

Synthetic Monitoring: The Path to True Observability

Connecting infrastructure and user experience



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Checkmk



Full-stack observability

Infrastructure

Application

Synthetic



Best in class user experience



Faster troubleshooting with embedded AI



Advanced data analytics & visualization



A faster, more scalable platform

\$14,056

2024

x 2,5

\$5,600

\$14,056

2014

2024

The "Monitoring Gap"

OK	CPU load	☰	📁
OK	CPU utilization	☰	📁
OK	Disk IO SUMMARY	☰	📁
OK	Interface tun0	☰	📁
OK	Interface wlo1	☰	📁
OK	Kernel Performance	☰	📁
OK	Memory	☰	📁
OK	Systemd Socket Summary	☰	
OK	Systemd Service Summary	☰	
OK	Uptime	☰	📁
OK	Number of threads	☰	📁
OK	TCP Connections	☰	📁
OK	Apache [::1]:80 Status	☰	📁
OK	Systemd Service apache2	☰	
OK	HTTPS Homepage	☰	📁
OK	CERT Homepage	☰	

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OK	CERT Homepage	☰	

The screenshot shows the nopCommerce website interface. A prominent error message is displayed in the center: **Warning: mysqli_query(): (42000/1064): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near " at line 1**. The website header includes navigation links for Computers, Electronics, Apparel, Digital downloads, and Books. The main content area shows a category list for Computers, including Desktops, Notebooks, Software, Electronics, and Apparel.

The screenshot displays a mobile application interface for "Cell phones". It features a search bar, a "Sort by" dropdown menu set to "Position", and a "Display" dropdown menu set to "6" per page. Below the search and filter options, there are three placeholder images for cell phones. The bottom of the screen shows the names of the phones: "Apple iPhone 16 128GB", "HTC One Mini Blue", and "HTC smartphone".

The screenshot shows a mobile application interface with several product categories. The categories listed are "Wheels", "Interior", "Comfort", and "Technology". Under "Wheels", there are two items: "19" Sport Wheels" (Alloy wheels in sport design) and "20" Premium Wheels" (Exclusive 20-inch wheels in pr). Under "Interior", there is one item: "Leather Interior" (High-quality full leather interior f). Under "Comfort", there is one item: "Panoramic Sunroof" (Electric panoramic sunroof for an o). Under "Technology", there are no items listed.

Checkmk synthetic monitoring

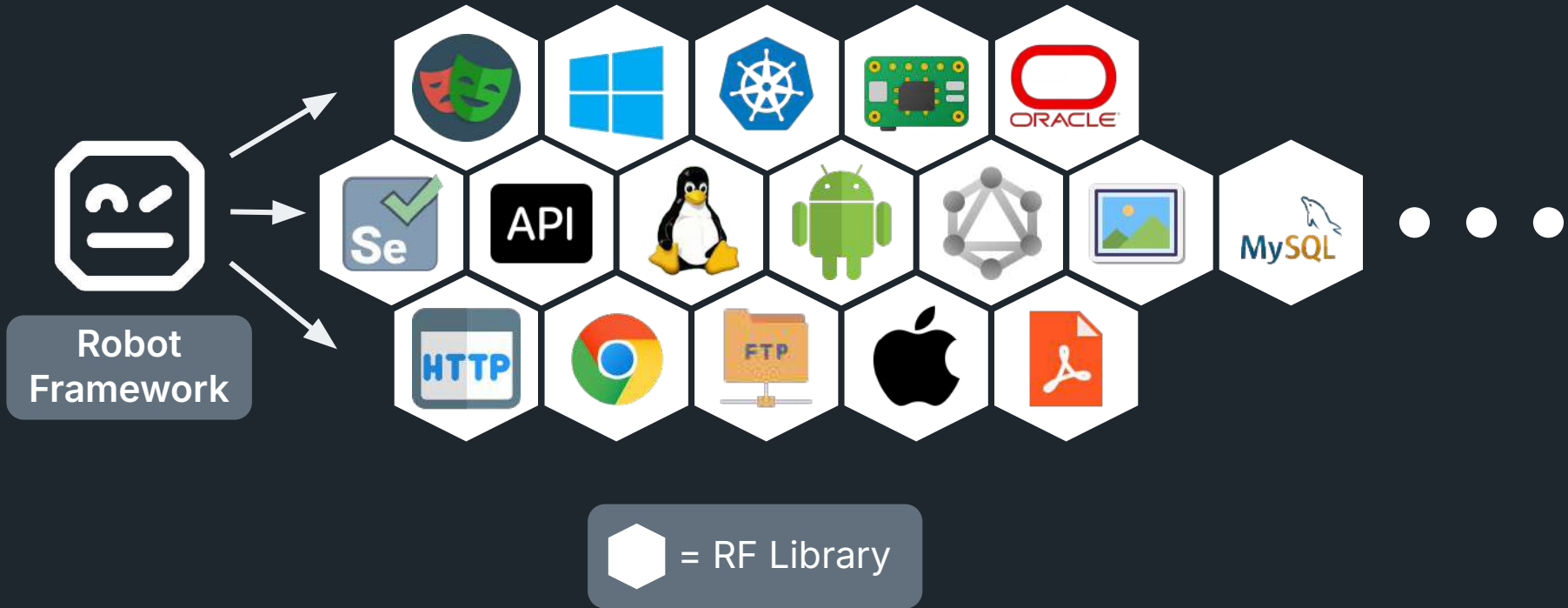


- Uses **Robot Framework** to simulate user actions on applications
- Transfers test results to Checkmk
- Discovers Test Cases as **Services** (Checks)

⇒ Extends the monitoring stack with the **user perspective**



One framework - all technologies





Who in this room has
already worked with
Robot Framework?

Robot framework MCP server



What

- ✓ MCP server that exposes Robot Framework to AI agents
- ✓ AI agents can read/write/execute tests through natural language

How

- ✓ You describe the intent, the Agent implements
- ✓ Every executed step gets validated ⇒ stable tests

Added Value

- ✓ Faster results
- ✓ Great learning source (broadens your horizon)
- ✓ Helps with Implementation / Refactoring / Debugging

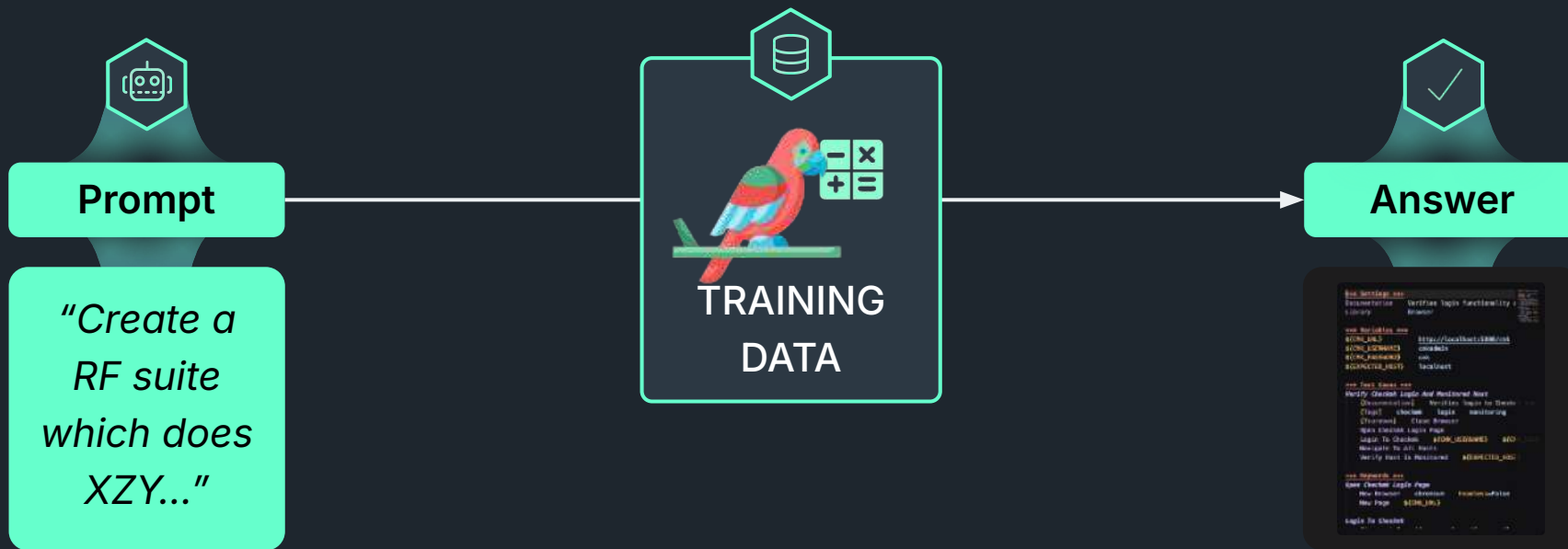


Link to video: [here!](#)

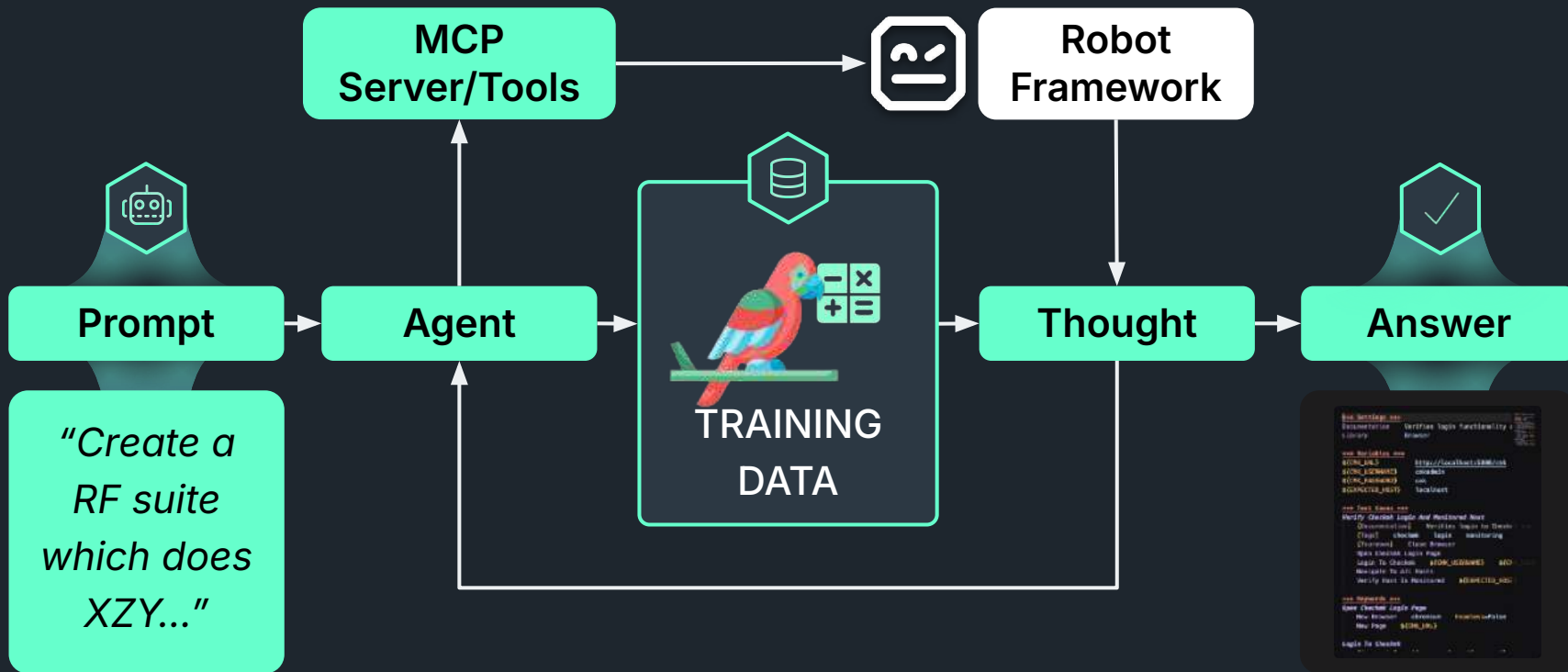
Chatbot (non-Agentic) approach



Chatbot (non-Agentic) approach



Chatbot (non-Agentic) approach



Synthetic Monitoring @REGA



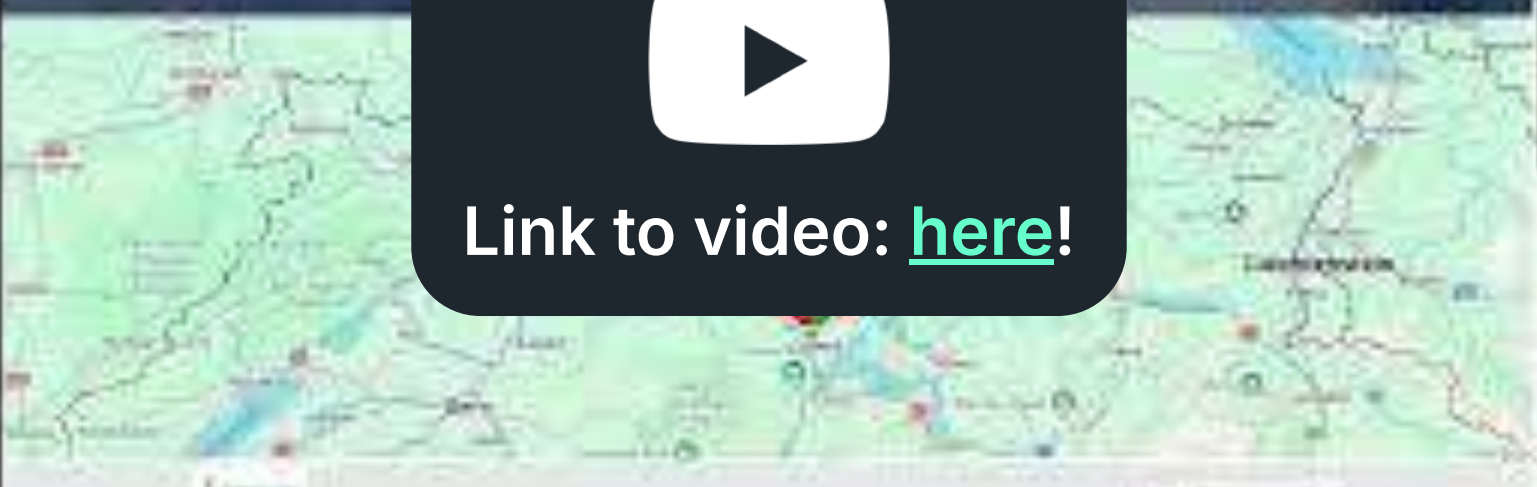
- 14 helicopter bases
- 21 helicopters
- 3 ambulance jets

20,000+

Missions per year **24/7**



Search [input type="text" value=""] [input type="button" value="GO"] [input type="button" value="Reset"] [input type="button" value="Advanced"]



Link to video: [here!](#)

Summary



Try it out in the **Robotmk Lab**

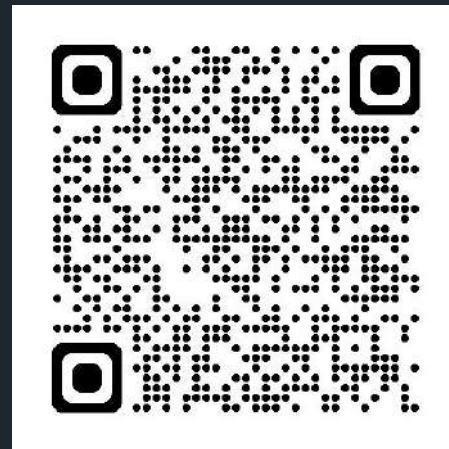


Read the Robotmk **Blog Article**:

<https://www.robotmk.org/en/blog/rf-mcp-starter/>



Get the new training “AI-Assisted Web Testing with Robot Framework”



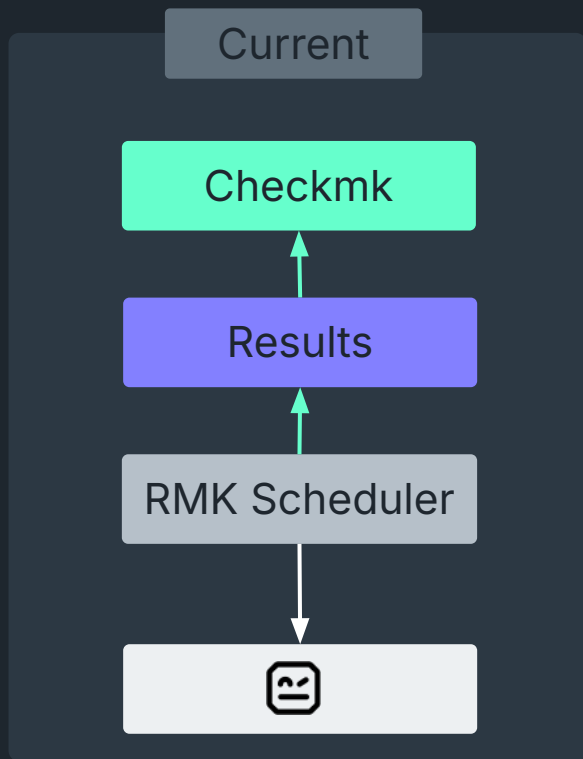
Robotmk Bridge

Full Stack Observability

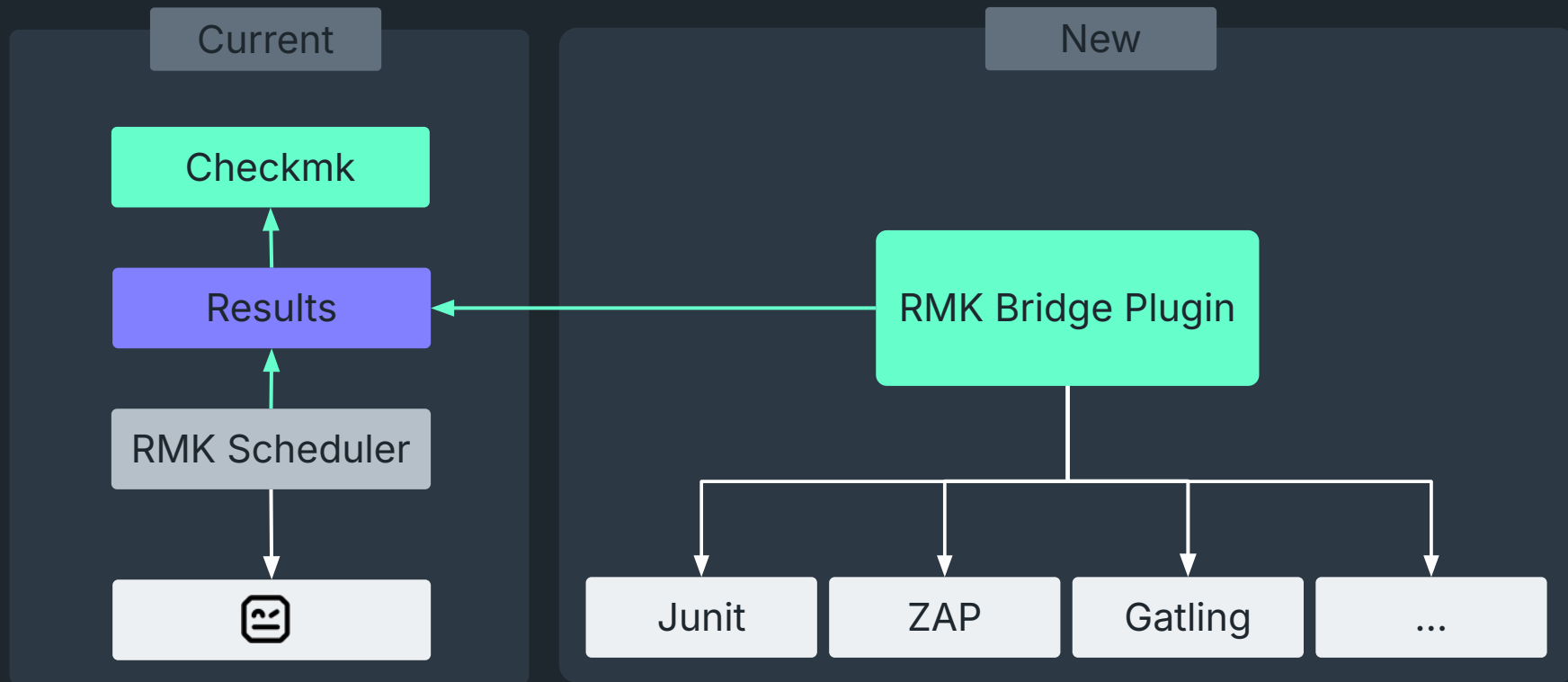
Across your testing landscape



Robotmk Bridge



Robotmk Bridge



Robotmk Bridge

Agent Bakery rule



Plans **i**

⌵ ✕ Plan name **i**

MyJUnit

Result Handler **i**

JUnit ▾

Application **i**

AppJUnit

Source **i**

Single file ▾ **i**

/workspaces/robotmk-bridge-

Robotmk Bridge

Agent Bakery rule



Plans **i**

Plan name **i**

MyJUnit

Result Handler **i**

JUnit ▾

Application **i**

AppJUnit

Source **i**

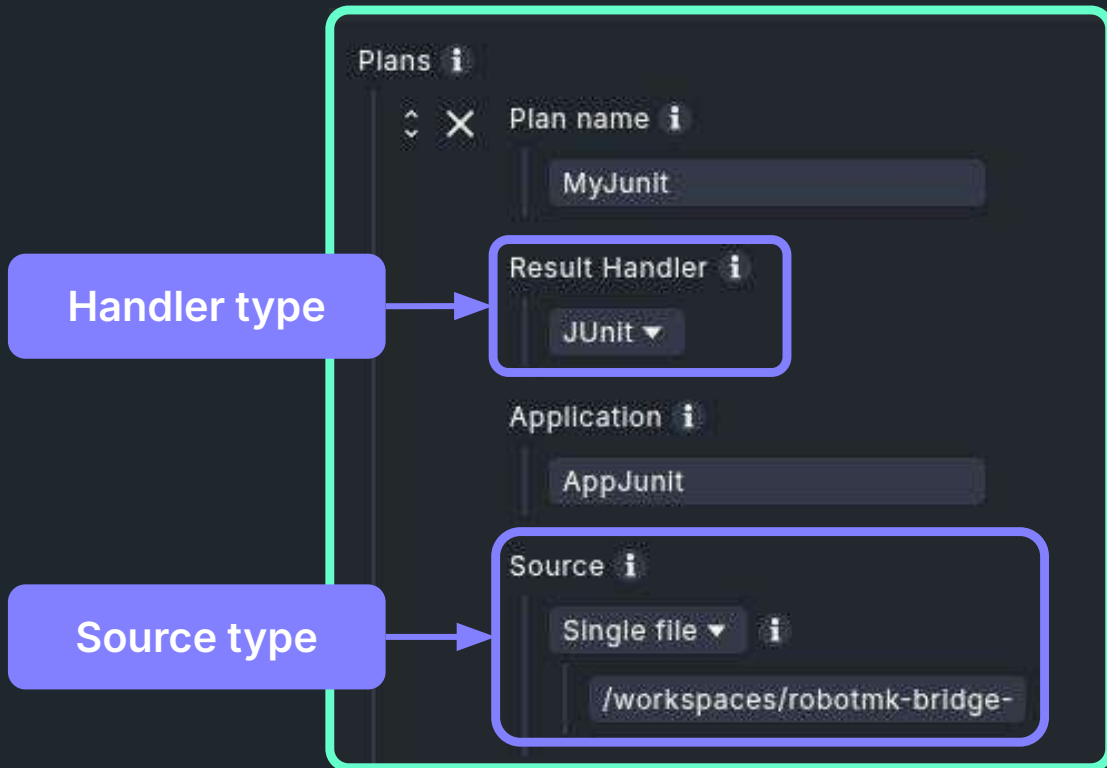
Single file ▾ **i**

/workspaces/robotmk-bridge-

Source type

Robotmk Bridge

Agent Bakery rule



Robotmk Bridge

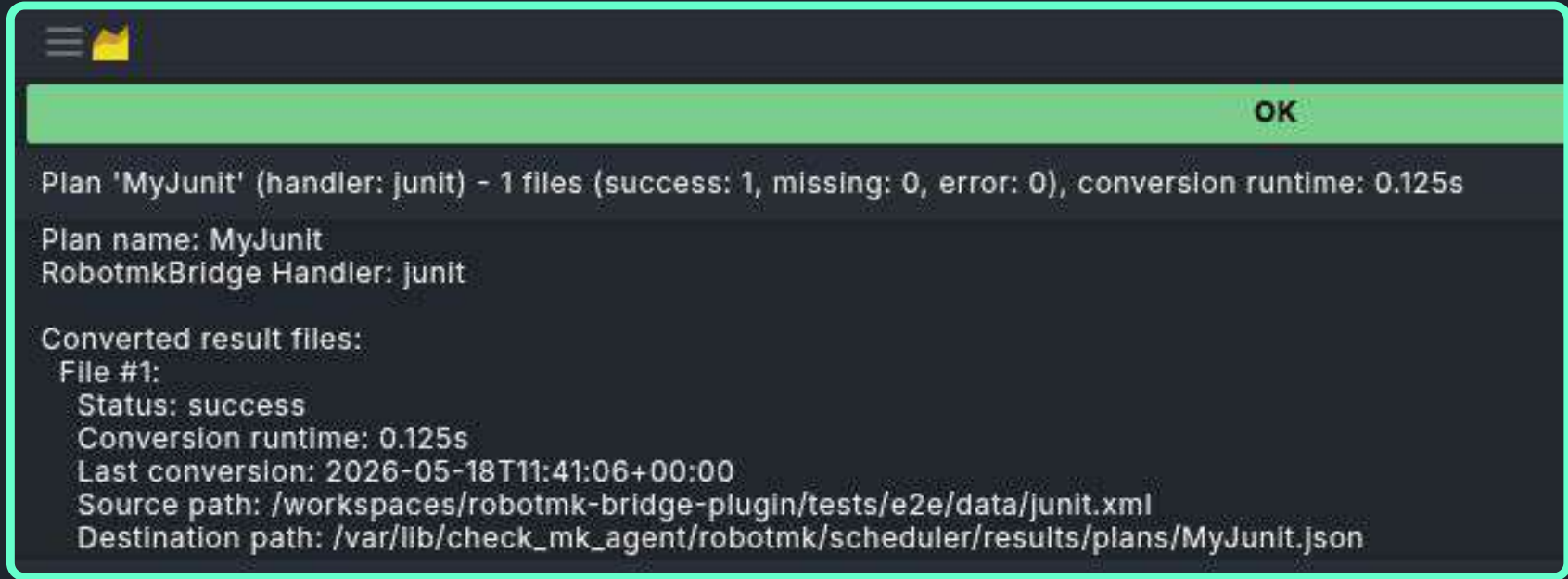
Discovered services

OK	RMK MyJUnit Plan	 
OK	RMK MyJUnit Test: /RobotmkBridgeTests: test_example_1	  
OK	RMK MyJUnit Test: /RobotmkBridgeTests: test_example_2	  
OK	RMK MyJUnit Test: /RobotmkBridgeTests: test_example_3	  
OK	RMK MyJUnit Test: /RobotmkBridgeTests: test_example_4	  
OK	RMK MyJUnit Test: /RobotmkBridgeTests: test_example_5	  

JUnit Test Results!

Robotmk Bridge

Bridge monitoring services

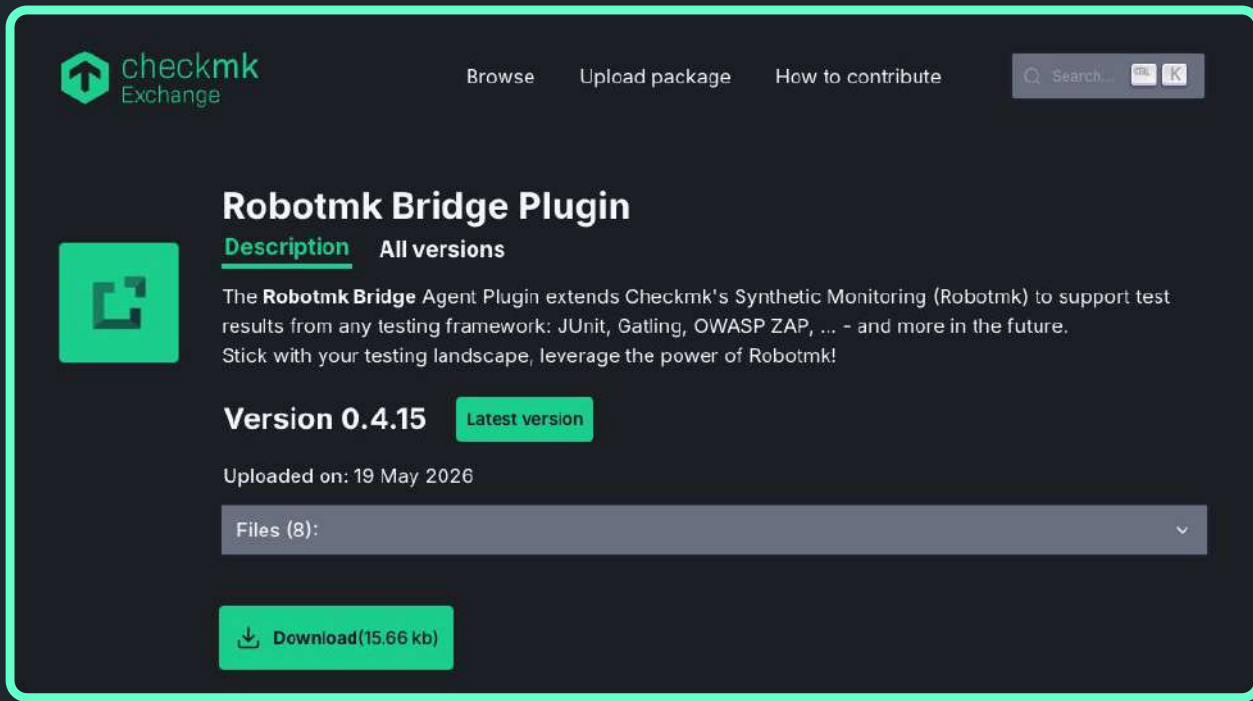


```
Plan 'MyJUnit' (handler: junit) - 1 files (success: 1, missing: 0, error: 0), conversion runtime: 0.125s
Plan name: MyJUnit
RobotmkBridge Handler: junit

Converted result files:
File #1:
  Status: success
  Conversion runtime: 0.125s
  Last conversion: 2026-05-18T11:41:06+00:00
  Source path: /workspaces/robotmk-bridge-plugin/tests/e2e/data/junit.xml
  Destination path: /var/lib/check_mk_agent/robotmk/scheduler/results/plans/MyJUnit.json
```

Robotmk Bridge

Available on Checkmk Exchange



The screenshot shows the Checkmk Exchange interface for the Robotmk Bridge Plugin. At the top left is the Checkmk Exchange logo. Navigation links include 'Browse', 'Upload package', and 'How to contribute'. A search bar is located at the top right. The main heading is 'Robotmk Bridge Plugin'. Below it are tabs for 'Description' (selected) and 'All versions'. A red square icon with a white robot head is shown. The description states: 'The **Robotmk Bridge** Agent Plugin extends Checkmk's Synthetic Monitoring (Robotmk) to support test results from any testing framework: JUnit, Gatling, OWASP ZAP, ... - and more in the future. Stick with your testing landscape, leverage the power of Robotmk!'. The current version is '0.4.15', marked as the 'Latest version'. It was uploaded on '19 May 2026'. A dropdown menu shows 'Files (8)'. A red 'Download (15.66 kb)' button is at the bottom.

The gap is closed.



2009

FOUNDATION

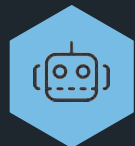
Checkmk - Infrastructure Monitoring



2020

USER PERSPECTIVE

Synthetic Monitoring / Robotmk



2025

AI-ASSISTED TEST CREATION

MCP Server for Robot Framework



2026

ANY TESTING TOOL

Robotmk Bridge

Checkmk #12

Conference