



# What's new in Synthetic Monitoring

May 21, 2025 - Live from Paulaner am Nockherberg, Munich



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# Checkmk Synthetic Monitoring in 2.3



**Develop  
the test**

**Run  
the test**

**Monitor  
the test**

# New in 2.4

**Develop the test**

**Run the test**

**Monitor the test**

**Managed Robots**

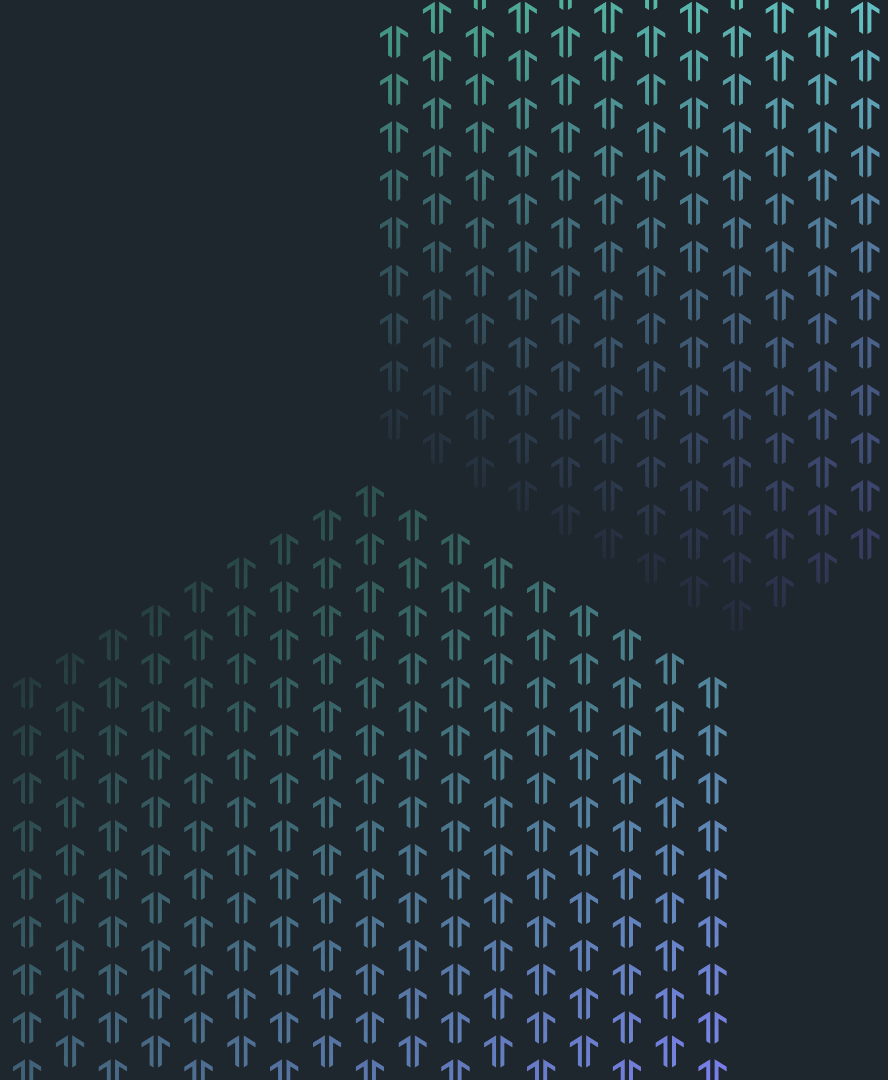
**KPI monitoring**

**Linux support**

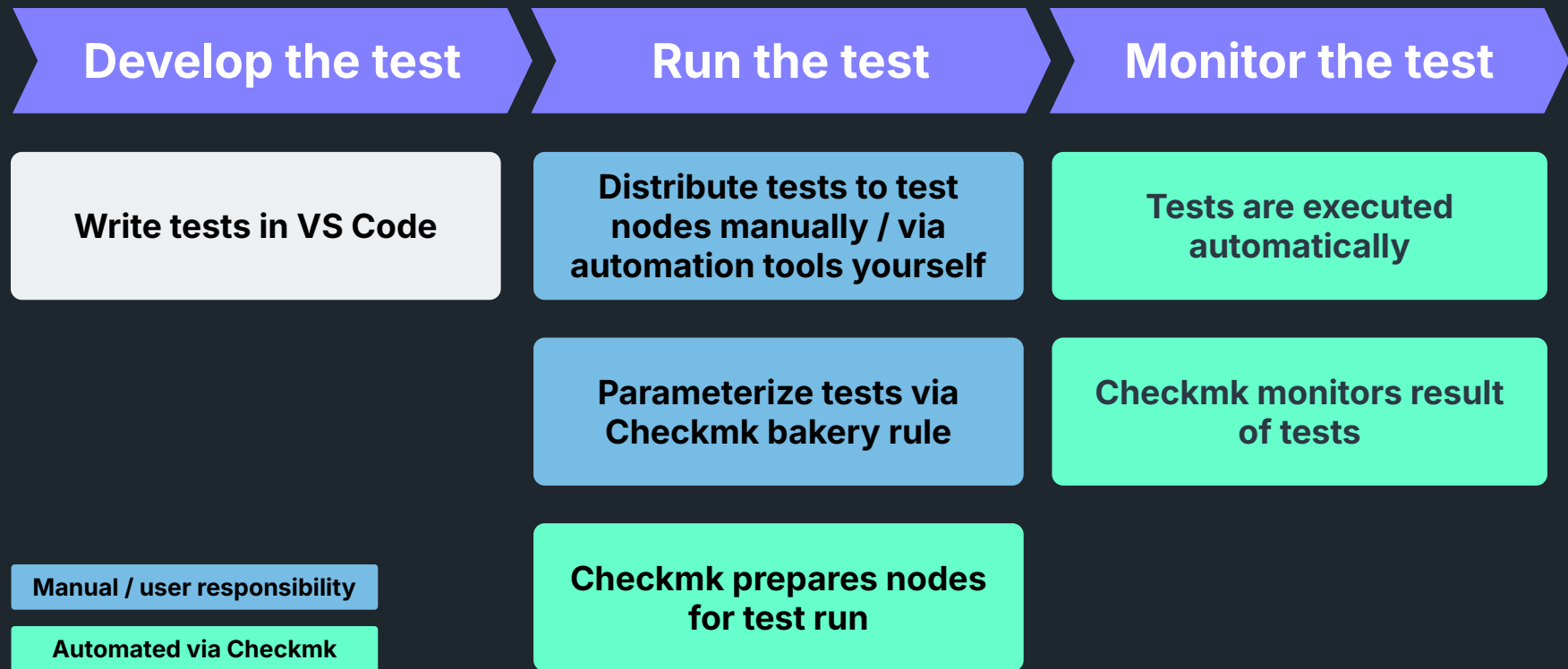
**Offline environments**

# Managed Robots

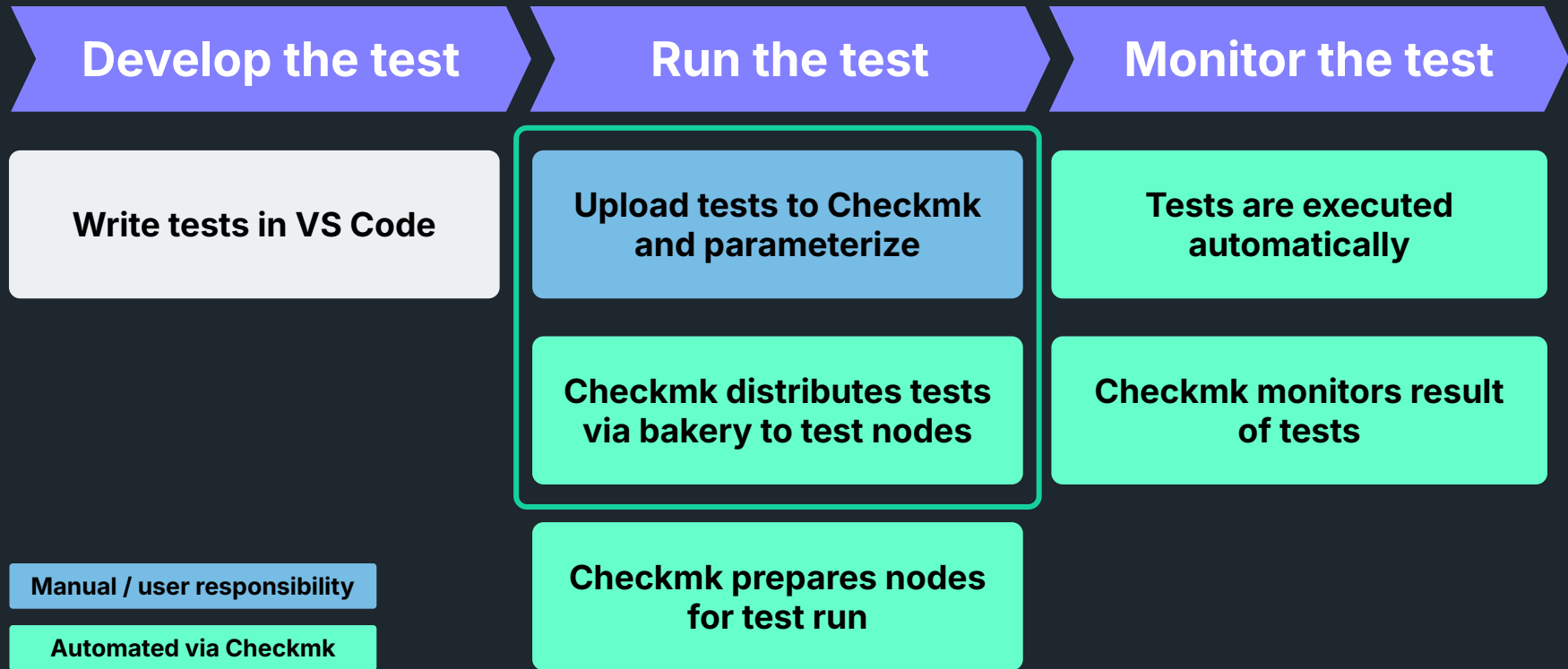
Automated Robot Deployment



# Synthetic monitoring workflow in 2.3





# The new workflow in 2.4





# Central robot management inside Checkmk



  
checkmk

  
Monitor


  
Customize


  
Setup


## Managed robots







Setup > Synthetic monitoring > Managed robots

Actions Rules Display Help ^

 Create robot

 Robotmk scheduler (Linux)

 Robotmk scheduler (Windows)

Actions	Name	Description	Version	Changed	Changed by	Uploaded
  	checkmk.com_de		2	2025-05-02 19:13:10	cmkadmin	2025-05-02
  	checkmk.com_en		1	2025-05-02 19:13:07	cmkadmin	2025-05-02

- Central place for storage of robots and configuration
  - Foundation for distributing robots via agents
  - Build templates for cloning specific robots
  - Overview over robots (in use)



checkmk



Monitor



Customize



Setup

# New managed robot

Setup > Synthetic monitoring > Managed robots > New managed robot

Actions

Display

Help



✓ Save

↑ Managed robots

## ▼ Properties

Name (required) .....

checkmk.com\_de

Description .....

Test the Checkmk website  
- Pricing visibility  
- Latest version downloadable



Version number .....

1

Version label .....

## ▼ Robot Package

Upload .....

Choose File

No file chosen

## ▼ Plan Settings





checkmk



Monitor



Customize



Setup

# New managed robot

Setup > Synthetic monitoring > Managed robots > New managed robot

Actions Display Help

Save

Managed robots

## Properties

Name (required) ..... checkmk.com\_de

Description ..... Test the Checkmk website  
- Pricing visibility  
- Latest version download

Version number ..... 1

Version label .....

## Robot Package

Upload ..... Choose File No file cho

## Plan Settings

Cancel

Open File



Select

Recent

Home

Desktop

Docume...

Downloads

Music

Pictures

Videos

+ Other Lo...

joergherbel code robots checkmk

Name ^


Size

Type

Modified

checkmk-robot.tar.gz	905 bytes	Archive	30 Sep 2024
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☐ Open files read-only

checkmk

Monitor

Customize

Setup

Help

User

Sidebar

## New managed robot

Setup > Synthetic monitoring > Managed robots > New managed robot

ActionsDisplayHelp

SaveManaged robots

Properties

Name (required)checkmk.com\_de

DescriptionTest the Checkmk website

- Pricing visibility
- Latest version downloadable

Version number1

Version label

Robot Package

Upload

Choose Filecheckmk-robot.tar.gz

Plan Settings

Plan configuration

Application name (required)

checkmk.com\_de

Variant

Relative path to test suite file or folder (required)websites/checkmk.robot


Execution configuration

Limit per attempt (required)

0 h1 min0 s

Robot Framework re-executions

No re-executions

checkmk

Monitor

Customize

Setup

Help

User

Sidebar

## New managed robot

Setup > Synthetic monitoring > Managed robots > New managed robot

ActionsDisplayHelp

SaveManaged robots

Automated environment setup (via RCC) ⓘ

Relative path to robot.yaml (required)websites/robot.yaml

Environment build timeout (required)10 min0 s

Environment dependency handlingDownload (internet connection)

Robot Framework parameters ⓘ

Top level suite name (--name) ⓘ

Select suites by name (--suite) ⓘ

Select tests by name (--test) ⓘ

Include tests by tag (--include) ⓘ

Exclude tests by tag (--exclude) ⓘ

Variables (--variable) ⓘ

Name (required)LANGUAGE

Value (required)DE

Add new entry

Variable files (--variablefile) ⓘ

Argument files (--argumentfile) ⓘ

Exit on failure (--exitonfailure)

10

## Robotmk scheduler (Windows)

Setup > Agents > Windows, Linux, Solaris, AIX > Agent rules > Robotmk scheduler (Windows)

Rules Related Display Help

Add rule Managed robots Agent rules

Matching: Each parameter is defined by the first matching rule where that parameter is set (checked).

There are no rules defined in this set.



Link to video: [here!](#)



# More supported platforms

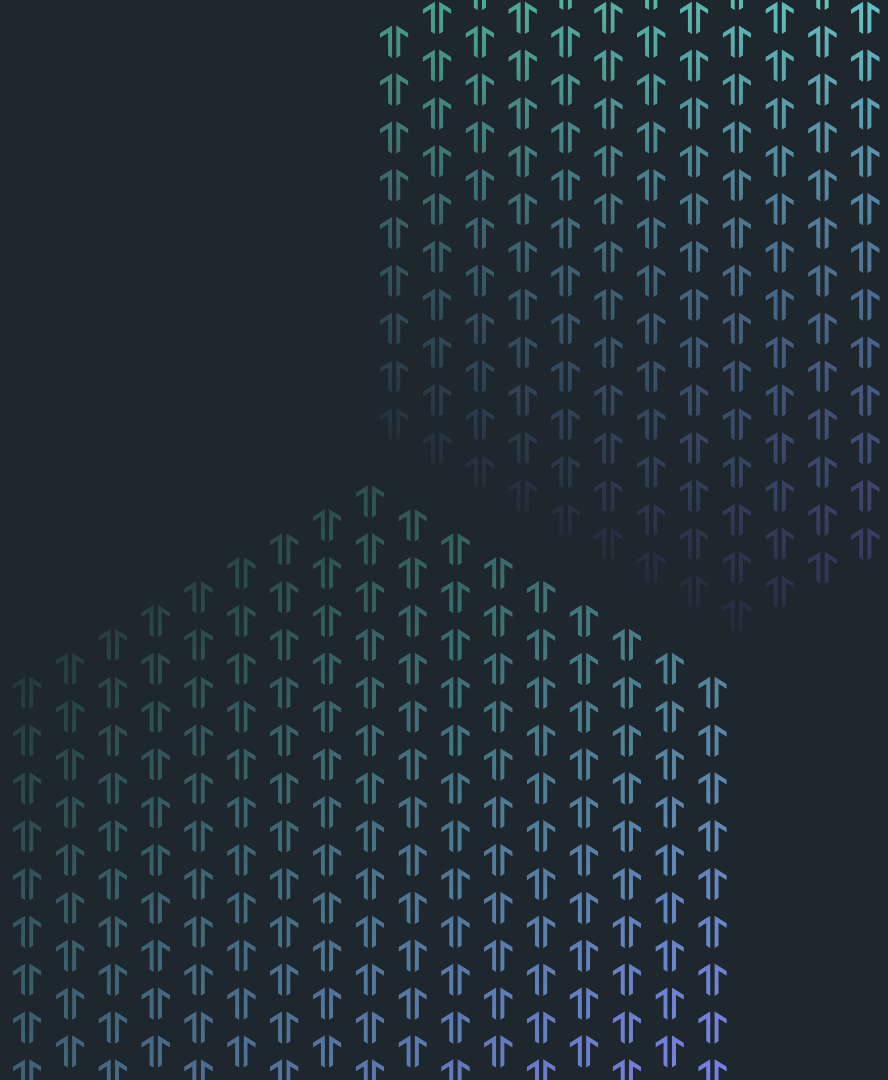


Windows



Linux

NEW



# Robotmk on Linux



Bakery rule very similar to Windows  
- No headed execution

Robotmk scheduler (Linux) ..... 1

Robotmk scheduler (Windows) ..... 0



Managed robots are supported



Scheduler daemonization via systemd

```
joergherbel@klapp-0060 ~$ systemctl status robotmk-scheduler-daemon.service
● robotmk-scheduler-daemon.service - Robotmk scheduler daemon
   Loaded: loaded (/lib/systemd/system/robotmk-scheduler-daemon.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2024-10-21 18:28:02 CEST; 1h 42min ago
     Docs: https://docs.checkmk.com/master/en/robotmk.html
    Main PID: 1255 (robotmk_scheduler)
      Tasks: 18 (limit: 38030)
    Memory: 266.4M
       CPU: 2min 51.125s
    CGroup: /system.slice/robotmk-scheduler-daemon.service
            └─1255 /usr/bin/robotmk_scheduler /etc/check_mk/robotmk.json -v
```

# Support for offline environments

Test execution on isolated nodes



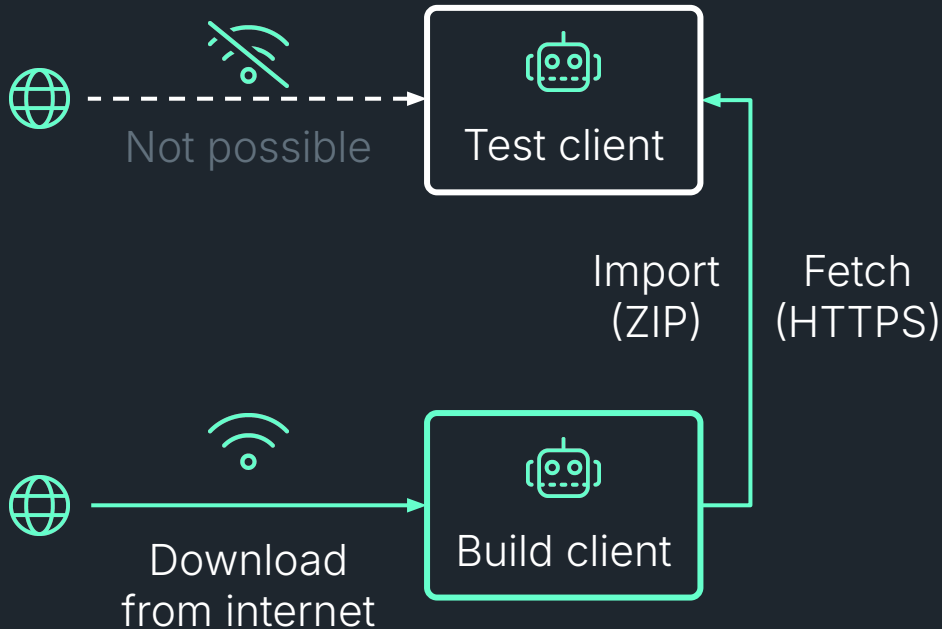
# Automatic build of test environments



## Standard mode

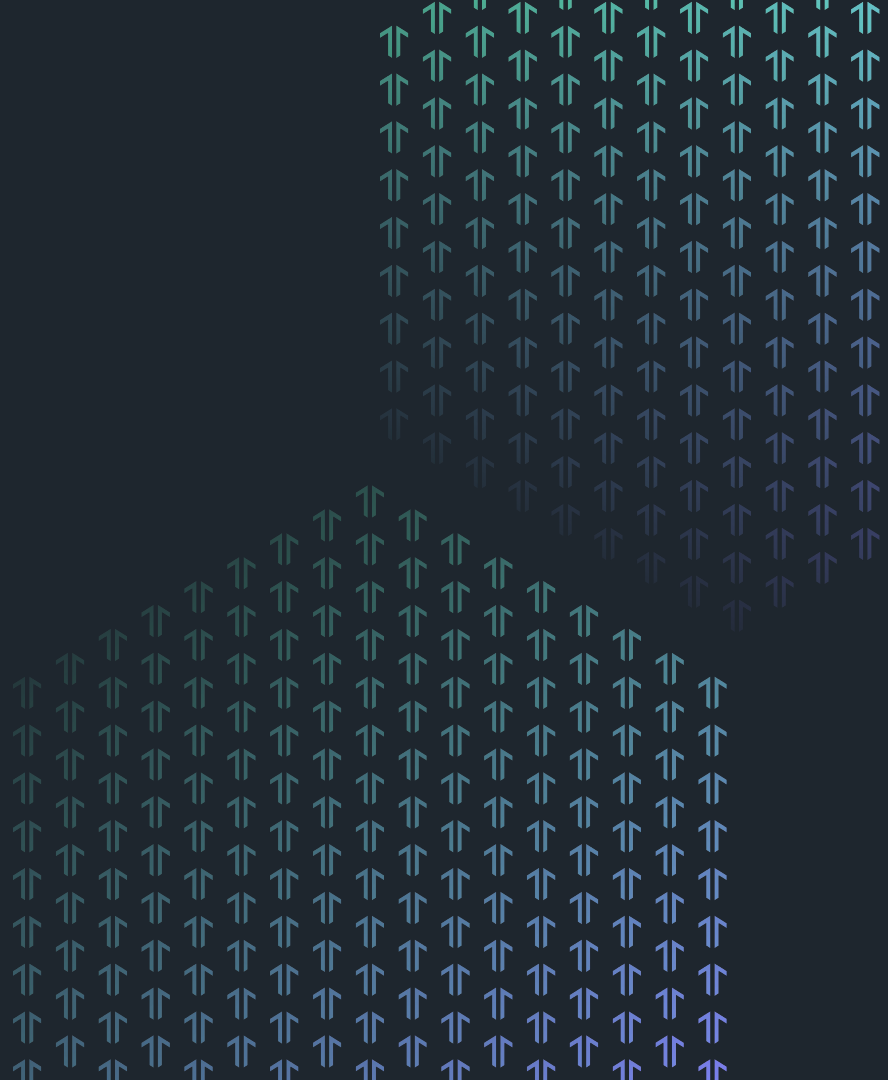


## New: Offline mode



# KPI Monitoring

(Tests are not enough)





# KPI monitoring



## Only tests can be monitored

Checkmk 2.3

### [-] TEST CRM 1

Full Name: Tests.CRM 1

Start / End / Elapsed: 20241025 11:13:00.750 / 20

Status: PASS

+ KEYWORD \${response} = Create New Customer

+ KEYWORD Test Response \${response}



OK RMK crm\_tests Test: CRM 1 PASS, Runtime: 1 second

## Monitor KPIs of your application

Checkmk 2.4

### Application (Test)

Checkmk service

"KPI" (Keyword)

"KPI" (Keyword)

Checkmk service

"KPI" (Keyword)

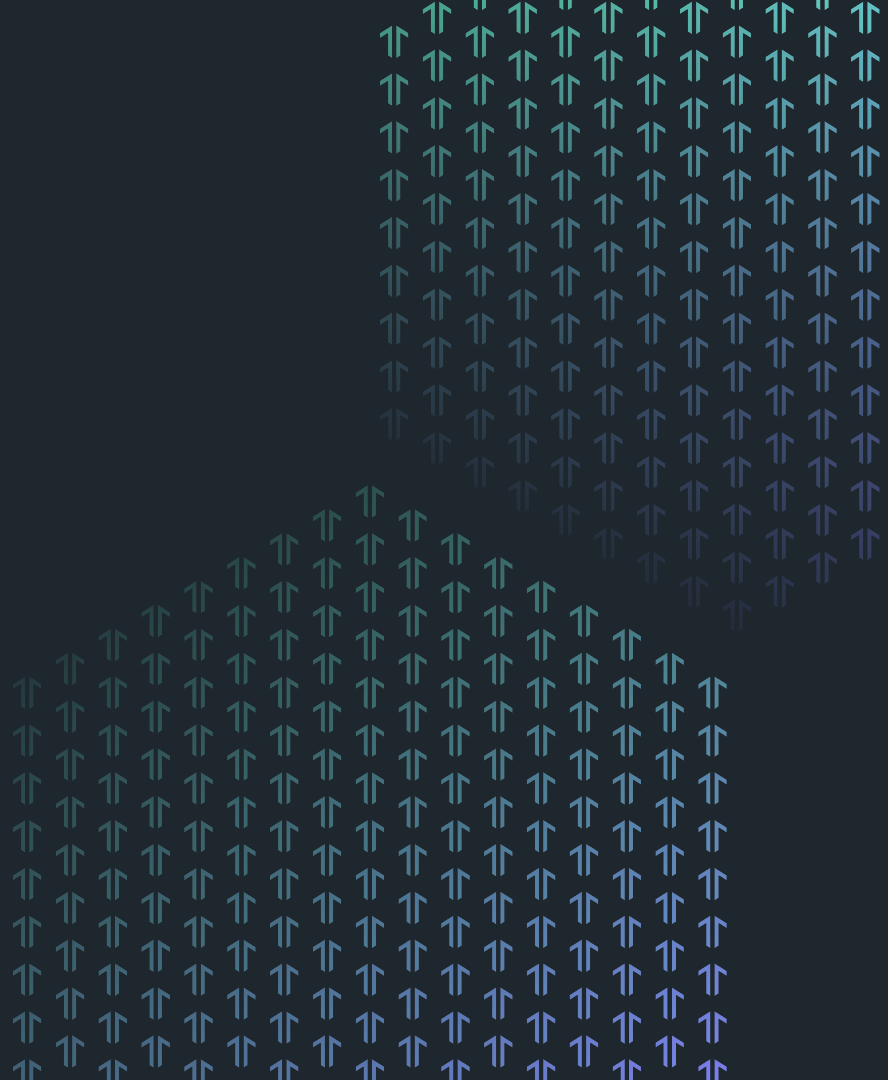


OK RMK crm\_tests Test: CRM 1 PASS, Runtime: 1 second

OK RMK crm\_tests Test: CRM 1 KPI (cmk): Create New Customer PASS, Runtime: 1 second, See service details for messages

# The new pricing model for Synthetic Monitoring

Flexible. Fair. Forward.



# How many tests do you need?

## Example: Testing the Checkmk web page



### Can I open the website?

The IT monitoring platform. Scalable. Automated. Extensible.

Gain a complete view of your entire IT infrastructure: from public cloud providers, to your data centers, across servers, networks, containers, and more. Checkmk enables ITops and DevOps teams to run your IT at peak performance.

[Explore Editions](#) [Get a free trial](#)

**Customers**

Adobe Cisco Fujitsu Siemens VW Texas Instruments Zalando Fitbit Intesa Sanpaolo HP

[See success stories ->](#)

### Can I see the costs?

**Checkmk Pricing**

Choose between three Editions aimed at monitoring any kind of cloud and IT infrastructure. Fine-tune your investment to your scale and support requirements. IT monitoring has never been more flexible.

[Free trial](#) [Request quote](#)

EUR USD

Raw	Enterprise	Cloud	MSP
Free and open source IT monitoring for mid-sized infrastructures.	Scalable and automated enterprise-wide IT monitoring.	State-of-the-art IT monitoring for cloud and hybrid infrastructures.	Monitor your customers' hybrid IT. Designed for IT service providers.
<b>Monitor your entire IT:</b> <ul style="list-style-type: none"><li>Auto-discover your IT</li><li>Identify out-of-the-box with 2500+ plug-ins</li><li>Auto-detect issues</li><li>Track Open Source</li></ul>	<b>Everything in Raw, plus:</b> <ul style="list-style-type: none"><li>Accelerate and scale up your monitoring</li><li>Automate monitoring operations</li><li>Monitor dynamic workloads</li><li>Visualize your IT</li></ul>	<b>Everything in Enterprise, plus:</b> <ul style="list-style-type: none"><li>Monitor cloud workloads</li><li>Deploy from cloud</li><li>Monitor cloud workloads</li><li>Auto-regular any load</li><li>Multi and multi-agent</li><li>Visualize your cloud</li></ul>	<b>Everything in Cloud, plus:</b> <ul style="list-style-type: none"><li>Multi-customer management &amp; dashboards</li><li>Data integration</li><li>Data loss protection, if customer connects to our</li><li>Write later technology</li></ul>
and more Support: Checkmk Community	and much more Support included	and much more Support included	and much more Support included
<b>Free</b> no license fee of charge	<b>€175</b> / month, billed annually	<b>€250</b> / month, billed annually	<b>€275</b> / month, billed annually

### Can I download the product?

**Downloading & Installing Checkmk**

You can run Checkmk on your own hardware or virtualized. We have packages available for all major Linux distributions, Docker and Virtual Appliance.

[Checkmk for Linux](#) [Checkmk for Docker](#) [Checkmk Appliance](#)

**1. Select edition**

Raw	Free / Trial	Enterprise	Cloud	MSP

**2. Choose platform**

TRIAL EDITION	PLATFORM	OS VERSION	COMPANY EMAIL
Cloud	Ubuntu	Ubuntu 24.04	<input type="text" value="Enter email address"/> <input type="checkbox"/> I want to monitor my home lab only <input type="checkbox"/> Subscribe me to receive monitoring tips & tricks and product updates from Checkmk <a href="#">Download &amp; Install</a> <small>By downloading, I accept the <a href="#">General Terms and Conditions</a>, the <a href="#">EULA</a>, the <a href="#">Privacy and Cookies Policy</a>, and agree to receive regular emails about getting started with Checkmk.</small>
MSP	Debian	Ubuntu 22.04	
	SLES	Ubuntu 20.04	
	Red Hat		

# How many tests do you need?

## Example: Testing the Checkmk web page



### A Application: checkmk.com

The screenshot shows the Checkmk homepage. The header includes navigation links: Product, Solutions, Pricing, Learn, Community, and Download. The main content area features the title 'The IT monitoring platform. Scalable. Automated. Extensible.' followed by a paragraph describing the platform's capabilities. A large image of the Checkmk dashboard is displayed. Below the text, there are two buttons: 'Explore Editions' and 'Get a free trial'. At the bottom, a 'Customers' section lists logos for Adobe, Cisco, Fujitsu, Siemens, Volkswagen, Texas Instruments, Zalando, and Fitbit.

The screenshot shows the 'Checkmk Pricing' page. It features a header with navigation links and a 'Download' button. The main content area is titled 'Checkmk Pricing' and includes a paragraph explaining the pricing model. Below this, there are two buttons: 'Free trial' and 'Request quote'. A currency selector shows 'EUR' and 'USD'. The pricing table is divided into four columns: Raw, Enterprise, Cloud, and MSP. Each column lists features and pricing details.

Raw	Enterprise	Cloud	MSP
Free and open source IT monitoring for real-time infrastructure.	Scalable and automated enterprise IT monitoring.	State-of-the-art IT monitoring for cloud and hybrid infrastructures.	Monitor your customer's hybrid IT, designed for IT service providers.
<b>Monitor your entire IT:</b> <ul style="list-style-type: none"><li>• Multi-protocol plug-in</li><li>• Monitor out-of-the-box with 2000+ plug-ins</li><li>• Auto-discovery agents</li><li>• 100% Open Source</li></ul>	<b>Everything in Raw, plus:</b> <ul style="list-style-type: none"><li>• Automate and scale up your monitoring</li><li>• Automated monitoring operations</li><li>• Monitor dynamic workloads</li><li>• Monitor your IT and much more</li></ul>	<b>Everything in Cloud, plus:</b> <ul style="list-style-type: none"><li>• Multi-cloud workloads</li><li>• Display from cloud intermediaries</li><li>• Auto-register any host</li><li>• Push and pull agents</li><li>• Monitor your cloud and much more</li></ul>	<b>Everything in Cloud, plus:</b> <ul style="list-style-type: none"><li>• Multi-customer management &amp; subaccounts</li><li>• Data segregation</li><li>• Data loss protection, if customer connections fail</li><li>• White-label branding</li></ul>
Support: Checkmk Community	Support included	Support included	Support included
Free <small>Source: free of charge</small>	€175 <small>1 host, billed annually</small>	€250 <small>1 host, billed annually</small>	€275 <small>1 host, billed annually</small>

The screenshot shows the 'Downloading & Installing Checkmk' page. It features a header with navigation links and a 'Contact Sales' button. The main content area is titled 'Downloading & Installing Checkmk' and includes a paragraph explaining the installation process. Below this, there are three buttons: 'Checkmk for Linux', 'Checkmk for Docker', and 'Checkmk Appliance'. A '1. Select edition' section shows a dropdown menu with options: Raw, Free / Trial, Enterprise, Cloud, and MSP. A '2. Choose platform' section shows a table with columns: Trial Edition, Platform, OS Version, and Company Data. The table contains information for the 'MSP ID' and 'OS Version'.

TRIAL EDITION	PLATFORM	OS VERSION	COMPANY DATA
MSP ID	Ubuntu	Ubuntu 22.04	Enter email address
	Ubuntu	Ubuntu 22.04	Subscribe me to receive monitoring tips & tricks and product updates from Checkmk
	Ubuntu	Ubuntu 22.04	Download & Install

# How many tests do you need?

Example: Testing the Checkmk web page

**One single** test for **entire** application





<div>-</div> <b>TEST</b> Verify all <span>00:00:02.910</span>
Full Name: Website.Verify all
Start / End / Elapsed: 20241002 22:36:16.752 / 20241002 22:36:19.662 / 00:00:02.910
Status: <b>PASS</b>
<div>+</div> <b>KEYWORD</b> Test website <span>00:00:00.455</span>
<div>+</div> <b>KEYWORD</b> Open Pricing <span>00:00:01.434</span>
<div>+</div> <b>KEYWORD</b> Download Checkmk <span>00:00:01.014</span>

A

# How many tests do you need?

Example: Testing the Checkmk web page

**One single** test for **entire** application

test-node_munich						
State	Service	Icons	Summary	Age	Checked	Perf-O-Meter
	<div><div>OK</div><div>RMK checkmk.overview_website Test: Verify all</div></div>	  	PASS, Runtime: 3 seconds	12 m	19.4 s	3.14 s

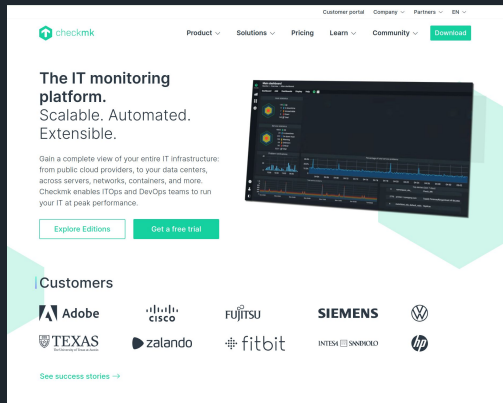
- One service to notify all steps
- Details are only visible in the Robot Framework log file

# How many tests do you need?

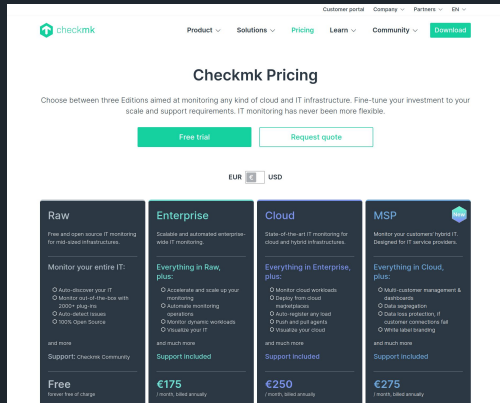
## Example: Testing the Checkmk web page



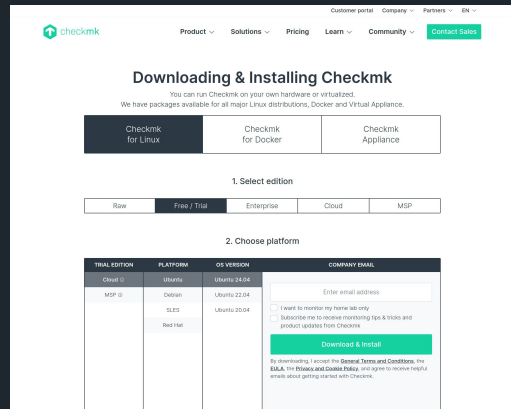
### 1 Can I open the website?



### 2 Can I see the costs?



### 3 Can I get the product?







# How many tests do you need?

Example: Testing the Checkmk web page

**One single** test for **entire** application

A


 <b>TEST</b> Verify all	00:00:02.910
Full Name:	Website.Verify all
Start / End / Elapsed:	20241002 22:36:16.752 / 20241002 22:36:19.662 / 00:00:02.910
Status:	<b>PASS</b>
 <b>KEYWORD</b> Test website	00:00:00.455
 <b>KEYWORD</b> Open Pricing	00:00:01.434
 <b>KEYWORD</b> Download Checkmk	00:00:01.014

**Multiple** tests for **individual aspects** of the application

1

2

3

 <b>TEST</b> Open Homepage	00:00:00.563
 <b>TEST</b> Open Pricing	00:00:01.735
 <b>TEST</b> Download software	00:00:01.090



# How many tests do you need?

Example: Testing the Checkmk web page

**One single test** for **entire** application

test-node_munich			
State	Service	Icons	Summary
<b>A</b> OK	RMK checkmk.overview_website Test: Verify all	☰ 📄 📄	PASS, Runtime: 3 seconds

- ⬡ **One service** to notify all steps
- ⬡ Steps are only visible in the report

**Multiple tests** for **individual aspects** of the application

test-node_munich				
	State	Service	Icons	Summary
1	OK	RMK checkmk.detail_website Test: Download software	☰ 📁 📄	PASS, Runtime: 1 second
2	OK	RMK checkmk.detail_website Test: Open Homepage	☰ 📁 📄	PASS, Runtime: 543 milliseconds
3	OK	RMK checkmk.detail_website Test: Open Pricing	☰ 📁 📄	PASS, Runtime: 2 seconds

- ⬡ **Multiple services** for
  - ⬡ higher granularity of alerts
  - ⬡ Workflow monitoring
  - ⬡ Visualization on Dashboards, Maps, ...

# How much does it cost?

- Just sum up all Robotmk test services **across all sites**:  
**30 tests x 1 locations = 15 tests x 2 locations = 30 tests**
- Minimum purchase order is **15 tests**
- 5 KPI keywords per test included  $\Rightarrow$  additional granularity for free
  - 30 tests  $\Rightarrow$  150 keywords**
- Tests are the only pricing metric  $\Rightarrow$  **No extra costs**

# Starting at 9€/month per test



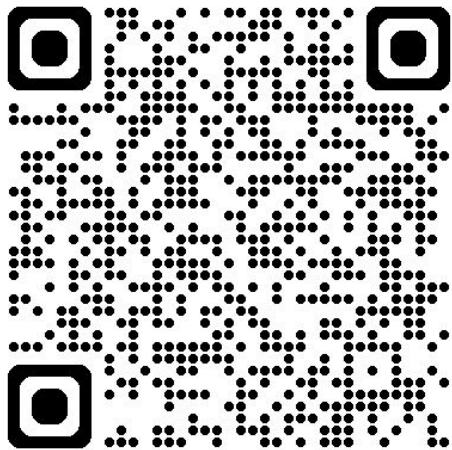
**Always consider:**

How much will it cost, if business applications fail?

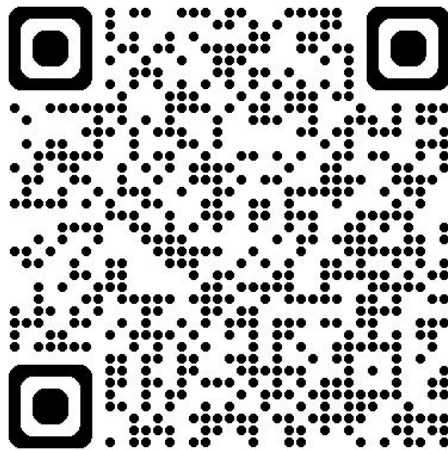
# Trainings & Material

## Resources

Check out the official  
**Synthetic Monitoring documentation:**  
<https://docs.checkmk.com/latest/de/robotmk.html>



New Github repository with **examples for Robot Framework tests:**  
<https://github.com/Checkmk/robotmk-examples>



# Trainings & Material

## Synthetic Monitoring Training

- Remote and In-Person
- Includes official RFCP Exam preparation
- Best practices for application monitoring with Robot Framework (Web & Desktop)
- Available soon via Checkmk



Accredited Training

Elabit GmbH

