



# ABAP Test Cockpit (ATC) goes Cloud – ATC on SAP BTP

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Public



# Agenda

Introduction and use cases

Features Overview

Summary



# Introduction and use cases



# Remote code analysis with ABAP Test Cockpit (ATC)

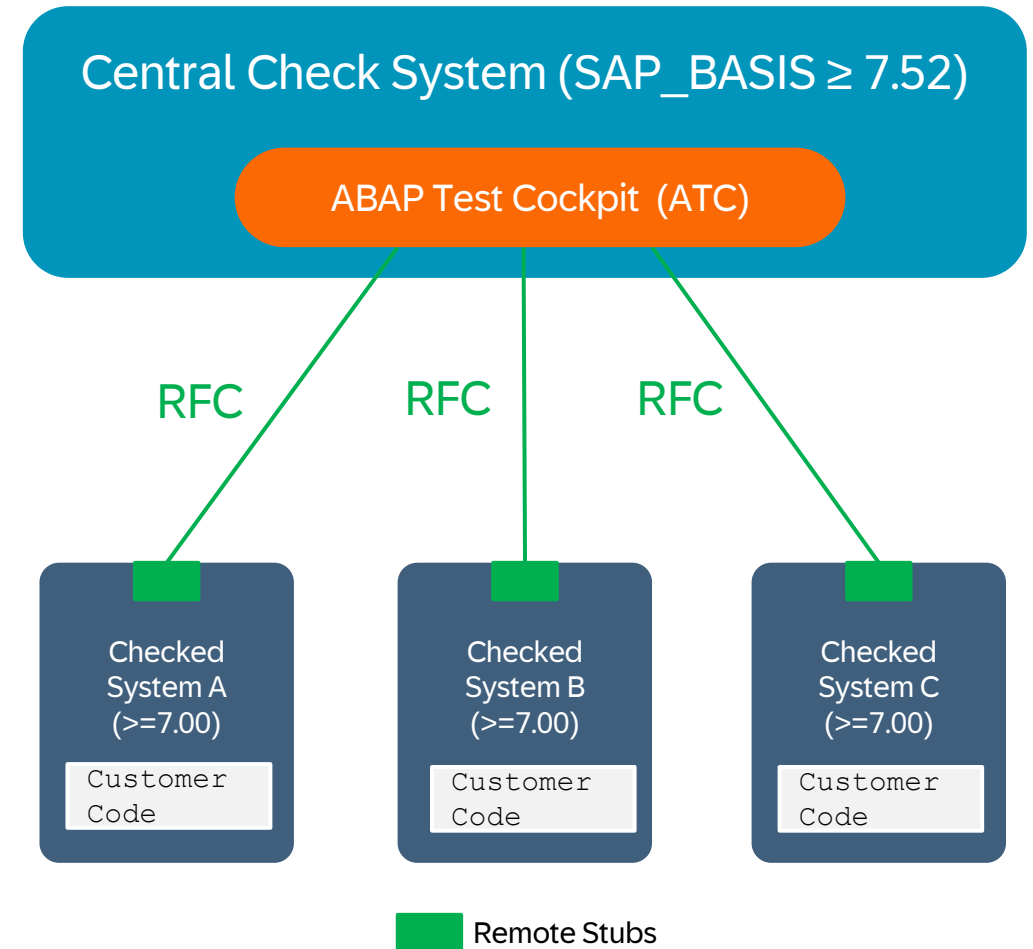
## One central ATC system (SAP\_BASIS $\geq 7.52$ ) for all static checks in your system landscape

- Standard Code Inspector checks incl. SLIN
- Security checks (SAP CVA)
- SAP HANA & SAP S/4HANA checks
- Cloud readiness checks
- Customer specific checks
- ABAP Unit tests

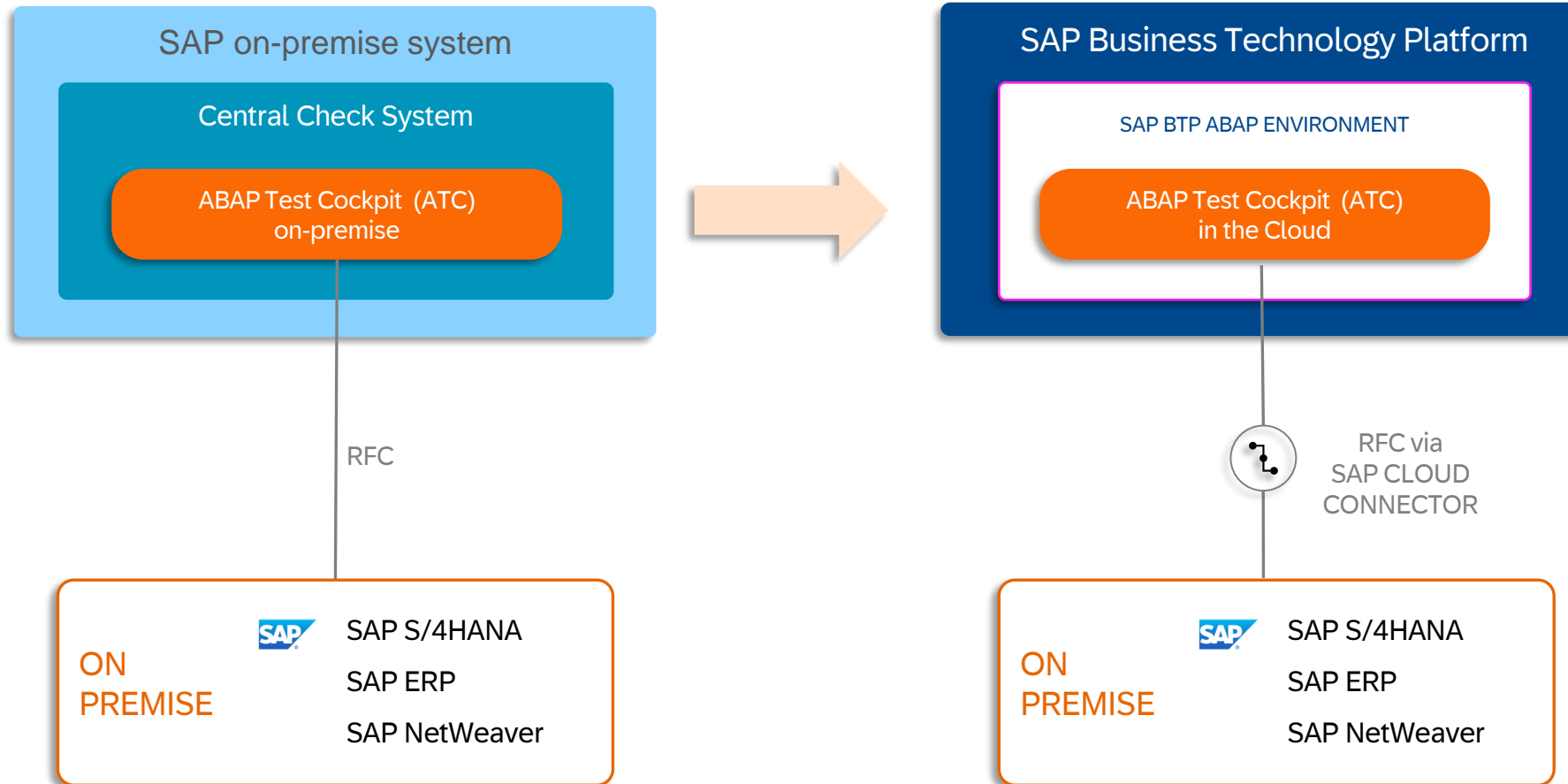
➔ **Minimized administration efforts**

➔ **One quality standard for your whole system landscape**

More about [Remote code analysis with ATC](#)



# Move central ATC system to the Cloud



# ABAP Test Cockpit (ATC) in the Cloud – Use Cases

## ATC for developments in SAP BTP ABAP Environment

- ▶ ATC default check variant ABAP\_CLOUD\_DEVELOPMENT\_DEFAULT
- ▶ CVA checks are free of additional license fee
- ▶ Execute ATC checks, manage ATC check variants and ATC exemptions in ABAP development tools for Eclipse



Check out [Usage of ATC for developments in SAP BTP ABAP Environment](#)

## ATC for SAP S/4HANA Cloud Private Edition (and on premise) developments

FOCUS HERE

- ▶ Central ATC in SAP BTP ABAP Environment
- ▶ CVA checks are free of additional license fee
- ▶ Combination of SAP Fiori- and Eclipse-based tools like Custom Code Migration app, ATC Configurator app, Approve ATC Exemptions app and ATC in ABAP development tools for Eclipse.



Check out [Usage of ATC in the cloud for on-premise developments](#)

## ATC for developments in SAP S/4HANA Cloud Public Edition

- ▶ ATC default check variant ABAP\_CLOUD\_DEVELOPMENT\_DEFAULT
- ▶ CVA checks are free of additional license fee
- ▶ Execute ATC checks, manage ATC check variants and ATC exemptions in ABAP development tools for Eclipse



Check out [Usage of ATC in the SAP S/4HANA Cloud, public edition](#)



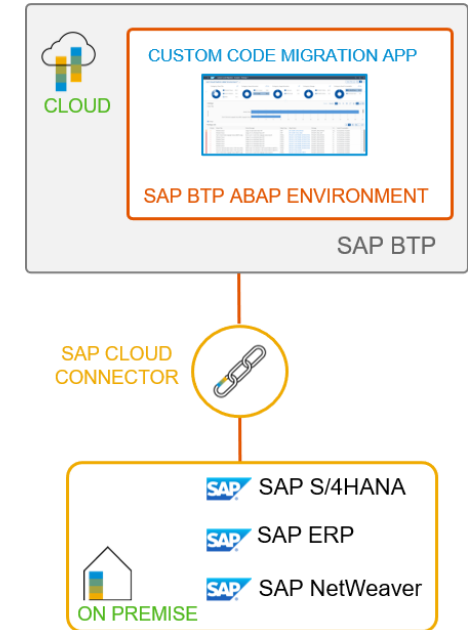
# Features Overview



# Custom code analysis with Custom Code Migration app

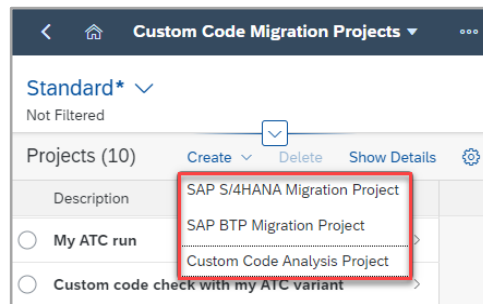
## OVERVIEW

- Automated setup and configuration in SAP BTP ABAP Environment
- Custom code analysis for SAP S/4HANA, SAP BTP migration and classic ATC use cases
- Automatic scoping of custom code based on usage data
- Identification of obsolete and duplicated code
- Strong analysis capabilities incl. usage data to assess adaptation efforts
- Evaluation of custom code for semi-automated adaptation (Quick Fixes in ABAP development tools for Eclipse)

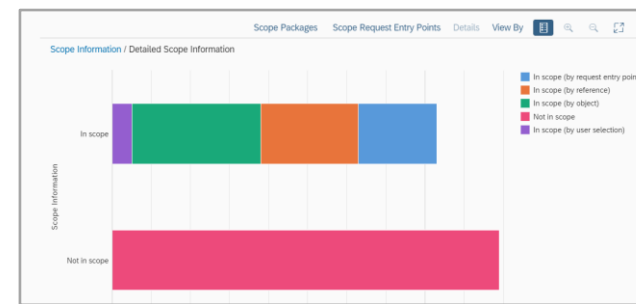


## HIGH LEVEL FEATURES:

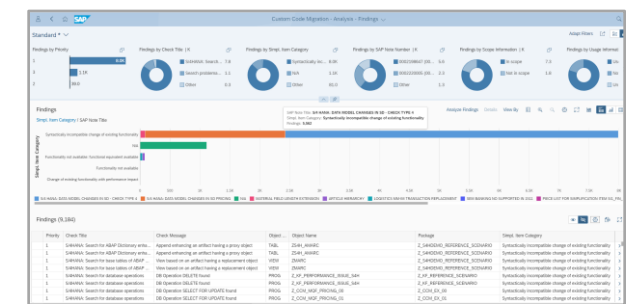
### USE CASES



### SCOPING



### ANALYSIS





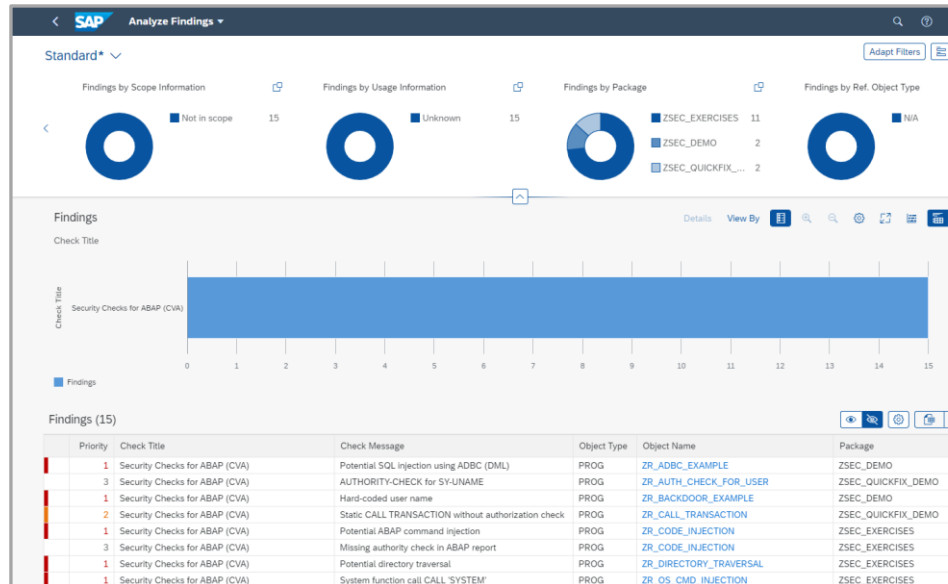
# Code Vulnerability Analyzer (CVA) in SAP BTP ABAP Environment

- CVA in SAP BTP ABAP Environment can be used without additional license fee (\*)
- Create “Custom Code Analysis Project” and use SLIN\_SEC check variant
- Consider usage data to focus your analysis on security vulnerabilities in used code

## Run CVA checks

Run CVA checks interface showing the configuration for a Custom Code Analysis Project. The project is named "Security Checks (CVA) project". The check variant is set to "SLIN\_SEC". The system to be analyzed is "In remote system" with connection "SAP\_COM\_0464".

## CVA analysis results



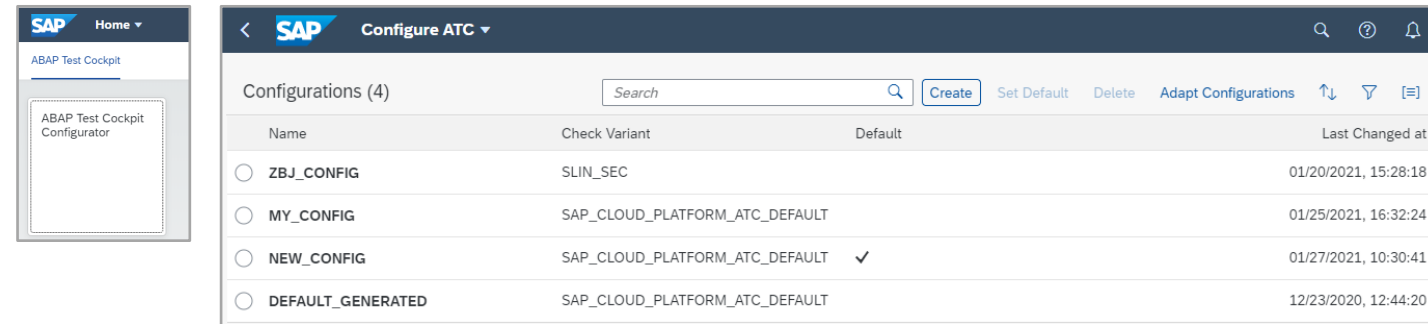
\* Only entitlement for SAP BTP ABAP Environment is required

# ATC configuration in SAP BTP ABAP Environment

## SAP FIORI APP – ABAP TEST COCKPIT CONFIGURATOR

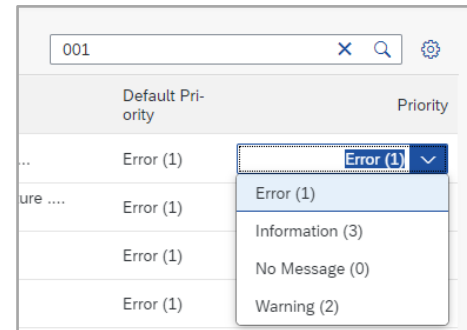
- View and maintain ATC configurations
- Create a new configuration based on an ATC check variant
- Adjust ATC check messages priorities according to your needs
- Exclude ATC checks

### ATC Configurator



Name	Check Variant	Default	Last Changed at
<input type="radio"/> ZBJ_CONFIG	SLIN_SEC		01/20/2021, 15:28:18
<input type="radio"/> MY_CONFIG	SAP_CLOUD_PLATFORM_ATC_DEFAULT		01/25/2021, 16:32:24
<input type="radio"/> NEW_CONFIG	SAP_CLOUD_PLATFORM_ATC_DEFAULT	✓	01/27/2021, 10:30:41
<input type="radio"/> DEFAULT_GENERATED	SAP_CLOUD_PLATFORM_ATC_DEFAULT		12/23/2020, 12:44:20

### Change ATC check priority



	Default Pri- ority	Priority
...	Error (1)	<input type="text" value="Error (1)"/>
ure ....	Error (1)	<input type="text" value="Error (1)"/>
	Error (1)	<input type="text" value="Error (1)"/>
	Error (1)	<input type="text" value="Error (1)"/>

Error (1)

Error (1)

Information (3)

No Message (0)

Warning (2)



Check out [How to configure ABAP Test Cockpit \(ATC\) in the cloud](#)

# Manage custom ATC check variants in SAP BTP ABAP Environment

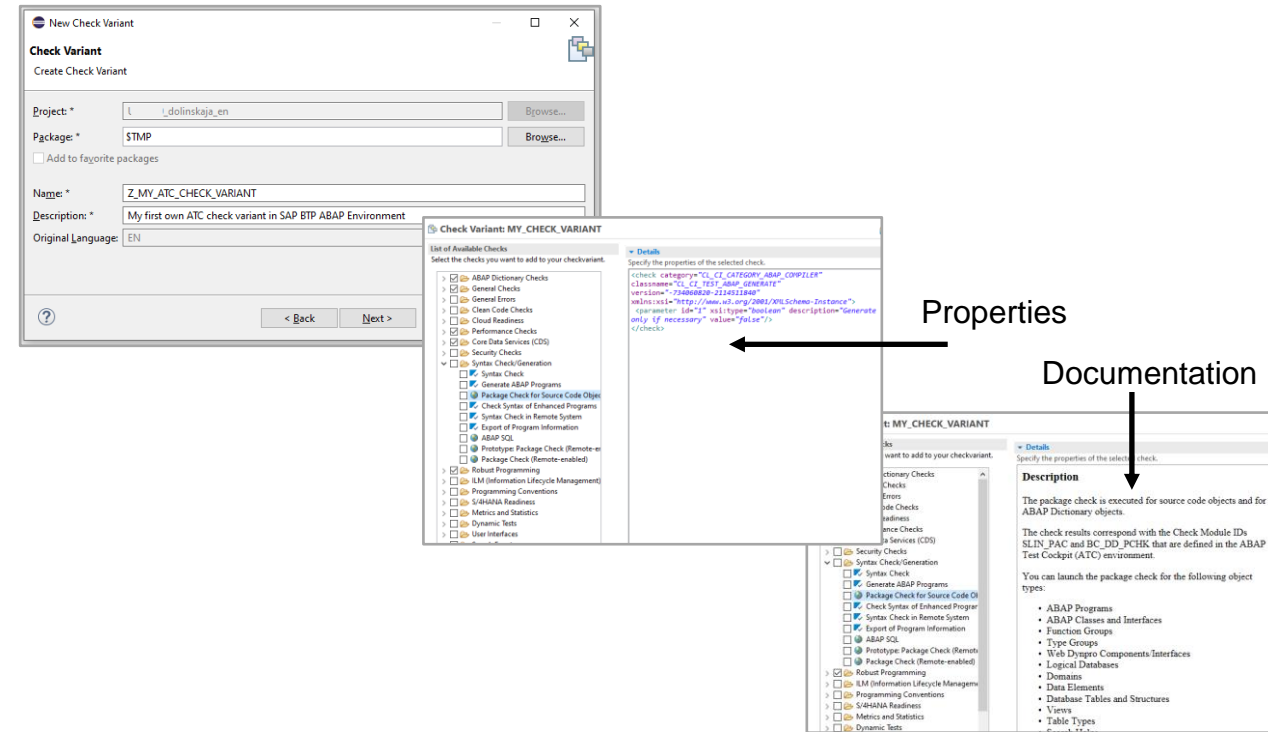
## ATC IN ABAP DEVELOPMENT TOOLS FOR ECLIPSE

- Display/Create/Edit an ATC check variant
- Create custom ATC checks

## EXPORT AND IMPORT ATC OBJECTS

- Use abapGIT to export and import ATC objects across ABAP systems on-premise and in the cloud
- Supported ATC objects:  
ATC check variants, ATC check objects and ATC check categories

## Create an ATC check variant in ABAP development tools for Eclipse



Check out



[How to create your own ATC check variant in ABAP development tools for Eclipse](#)

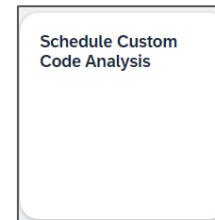


[How to create your own ATC check in ABAP development tools for Eclipse](#)

# Scheduling of ATC runs on SAP BTP

## Schedule ATC run in SAP BTP via an Application Job

- Via *Schedule Custom Code Analysis* app
- Based on custom code projects of the Custom Code Migration app
- ATC result is available in the Custom Code Migration app



Choose job template

Plan start time and recurrency

Select custom code project

## Jobs overview

Jobs (2) Standard * <span>▼</span>										Create	Copy	Details	Cancel	Restart
Status	Log	Re...	St...	Job Name	Planned Start	End	Job Template	Job Template Name	Duration					
Finished			1	My new custom code analysis	04/30/2024, 13:45	04/30/2024, 13:45	Custom Code Analysis	SYCM_START_PROJECT_RUN	8 sec					
Finished			1	My Custom Code Analysis	04/30/2024, 13:41	04/30/2024, 13:42	Custom Code Analysis	SYCM_START_PROJECT_RUN	26 sec					



# DEMO

ATC custom check variant

ATC run to analyze custom code

ATC Configurator app

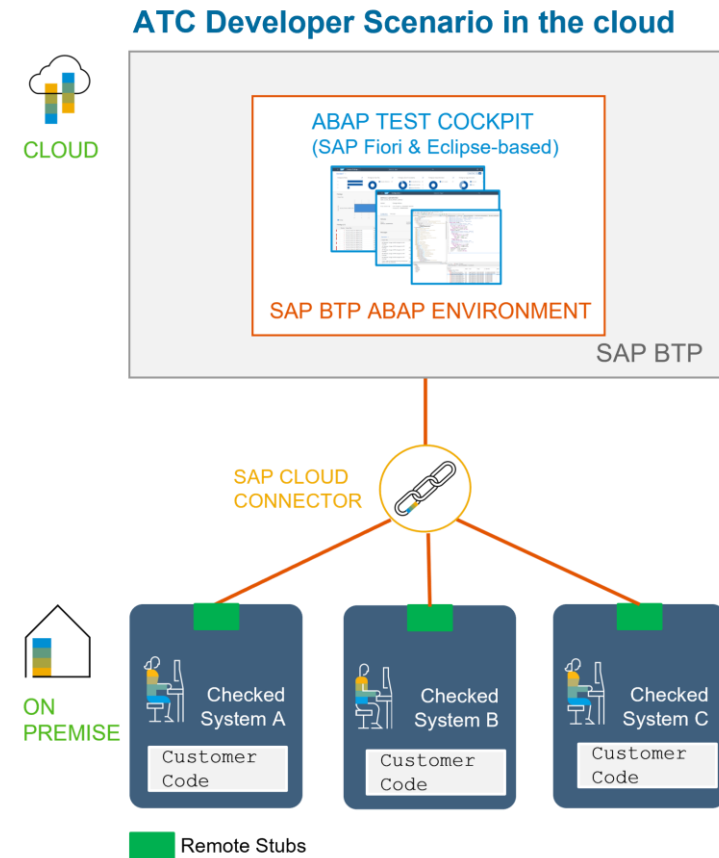
Scheduling of ATC runs



# Using ATC in SAP BTP ABAP Environment as an on-premise developer

## USING REMOTE ATC IN THE SAP BTP ABAP ENVIRONMENT DURING DEVELOPMENT IN ON-PREMISE SYSTEM

- Execute ATC checks
- View ATC check results
- Check transports before release
- Correct findings
- Use quick fixes
- Request exemptions



Check out



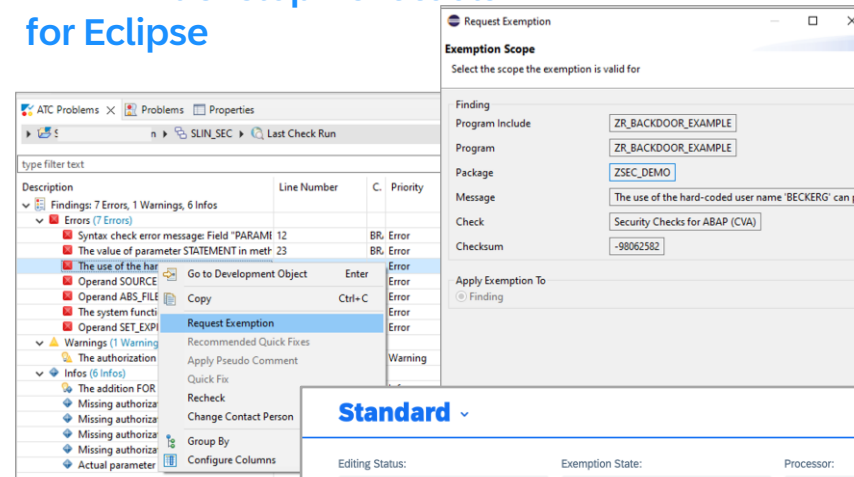
[How to use ABAP Test Cockpit \(ATC\) in the cloud as a developer in an on-premise system](#)

# Handling of ATC exemptions for on-premise developments

## EXEMPTIONS WORKFLOW USING ATC in SAP BTP ABAP ENVIRONMENT FOR ON-PREMISE DEVELOPMENT

- Create an ATC exemption in an on premise system using ABAP development tools for Eclipse
- Approve/Reject an ATC exemption using the SAP Fiori-based **Approve ATC Exemptions app** in SAP BTP ABAP Environment

Request exemption  
in ABAP development tools  
for Eclipse



Process exemption  
in the SAP Fiori app



Standard

Editing Status: All Exemption State: OPEN Processor: Requester: Go Adapt Filters (2)

Exemptions (523)

Check Title	Message Title	Object Type	Object Name
<input type="checkbox"/> Extended Program Check (SLIN)	Text element missing in a character string	FUGR	SATC_CFG_MONITOR
Exemption State: Open Requester: [User]			
<input type="checkbox"/> Security Checks for ABAP (CVA)	Hard-coded user name	PROG	ZKF_ATC_EXEMPTION_EDIT
Exemption State: Open Requester: [User]			
<input type="checkbox"/> Extended Program Check (SLIN)	Text element missing in a character string	FUGR	SATC_CFG_MONITOR
Exemption State: Open Requester: [User]			
<input type="checkbox"/> Extended Program Check (SLIN)	CHECK statement outside a loop	PROG	ZCR_TEST_EXEMPT
Exemption State: Open Requester: [User]			
<input type="checkbox"/> Security Checks for ABAP (CVA)	ABAP programs deleted	FUGR	SFRM
Exemption State: Open Requester: [User]			
<input type="checkbox"/> Package Check for Source Code Objects and ABAP Dictionary Objects	Package Violation - Error - Missing use access (USEM): ...	FUGR	SATC_CFG_MONITOR
Exemption State: Open Requester: [User]			

Check out



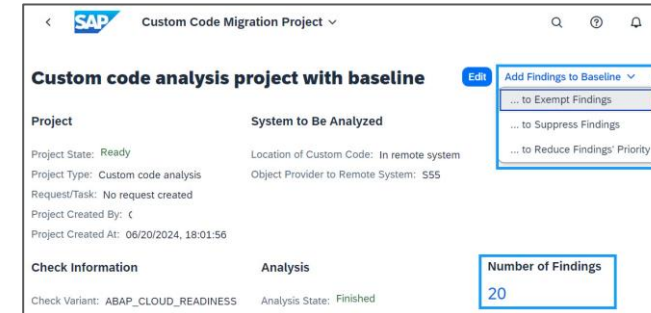
[How to work with exemptions using ABAP Test Cockpit \(ATC\) in the cloud during development in an on-premise system](#)

# ATC Baseline on SAP BTP – Exclude findings in old legacy code

## Baseline concept

- Based on custom code projects check results of the Custom Code Migration app
- Add/Remove custom code project check result into/from the baseline
- Options
  - indicate the findings as exempted
  - suppress findings (exclude from result)
  - assign the low priority 3 to the findings
- Outcome:
  - The findings in the baseline will not show up in the subsequent custom code projects check results
  - Developer does not get findings which are in the baseline in the ATC check result in ABAP development tools for Eclipse
- **NOTE:** the baseline is effective as long as the related code sections remain unchanged

## Custom code project check result: Add findings to baseline

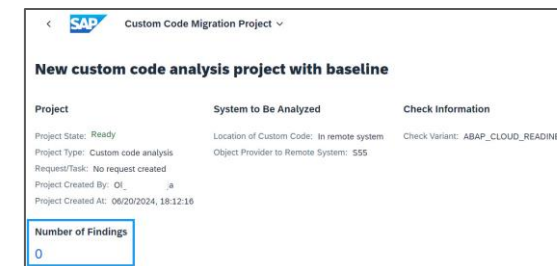


## Projects View: Which findings are in the baseline

The screenshot shows the 'Custom Code Migration Projects' view. A table lists four projects. The 'Custom code analysis project with baseline' is selected, and its 'Findings Added To Baseline' status is 'Yes - Findings are exempted'.

Description	Project State	Project Type	Project Created At	Number of Findings	Findings Added To Baseline
Test setup	Ready	Custom code analysis	06/14/2024, 15:05:08	4	No
Custom code analysis project with baseline	Ready	Custom code analysis	06/20/2024, 18:01:56	20	Yes - Findings are exempted
My SAP S/4HANA custom code project	Ready for scoping	SAP S/4HANA migration	06/14/2024, 15:33:43	702	No

## New custom code project check result: No findings





# DEMO

ATC Developer Scenario

Approve ATC Exemptions app

ATC Baseline

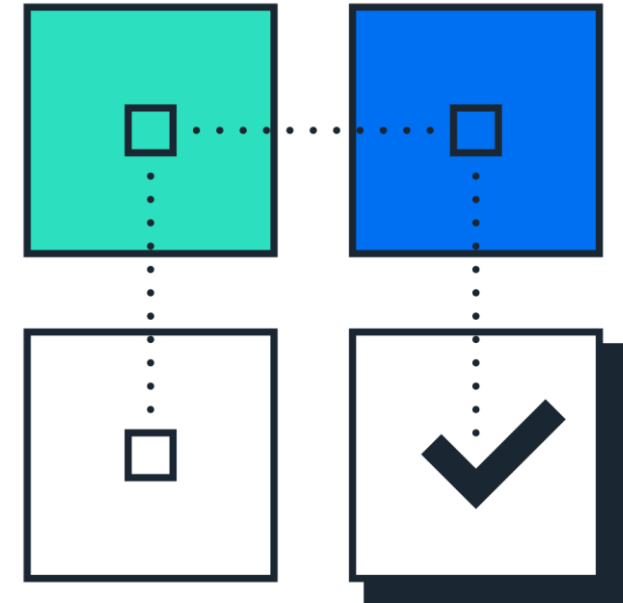


# Extension capabilities for ATC on SAP BTP

The following APIs are available\* to extend ATC on SAP BTP for custom use cases:

- APIs to start ATC runs, get ATC results, process ATC exemptions (entry point **CL\_SATCAPI** )
- CDS view to get ATC exemptions (**SATC\_EXEMPTIONS\_DDLV\_EC1**)
- CDS view to get ATC check results (**SATC\_API\_FINDINGS**)
- REST APIs to start ATC runs und retrieve ATC results (for use in CI pipelines e.g. with Piper, see [Executing ATC check runs](#))
- APIs for implementation of custom ATC checks (**IF\_CI\_ATC\_CHECK**)

\*This is the current state, work in progress, your feedback is welcome



# Summary





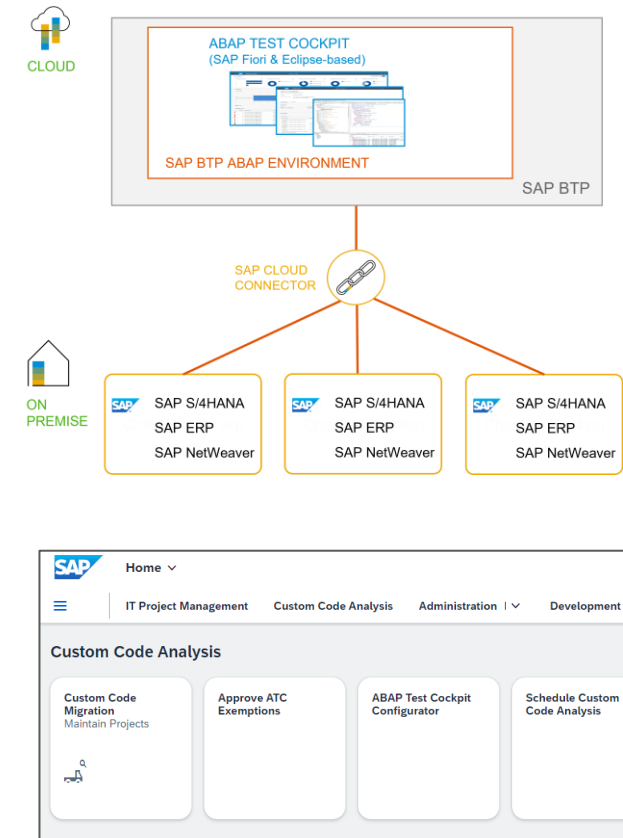
# ABAP Test Cockpit on SAP Business Technology Platform

ABAP Test Cockpit on SAP BTP is recommended for clean core governance of private cloud (or on-premise) landscapes.

ABAP Test Cockpit on SAP BTP is available in SAP BTP, ABAP environment.

- Custom code analysis including SAP CVA security checks
- Custom ABAP test cockpit check variants and custom checks
- Developer scenario
- Robust workflow for handling of ABAP test cockpit exemptions
- Baseline to exclude ABAP test cockpit findings in old legacy code
- Scheduling of ABAP test cockpit runs
- Transport management and integration of change request management (ChaRM)

## ABAP test cockpit on SAP BTP



Check out [“Usage of ABAP Test Cockpit \(ATC\) in the cloud for on-premise developments”](#)



# Planned features for SAP BTP ABAP Environment

**SAP Help page:** <https://help.sap.com/docs/sap-btp-abap-environment>

Home >

## SAP BTP, ABAP Environment English ▼ Production ▼

Develop ABAP Cloud apps and extensions.

This product ▼

### About

[ABAP Environment](#)

The SAP BTP, ABAP environment let's you develop ABAP cloud apps and extensions, leveraging innovations of SAP HANA.

### Administration

[Administration and Operations in the ABAP Environment](#)

Perform administration and operations tasks with the ABAP environment.

### Roadmap


[Roadmap](#)

Get more information about planned and upcoming features.

### Getting Started

[Get Started with the ABAP environment.](#)

Learn how to set up the ABAP environment.

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▼ ABAP Platform - Roadmap Information

SAP BTP, ABAP Environment Roadmap Information

> ABAP Cloud Roadmap Information

Updates and Changes

You can migrate existing software components from SAP-managed (hidden) git to your own git service provider (bring-your-own-git).

## Custom Code Migration

### Suppress Automatic Start of ATC Run in Custom Code Migration App

**Planned Release:** [SAP BTP, ABAP environment 2411]

It is now possible to suppress the automatic start of the ATC run when a new project is created in the CCM app.

Public

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# How to get SAP BTP ABAP Environment

- [SAP Store](#)
- [SAP Discovery Center](#)
- SAP BTP pricing models: CPEA and Pay-As-You-Go
- Also as SAP BTP Free Tier model
- System hibernation to suspend or stop system to reduce the costs for temporarily unused systems
- See SAP Community for [SAP BTP ABAP Environment](#)

## Configuration for ATC on SAP BTP for productive use:

- ✓ 2 blocks ABAP Runtime (2 x 16GB = 32GB)
- ✓ 4 blocks SAP HANA Persistency (4 x 16GB = 64GB)

The image displays two screenshots from SAP's official channels. The top screenshot is from the SAP Store, showing the 'SAP BTP ABAP Environment' product page. It includes a search bar, navigation links (Key Features, Resources, Plans and Pricing, Prerequisites, Reviews), and a detailed description of the environment. A 'Buy Now' button is visible. The bottom screenshot is from the SAP Discovery Center, showing the 'SAP BTP, ABAP environment' page. It features a 'FREE TIER' badge, tabs for Overview, Pricing, Related Missions, Roadmap, and Customer Stories. The 'Pricing' tab is active, showing the 'CPEA' (Cloud Platform Enterprise Agreement) pricing model. A table lists the metrics and prices for the 'Standard' plan.

Metric	Unit Price per Hour	Description
Hours of Persistent Memory in 16 GB Blocks	EUR 0.549	Hours of Persistent Memory in 16 GB Blocks
Hours of Runtime Memory in 16 GB Blocks	EUR 1.923	Service runtime memory used in 16 GB Blocks

# More information

## ABAP Testing and Analysis

The rich set of integrated ABAP testing and analysis tools ensure functional and formal correctness of ABAP code, guarantee quality and robustness, and offer support for custom code migration to SAP S/4HANA and the cloud.

Community content

Create content

Related Topics

Event - Virtual

### ABAP Cloud at SAP TechEd 2024

Check out this overview of the ABAP Cloud sessions at SAP TechEd Virtual 2024!

## Featured Content



### Custom code analysis for ABAP Cloud and Clean Core

Learn how to analyze and adapt your custom code for ABAP Cloud

[How to make your custom code cloud-ready and upgrade-stable](#)

[How to check your custom code for ABAP Cloud](#)

[How to use ABAP Cloud support in ABAP Development Tools for Eclipse](#)

Learn how to enforce custom code development with ABAP Cloud

[How the ABAP Test Cockpit supports you to adopt ABAP Cloud](#)

Watch the latest Devtoberfest 2024 session

[How to develop and transform your custom code for clean core in SAP S/4HANA](#)



### ATC on SAP BTP - What is already possible

Learn what is already possible with ATC on SAP BTP

[ATC in the cloud - Use Cases](#)

[ATC for developers in SAP BTP ABAP Environment](#)

[ATC in the cloud for on-premise developments](#)

[ATC in SAP S/4HANA Cloud Public Edition](#)

**New in ATC in the cloud:** ATC baseline, scheduling ATC runs

[ATC in the Cloud – How to use baseline](#)

[ATC in the Cloud - How to schedule ATC runs](#)

SAP TechBytes Video

[ABAP Test Cockpit on Cloud](#)

Customer Story

[Geberit: Improving code quality with ATC on SAP BTP](#)

## Expert Content



## Cloud ATC

Learn what is already possible with ABAP Test Cockpit on SAP Business Technology Platform

[ATC in the Cloud - Use Cases](#)

[ATC for developers in SAP BTP ABAP Environment](#)

[ATC in the cloud for on-premise developments](#)

[ATC in SAP S/4HANA Cloud, public edition](#)

Learn about ABAP Test Cockpit capabilities in the cloud

[Create your own ATC check variant](#)

[Create your own ATC check](#)

[How to configure ATC in the cloud](#)

[Create and approve ATC exemptions](#)

[Export/import ATC objects via abapGit](#)

[How to use ATC in the cloud as a developer in an on-premise system](#)

[How to work with exemptions using ATC in the cloud during on-premise development](#)

[How to use ATC baseline](#)

[How to schedule ATC runs](#)

Customer Stories

[Geberit: Improving code quality with ATC on SAP BTP](#)

[REWE digital: Using the central ATC on SAP BTP and SAP BTP ABAP environment](#)

# Thank you.

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