

Automating PLM Upgrades with AI-based Automated Software Validation and Testing Solutions

PLM Road Map™ & PDT North America 2026

AI in PLM: A Disruptive Opportunity and Challenge

Turning AI disruption into enterprise value:

Strategic insights for the PLM professional

CIMdata®

6-7 May 2026

www.CIMdata.com

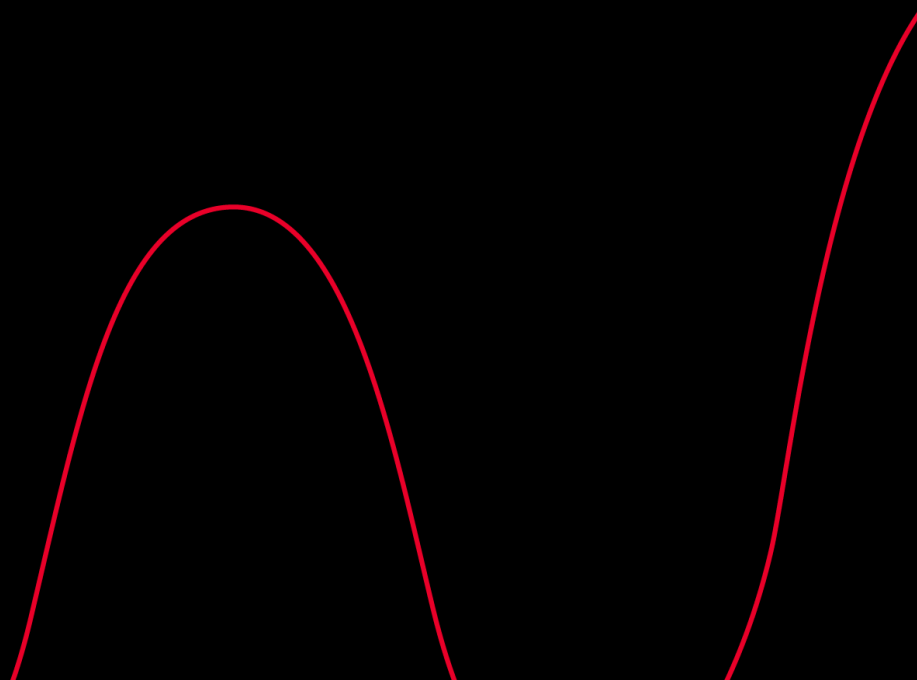
Presented by

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Sr. Solutions Engineer
Keysight
www.keysight.com

-
- 8+ years' experience as an Applications and Design Engineer in the manufacturing and RF space
 - Always focused on finding ways to **automate complex systems** and end-to-end processes.



Challenges

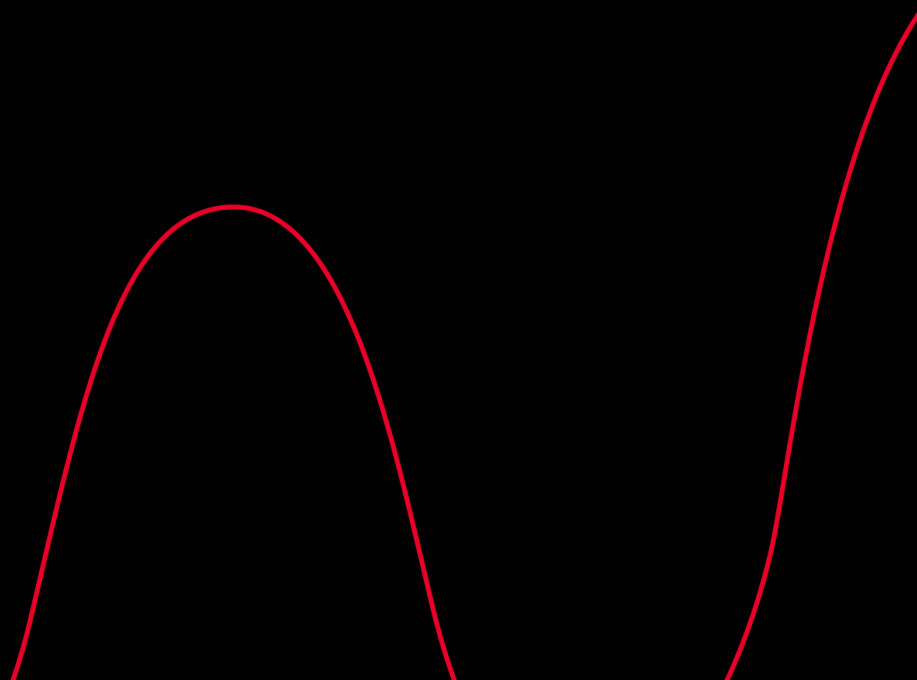


The Challenges of Validating Quality within your PLM Ecosystem

- Establishing **accuracy** throughout the PLM landscape is tedious
- Ensuring **consistency** during changes, updates and upgrades
- Maintaining **performance** and **availability** to optimize usability
- Intricate mix of applications in **diverse** environments
- Lack of **end-to-end validation** through all touchpoints for all personas that use PLM
- Achieving PLM as **single source of truth**



The Solution

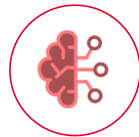


Keysight Eggplant Solution is a Leader in Full End User Experience Testing

The only software automation testing that sees the application through the user's eyes



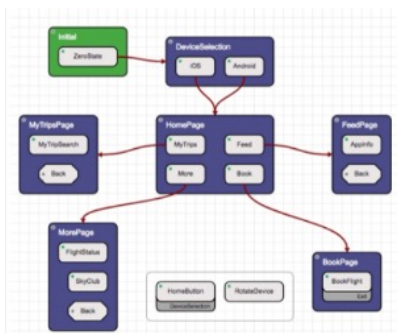
Automation Intelligence



Machine Learning



Identifying EUX Anomalies



Model-based Testing from an End User's Perspective



Eggplant SenseTalk

DoubleClick "Chrome"
TypeText "www.cnbc.com", returnKey

Four important points about Keysight Eggplant's approach to validating from an End User's Perspective...

Technology Agnostic

Device Agnostic

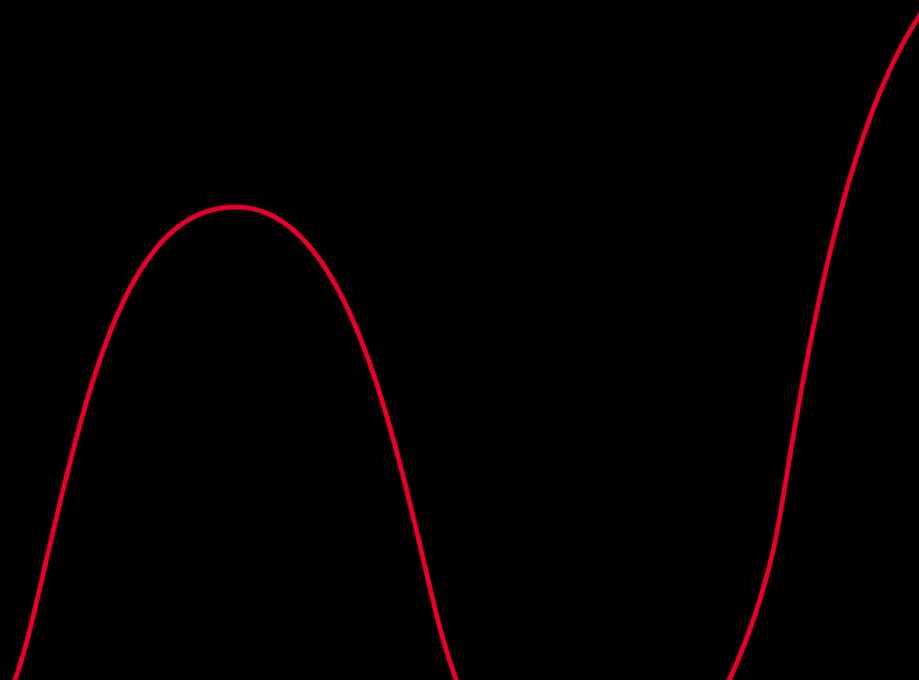
Non-Invasive

End to End



Demo

Validating PLM-CAD Workflow



CATIA Demo suite -- C:\Users\skierleic\OneDrive - Keysight Technologies\suites\EPF - testcase2
 CATIA Demo suite -- C:\Users\skierleic\OneDrive - Keysight Technologies\suites\EPF - testcase2

Eggplant File Edit Run Connection Control Window Help

Search Names and testcase2 CATIACommon

Scripts

- 3DXCommon
- CATIACommon
- common
- sandbox
- testcase1
- testcase2

Images

- 3dx
- CATIA
- Logos

```

--- a script to open 3dx, download a part, edit the part and reupload
it-----

StartMovie ResourcePath("PLMCADPLM")

-- initiate test data
set partName to "circle.CATPART"
set newPart to "aBetterCircle"

-- 3DX journey
-- login and download part
"3DXCommon".launch3DX
"3DXCommon".open3DDrive
"3DXCommon".downloadPart partName
"3DXCommon".openDownloadedPart

-- CATIA journey
-- make changes to part
//parameterised values
CATIACommon.addChamfer "5mm", "45deg"
CATIACommon.addHole "5", "20"
CATIACommon.savePartAs newPart

-- 3DX journey
-- upload changed part
common.switchWindow
"3DXCommon".updatePart newPart
-- check part
"3DXCommon".viewPart partName
"3DXCommon".inspectPart

stopmovie
  
```

Output Script Checker Check Script Check All...

Resources

06/02/2025, 10:18:49	click	at (1903, 320)
06/02/2025, 10:18:50	imagefound	CATIA/partSurface found at (838, 308)
06/02/2025, 10:18:50	click	at (838, 308)
06/02/2025, 10:18:52	typetext	[tab]
06/02/2025, 10:18:53	typetext	[tab]
06/02/2025, 10:18:53	typetext	20
06/02/2025, 10:18:54	typetext	[returnKey]

Selection Executed in 0:00:06

Sessions... Settings... No Script Run...

* Single System *

Eggplant File Edit Run Connection Control Window Help

Enter Capture Mode Start Session Show Full Size Cursor Location (944,681)

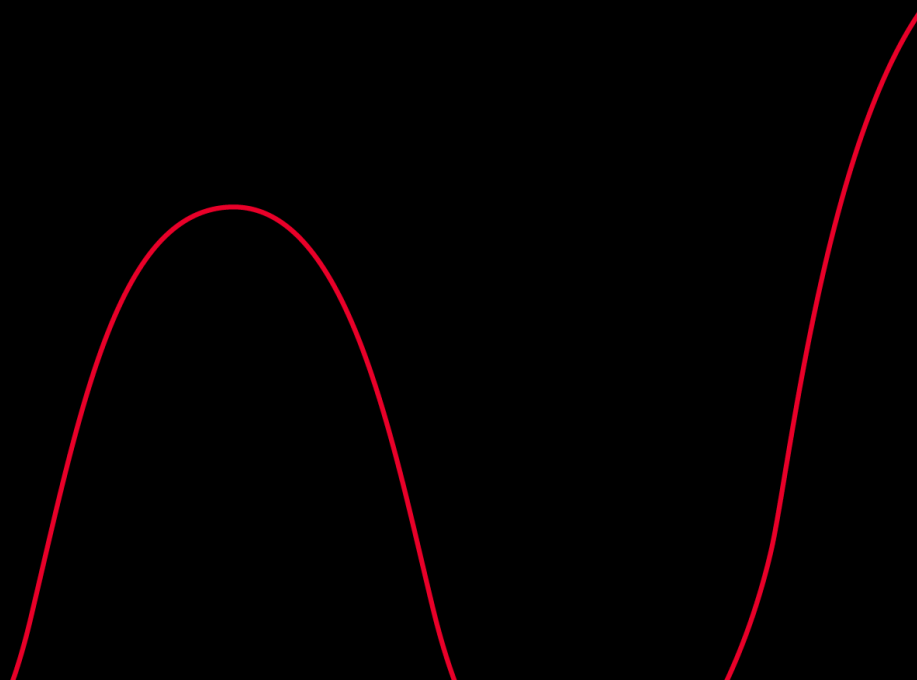
Capture Image Find Text Set Rectangle Click DoubleClick MoveTo WaitFor TypeText Home Press

Windows Desktop Environment

Taskbar Icons: Recycle Bin, junk, Microsoft Edge, Acrobat Reader, Eggplant Functional, Google Chrome, Oracle VM VirtualBox, CATIA PLM Express V5-6R2024

System Tray: 1°C Sunny, Volume, Network, 10:19, 06/02/2025

Conclusion



Time-Cost-Scope Impact

Stats from a Keysight customer...

- How much of your time using Eggplant is focused on PLM? Is the PLM application(s) under test still ENOVIA SmarTeam and Teamcenter PLM?
70% of the time. Yes, ENOVIA SmarTeam and TeamCenter PLM, but you can add CATIA and AutoCAD.
- What are you specifically testing & validating in the PLM application(s)?
The integration between the four (4) applications, plus other apps like Microsoft Office 365 and Adobe. We create documents, CATIA products and parts, complete workflows, and create reports. Also, documents and diagrams comparison between different software versions.
- What benefit or value does Eggplant provide?
Reduced test execution time (50% to 80% less) and reduced man hours needed to test & validate.
- What other applications do you use Eggplant to validate & automate?
Salesforce, Corridor, Solumina, 3DX, PowerBI and numerous in-house developed applications.

Why Eggplant is Best Suited to Test & Validate PLM Deployments

- Eggplant provides true **end-to-end validation** of your product journey which is critical for error-free manufacturing.
- Reduce validation time by **50%**.
- Increase test coverage by **80%**.
- **Catch issues earlier** in the product life cycle, reducing their impact and cost.
- **Accelerate** release cycles.
- **Automating manual tasks** allows resources to focus on higher-value work and continuous improvement.

Thank you

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on my presentation!



