VIVIT™

Performance Engineering Tools

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Brought to you by

Vivit Performance Engineering SIG

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www.vivit-worldwide.org

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Accenture

Housekeeping

- This “LIVE” session is being recorded
  Recordings are available to all Vivit members

- <u>Session Q&A:</u>
  Please type questions in the Questions Pane

Webinar Control Panel

Toggle View Window between Full screen/window mode.

Questions

Agenda

- Overview of HPE performance tools
- What types of tests we have
- Tool classifications
- Tools for performance engineering
- A look at Mobile
- A look at PAL

Performance with HPE

- LoadRunner
- Performance Center
- Storm Runner
- AppPulse
- Network Virtualization
- Service Virtualization
- Mobile Center

Protocols Supported

- Citrix ICA
- RDP
- Teradici PCoIP
- RTE
- Ajax
- SAP GUI
- TruClient – Web
- TruClient – Mobile
- .Net
- Java
- Unit Test
- Flex
- Oracle NCA
- Oracle – Web
- SAP – Web
- Siebel – Web
- Silverlight
- Web – HTTP/HTML
- Web Services
- IMAP
- MAPI
- POP3
- SMTP
- ODBC
- Oracle – 2 Tier
- DNS
- FTP
- LDAP
- Windows Sockets
- WebSphere MQ

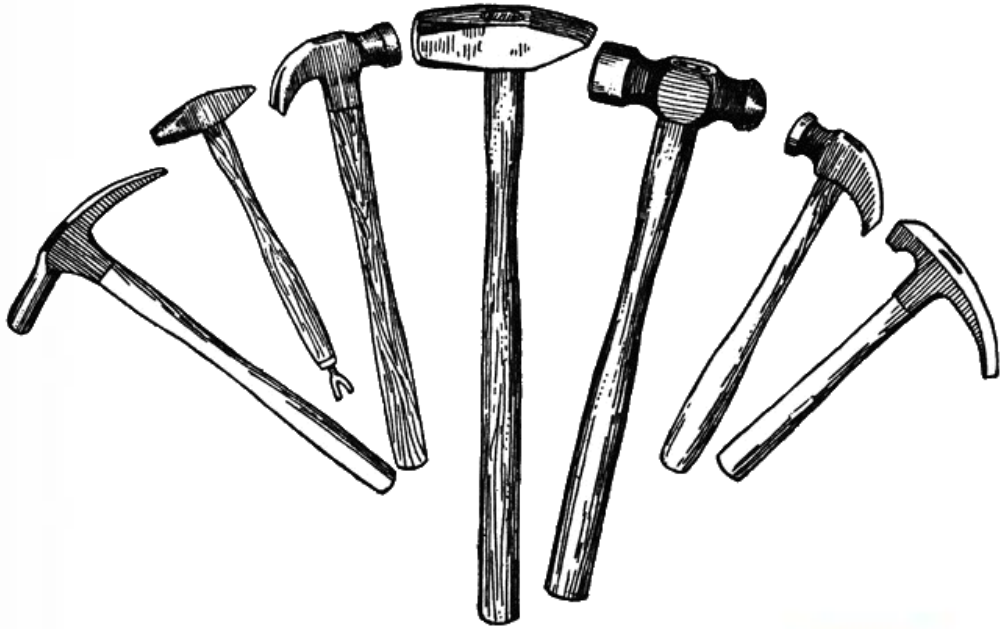
Poll Question #1

Whose tools do you use for performance?
(choose one)

- 100% HPE performance tools
- A mix of HPE and non-HPE tools
- 100% non-HPE tools
- I don’t know…
- None, yet…

So many options…

TKB Tools Knowledge Base *beta* has 114 performance / load testing tools cataloged by end users



How to know what to use & when?

VIVIT YOUR INDEPENDENT HPE SOFTWARE COMMUNITY

What do we test?

- Databases
- Desktop Applications
- Website
- Mobile Web
- Mobile Apps
- Misc Other

Tool Classifications

Data Preparation

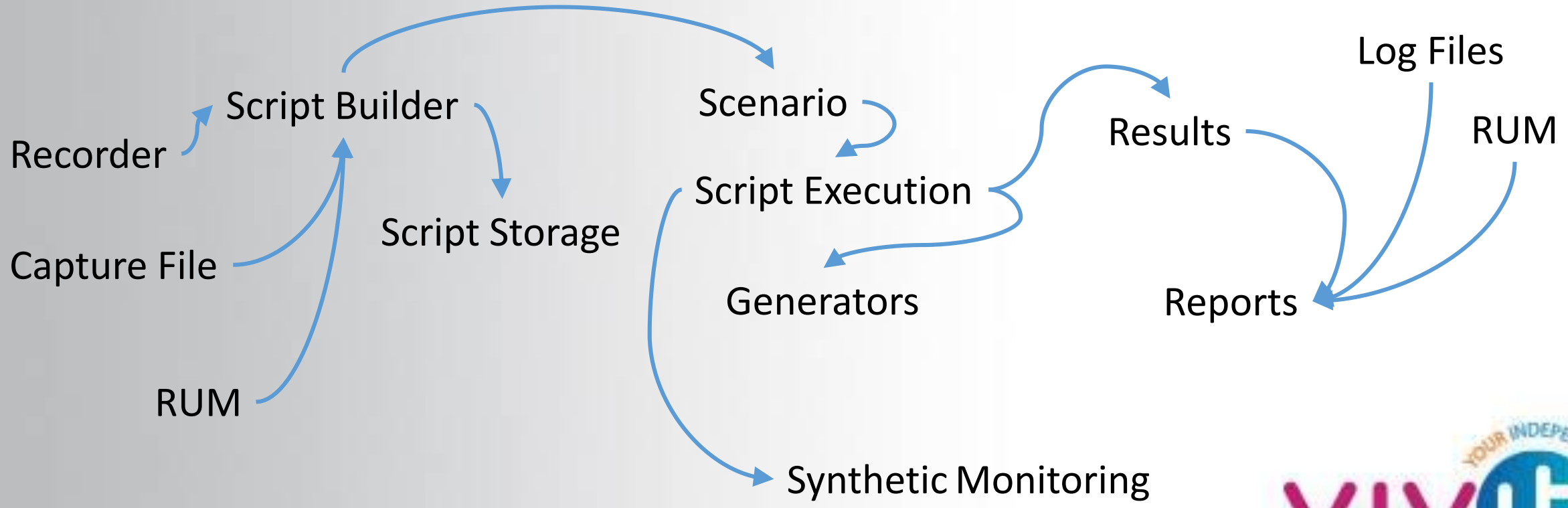
Scenario Building

Test Execution

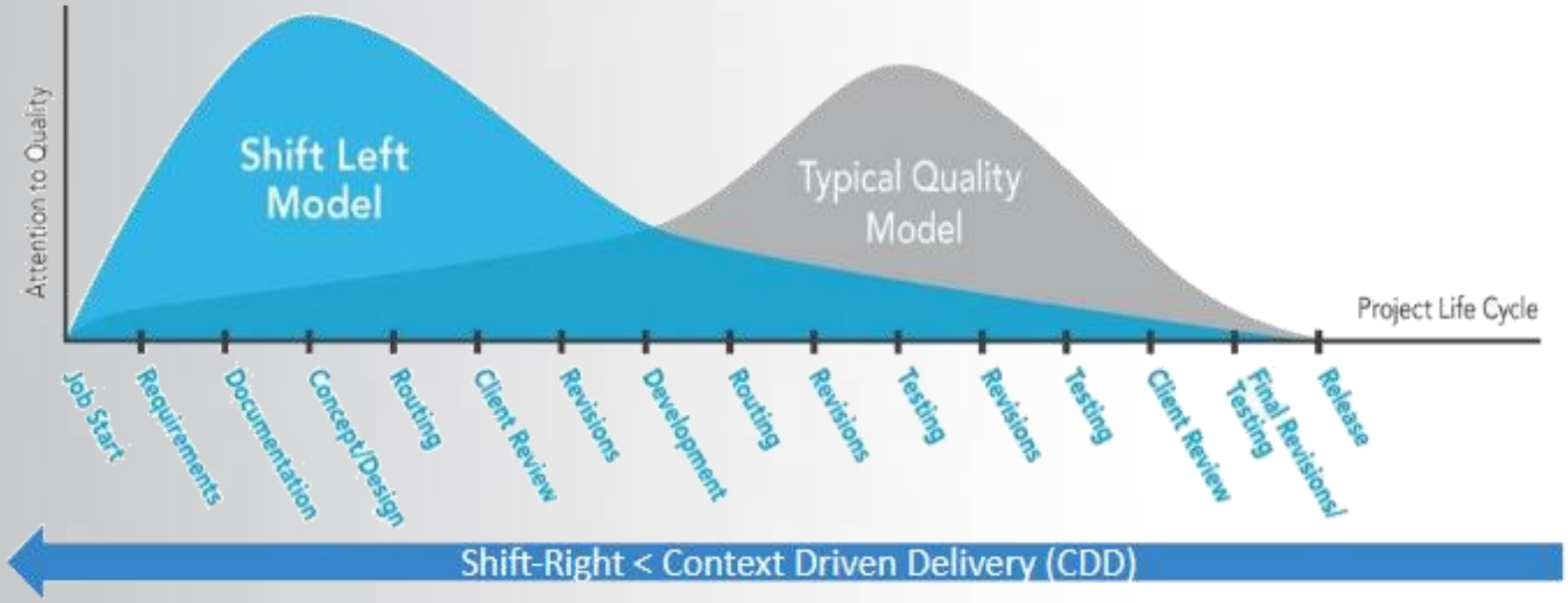
Monitoring

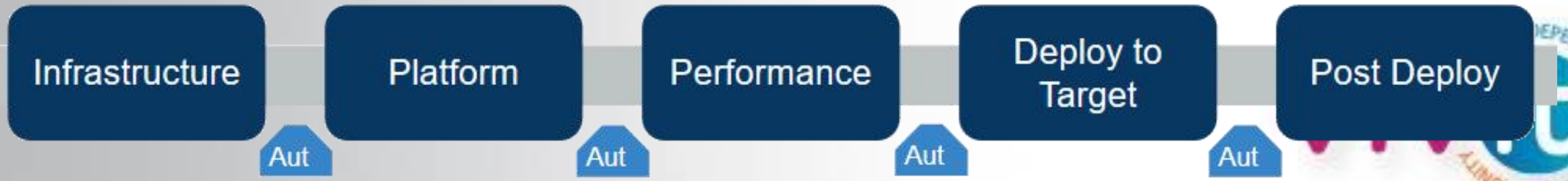
Reporting

Tool Flow / Integrations



Continuous Performance Engineering



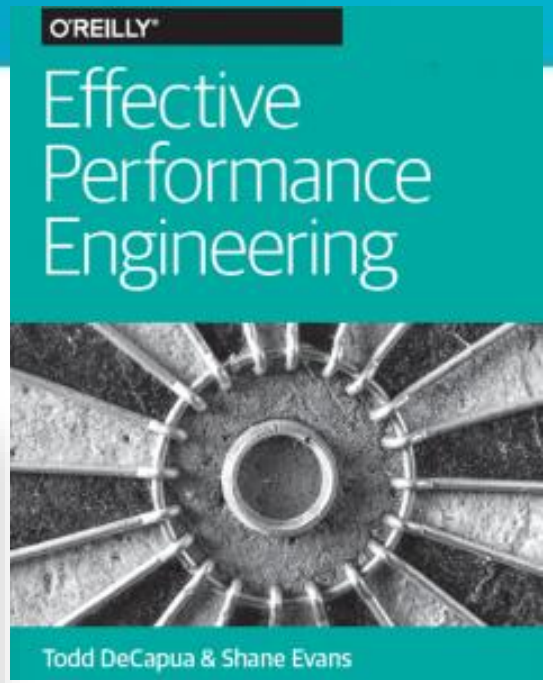


Effective Performance Engineering

Having disparate and nonintegrated tools to do specific and individualized tasks is a mess at a small scale, and once this goes beyond a few teams, it becomes a challenge to manage from many different angles. Finding the capabilities that matter to your organization and standardizing them enables you to scale more efficiently. These standards also simplify the education of new team members and increase the stability of your integrated tools, so you can focus on delivering value to your end users.

Add technology

Performance Engineering requires a new way of thinking, related to your existing software and infrastructure, including the existing tools and capabilities. This is how you shape and form quick, automated results.



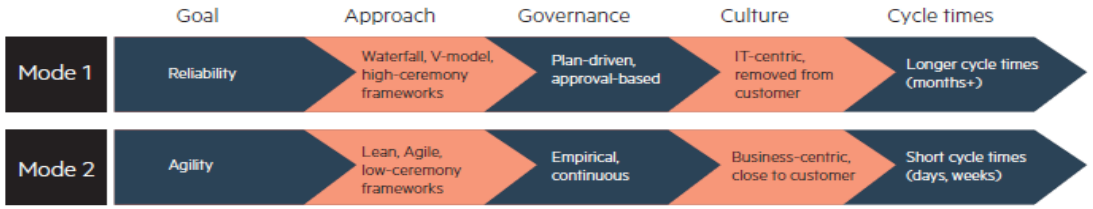
http://www.effectiveperformanceengineering.com/get-the-book/

Test/QA focus on analysis & development

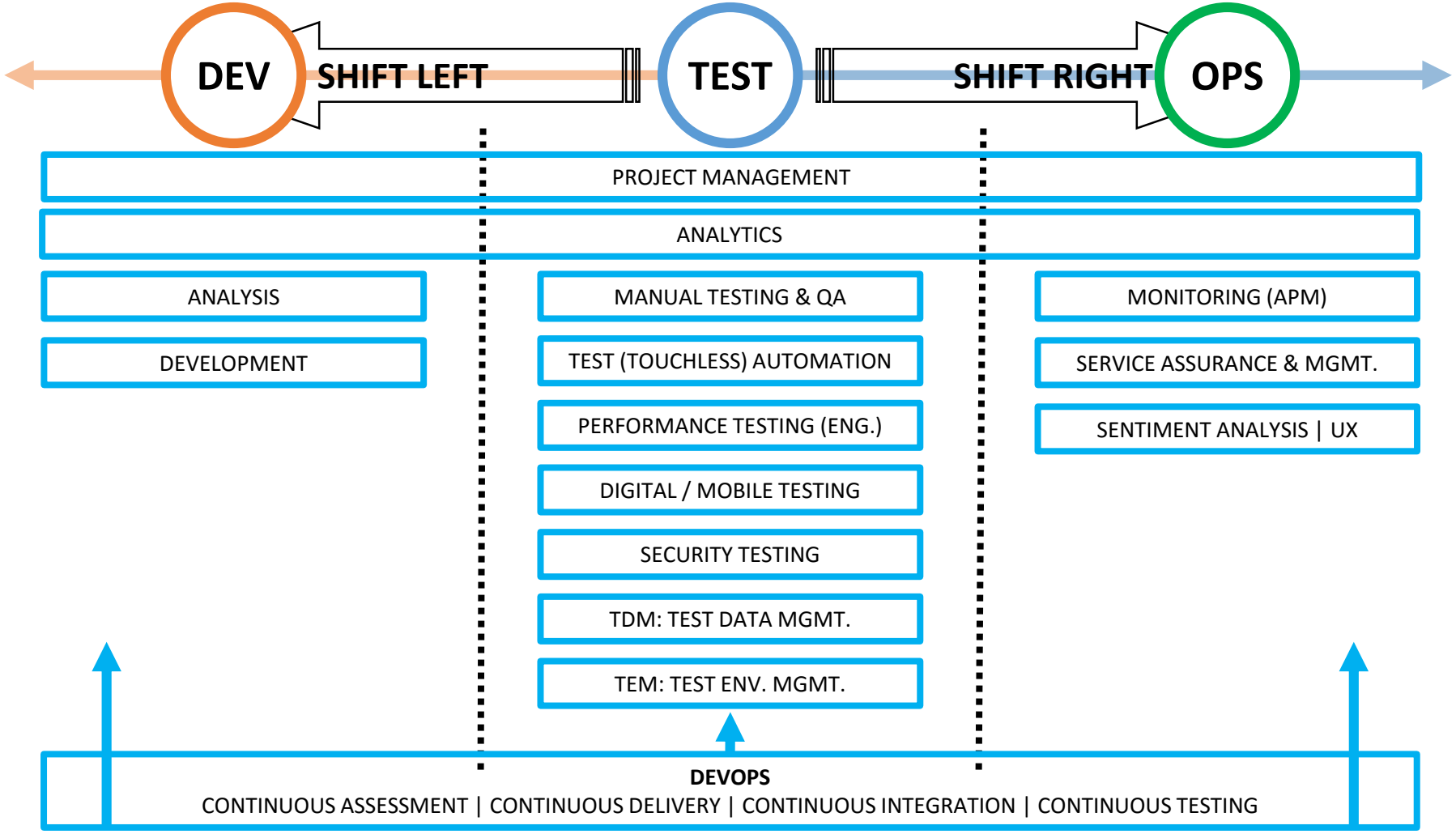
Including testing and QA earlier (left) into the development life-cycle:
Increased quality (less defects slipping into the app lifecycle and ops
Adopting DevOps
Leaner development cycles, faster dev & test

Test/QA focus on user experience and operations

Deliver apps based on user experience, sentiment analysis etc.:
gain customer engagement and loyalty
(re)Utilize ops transaction logs and scripts into dev & test:
Leaner development cycles, faster dev & test



Source: Emerging Mode 2 Practices in Bimodal Governance, Gartner, January 2016



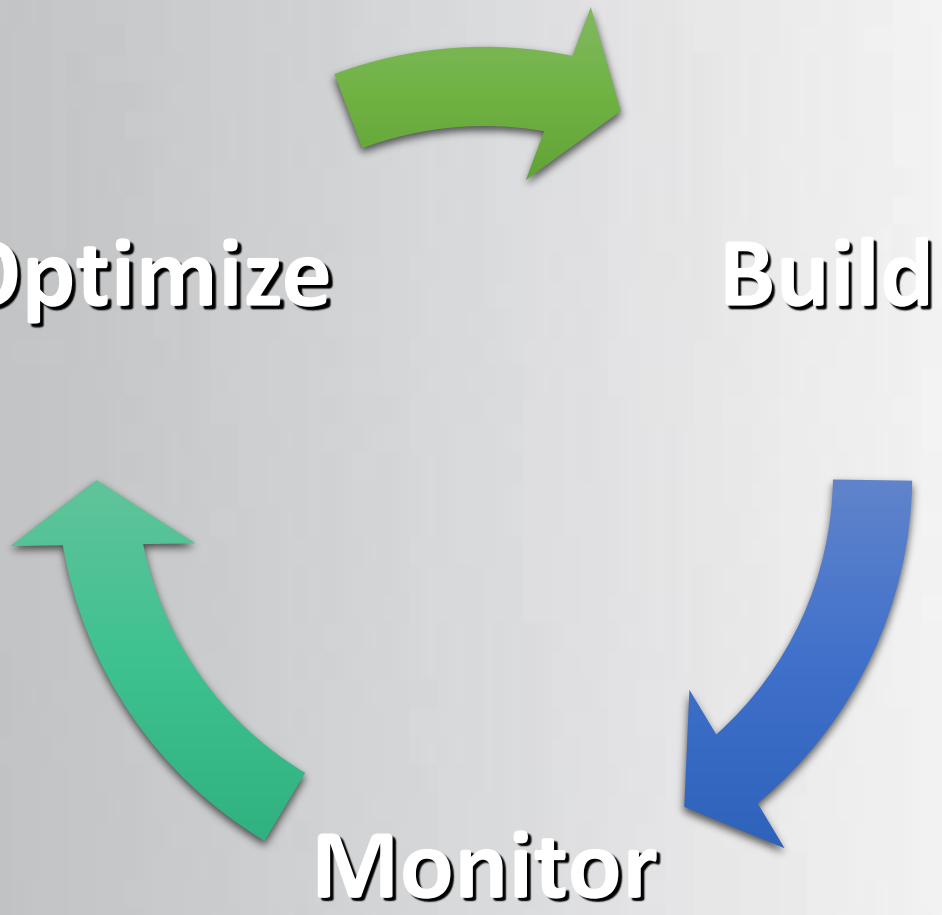
Poll Question #2

Performance testing mobile

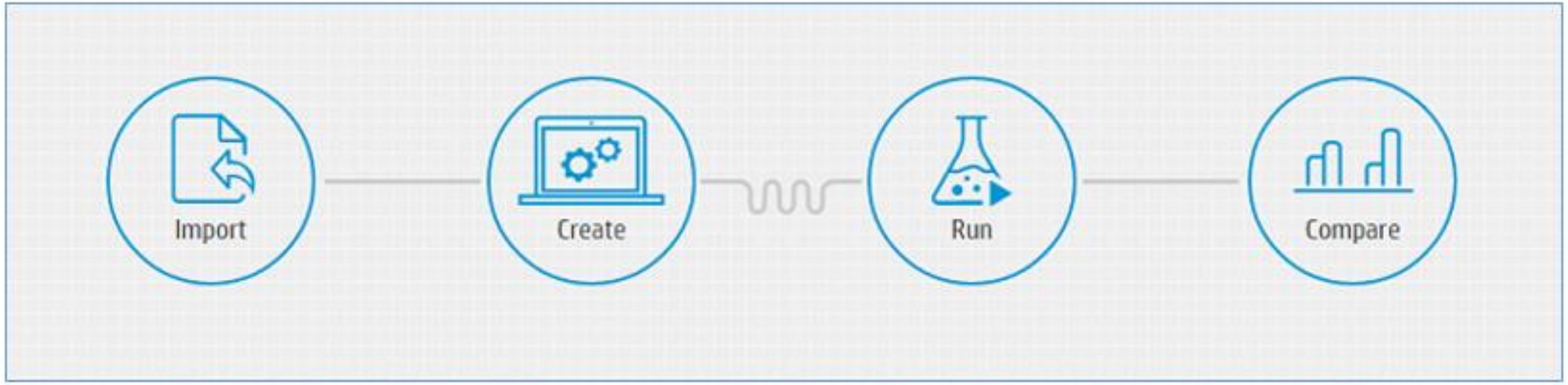
(choose one)

- We have a mobile app that we performance test
- We have a mobile app and plan to performance test it
- We have a mobile app but do not performance test it
- We do not have a mobile app
- I am unaware of any mobile apps my company has

Mobile

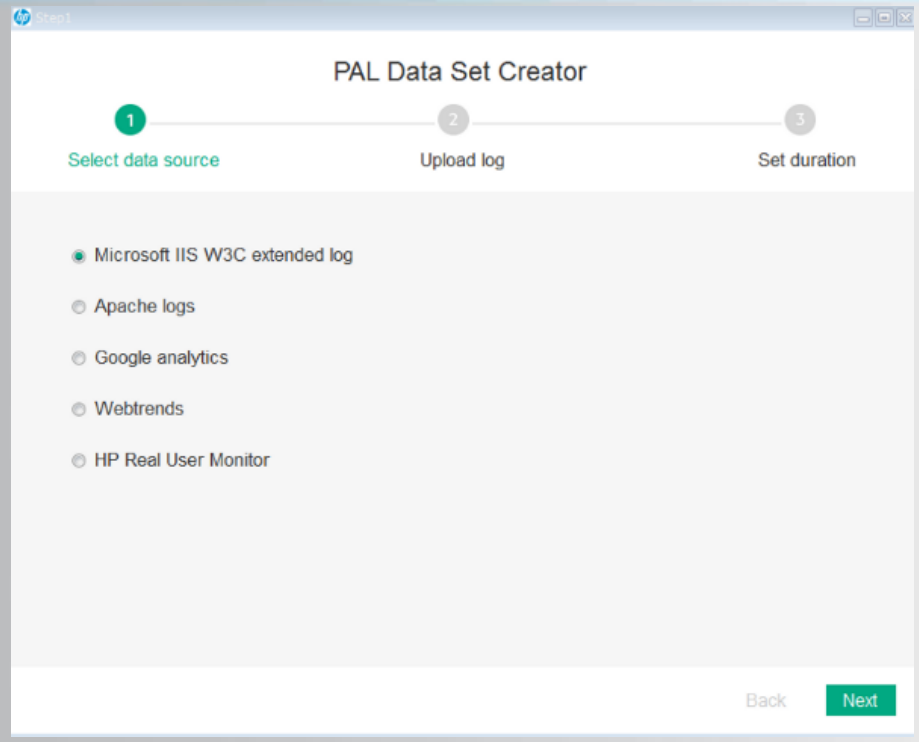


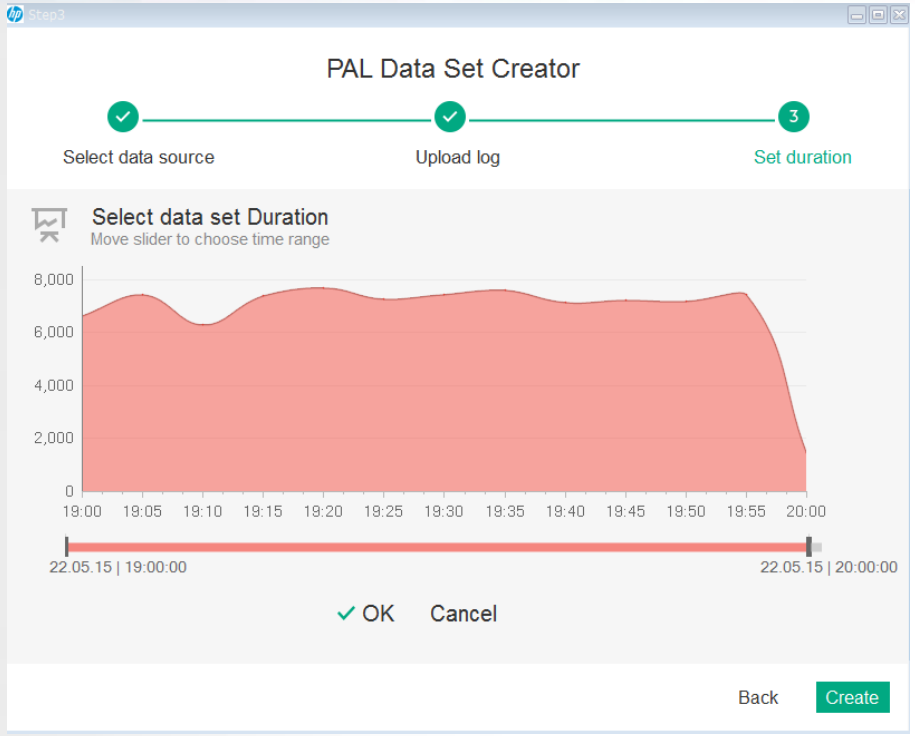
Performance Application Lifecycle (PAL 2.0)



PAL Overview — Import a dataset, create a PAL Scenario, Run test, Compare reports

PAL 2.0 - Import





PAL 2.0 - Model

Performance Center

Domain: DEFAULT, Project: CUSTOMER3 | Hello customer3 | Logout

Home

Start | Test Management | Runs & Analysis | Resources | Reports | Personalized Views | Manage PAL Applications

PAL Resources

Data sets | Reports

Import...

Name

- PAL Production Data Sets
  - Access_customer
  - My Datasets
    - Dataset
  - My folder
  - Rabo logs
  - RB_August_cleared_logs
  - demo
  - rb1
  - Yaniv

Scenario | Reports | Details

0% — 100% (100%)

419 Sessions | 447 Vusers | 5 Groups | 6 URLs | Scheduler

Options | Create Test

Filter by: All | To-do list | Done

Show Hidden (0) | Expand All Actions | Show Graphs

+ 2 Sessionless URLs 37697 Sessionless Hits 433 Vusers

+ 41.91% Coverage /handlers... /handlers... 1 Action2

+ 26.48% Coverage /handlers... /handlers... 2 Action2 10 Action1

− 16.81% Coverage | 66 Sessions | 2 Vusers

00m:08s /handlers/getmessages.ashx
/postaround/handlers/getmessages.ashx?currlat=&currlon=&uptometers=-1&timezone=2&fromnumber=0&categoryid=*&sortby=0&ismine=0&takenum=20

00m:00s /handlers/checklogindata.ashx
/postaround/handlers/checklogindata.ashx

00m:01s /postaround
/postaround

00m:00s /handlers/getmessages.ashx
/postaround/handlers/getmessages.ashx?currlat=&currlon=&uptometers=-1&timezone=2&fromnumber=0&categoryid=*&sortby=0&ismine=0&takenum=20

00m:01s /postaround
/postaround

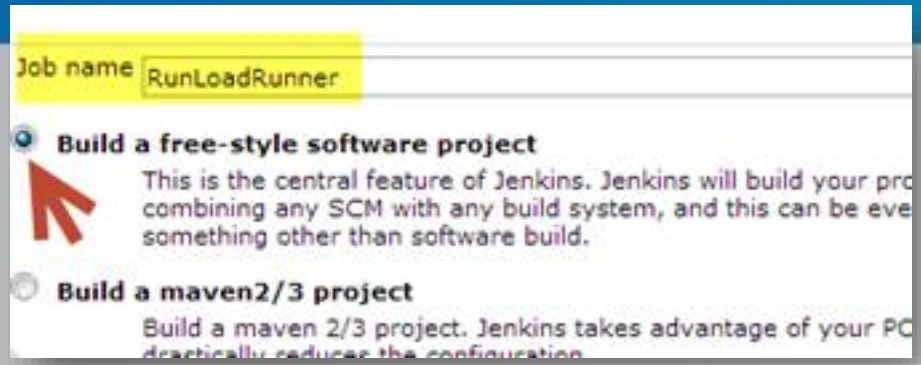
00m:07s /handlers/getmessages.ashx
/postaround/handlers/getmessages.ashx?currlat=&currlon=&uptometers=-1&timezone=2&fromnumber=0&categoryid=*&sortby=0&ismine=0&takenum=20

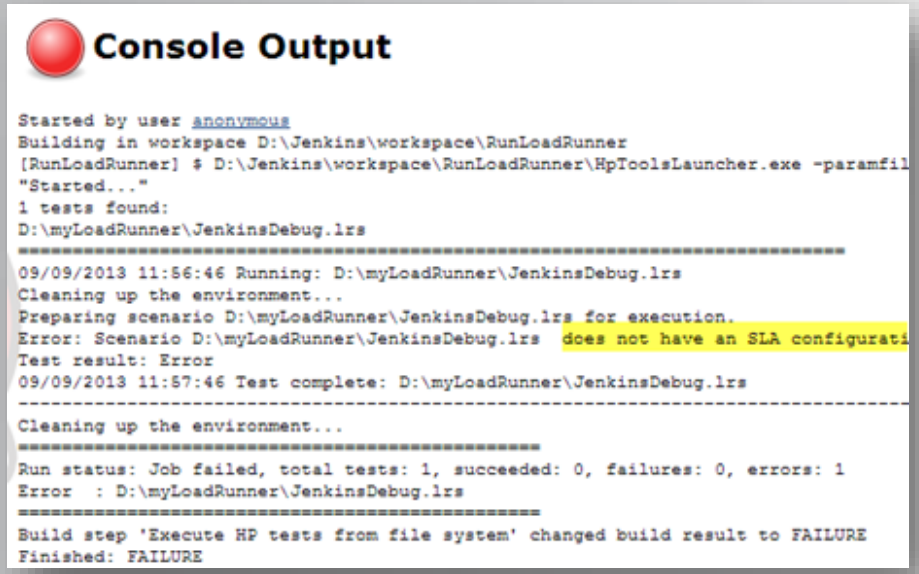
Download Template Script

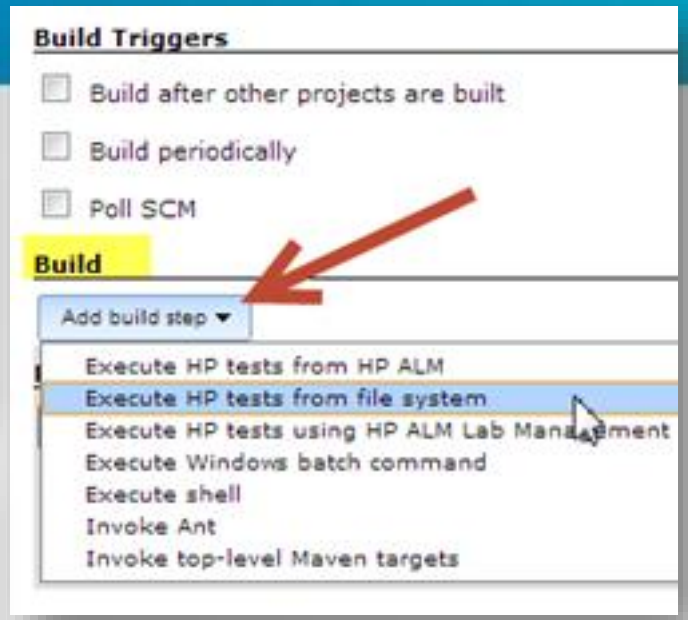
Assign Existing Script

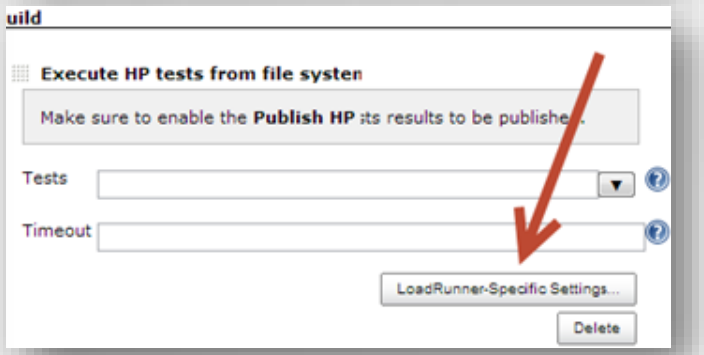
Hide this flow

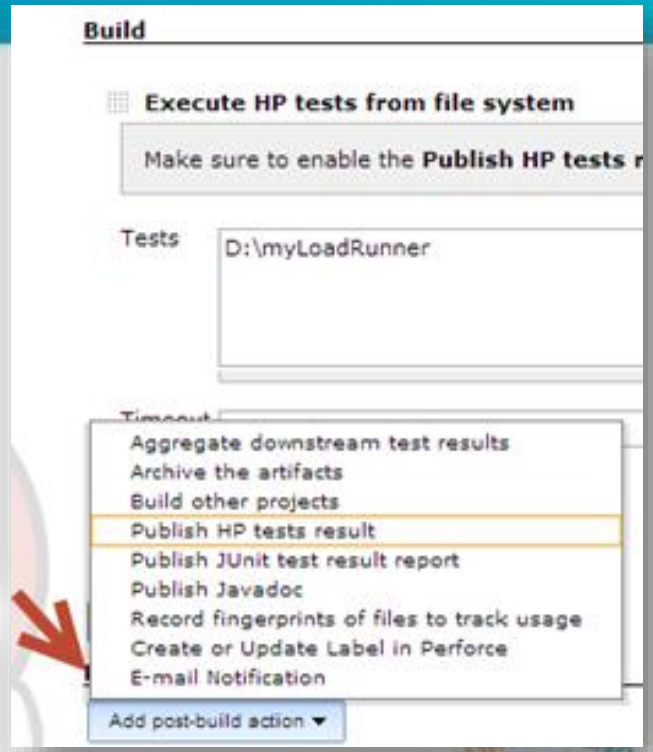
PAL 2.0 - Build


Job name
RunLoadRunner
Build a free-style software project
This is the central feature of Jenkins. Jenkins will build your pro
combining any SCM with any build system, and this can be eve
something other than software build.
Build a maven2/3 project
Build a maven 2/3 project. Jenkins takes advantage of your PO


Console Output
Started by user anonymous
Building in workspace D:\Jenkins\workspace\RunLoadRunner
[RunLoadRunner] $ D:\Jenkins\workspace\RunLoadRunner\HpToolsLauncher.exe -paramfil
"Started..."
1 tests found:
D:\myLoadRunner\JenkinsDebug.lrs
09/09/2013 11:56:46 Running: D:\myLoadRunner\JenkinsDebug.lrs
Cleaning up the environment...
Preparing scenario D:\myLoadRunner\JenkinsDebug.lrs for execution.
Error: Scenario D:\myLoadRunner\JenkinsDebug.lrs does not have an SLA configurati
Test result: Error
09/09/2013 11:57:46 Test complete: D:\myLoadRunner\JenkinsDebug.lrs
Cleaning up the environment...
Run status: Job failed, total tests: 1, succeeded: 0, failures: 0, errors: 1
Error : D:\myLoadRunner\JenkinsDebug.lrs
Build step 'Execute HP tests from file system' changed build result to FAILURE
Finished: FAILURE


Build Triggers
Build after other projects are built
Build periodically
Poll SCM
Build
Add build step
Execute HP tests from HP ALM
Execute HP tests from file system
Execute HP tests using HP ALM Lab Management
Execute Windows batch command
Execute shell
Invoke Ant
Invoke top-level Maven targets


uild
Execute HP tests from file systen
Make sure to enable the Publish HP its results to be publishe
Tests
Timeout
LoadRunner-Specific Settings...
Delete


Build
Execute HP tests from file system
Make sure to enable the Publish HP tests r
Tests
D:\myLoadRunner
Aggregate downstream test results
Archive the artifacts
Build other projects
Publish HP tests result
Publish JUnit test result report
Publish Javadoc
Record fingerprints of files to track usage
Create or Update Label in Perforce
E-mail Notification
Add post-build action

PAL 2.0 - Execution

Home | API01_Smoke (85... | API01_Smoke_50

Name	Pass	Failed	Stopped	Success Rate %	TPS
API01_MemDet_000_Transaction	1801	0	0	100	0.1
API01_MemDet_010_Get_OpenAM_Token	40	0	0	100	0
API01_MemDet_015_Get_SessionID	1801	0	0	100	0.1
API01_MemDet_020_Get_Member_Details	1801	0	0	100	0.1
API01_MemDet_025_Delete_Session	1801	0	0	100	0.1

1 Page size: 10 Page 1 of 1, items 1 to 5 of 5

Summary

State:	Running
Running Vusers:	5
Elapsed Time:	00:32:00
Hits per Sec.:	0.29
Passed Transactions:	7244
Failed Transactions:	0
Errors:	36
Scheduler state:	Running
Test:	API01_Smoke
Run ID:	50
Controller:	TQAHPPCCTRL01
User:	
Services Virtualization:	On

V	B	Name	Scale	Max	Min	Avg	Std	Last
☑	☐	API01_MemDet_000_Trans...	1	9.193	2.271	4.506	1.805	3.427
☐	☐	API01_MemDet_010_Get_O...	1	N/A	N/A	N/A	N/A	N/A
☐	☐	API01_MemDet_015_Get_S...	1	8.502	1.409	3.755	1.822	3.432
☑	☐	API01_MemDet_020_Get_M...	1	0.247	0.229	0.237	0.004	0.238
☐	☐	API01_MemDet_025_Delete...	1	0.673	0.447	0.494	0.07	0.529

Graphs

- **LoadTest System Resource**
  - Hosts - CPU Utilization
  - Hosts - Disk Utilization
  - Hosts - Memory Utilization
- **Runtime**
  - Errors
  - Running Vusers
- **Transaction**
  - Total Passed Trans
  - Total Trans/Sec (Passed)
  - Trans/Sec (Passed)
  - Transaction Response Time
- **Web Resource**
  - Connections
  - Connections per Second
  - Hits per Second
  - HTTP Responses per Second
  - SSL per Second
  - Throughput

HPE Software Links

LoadRunner Help Center

http://lrhelp.saas.hpe.com

LoadRunner Community Edition

https://saas.hpe.com/en-us/download/loadrunner

Helpful Links

TKBase (Tools Knowledge Base)

https://tkbase.com/tools/toolsByType/148

IT Central Station / Performance Testing Tools

https://www.itcentralstation.com/categories/performance-testing-tools

Effective Performance Engineering

http://www.effectiveperformanceengineering.com/

More Information

HPE Software Performance Engineering
http://www.HPE.com/Software/PE

TechBeacon Performance
http://techbeacon.com/performance

Blogs: LoadRunner and Performance Center
http://bit.ly/HPE-LRPCBlog

Vivit Worldwide: PE SIG
http://bit.ly/VIVITPE

Questions

Thank you

www.vivit-worldwide.org