUT13A
<input type="checkbox"/>	base/kpt/ctk2.mak	PRE	PUT13B
<input type="checkbox"/>	base/kpt/ctk2.asm	PRE	PUT13B
<input type="checkbox"/>	base/cimr/fctb.mak	PRE	PUT13B
<input type="checkbox"/>	bss/src/fctb.asm	PRE	PUT13B

Load Date/Time	CSR#	Project
PRE - 02-27-2018 08:00 ET	20171 10	20171 10 NBI Customer Onboarding test 10
WSP - 03-01-2018 16:00 ET		

Travelport Confidential 



Dev Manager – Approve Project

SUGANTHI MANONMANI
DevManager

Inbox

Search

Plan ID	Description	Status	Created By	Actions
T1800336	2/27/2018 #keypoint #cimir	SUBMITTED	Suganthi Manonmani	Action

Implementation Plan Details | Implementation | Approvals | Activity Log

CSR#	: 20171 10	Description	: 2/27/2018 #keypoint #cimir	Dependencies	:
Created By:	: Suganthi Manonmani	Project name	: 20171 10 NBI Customer Onboardin g test 10	Development lead name	: Suganthi Manonmani
Load type	: EXCEPTION	LoB(Line of Business)	:	Development lead phone number	: 17200000000
Problem ticket no.	:	Project manager name	:	Other phone number	:
Dev Manager	: Suganthi Manonmani	Project sponsor name	:	Comments	:

- PRE

Load category	: C - These segments will be activated in a single CPU for programmer certification, then accessible only to users routed to that CPU for approximately 24 hours before becoming available to all users across the complex. This is the preferred category. Examples: new functionality, changing background processes within a program.	Preload	: No
Load date/time	: 02-27-2018 08:00 ET	DBCR #	:
Load attendee	: MS	Special Instructions for TSD	:
Put Level Dependency	: PUT13b		

- WSP

Load category	: C - These segments will be activated in a single CPU for programmer certification, then accessible only to users routed to that CPU for approximately 24 hours before becoming available to all users across the complex. This is the preferred category. Examples: new functionality, changing background processes within a program.	Preload	: No
Load date/time	: 03-01-2018 16:00 ET	DBCR #	:
Load attendee	: MS	Special Instructions for TSD	:
Put Level Dependency	: PUT13A		

Dev Manager – Staging build



```
e038039@zhlqaztbs003:/ztpfrepos/stg/t1800389
*****
[e038039@zhlqaztbs003 ~]$ cd /ztpfrepos/stg/t1800389
[e038039@zhlqaztbs003 t1800389]$ tree
.
├── apo
│   ├── lib
│   ├── load
│   │   └── YIID.so
│   ├── lst
│   │   ├── yiid.lst
│   │   └── YIID.map
│   ├── maketpf.cfg
│   ├── obj
│   │   └── yiid.o
│   ├── src
│   │   ├── yiid.c
│   │   └── yiid.mak
│   └── YIID.out
├── pre
│   ├── lib
│   ├── load
│   │   └── YIID.so
│   ├── lst
│   │   ├── yiid.lst
│   │   └── YIID.map
│   ├── maketpf.cfg
│   ├── obj
│   │   └── yiid.o
│   ├── src
│   │   ├── yiid.c
│   │   └── yiid.mak
│   └── YIID.out
12 directories, 16 files
[e038039@zhlqaztbs003 t1800389]$
```




Dev Manager – Staging loadset & fallback loadset

```
e038039@zhlqaztbs003:/ztprepos/loadsets/stg/t1800389
[e038039@zhlqaztbs003 t1800389]$ cd /ztprepos/loadsets/stg/t1800389
[e038039@zhlqaztbs003 t1800389]$ tree
.
├── apo
│   ├── AB800389.load
│   ├── AB800389.oldr
│   ├── AB800389.report
│   ├── AC800389.load
│   ├── AC800389.oldr
│   ├── AC800389.out
│   └── AC800389.report
└── pre
    ├── EB800389.load
    ├── EB800389.oldr
    ├── EB800389.report
    ├── EC800389.load
    ├── EC800389.oldr
    ├── EC800389.out
    └── EC800389.report





2 directories, 14 files
[e038039@zhlqaztbs003 t1800389]$
```

Dev Manager – Staging derived artifacts pushed to derived repository


Travelport  my dashboard my tickets **repositories** filestore activity search 

 **tpf / tp/derived/t1800389**  commit 











3/14/2018 # Standard Load #multiple target systems #IBM #NonIBM

summary relog commits **tree** tickets docs forks compare    

history | zip | gz

t1800389_1c99e2c - Build. 
MTPSERVICE
15 hours ago 82f557093fa11fc2b3fc070c5b2a7ca041682902






[tpf/tp/derived/t1800389.git] /


 .gitref	drwxr-xr-x	tree history zip gz
 bss	drwxr-xr-x	tree history zip gz
 load	drwxr-xr-x	tree history zip gz
 lst	drwxr-xr-x	tree history zip gz
 obj	drwxr-xr-x	tree history zip gz
 .gitattributes	165 b -rw-r--r--	view raw blame history
 .gitignore	20 b -rw-r--r--	view raw blame history
 .gitmodules	273 b -rw-r--r--	view raw blame history
 BOFA.out	11 KB -rw-r--r--	view raw blame history
 YIID.out	13 KB -rw-r--r--	view raw blame history

v1.8.0

Technical Service Desk – zoldr actions

SUGANTHI MANONMANI
TechnicalServiceD

-  Inbox
-  Loadset Ready to be accepted
-  Fallback
-  Manage default CPU
-  Search

AIR	APO	OSS	PGR	PRE	RES	WSP				
Plan ID	Load Type	Load DT Loadset Name	Category	Load	Activate	Deactivate	Delete	Date/Time Activation	Date/Time De-Activation	Last Action Action
 T1800331	EXCEPTION	02-26-2018 22:00:00 ET PC800331	C	<input checked="" type="checkbox"/>	<input type="checkbox"/> ALL <small>Add CPU</small>	<input checked="" type="checkbox"/> ALL	<input type="checkbox"/>	02-27-2018 03:40:47 ET	02-27-2018 04:56:56 ET	SUCCESS Apply
<div style="display: flex; justify-content: space-between; align-items: center;"> <u>Implementation Plan Details</u> Implementation Approvals Activity Log IBM </div>										
CSR# : 22200 10		Description : test		Dependencies :						
Created By: : Aravinth Palanisamy		Project name : 22200 10 Comm Ops Test Project		Development lead name : Aravinth Palanisamy						
Load type : EXCEPTION		LoB(Line of Business) :		Development lead phone number : 123131312312						
Problem ticket no. :		Project manager name :		Other phone number :						
Dev Manager : Aravinth Palanisamy		Project sponsor name :		Comments :						
Approval Date/Time : 02-27-2018 03:34:16 ET										
+ PRE										DELETED
+ PGR										DEACTIVATED_ON_ALL_CPU
+ APO										DELETED

Technical Service Desk – zTPF Online feedback



Implementation Plan

RYAN BRADEN
Lead

Inbox

New Implementation Plan

Deployment Screen

Search

Online

Plan ID	Description	Status	Created By	Actions
T1800279	Macro/header only	ONLINE	Ryan Braden	

Implementation Plan Details | Implementation | Approvals | Activity Log


IBM | NON_IBM | MACRO_HEADER

CSR#	: 28973 01	Description	: Macro/header only	Dependencies	:
Created By:	: Ryan Braden	Project name	: 28973 01 Aurora Program	Development lead name	: Ryan Braden
Load type	: EXCEPTION	LoB(Line of Business)	:	Development lead phone number	: 14043221713
Problem ticket no.	:	Project manager name	:	Other phone number	:
Dev Manager	: Ryan Braden	Project sponsor name	:	Comments	:
Approval Date/Time	: 02-15-2018 15:23:12 ET				

+ WSP


+ PGR

Technical Service Desk – Merged to Production Git Repository

tpf / tp/nonibm/nonibm_sys  commit search

summary reflog commits **tree** tickets docs forks compare

first | « prev | next »

Date:20180220130000, Type:Load, PlanID:t1800306, PlanOwner:mtpservice, Sour...
MTPSERVICE
2 hours ago 1e6270362ab69a5b3042fe97736b5557c7c404f9 

[tpf/tp/nonibm/nonibm_sys.git] / src / cyfb.asm

3 hours ago	MTPSERVICE	Date:20180216140000, Type:Load, PlanID:t1800286, PlanOwne...	online-t1800286-81ed27b	blob@ 81ed27	commitdiff diff to current
8 days ago	MTP Service	Date:20170530120000, Type:Load, PlanID:d053017.lqqv, Plan...	online-d053017.lqqv-1396f36	blob@ 1396f3	commitdiff diff to current
8 days ago	MTP Service	Date:20110328120000, Type:Load, PlanID:cp4zqp.kjod, PlanO...	online-cp4zqp.kjod-efca37d	blob@ efca37	commitdiff diff to current
8 days ago	MTP Service	Date:20100922120000, Type:Load, PlanID:s092110.kmnj, Plan...	online-s092110.kmnj-9c38002	blob@ 9c3800	commitdiff diff to current

first | « prev | next »