

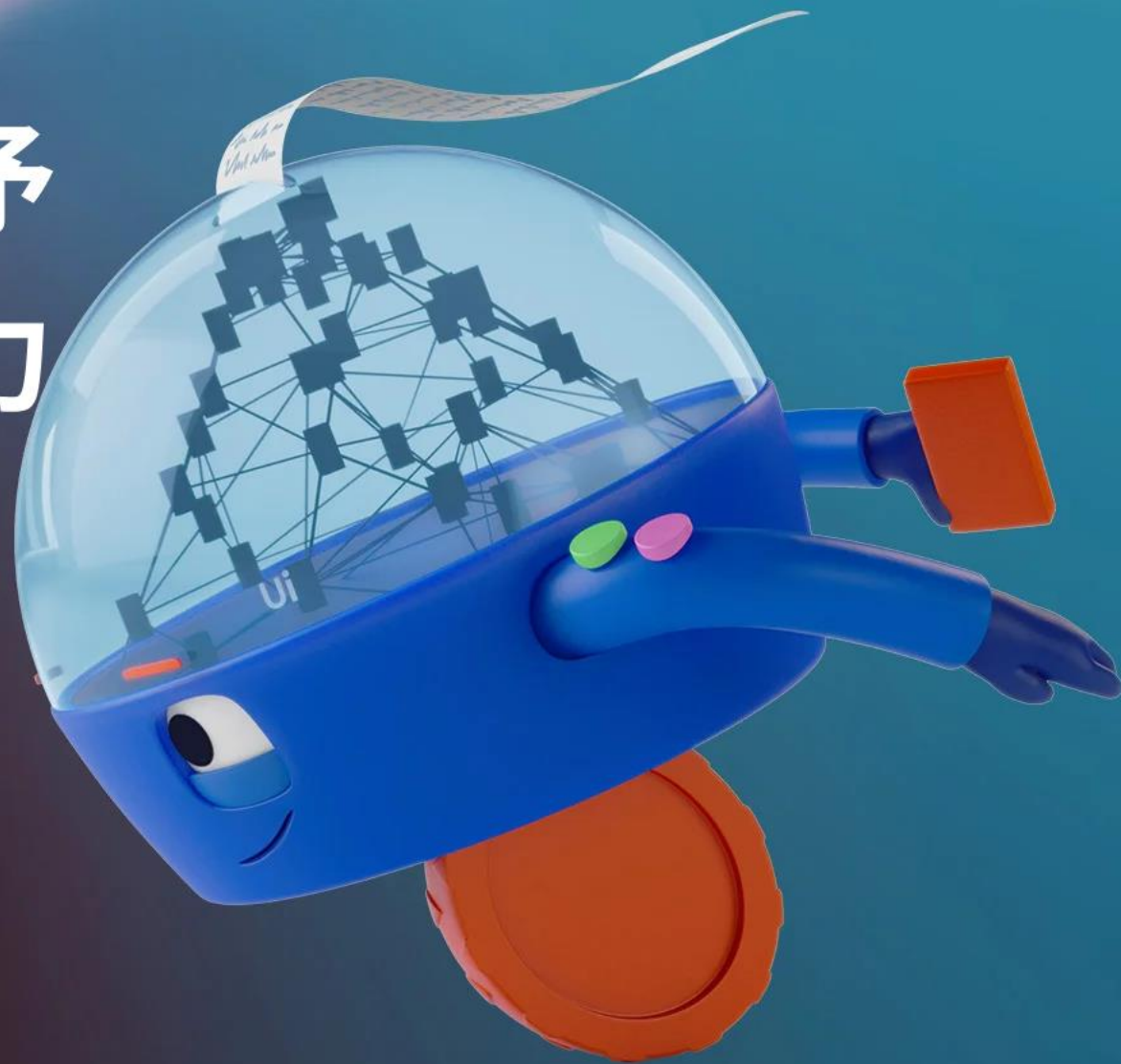
UiPath测试峰会

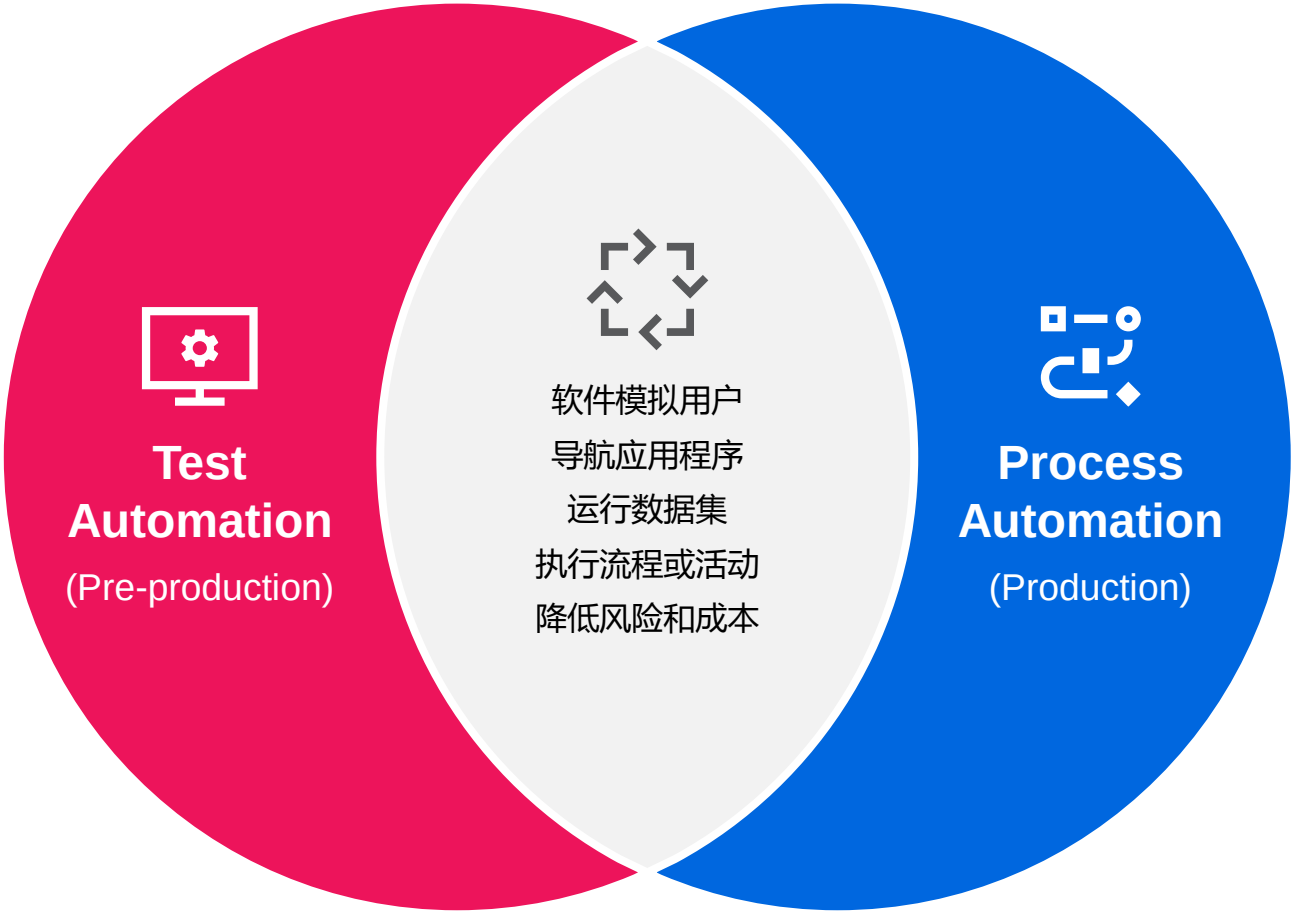
低代码自动化和AI赋予 应用程序测试新的活力



唐汛

UiPath售前顾问





测试套件是自动化平台的一部分

UiPath Automation Platform

Discover

Manage

AI Enabled Automation

Orchestrate

Run



Process & Task
Mining



Test
Management



Test
Automation



Robotic Process
Automation



Orchestration



Test and RPA
Robots

端到端 UI 和 API 自动化



Automation cloud



Hybrid



On-premises

80%

减少缺陷

90%

自动化率

3X

交付速度

70%

组件重用

30-40%

降低成本

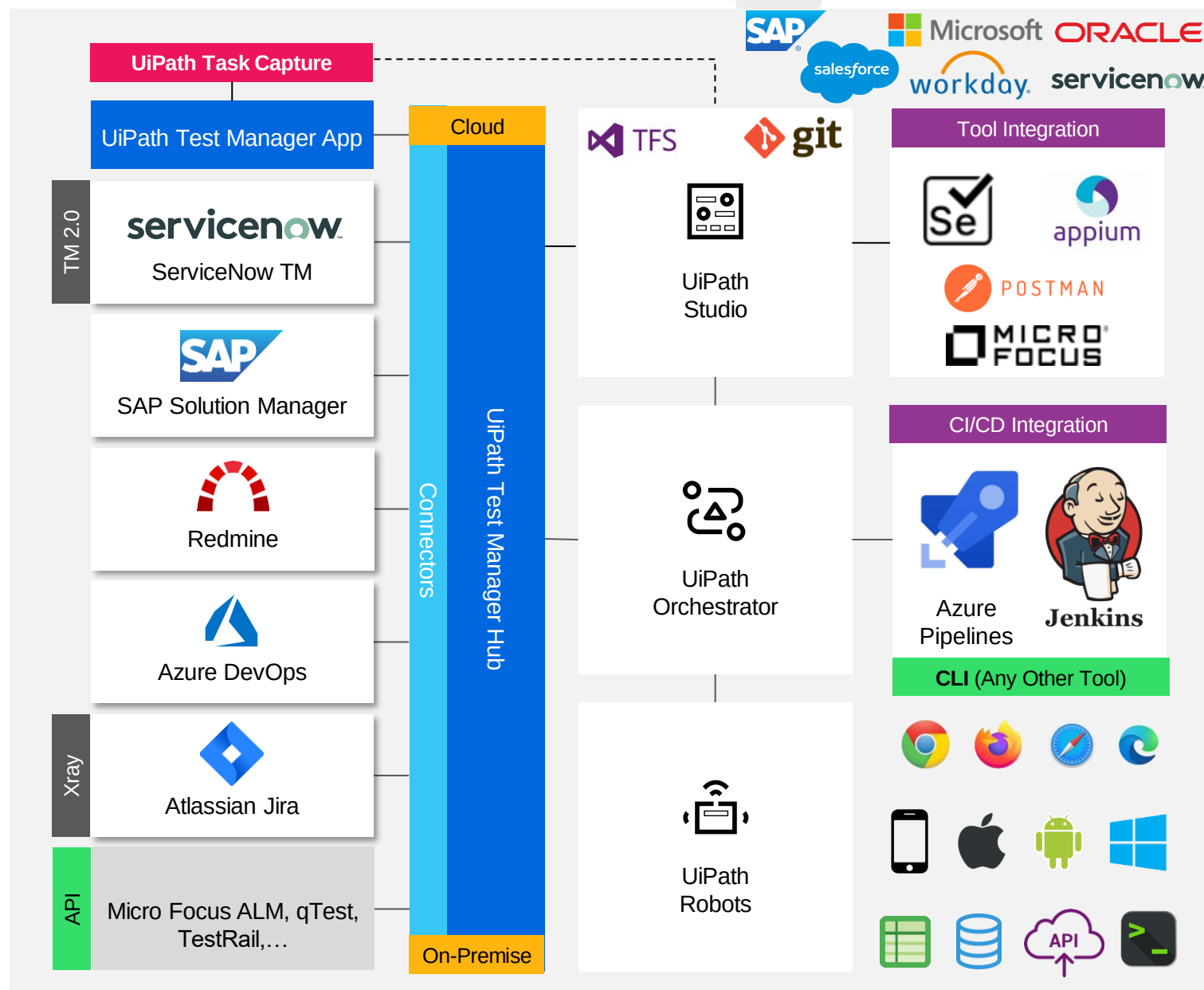
UiPath Test Summit

Solution Overview and Applications



Meet Test Suite...

- ✓ 生产级自动化
- ✓ 自动化任何 UI 或 API 技术
- ✓ 共享和重用自动化
- ✓ 与您的工具链无缝集成





UiPath 差异化因素

使每个测试者都能使用
生产级自动化和强大的
AI工具

无代码自动化



将手动测试转变为自动测试

XTechnology



自动化任何技术，从绿屏、桌面和
Web 到移动或 API

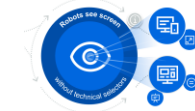
数据驱动

Entities > StandardPortfolio

Entity Name	Name	Type	Reported	Description
Entity 1	Entity 1	Entity 1	Yes	Entity 1 Description
Entity 2	Entity 2	Entity 2	Yes	Entity 2 Description
Entity 3	Entity 3	Entity 3	Yes	Entity 3 Description
Entity 4	Entity 4	Entity 4	Yes	Entity 4 Description
Entity 5	Entity 5	Entity 5	Yes	Entity 5 Description

创建、管理和使用综合测试数据

人工智能驱动



利用先进的 AI/ML 技术，例如简历
和文档理解

开放式架构



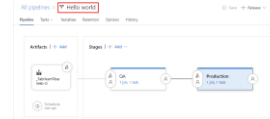
与现有的 ALM 和系统（如 Jira、
ADO...

版本控制



与现有版本控制系统（如 GIT、
SVN 或 TFS）集成

持续集成



将测试无缝集成到您现有的 CI 管道
中

自我修复



利用模糊选择器和对象存储库实现
弹性自动化

防御级安全



80% 的财富 500 强公司经过生产
验证的技术

灵活部署



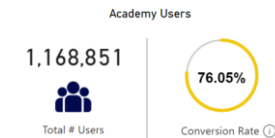
在本地、私有云或公共云中部署

可扩展



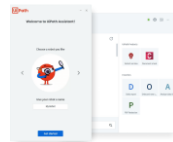
并行运行数千个自动化测试用例

社区驱动



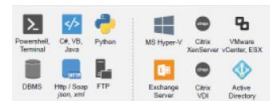
+1.2 M UiPath训练有素的专业人
员

RPA



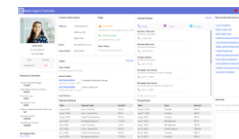
自动执行日常测试工作的重复性任
务

基础设施 自动化



拥有整个 CI 管道，包括测试环境的
设置

自定义应用



为报告或数据管理等任务创建自己
的自定义应用

流程/任务挖掘

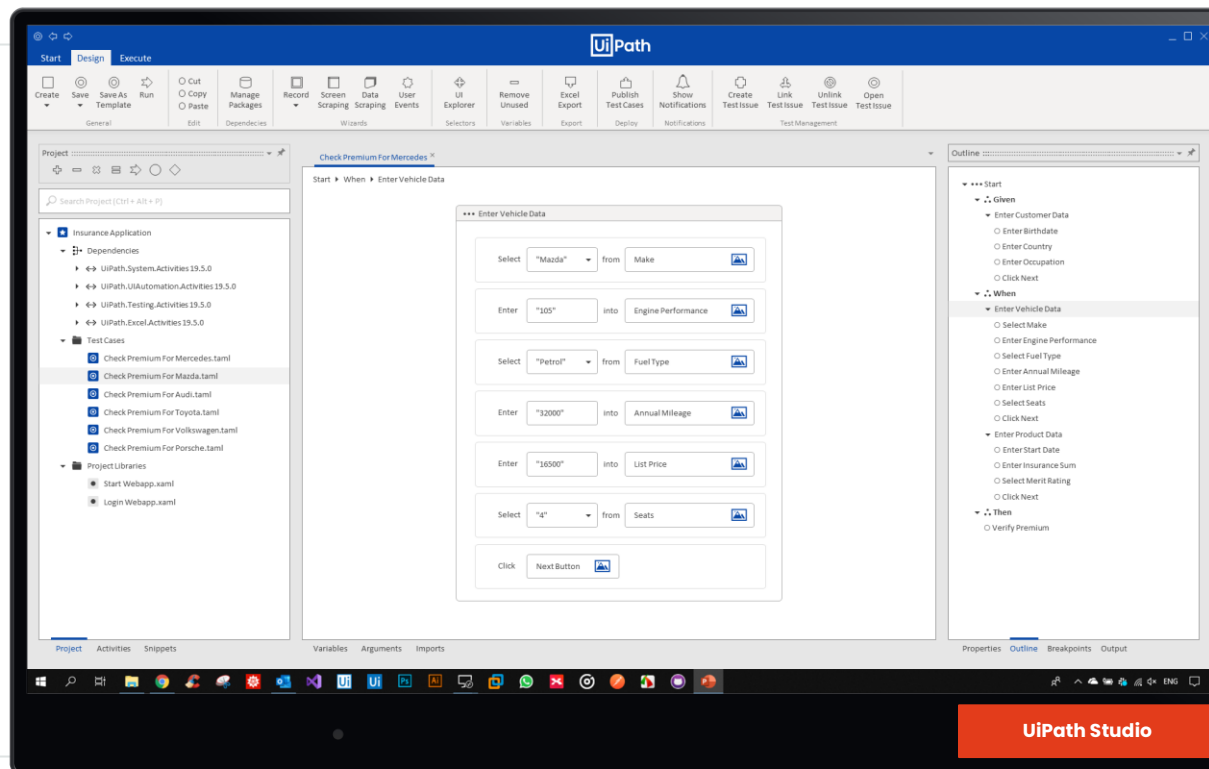


根据生产见解构建正确的测试用例

更快地构建弹性、可重用的自动化 几乎任何技术的自动化



POS



Microsoft



Office



servicenow



Google

ORACLE



Azure DevOps



Jira

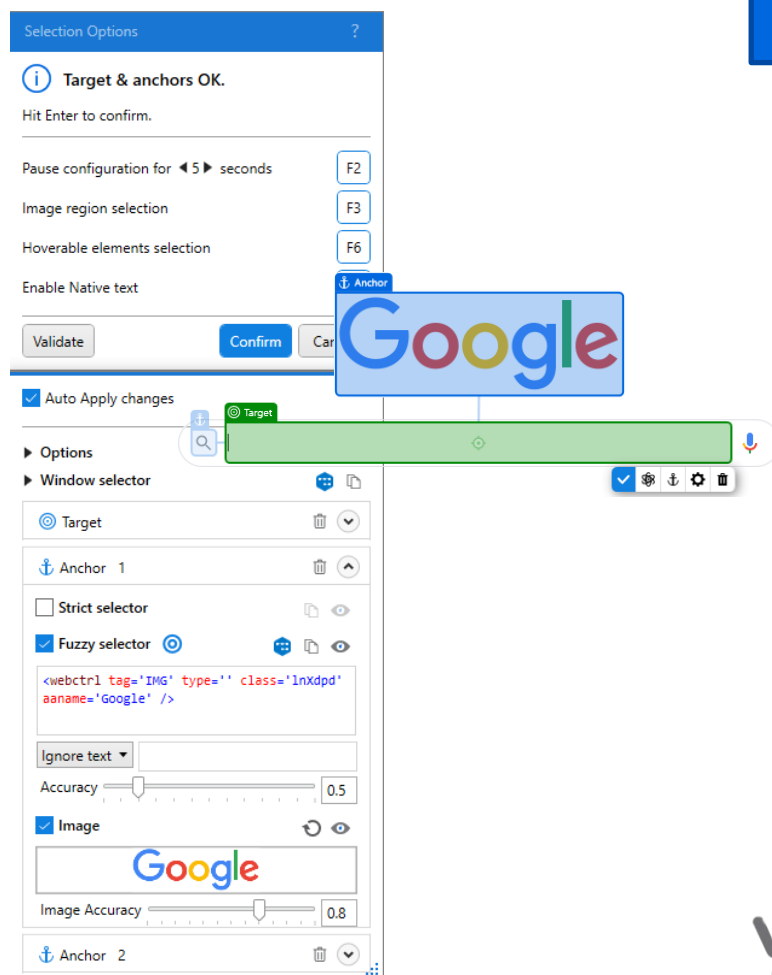


Customer
Experience



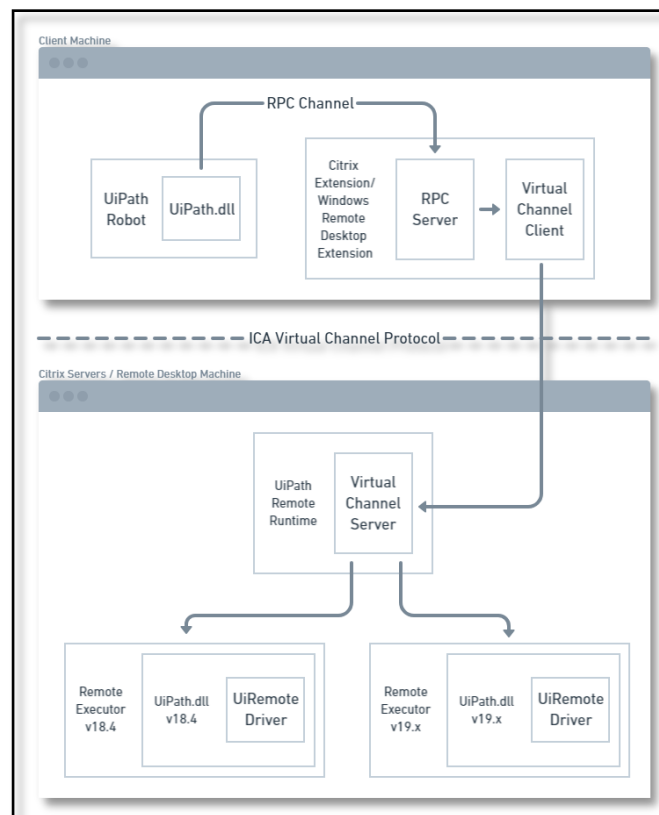
UiPath 提供多种方式与任何类型的应用程序进行交互

多锚点统一定位

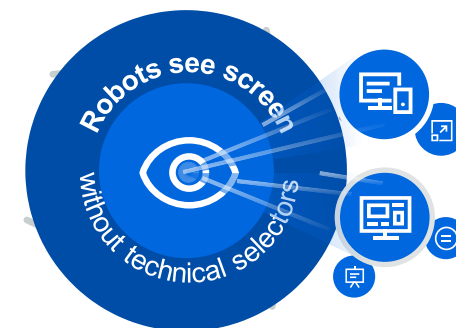
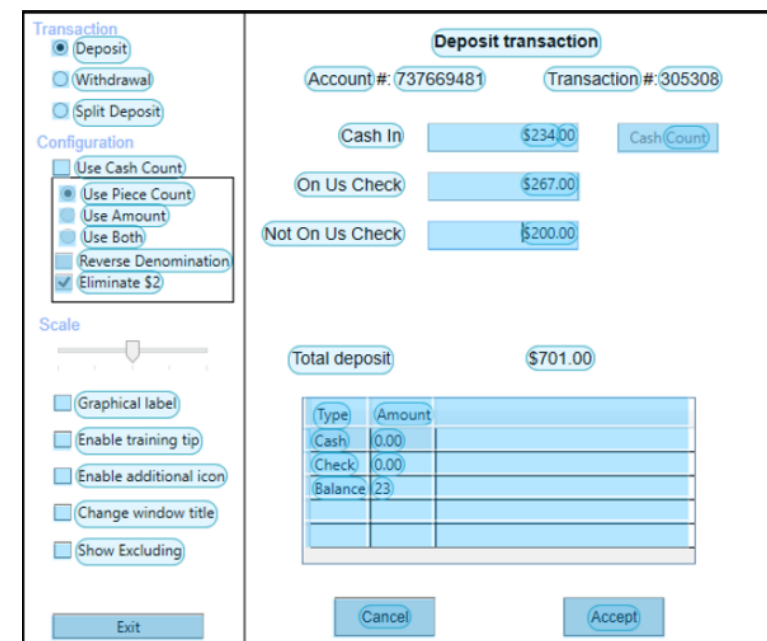


VMWare, Citrix, MS 自动化

原生 RDP 自动化

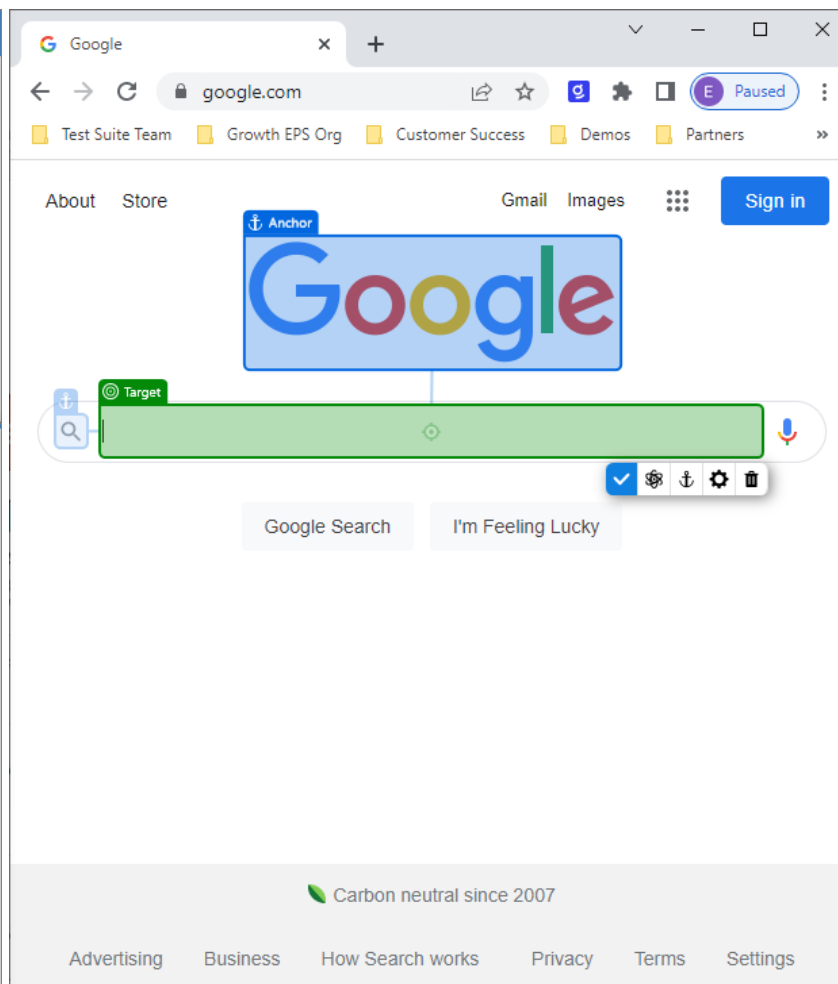
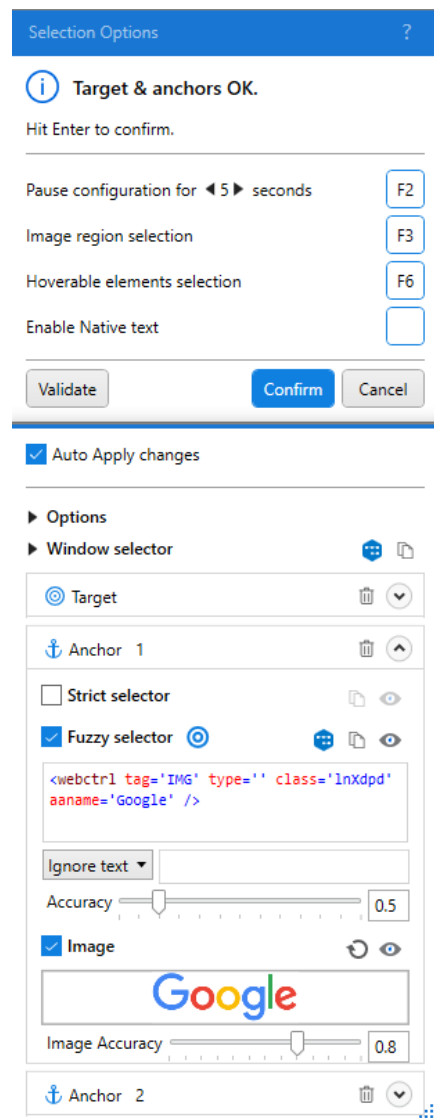


AI Computer Vision



使用统一定位和多个定位点的弹性 UI 自动化

网页 – 本地或云



统一定位如何运作？

统一定位是一种对象识别方法，它利用了 4 种可能的定位方法 - 选择器、模糊选择器、文本和图像。

所有定位方法在运行时同时使用，并自动选取第一个成功找到所需元素的方法。

即使使用多种定位方式，一个定位条件也可能在屏幕上出现重复项。如果发现重复项，用户最多可以定义 3 个定位点，以确保与唯一元素进行交互。

[Dynamic Selectors](#)

[Fuzzy Search](#)

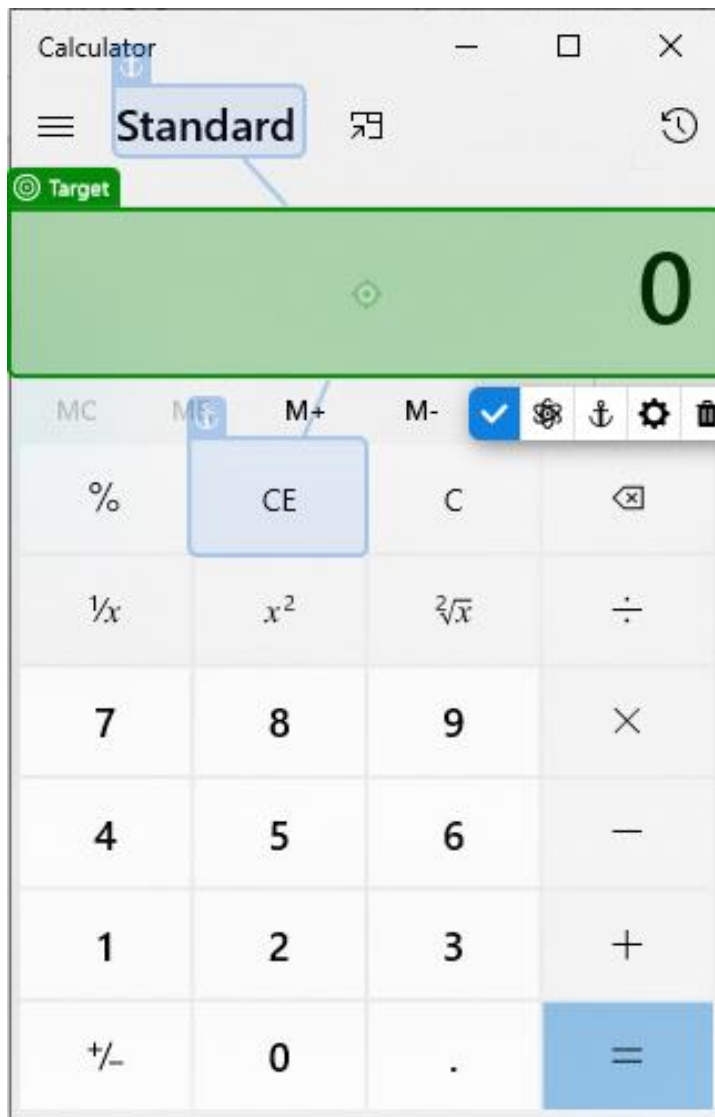
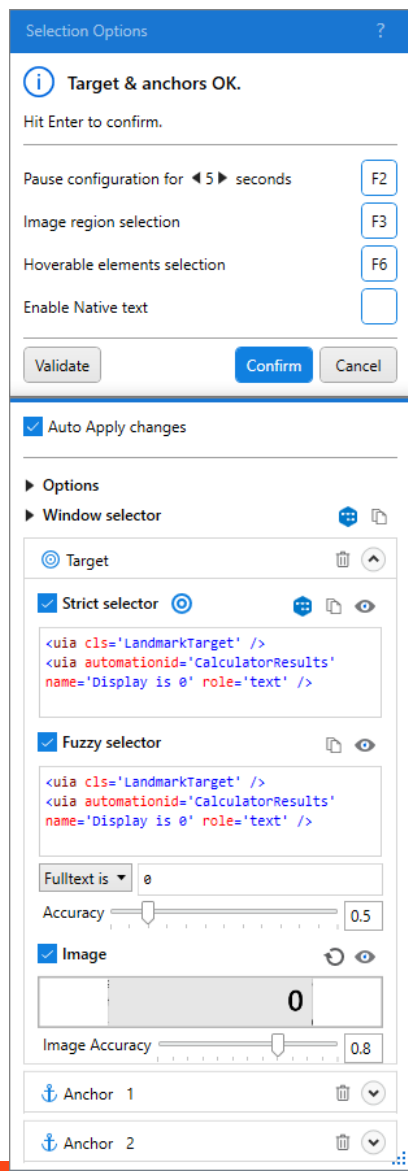
[Regex Search](#)

[Non-Greedy Search](#)

[Case-Sensitive Selectors](#)

使用统一定位和多个定位点的弹性 UI 自动化

Windows – .NET, Java,...



统一定位如何运作？

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[Dynamic Selectors](#)

[Fuzzy Search](#)

[Regex Search](#)

[Non-Greedy Search](#)

[Case-Sensitive Selectors](#)

使用统一定位和多个定位点的弹性 UI 自动化

移动应用程序 - 原生、混合和Web



The screenshot displays the 'Selection Options' panel on the left, which includes a message: 'Target found but with fallback methods. It's advisable to either disable Selector method or configure it correctly by indicating the target again.' Below this, there are checkboxes for 'Context aware elements discovery' (F2) and 'Image selection mode' (F3), along with 'Validate', 'Confirm', and 'Cancel' buttons. At the bottom of the panel, there is an 'Auto Apply changes' checkbox and an 'Apply' button.

The main area shows a mobile application interface with a 'Get care' button highlighted. Below the application view, there is a 'Target' section with two methods selected: 'Selector' and 'Fuzzy Selector'. The 'Selector' method shows the following HTML snippet:

```
<html title='&#xD;&#xA; Allina Health | Health Care & Medical Services In Minnesota & Western Wisconsin&#xD;&#xA;' />
<webctrl id='getCareNow' tag='A' />
```

The 'Fuzzy Selector' method shows the following HTML snippet:

```
<html title='&#xD;&#xA; Allina Health | Health Care & Medical Services In Minnesota & Western Wisconsin&#xD;&#xA;' />
<webctrl id='getCareNow' tag='A' type='' aaname='Get care' check:aname='Get care' />
```

Below the selectors, there are sliders for 'Selector Accuracy' (set to 0.5) and 'Image Accuracy' (set to 0.8). At the bottom, there is an 'Anchor' section with 'Anchor 1' selected.

统一定位如何运作？

统一定位是一种对象识别方法，它利用了 4 种可能的定位方法 - 选择器、模糊选择器、文本和图像。

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[Dynamic Selectors](#)

[Fuzzy Search](#)

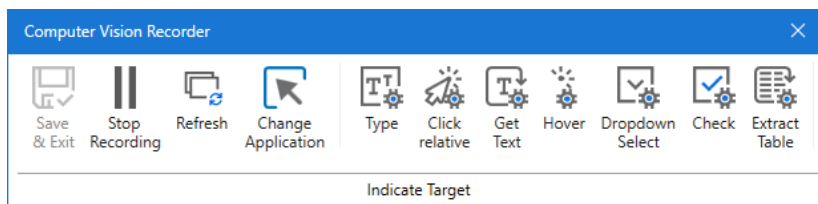
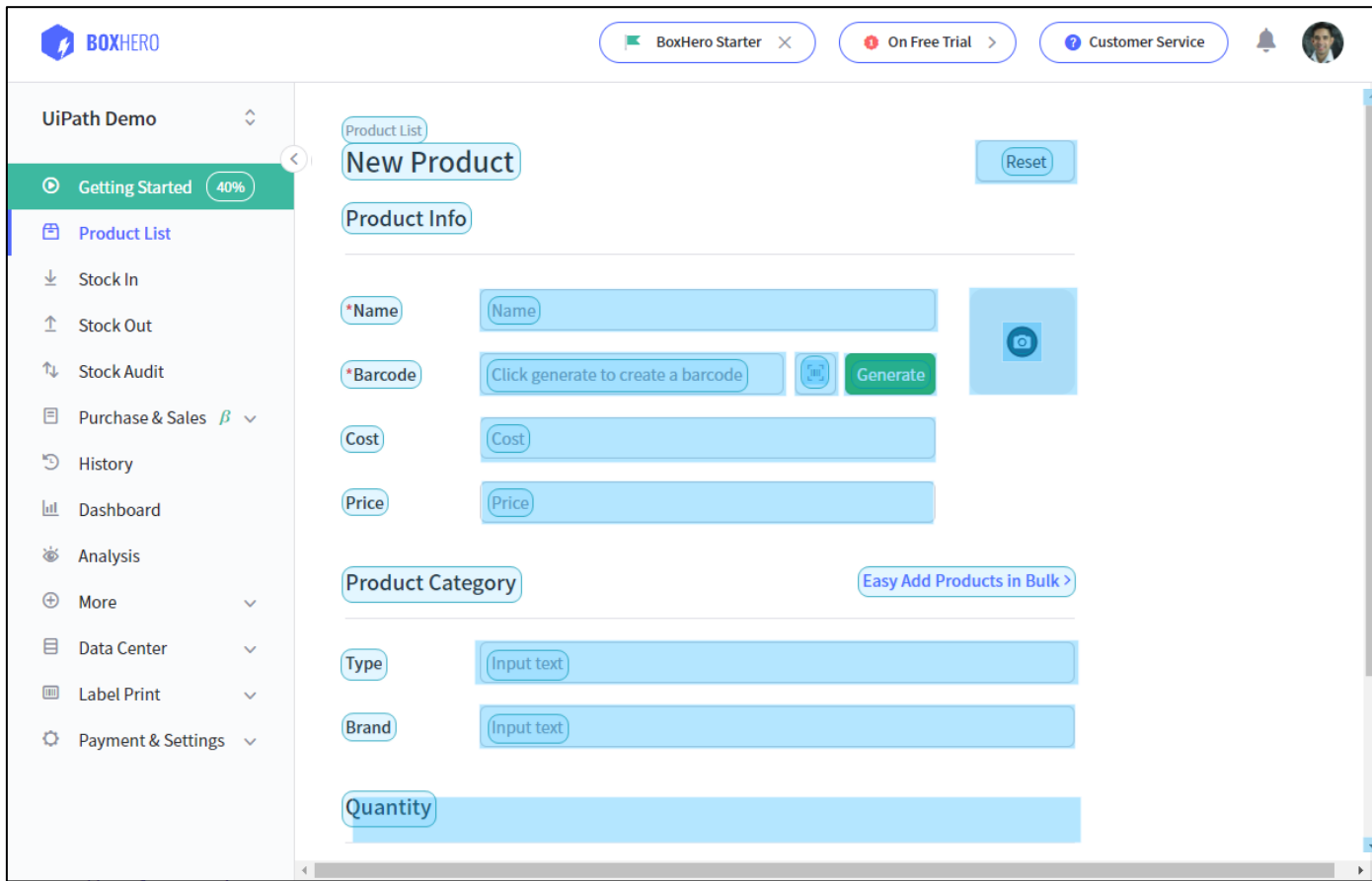
[Regex Search](#)

[Non-Greedy Search](#)

[Case-Sensitive Selectors](#)

使用计算机视觉和光学字符识别的弹性 UI 自动化

AI Computer Vision

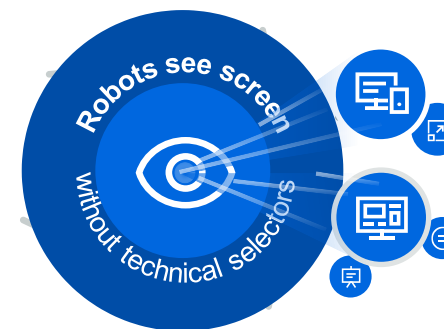


AI 计算机视觉如何工作?

UiPath 将截取应用程序屏幕的屏幕截图，并通过 ML 算法运行它。

机器学习算法将识别屏幕上的所有潜在元素，并允许用户针对它们定义机器人动作，就好像它们是本机选择器一样。

当无法识别本机选择器时，应使用此方法。



使用位置定位和文本/字段锚定的弹性 UI 自动化



Mainframe/Terminal Emulators

- Attachmate Reflection / Extra
- Reflection for UNIX / IBM
- Rocket BlueZone
- IBM Personal Communications
- IBM EHLLAPI
- Micro Focus Rumba
- Direct Connection

Terminals

- Mainframe/AS400/VT
- TN3270/TN5250/VT

Automation Options

- Use installed terminal application
- Use IBM EHLLAPI standard
- Use UiPath internal implementation of these protocols

The screenshot displays the UiPath Terminal Wizard interface. The main window shows a terminal session with the following text:

```
Welcome to PUB400.COM * your public IBM i server
Server name . . . : PUB400
Subsystem . . . : QINTER2
Display name . . . : QPAD192433

Your user name: LEASEBURG
Password (max. 128): _

--* WELCOME TO IBM i 7.5 *--
* Check your jobs for message wait (MSGW) with command WRKACTJO
* use option 7 on this job to see messages and details
* Want to chat? https://pub400.com/mbr/forum.nd/chatbox

connect with SSH to port 2222 -> ssh name$pub400.com -p 2222
visit http://POWERbunker.com for professional IBM i hosting

(C) COPYRIGHT IBM CORP.
```

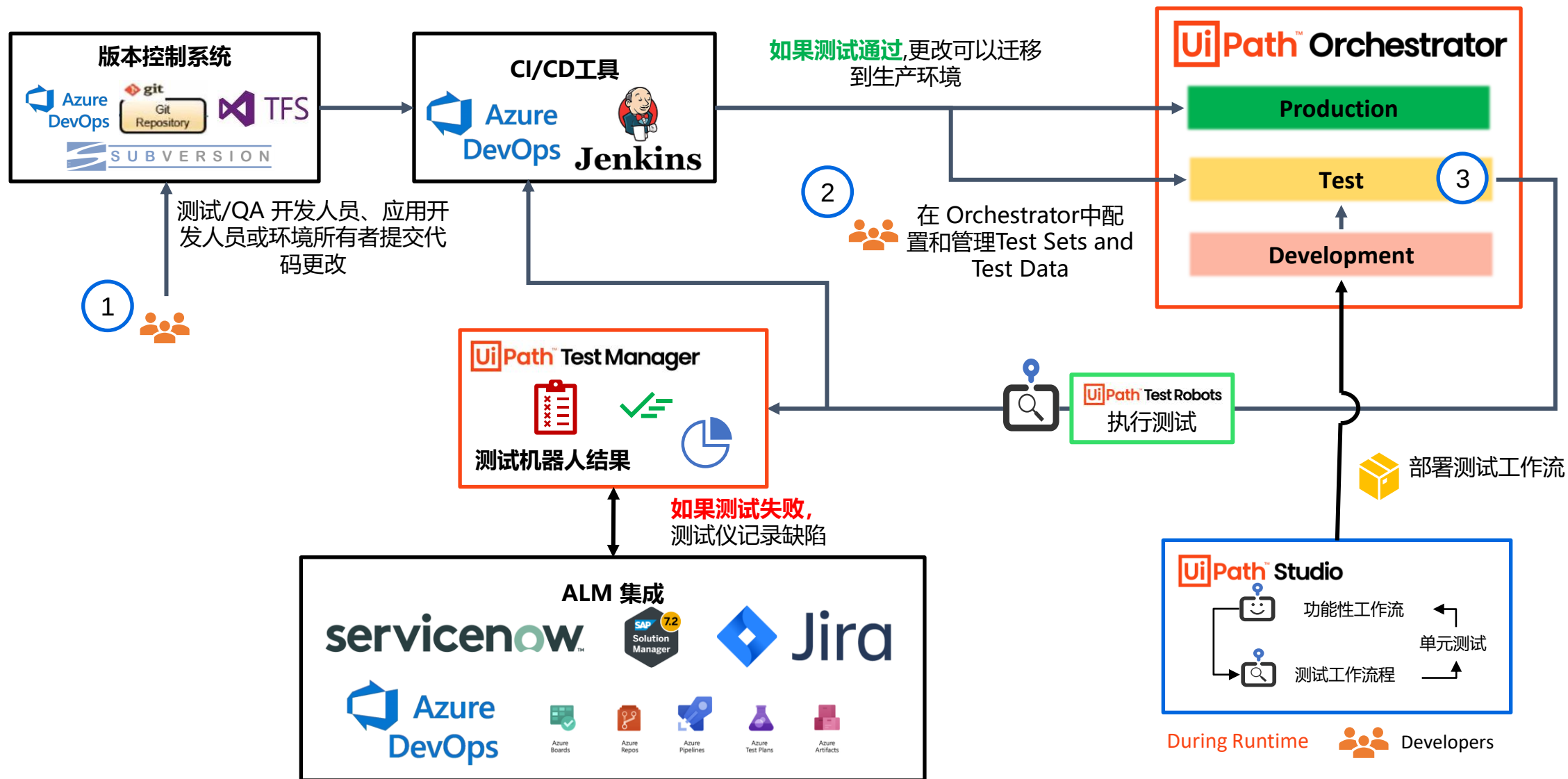
Below the terminal window, there are several panels for configuration:

- Providers:** Attachmate Reflection, Attachmate Extra, Reflection for UNIX, Reflection for IBM, Rocket BlueZone, IBM Personal Communications, IBM EHLLAPI, Direct Connection.
- Types:** TN3270, TN5250, VT, HP Series, ANSI, Tandem T653X, Sco ANSI, Wyse Series.
- Protocols:** TELNET, SSH, HPVT.
- Terminal Modes:** IBM 3278-2 (24x80), IBM 3278-3 (32x80), IBM 3278-4 (43x80), IBM 3278-5 (27x132), IBM 3279-2 (24x80), IBM 3279-3 (32x80), IBM 3279-4 (43x80), IBM 3279-5 (27x132).
- Encoding Options:** ASCII, IBM924, IBM930, IBM930_2, IBM939, IBM1025, IBM1026, IBM1047, IBM1140, IBM1141, IBM1142, IBM1143, IBM1144, IBM1145, IBM1146, IBM1147, IBM1148, IBM1149, IBM1155, IBM2975, IBM2978, IBM2979, IBM037_2.

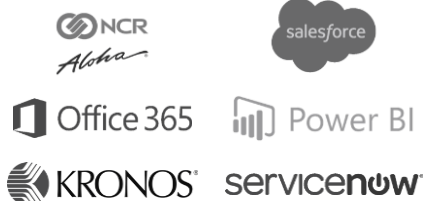
On the right side, there are panels for **Recorded Actions** (Move Cursor, Send Keys, etc.) and **Field Properties** (RowStart, ColStart, Text, etc.).

测试的最佳实践方法

通过任何更改进行持续测试和持续部署



整合的 价值: 自动化, 重用, 和规模化



优化和敏捷的业务运营

70% 组件重用

99.8% 生产正常运行时间



RPA加速

3X 更快的 RPA 自动化

10X 更快的 RPA 部署

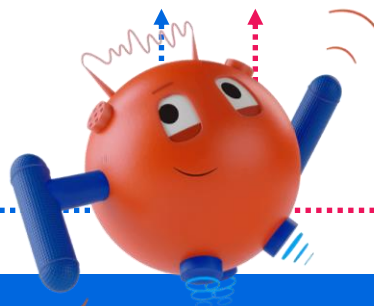
50% 减少维护

测试加速

5X 更快的测试自动化

90% 自动化覆盖范围

50% 减少维护



“一种声音认为UiPath 为 RPA 和测试套件节省的时间等同于为公司节省 250 万美元。”
- 2022 年 IDC 云测试市场格局



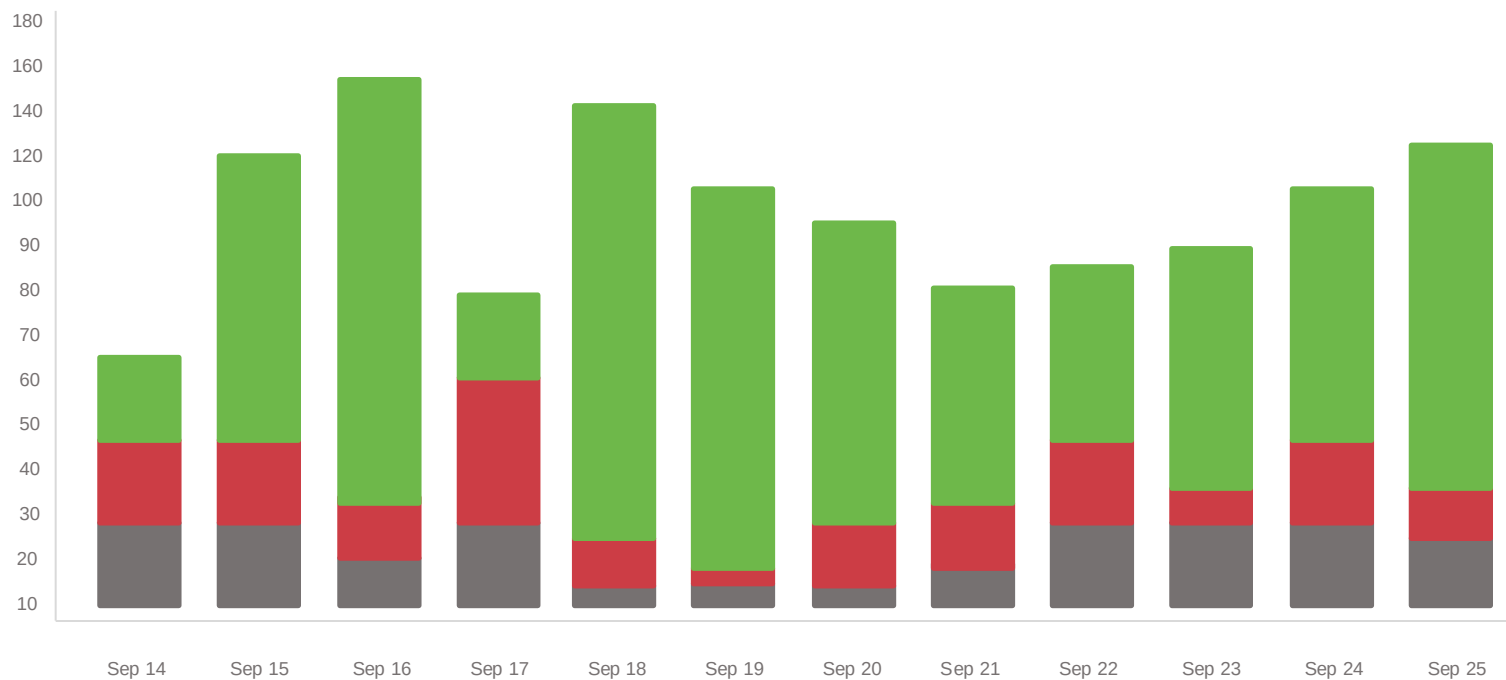
UiPath Test Summit

Product Tour





Testing the fully automated enterprise™



Defects

Coverage

Automation Rate



https://cloud.uipath.com/test-manager

UiPath™ Test Manager



Dashboard

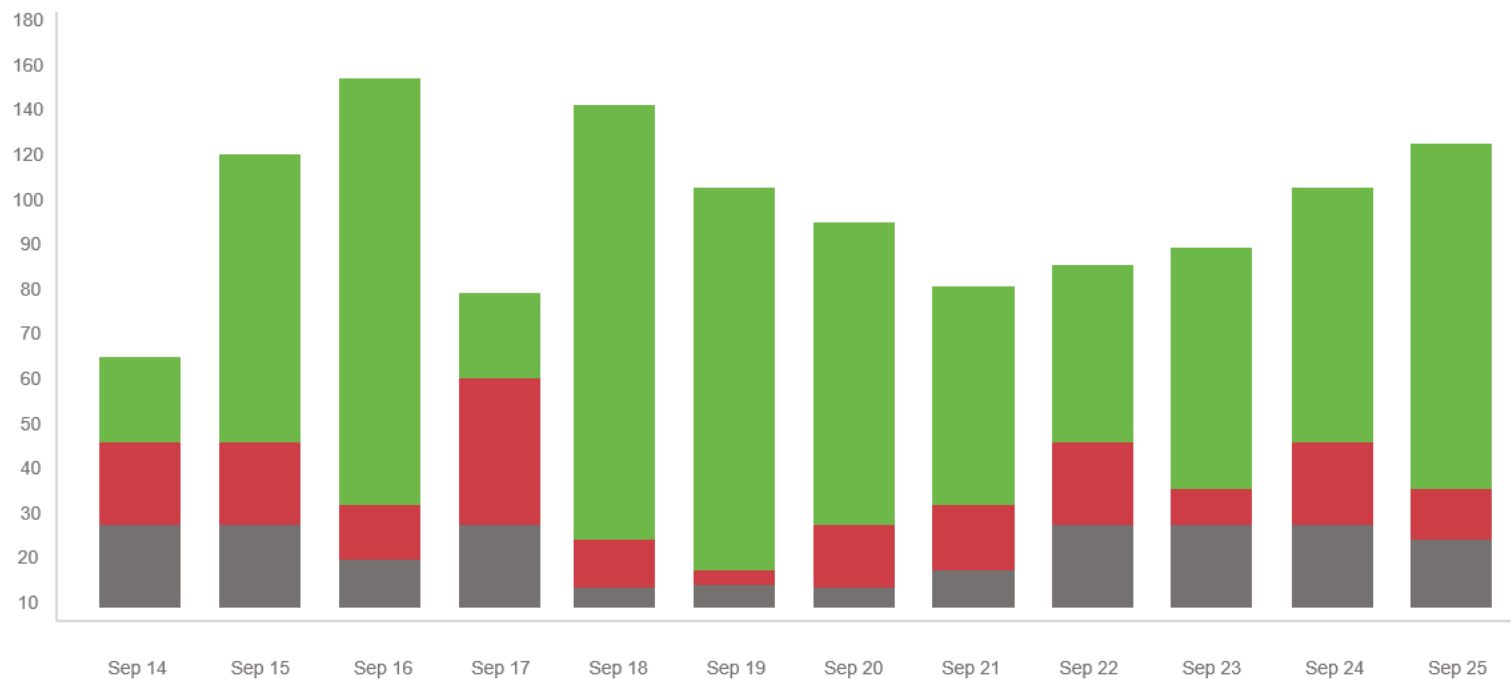


做出明智的发布决策



Home > My Project

Daily ▾



Defects

0

Coverage

0 %

Automation Rate

0 %

UiPath™ Test Manager

Requirements

! 从 ALM 工具同步需求

Browse

Search...

Key	Name	Description
REQ 1	Apply for Loan	Given I am applying for a loan, if my yearly income is below...
REQ 2	Apply for Loan	Given I am applying for a loan, if my yearly income is below...
REQ 3	Apply for Loan	Given I am applying for a loan, if my yearly income is below...
REQ 4	Apply for Loan	Given I am applying for a loan, if my yearly income is below...
REQ 5	Apply for Loan	Given I am applying for a loan, if my yearly income is below...
REQ 6	Apply for Loan	Given I am applying for a loan, if my yearly income is below...

Requirement: Apply for Loan

Acceptance criteria:

- applicants over 90 years and applicants under 18 years are rejected
- applicants with a yearly income below \$ 5000 are rejected
- applicants with a yearly income above \$ 100,000 will receive a rate of 3%



从 ALM 工具同步需求

UiBank

https://uibank.uipath.com/loans/apply

Loan Application

Hi! Enter some details below to get started!

Email Address of Requestor

Loan Amount Requested

Loan Term

Current Yearly Income (Before Taxes)

Age

Submit Loan Application

UiPath™ Test Manager

Test Cases

Browse

Search...

Key	Name	Description
Test Case 1	Apply for Loan, income < 10k	Given I am applying for a loan, if my yearly income is below...
Test Case 2	Apply for Loan, younger than 18	Given I am applying for a loan, if my yearly income is below...
Test Case 3	Apply for Loan, rate > 10%	Given I am applying for a loan, if my yearly income is below...
Test Case 4	Apply for Loan, income > 50k	Given I am applying for a loan, if my yearly income is below...
Test Case 5	Apply for Loan, older than 90	Given I am applying for a loan, if my yearly income is below...

!

创建手动 + 自动测试用例



分析测试结果并记录缺陷

My failed Test Case

Failed

Execution Start

Duration

Defect

6 days ago

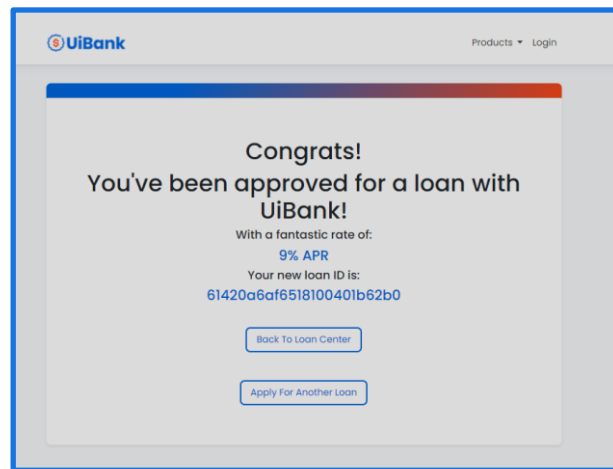
1.5 min

[Create defect](#)

Verification failed – the expected loan rate of >5%< did not match the actual rate of >7%<

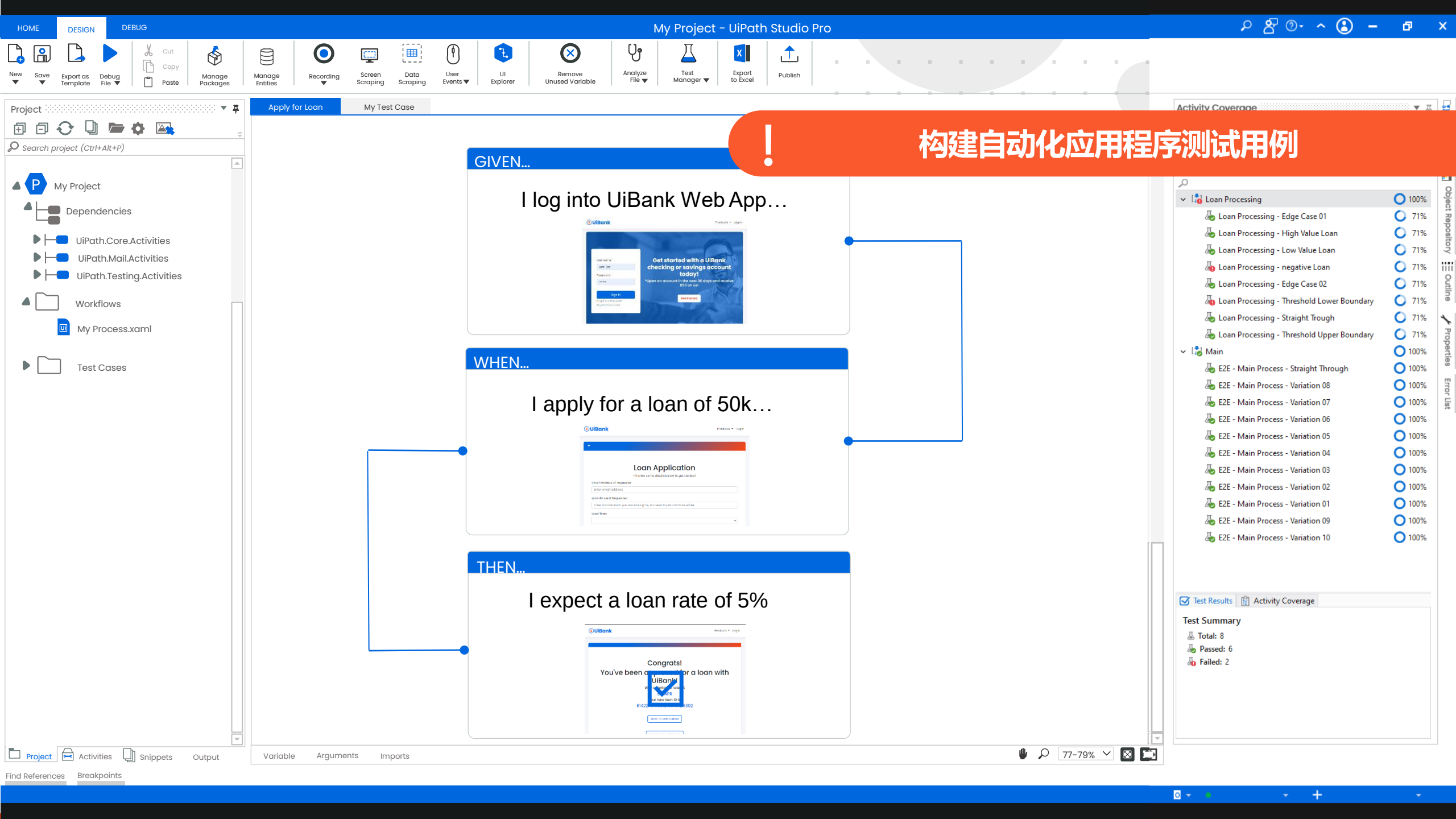


Test Results





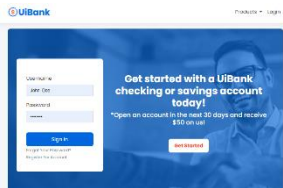
Testing the fully automated enterprise™



构建自动化应用程序测试用例

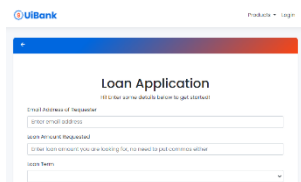
GIVEN...

I log into UiBank Web App...



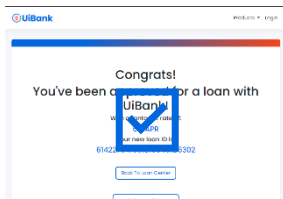
WHEN...

I apply for a loan of 50k...



THEN...

I expect a loan rate of 5%



Loan Processing		100%
Loan Processing - Edge Case 01		71%
Loan Processing - High Value Loan		71%
Loan Processing - Low Value Loan		71%
Loan Processing - negative Loan		71%
Loan Processing - Edge Case 02		71%
Loan Processing - Threshold Lower Boundary		71%
Loan Processing - Straight Trough		71%
Loan Processing - Threshold Upper Boundary		71%
Main		100%
E2E - Main Process - Straight Through		100%
E2E - Main Process - Variation 08		100%
E2E - Main Process - Variation 07		100%
E2E - Main Process - Variation 06		100%
E2E - Main Process - Variation 05		100%
E2E - Main Process - Variation 04		100%
E2E - Main Process - Variation 03		100%
E2E - Main Process - Variation 02		100%
E2E - Main Process - Variation 01		100%
E2E - Main Process - Variation 09		100%
E2E - Main Process - Variation 10		100%

Test Results		Activity Coverage
Test Summary		
Total:	8	
Passed:	6	
Failed:	2	

HOMEDESIGNDEBUG

My Project - UiPath Studio Pro

UiPath

Reboot™
Work.

NewSaveExport as TemplateDebug File

CutCopyPaste

Manage Packages

Manage Entities

Recording

Screen Scraping

Data Scraping

User Events

UI Explorer

Remove Unused Variable

Analyze File

Test Manager

Export to Excel

Publish

Project

Search project (Ctrl+Alt+P)

My Project

Dependencies

UiPath.Core.Activities

UiPath.Mail.Activities

UiPath.Testing.Activities

Workflows

My Process.xaml

Test Cases

My ProcessMy Test Case

Start

Enter Sales data into CRM
3 action(s)
Double click to View

Update customer data
3 action(s)
Double click to View

Create order in ERP
3 action(s)
Double click to View

Order amount

Approve order
3 action(s)
Double click to View

Process order
3 action(s)
Double click to View

Order approved

End

End

Activity Coverage

Loan Processing

100%

Loan Processing - Edge Case 0171%

Loan Processing - High Value Loan71%

Loan Processing - Low Value Loan71%

Loan Processing - negative Loan71%

Loan Processing - Edge Case 0271%

Loan Processing - Threshold Lower Boundary71%

Loan Processing - Straight Trough71%

Loan Processing - Threshold Upper Boundary71%

Main

100%

E2E - Main Process - Straight Through100%

E2E - Main Process - Variation 08100%

E2E - Main Process - Variation 07100%

E2E - Main Process - Variation 06100%

E2E - Main Process - Variation 05100%

E2E - Main Process - Variation 04100%

E2E - Main Process - Variation 03100%

E2E - Main Process - Variation 02100%

E2E - Main Process - Variation 01100%

E2E - Main Process - Variation 09100%

E2E - Main Process - Variation 10100%

Test ResultsActivity Coverage

100%

100% of the activities from your workflow have been covered during test execution

Show Coverage

ProjectActivitiesSnippetsOutput

Find ReferencesBreakpoints

VariableArgumentsImports

77-79%

HOMEDESIGNDEBUG

My Project - UiPath Studio Pro

UiPath

Reboot™
Work.

Project

Search project (Ctrl+Alt+P)

My Project

Dependencies

UiPath.Core.Activities

UiPath.Mail.Activities

UiPath.Testing.Activities

Workflows

My Process.xml

Test Cases

Order Process – Order approved

Order Process – Order not approved

Order Process – Order w/o approval

My Process

My Test Case

Start

Enter Sales data into CRM

Update customer data

Create order in ERP

Order amount

Approve order

Process order

Order approved

End

End

Activity Coverage

Loan Processing

Loan Processing - Edge Case 01

Loan Processing - High Value Loan

Loan Processing - Low Value Loan

Loan Processing - negative Loan

Loan Processing - Edge Case 02

Loan Processing - Threshold Lower Boundary

Loan Processing - Straight Trough

Loan Processing - Threshold Upper Boundary

Main

E2E - Main Process - Straight Through

E2E - Main Process - Variation 08

E2E - Main Process - Variation 07

E2E - Main Process - Variation 06

E2E - Main Process - Variation 05

E2E - Main Process - Variation 04

E2E - Main Process - Variation 03

E2E - Main Process - Variation 02

E2E - Main Process - Variation 01

E2E - Main Process - Variation 09

E2E - Main Process - Variation 10

Test Results

Activity Coverage

100%

100% of the activities from your workflow have been covered during test execution

Show Coverage

Find References

Breakpoints

Variable

Arguments

Imports

77-79%

27

Thomas Stocker

Add To Source Control

VB

HOMEDESIGNDEBUG

NewSaveExport as TemplateDebug File

CutCopyPaste

Manage Packages

Manage Entities

Recording

Screen Scraping

Data Scraping

User Events

UI Explorer

Remove Unused Variable

Analyze File

Test Manager

Export to Excel

Publish

My Project - UiPath Studio Pro

UiPath Reboot Work.

Project

Search project (Ctrl+Alt+P)

My Project

Dependencies

UiPath.Core.Activities

UiPath.Mail.Activities

UiPath.Testing.Activities

Workflows

My Process.xaml

Test Cases

Order Process - Order approved

Order Process - Order not approved

Order Process - Order w/o approval

My Process

My Test Case

Start

Enter Sales data into CRM
3 action(s)
Double click to View

Update customer data
3 action(s)
Double click to View

Create order in ERP
3 action(s)
Double click to View

Order amount

Approve order
3 action(s)
Double click to View

Process order
3 action(s)
Double click to View

Order approved

End

End

Activity Coverage

Loan Processing

100%

Loan Processing - Edge Case 0171%

Loan Processing - High Value Loan71%

Loan Processing - Low Value Loan71%

Loan Processing - negative Loan71%

Loan Processing - Edge Case 0271%

Loan Processing - Threshold Lower Boundary71%

Loan Processing - Straight Trough71%

Loan Processing - Threshold Upper Boundary71%

Main

100%

E2E - Main Process - Straight Through100%

E2E - Main Process - Variation 08100%

E2E - Main Process - Variation 07100%

E2E - Main Process - Variation 06100%

E2E - Main Process - Variation 05100%

E2E - Main Process - Variation 04100%

E2E - Main Process - Variation 03100%

E2E - Main Process - Variation 02100%

E2E - Main Process - Variation 01100%

E2E - Main Process - Variation 09100%

E2E - Main Process - Variation 10100%

Test Results

Activity Coverage

100%

100% of the activities from your workflow have been covered during test execution

Show Coverage

Project

Activities

Snippets

Output

Find References

Breakpoints

Variable

Arguments

Imports

77-79%

28

Thomas Stocker

Add To Source Control

VB

HOMEDESIGNDEBUG

My Project - UiPath Studio Pro

UiPath

Reboot™ Work.

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UiPath.Testing.Activities

Workflows

My Process.xml

Test Cases

Order Process - Order approved

Order Process - Order not approved

Order Process - Order w/o approval

My ProcessMy Test Case

!

构建自动化 RPA 测试用例

Start

Enter Sales data into CRM
3 action(s)
Double click to View

Update customer data
3 action(s)
Double click to View

Create order in ERP
3 action(s)
Double click to View

Order amount

Approve order
3 action(s)
Double click to View

Process order
3 action(s)
Double click to View

Order approved

End

End

Activity Coverage

Loan Processing - Edge Case 0171%

Loan Processing - High Value Loan71%

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Loan Processing - Threshold Upper Boundary71%

Main

E2E - Main Process - Straight Through100%

E2E - Main Process - Variation 08100%

E2E - Main Process - Variation 07100%

E2E - Main Process - Variation 06100%

E2E - Main Process - Variation 05100%

E2E - Main Process - Variation 04100%

E2E - Main Process - Variation 03100%

E2E - Main Process - Variation 02100%

E2E - Main Process - Variation 01100%

E2E - Main Process - Variation 09100%

E2E - Main Process - Variation 10100%

Test ResultsActivity Coverage

100%100% of the activities from your workflow have been covered during test execution

Show Coverage

VariableArgumentsImports

77-79%

Find ReferencesBreakpoints

Thomas StockerAdd To Source ControlVB

29



Testing the fully automated enterprise™

! 计划、执行和分析测试

- Tenant
- My Folders
 - Search
 - Default
 - FolderFeed
 - Shared
 - Testing

Search

Columns

Project: All

Add test set

0 rows selected

☐	Test Case	Project	App Version	Created	Last Modified	
☐	No approval required	Order.Process_Tests	1.0	2 months ago		
☐	Order Approved	Order.Process_Tests	1.0	2 months ago		
☐	Order Rejected	Order.Process_Tests	1.0	2 months ago		
☐	Test ApproveOrder	Order.Process_Tests	1.0	2 months ago		
☐	Test CreateOrderInERP	Order.Process_Tests	1.0	2 months ago		
☐	Test EnterSalesDataIntoCRM	Order.Process_Tests	1.0	2 months ago		
☐	Test FileOrder	Order.Process_Tests	1.0	2 months ago		
☐	Test RejectOrder	Order.Process_Tests	1.0	2 months ago		
☐	Test UpdateCustomerData	Order.Process_Tests	1.0	2 months ago		
☐	Apply for Loan	UiBank	1.0	6 months ago	25 days ago	



收集代码覆盖率

Test Sets

Test Cases

Test Executions

Test Schedules

Test Data Queues

Search

Columns

Result: All

Started: Last day

Source: All

Test Run	Result	Coverage	Workflow	Robot	Machine	Started
----------	--------	----------	----------	-------	---------	---------

TEST RUN	RESULT	COVERAGE	WORKFLOW	ROBOT	MACHINE	STARTED
----------	--------	----------	----------	-------	---------	---------

WORKFLOW		95%				
Loan granted long period	Passed	95%	WORKFLOW	Toms Desktop Robot	LAPTOP-2FLMRHN0	15 hours ago
Loan granted low income	Passed	95%	WORKFLOW	Toms Desktop Robot	LAPTOP-2FLMRHN0	15 hours ago
Loan granted old applicant	Passed	95%	WORKFLOW	Toms Desktop Robot	LAPTOP-2FLMRHN0	15 hours ago
ANOTHER WORKFLOW		95%				
Loan rejected short period	Passed	95%	ANOTHER WORKFLOW	Toms Desktop Robot	LAPTOP-2FLMRHN0	15 hours ago
Loan rejected too old	Passed	95%	ANOTHER WORKFLOW	Toms Desktop Robot	LAPTOP-2FLMRHN0	15 hours ago
Loan rejected too young	Failed	95%	ANOTHER WORKFLOW	Toms Desktop Robot	LAPTOP-2FLMRHN0	15 hours ago

测试报告功能

演示测试的日志记录功能、工具的报告功能以及测试成功/失败时的通知功能。

Test Manager Dashboards



测试管理器包含仪表板报告，提供测试结果的每日和每周细分，包括通过/失败比率、测试执行列表和 KPI，例如总覆盖率或开放缺陷。

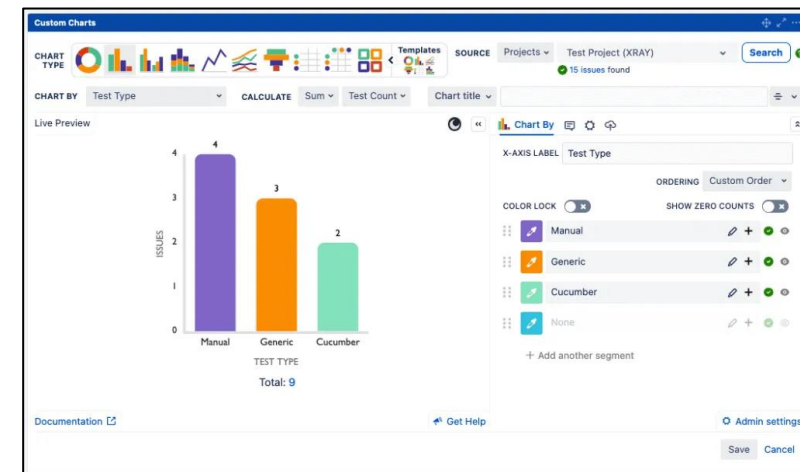
3rd Party Analytics Tools

The screenshot shows the Power BI TM Overview Dashboard. It contains a table with columns: Key, Name, DataVariation, ReportingDate, Duration, Version, Result, and Details. The table lists multiple test cases with their respective dates, durations, and results.

Key	Name	DataVariation	ReportingDate	Duration	Version	Result	Details
ABC:12	GW SAP TC1 05052020		Tuesday, January 12, 2021	0:00:37	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Monday, February 1, 2021	0:01:10	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Tuesday, January 26, 2021	0:00:37	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Sunday, January 24, 2021	0:00:37	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Thursday, January 21, 2021	0:00:38	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Saturday, January 23, 2021	0:00:37	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Monday, January 18, 2021	0:00:36	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Sunday, January 17, 2021	0:00:39	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Saturday, January 9, 2021	0:00:35	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Thursday, January 14, 2021	0:00:38	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Sunday, January 10, 2021	0:00:37	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Friday, January 29, 2021	0:00:37	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Friday, January 29, 2021	0:00:37	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Saturday, January 16, 2021	0:00:38	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Saturday, January 30, 2021	0:00:36	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Friday, January 8, 2021	0:00:37	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Monday, February 1, 2021	0:00:39	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Monday, January 25, 2021	0:00:37	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Monday, February 1, 2021	0:00:38	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Wednesday, January 20, 2021	0:00:37	2.9.0	Failed	
ABC:12	GW SAP TC1 05052020		Friday, January 15, 2021	0:00:38	2.9.0	Failed	

您可以使用本机 SQL 连接或 ODBC 连接，以便使用您选择的报告/分析工具创建自定义报告和其他仪表板。UiPath在其市场上提供仪表板模板（例如 PowerBI）。

ALM Reporting



您可以使用本机集成或测试管理器 SDK 将测试管理器与第三方 ALM 工具集成，以便在业务流程协调程序和第三方 ALM 之间同步测试结果。同步后，可以利用现有的 ALM 报告。

UiPath Test Summit

Application Testing
Demos



https://uipath.uibank.com



网页 自动化

Loan Application

Hi! Enter some details below to get started!

Email

Email Address of requester

john@doe.com

Loan Amount Requested

Enter loan amount you are looking for, no need to put commas either

Loan Term

Current Yearly Income (Before Taxes)

How much do you make before taxes a year?

Age

How many years old are you?



Submit Loan Application



Change View "Plants": Details

New Entries

Copy As...



SAP 自动化

Plant:

Name



Name 1

John Doe

Name 2:

Detailed information

Language Key:

EN

English

Street and House No.:

PO Box:

Postal Code:

City



City

Las Vegas

Country Key:

IE

Ireland

Region:

County code:

City code:

Tax Jurisdiction:

Factory Calendar:

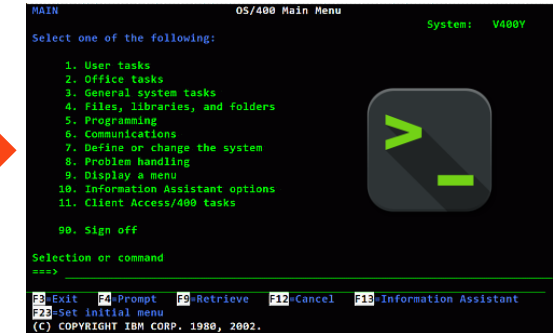
IE

Ireland



Demo:基于角色的端到端测试自动化

Salesforce Web, SAP Fiori Web, SAP GUI Windows & AS400 Terminal



Create Opportunity

Create Sales Order

Create Delivery & Billing Doc

Create Data file

Click to Play: Demo - End-to-End OTC Automation

- 1. Salesforce 2. SAP Fiori 3. SAP GUI 4.

Mainframe - 8 min.mp4



Search devices



Samsung Galaxy S9 Plus WQHD GoogleAPI Emulator | THE APP (from Azure, Appium Demo Application) ×

Devices

Applications

Samsung Galaxy S9 Plus WQHD GoogleAPI Emulator

Device name: Samsung Galaxy S9 WQHD GoogleAPI Emulator

OS: Android

OS Version: 9.0

USB Real Android 5.1 Device

Device name: TA1040BEAR

OS: Android

OS Version: 5.1

Local Emulator Pixel 2 Android Device

Device name: Nexus_5X_API_29_x86

OS: Android

OS Version:

Cloud Samsung Galaxy S9 HD GoogleAPI Emulator

Device name: Samsung Galaxy S9 HD GoogleAPI Emulator

OS: Android

OS Version: 8.1

Cloud Samsung Galaxy S9 Plus WQHD GoogleAPI Em...

Device name: Samsung Galaxy S9 Plus WQHD GoogleAPI Emulator

OS: Android

OS Version: 8.1

Cloud iOS iPhone 11 Simulator with iOS 13.0

Device name: iPhone 11 Simulator

OS: iOS

OS Version: 13.0

Cloud iPhone 8 Simulator with iOS 13.0

Device name: iPhone 8 Simulator

OS: iOS

OS Version: 13.0

Huawei Mate 20 lite Cloud Real Device

Device name: Huawei_Mate_20_lite_real

OS: Android

OS Version:

Android GoogleAPI Emulator

Device name: Android GoogleAPI Emulator

OS: Android

OS Version: 10.0

**Emulator Pixel 2 Android Device (emulator-5554)**

Device name: emulator-5554

OS: Android

9:13

The App

Choose An Awesome View

Echo Box

Write something and save to local memory

Login Screen

A fake login screen for

Clipboard Demo

Mess around with the clipboard

Webview Demo

Explore the possibilities of hybrid apps

Dual Webview Demo

Automate apps with multiple webviews

List Demo

Scroll through a list of stuff

Photo Demo

Some photos with no distinguishing IDs

Geolocation Demo

Use the camera and the photo library

Picker Demo

Use some picker wheels for fun and profit

Verify Phone Number

A fake SMS auto-verification screen

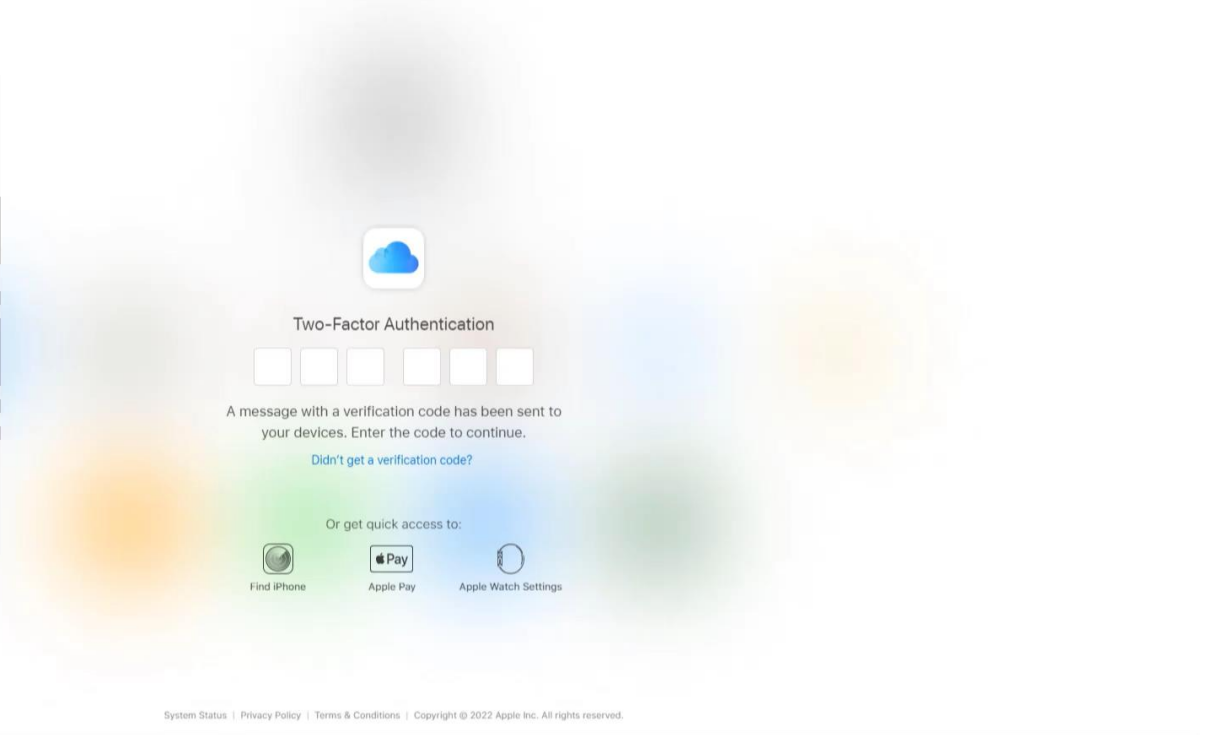
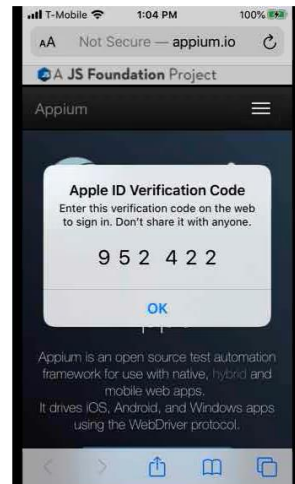
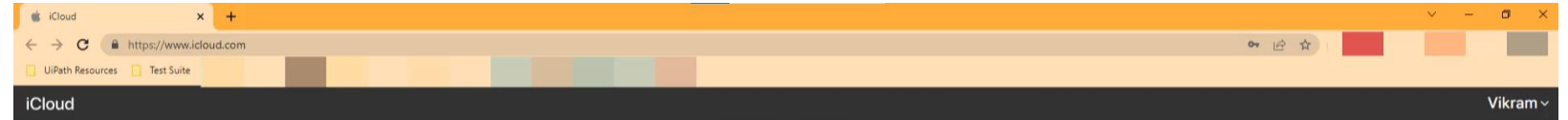
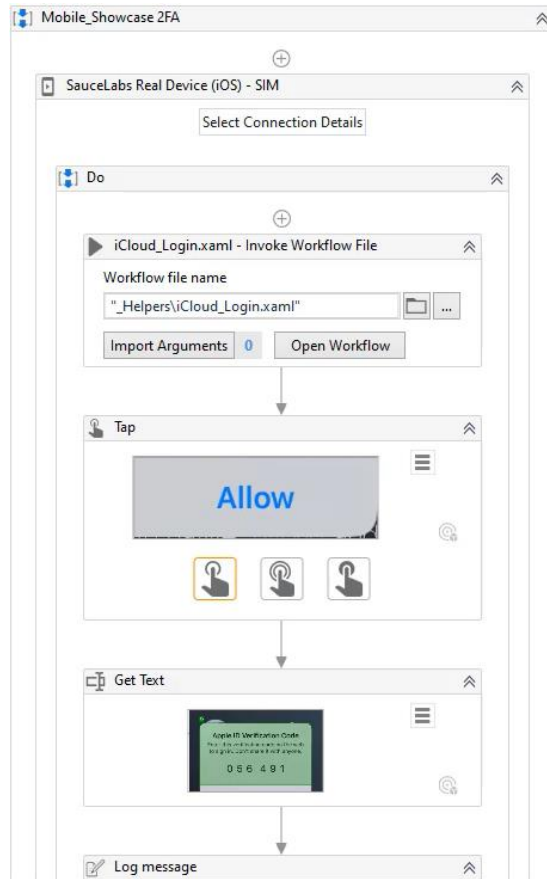
**移动自动化**

RECORDED ACTIONS

Login**OK**

Demo: Two-Factor 认证

Web-Mobile Automation



Click to Play: Test Suite - Mobile Automation -
2FA-TFA-Two-Factor - MFA-Multi-Factor
Authentication – 4 min



https://uipath.uibank.com



使用计算机视觉和 AI/ML 模型

Loan Application

Hi! Enter some details below to get started!

Email

Email Address of requester

john@doe.com

Loan Amount Requested

Enter loan amount you are looking for, no need to put commas either

Loan Term

Current Yearly Income (Before Taxes)

How much do you make before taxes a year?

Age

How many years old are you?



Submit Loan Application

Demo: AI Computer Vision

游戏图形模拟自动化

Activities

Search activities (Ctrl+Alt+F)

Computer Vision

- CV Check
- CV Click**
- CV Dropdown Select
- CV Element Exists
- CV Extract Table
- CV Get Text**
- CV Highlight
- CV Hover**
- CV Refresh
- CV Screen Scope
- CV Type Into

Project Activities Snippets

CVScope

1 of 2 screens indicated

Screen name: Screen CV Click - 'Full Sc

UiPathScreenOCR

CV Click - Button

Selected Screen: Screen CV Hover - 'Game #1

CV Hover - Text

Selected Screen: Screen CV Hover - 'Game #1

CV Get Text - Any Text

Selected Screen: Screen CV Click - 'Full Screenshot

Method: OCR

Result: Easy

Image Activities - Image Comparison

by Internal Labs

Compare Two Image Files Pixel By Pixel

Path to First Image File
Text must be quoted.

Path to Second Image File
Text must be quoted.

Is a Match
The output of the comparison.

Compare Two Image Files Using Threshold

Path to First Image File
Text must be quoted.

Path to Second Image File
Text must be quoted.

Error Metric
MeanSquared

Threshold
A double value is required.

Distortion
The distortion computed by the algorithm.

Is a Match
The output of the comparison.

Get Pixels from Image

by Internal Labs

Returns an array of System.Drawing.Color objects corresponding to pixels from an Image object.

Google Vision

by UiPath

Annotate Image

Text Detection

Label Detection

Image Detection

Face Detection

Web Detection

Safe Search

Handwriting Detection

Microsoft Vision

by UiPath

Microsoft

Vision

- Analyze Image
- Detect Faces
- Generate Description
- Generate Tags
- Get Color
- Get Thumbnail
- Microsoft Vision Scope
- Read Text
- Safe Search

[Click to Play: Solitaire Game](#)
[FreeCell Test Case – 3 min](#)

为何 您要关心?



共享和重用自动化组件和对象



完美契合您现有的 DevOps 工具链



自动化几乎任何 UI、API 或定制化的应用程序



领先的 RPA 和 AI 创新



生产级自动化和编排



充满活力的社区和市场



您也在好公司之列...

UiPath Reboot™
Work.



加入我们不断壮大的Test suite客户社区

谢谢

