Custom Code Migration app

Olga Dolinskaja, SAP

22. June, 2022

THE BEST RUN **SAP**

Building YOUR Intelligent Enterprise

Comprehensive, intelligent, customer-specific offering

Offering components

SAP Business Process Intelligence Discovery Reports

SAP Business Technology Platform CPEA Credits

SAP Business Network, Starter, Package

Custom Code Migration App, SAP Readiness Check, Learning Hub

SAP S/4 HANA with Deployment Model of Choice (Public or Private)

On Infrastructure Provider of Choice**

Optional components

Additional services

Analyze how processes perform, get tailored recommendations, and benchmark against industry standards.
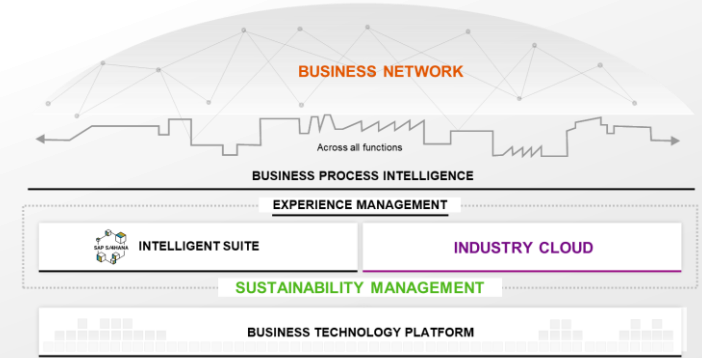
Complement, extend and integrate with SAP, partner, or third-party solutions using the same data model and business services as SAP applications.

Digitize collaboration with all of your trading partners.

*Tools and services from SAP* to support your whole journey that can be augmented by SAP's strong ecosystem

BUSINESS NETWORK

Across all functions

BUSINESS PROCESS INTELLIGENCE

EXPERIENCE MANAGEMENT

| INTELLIGENT SUITE | INDUSTRY CLOUD |

SUSTAINABILITY MANAGEMENT

BUSINESS TECHNOLOGY PLATFORM

Premier Value

Guided Journey

Simplified Engagement

**MS Embrace Terms Apply

Challenges for custom code on the road to Intelligent Enterprise
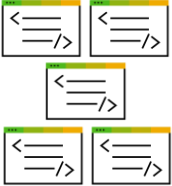
Over past years SAP customers have heavily extended and modified SAP solutions. There are SAP ERP systems with a few million lines of custom code. SAP customers want reuse custom code.

Challenges and business drivers

Assessment of custom code impact very early in a migration project

Unused and obsolete code should be identified and removed

All impacted custom code objects must be adapted

Automated adaptation capabilities are required

Complex custom code causes high adaptation and maintenance costs

Lift and shift custom code migration approach causes high adaptation and maintenance costs

Technical Migration with Custom Code Migration app

Custom Code Migration app

Assess custom code impact and reenforce Clean Core principle during SAP S/4HANA conversions and migration to SAP BTP
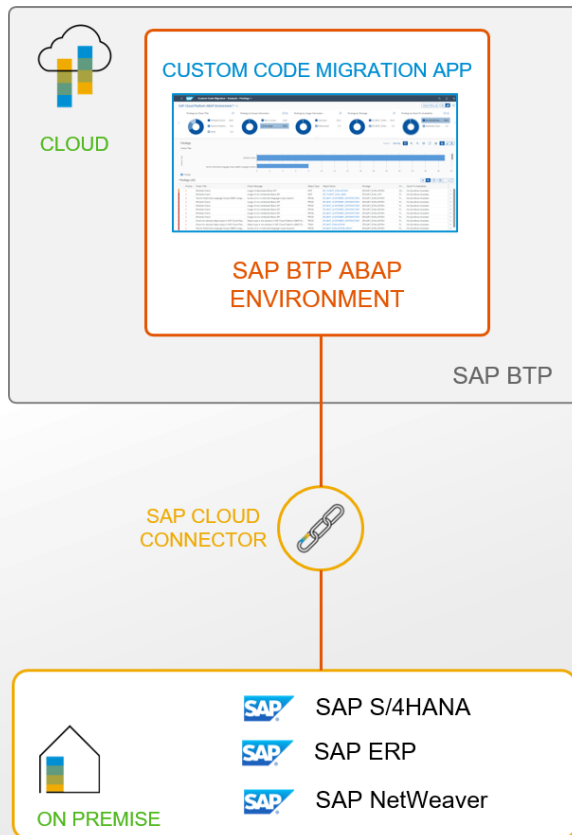
SAP Business Suite
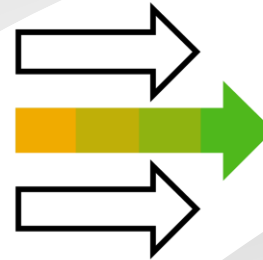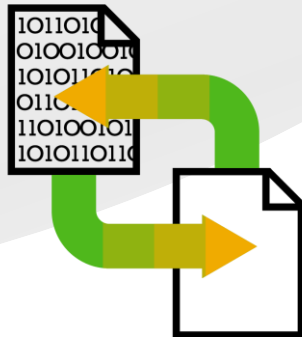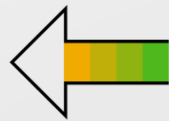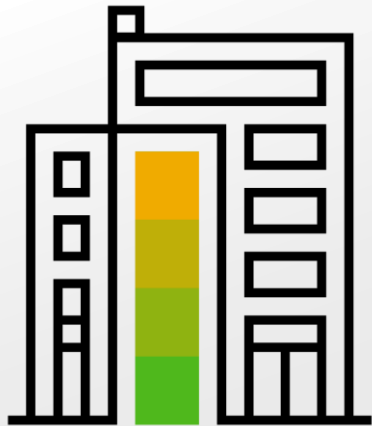
SAP S/4HANA Cloud, private edition

SAP Business Technology Platform

Custom Code Migration app - Overview

Solution Overview

Custom code analysis for SAP S/4HANA, SAP BTP and classic ATC use cases

Simplified custom code remediation

Obsolete custom code removal based on usage data

Identification of custom code candidates for back-to-standard and redesign

Evaluation of custom code for semi-automated adaptation (quick fixes)

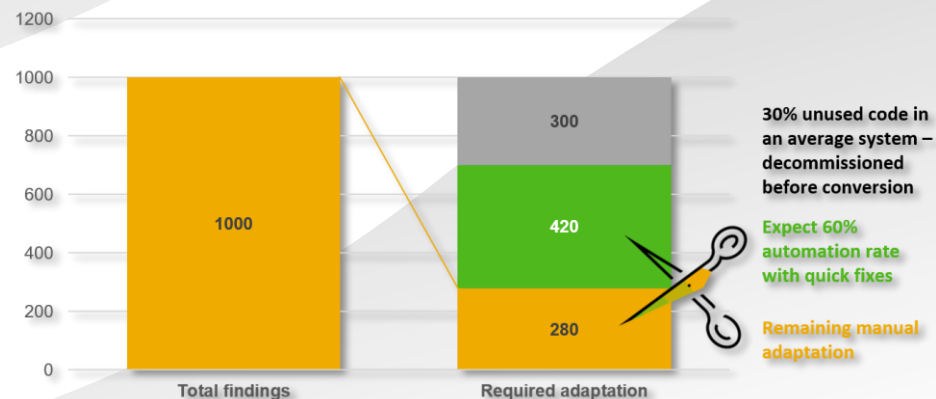Automated setup and configuration in SAP BTP ABAP Environment

Check out RISE with SAP and custom code migration - What is included

RISE WITH SAP

Business Transformation as a Service

Custom Code Migration app - Benefits

Benefits and business value

◈ Estimation of issues in custom code in advance will help better plan adaptation efforts

◈ Identification and automated removal of obsolete code will significantly save costs for the adaptation and future maintenance of custom code

◈ Advanced analysis capabilities will help better understand custom code impact

◈ Automation of custom code adaptation will reduce manual work (quick fixes)

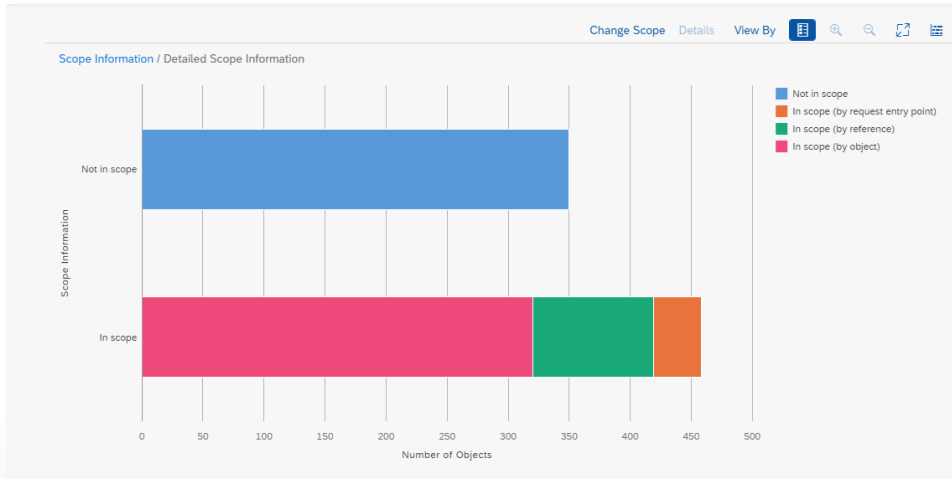◈ Identification of complex custom developments will drive back-to-standard and redesign activities

EXAMPLE: *Exemplary calculation for 1,000 findings in custom code*

30% unused code in an average system – decommissioned before conversion

Expect 60% automation rate with quick fixes

Remaining manual adaptation

Chart values: Total findings: 1000; Required adaptation: 300, 420, 280

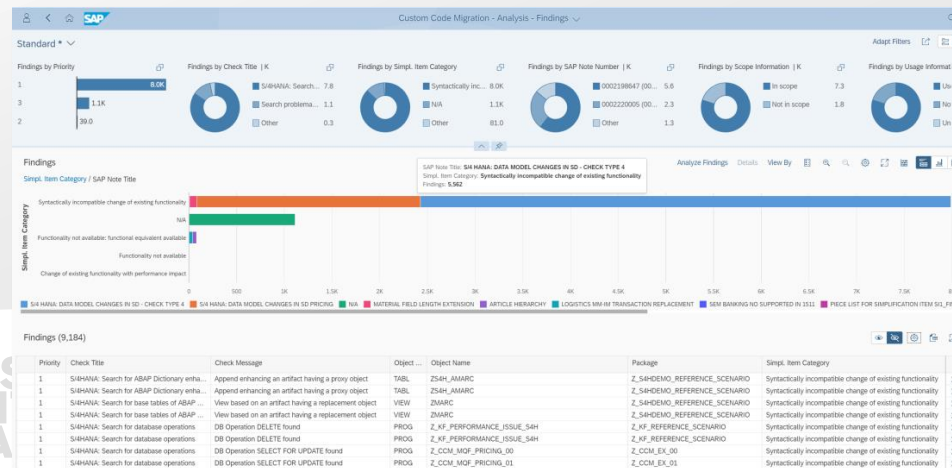RISE WITH SAP | Business Transformation as a Service

Custom Code Migration App – High level features
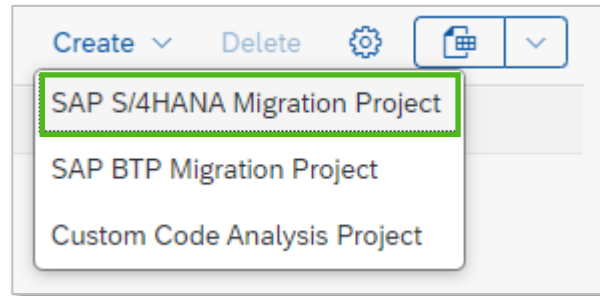
Scoping

- Upload usage data for custom code
- Define custom code migration scope based on usage data
- Adjust scope manually
- Identify and remove complex custom code from scope
- Save scope as transport request

Analysis

- Based on remote ABAP Test Cockpit (ATC)
- Analytical representation of custom code analysis results
- Burndown chart – distribution of analysis results over time
- Compact and visual filters to customize analysis results view
- Identify custom code for semi-automated adaptation (quick fixes)
- Detailed analysis of a custom code finding
- Direct navigation to source code

Custom Code Migration app – Use cases

| Create ⌄   Delete   ⚙   ▥ ⌄ |
|---|
| **SAP S/4HANA Migration Project** |
| SAP BTP Migration Project |
| Custom Code Analysis Project |

For tightly coupled custom code extensions

Analysis of custom code for migration to SAP S/4HANA

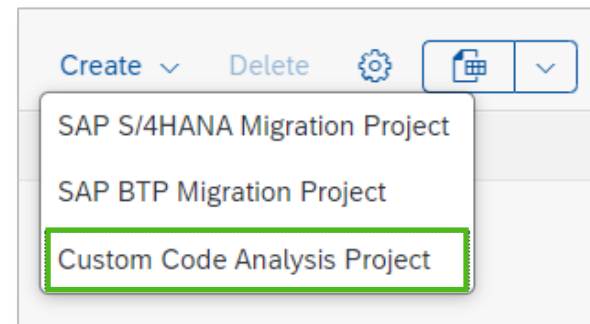Check out [Custom code analysis for SAP S/4HANA with SAP Fiori app Custom Code Migration](#)

Create ⌄   Delete   ⚙   ▥ ⌄
SAP S/4HANA Migration Project
SAP BTP Migration Project
Custom Code Analysis Project
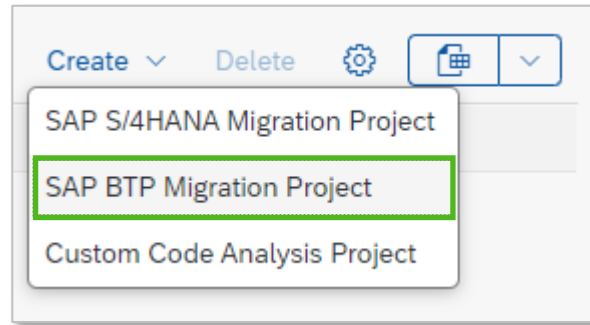
For loosely coupled custom code extensions

Analysis of custom code for migration to SAP BTP

Check out [How to check your custom ABAP code for SAP BTP, ABAP environment](#)

Create ⌄   Delete   ⚙   ▥ ⌄
SAP S/4HANA Migration Project
SAP BTP Migration Project
Custom Code Analysis Project

Classic custom code analysis

Analysis of custom code using ATC check variants, e.g. security CVA checks

Check out [ABAP Test Cockpit in the Cloud – What is already possible](#)
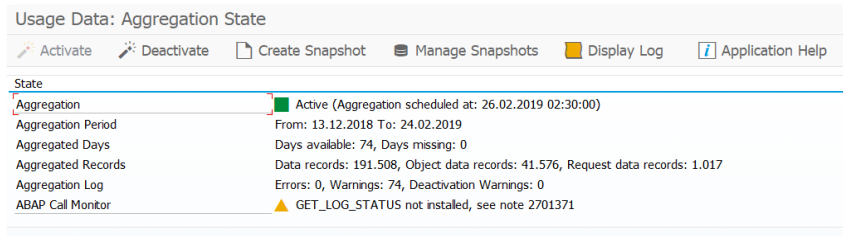
Migration to SAP S/4HANA – The process

Remove obsolete and outdated code

Move to SAP BTP

Adapt

Scope

Assess complexity and dependency to SAP standard

Analyze

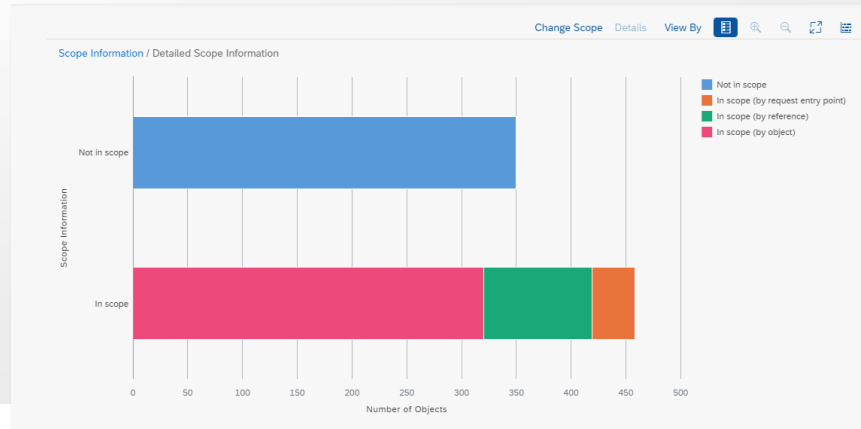Move to SAP S/4HANA

Modernize and make cloud-ready
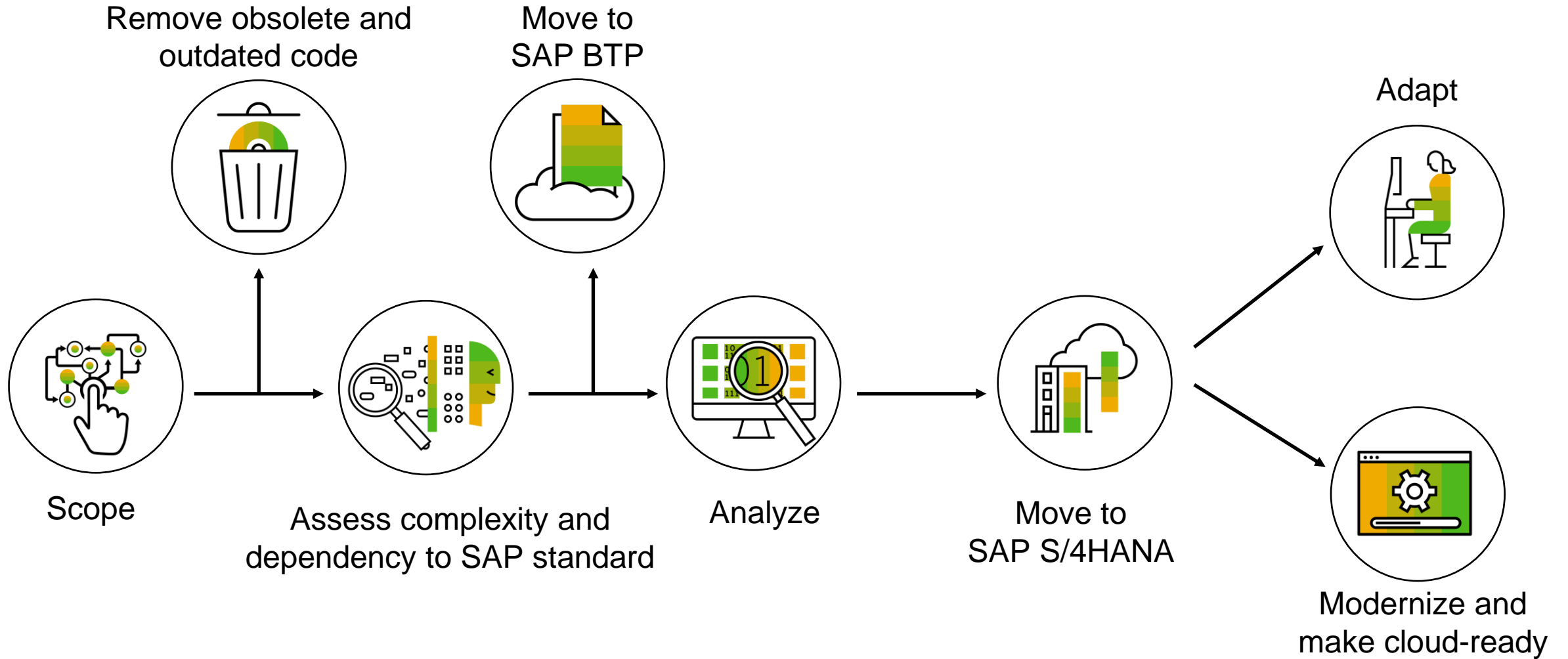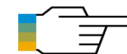
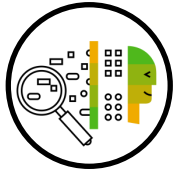# Migration to SAP S/4HANA – Scoping of custom code

Aggregate usage data with SUSG

Scoping for SAP S/4HANA

1. **COLLECT** usage data of custom code in your productive system (transactions SCMON and SUSG)

2. **UPLOAD** usage data to Custom Code Migration app to define initial custom code migration scope

3. **ADJUST** custom code scope manually (if needed)

4. **CREATE** deletion transport for unused code

5. **REMOVE** unused code during the SAP S/4HANA conversion automatically using Software Update Manager tool or backup it using gCTS

☞ Check out Custom code backup with gCTS

RISE WITH SAP — Business Transformation as a Service

Migration to SAP S/4HANA– Complexity analysis

Clean core dashboard

- Spot the top TCO drivers in your custom code

- Identify candidates for redesign to save adaptation effort and future maintenance costs

- Remove complex development packages from scope
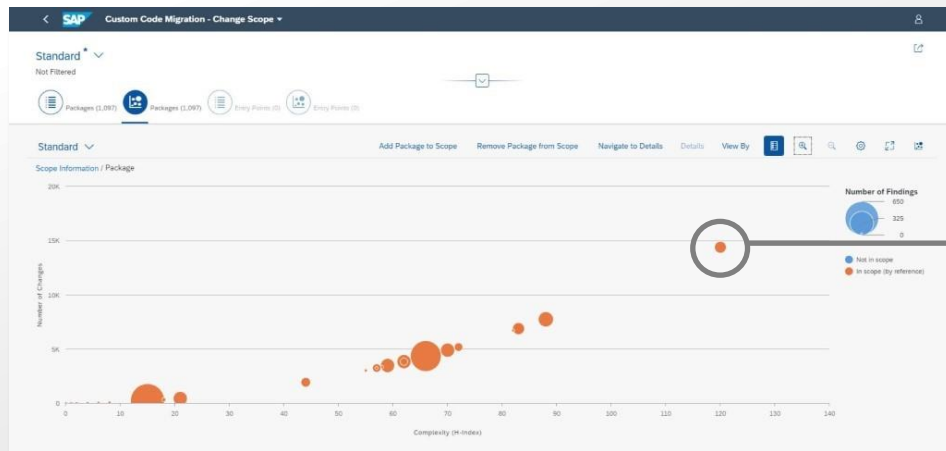
Check out Custom Extensions in SAP S/4HANA Implementations - A Practical Guide for Senior IT Leadership

REEVALUATE FUNCTIONALITY
Remove old and orphaned business logic
Evaluate SAP and partner solutions

BACK-TO-STANDARD
Clean up modifications and enhancements
Reset as much as possible to SAP standard

IN-APP EXTENSIBILITY SCOPE
Small low-/no-code extensions
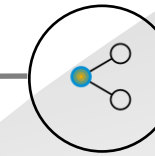
SIDE-BY-SIDE EXTENSIBILITY SCOPE
Loosely coupled extensions and apps
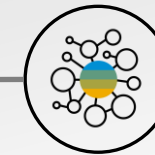
LIFT AND SHIFT
Tightly coupled extensions and apps
Optimize and modernize

Migration to SAP S/4HANA– Analysis of custom code

Analysis results
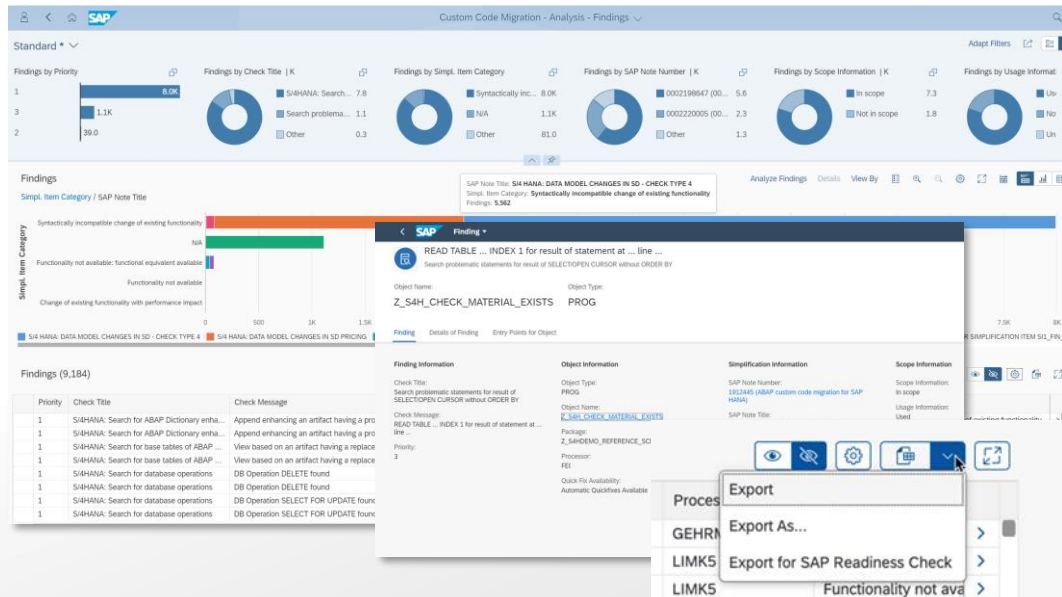
Findings burndown chart
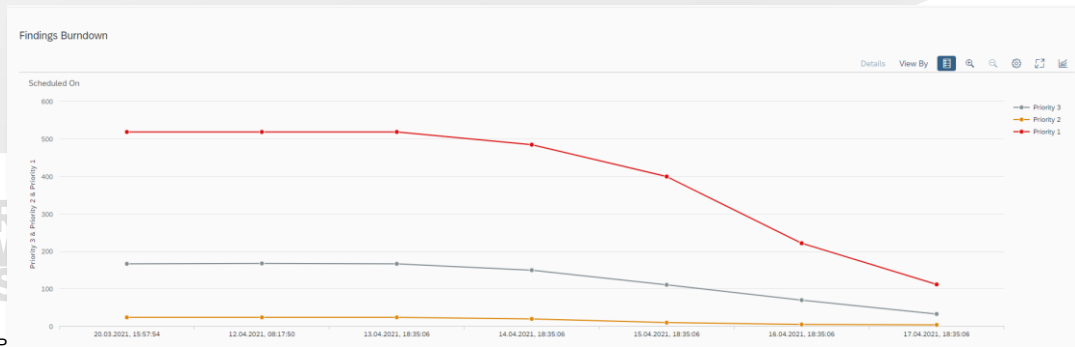
Use predefined filters

Findings by SAP Note
In which SAP S/4HANA simplification areas are the most findings?

Findings by Scope
How many findings are in the code scoped for SAP S/4HANA?

Findings by Priority
What are the most important (urgent) findings?

Findings by Quick Fix Availability
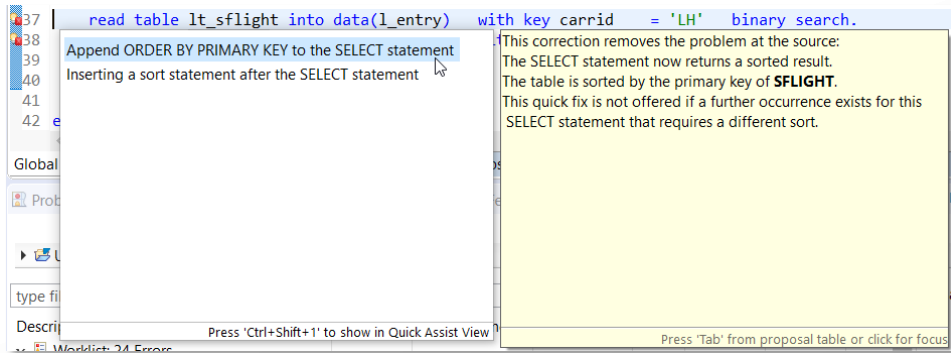Which findings can be fixed automatically?

Detailed analysis of a finding

Use findings burndown chart

Download of analysis results (e.g. for SAP Readiness Check 2.0)

Migration to SAP S/4HANA – Automated adaptation with Quick Fixes
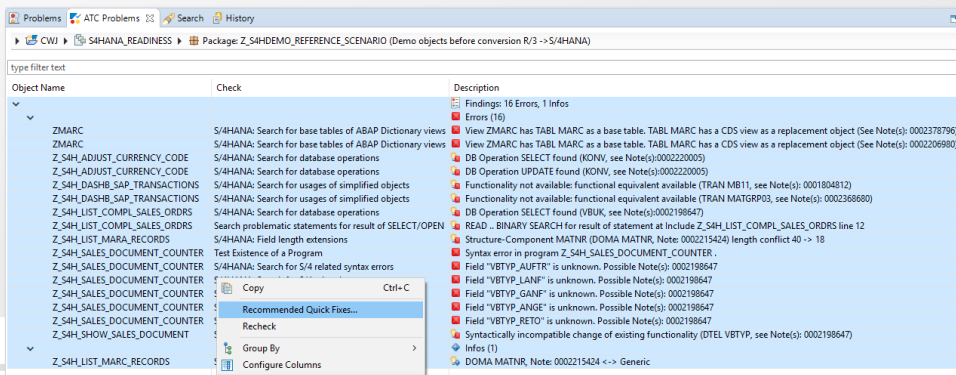
Single Quick Fix in editor

Mass Quick Fixes

- Quick Fixes are available in ABAP Development Tools in Eclipse

- Minimize efforts via automated adaptation

- Typical simplification use cases of SAP S/4HANA covered:

  - MATNR and Amount Filed Length Extension

  - Field length extension of field VBTYP (SD document category) and elimination of field VBTYP_EXT

  - Reduce findings for VBRK and VBRP

  - Data Model Changes, e.g. KONV, VBUK/VBUP, BSEG

- Mass-enabled Quick Fixes to adapt whole packages at one shot

Check out Semi-automatic custom code adaptation

DEMO
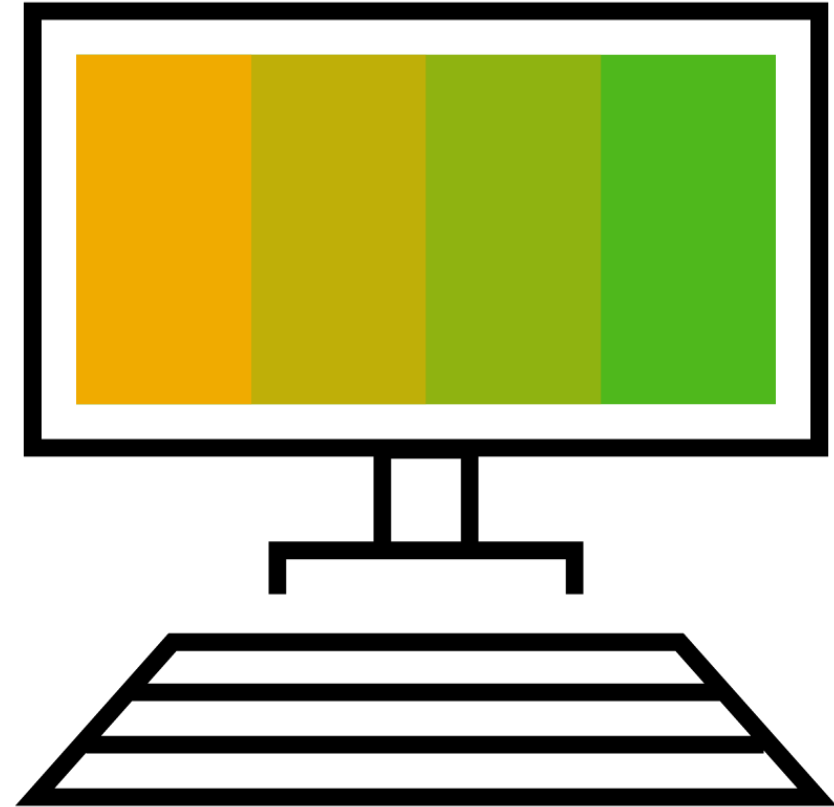
Migration to SAP BTP – The process

Scope

Analyze

Move to SAP BTP

Adapt
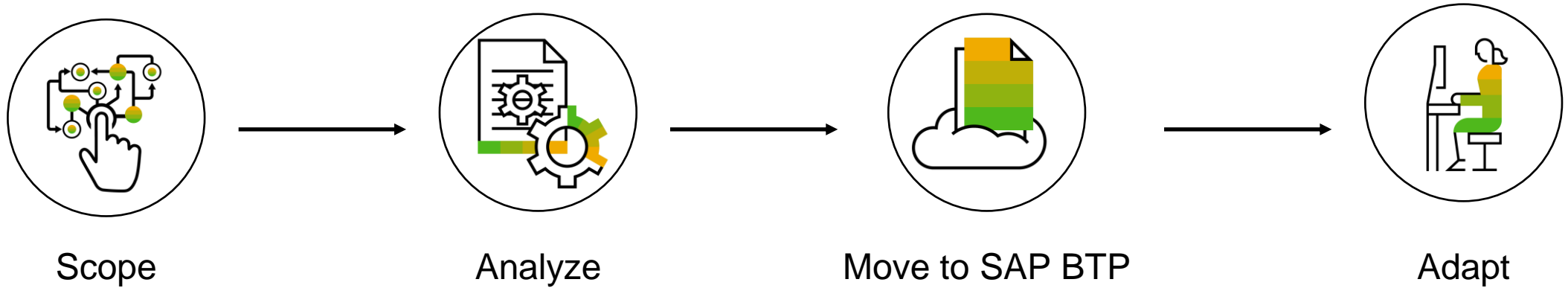
Migration to SAP BTP – Scoping of custom code

Scoping for SAP BTP

Dependency analysis
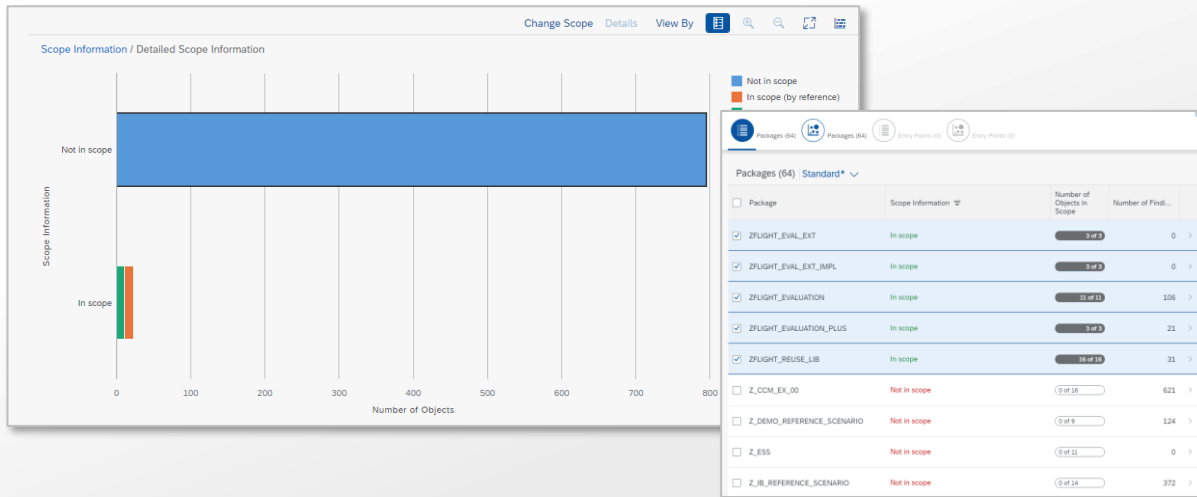
DEFINE custom scope manually: which custom code you want to take over to SAP BTP

AUTOMATIC scoping of custom code dependent objects

EVALUATE dependency to SAP standard
(through DB accesses and application API calls)

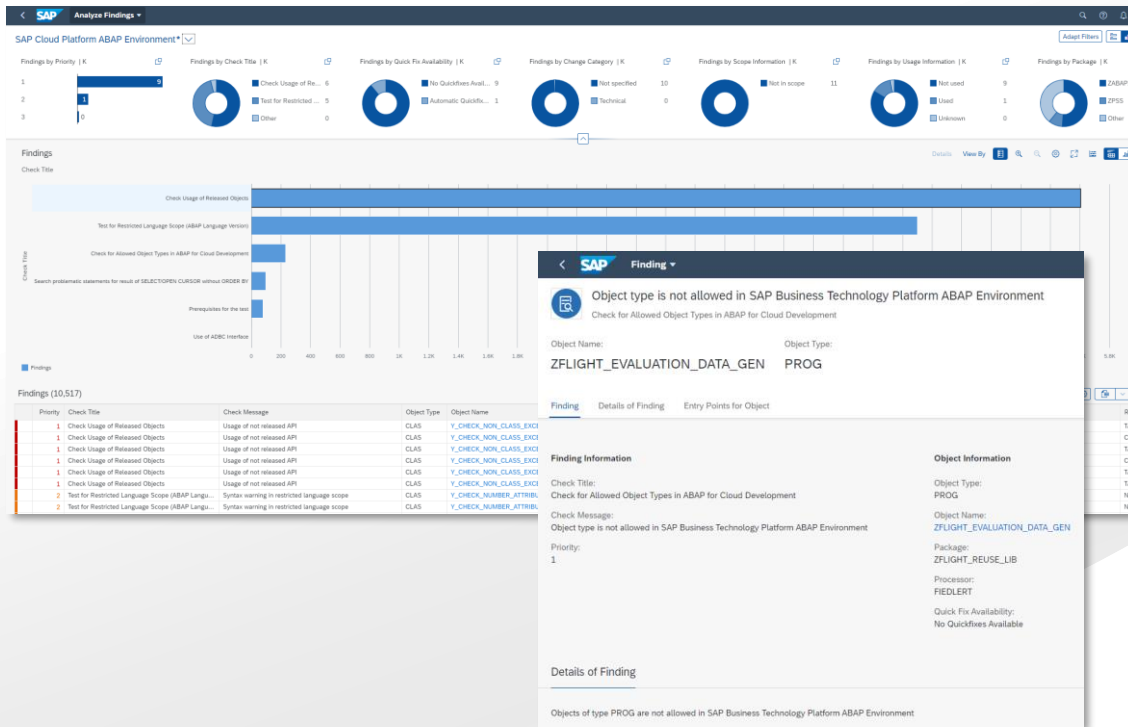**SAVE** custom code scope in the transport request

MOVE scoped packages to SAP BTP using abapGit
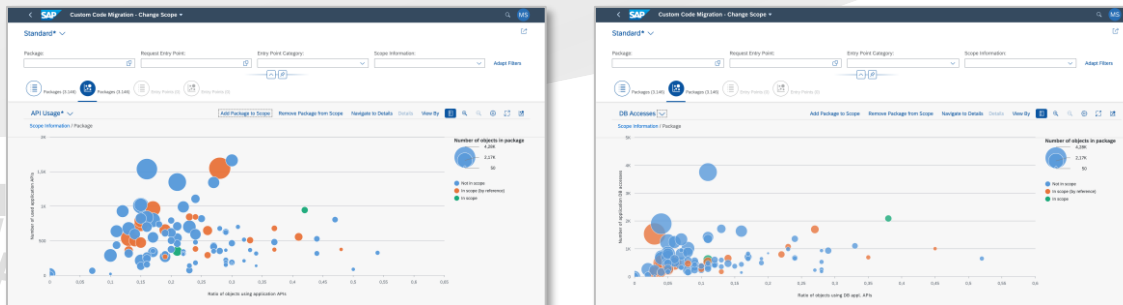
Migration to SAP BTP – Analysis of custom code

Analysis results

Find out if your custom code uses

- not supported technologies (e.g. Dynpro)
- not released objects for SAP BTP ABAP Environment
- not compatible ABAP statements with ABAP Language Version Cloud

Detailed analysis of a finding

Evaluation for automated code adaptation (quick fixes)

Use findings burndown chart

Download of analysis results

Migration to SAP BTP– Automated adaptation with Quick Fixes
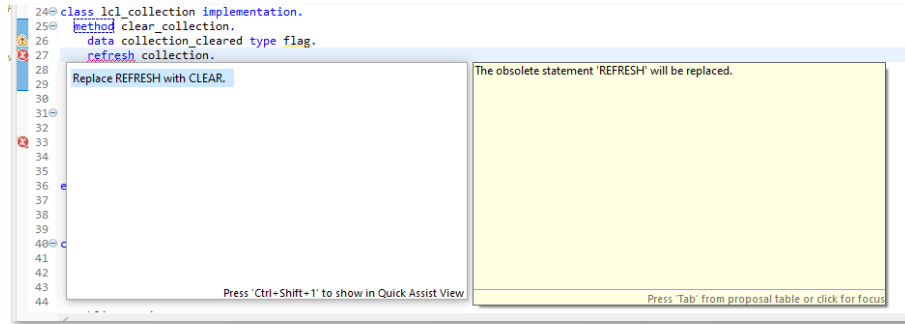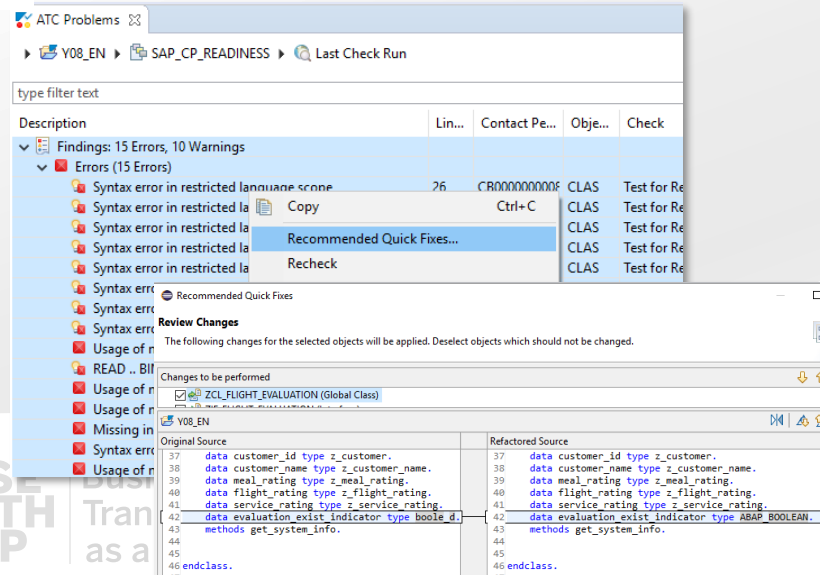
Single Quick Fix in editor

Mass Quick Fixes

- Quick Fixes are available in ABAP Development Tools in Eclipse

- Minimize efforts via automated adaptation

- Adapt to ABAP Language Version Cloud

- Adapt to usage of released objects

- API calls instead of direct access to SY fields

- Examples: use cases for Quick Fixes:

  🔧 Replace Data Element by released Data Element (e.g. ABAP_BOOLEAN)

  🔧 Replace syntax element by new syntax element (e.g. MOVE)

- Mass-enabled Quick Fixes to adapt whole packages at one shot

Check out Semi-automatic custom code adaptation for SAP BTP ABAP Environment

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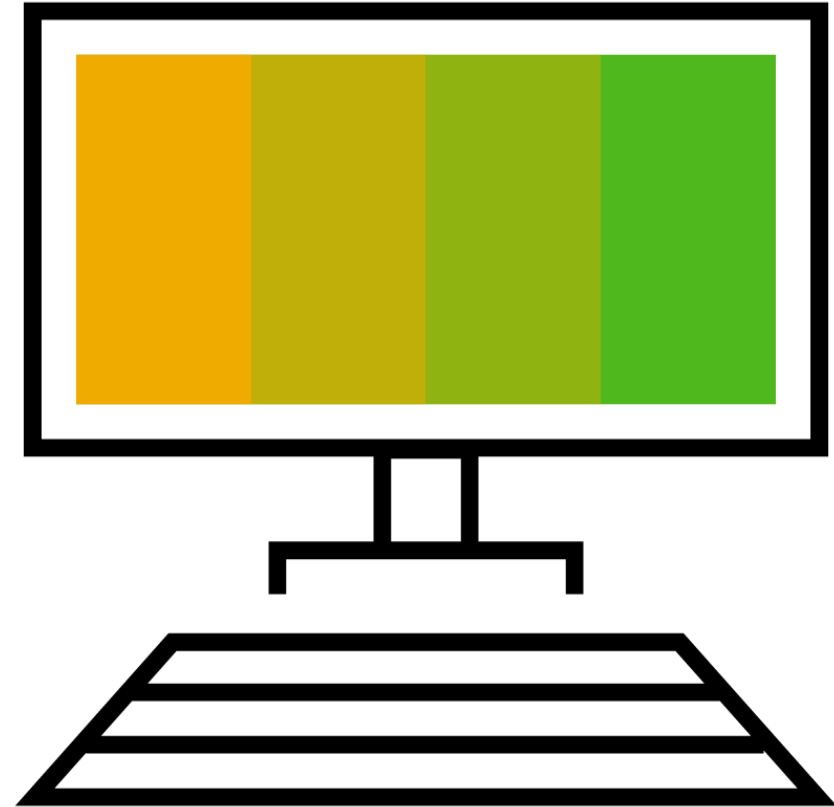
Code Vulnerability Analyzer (CVA) in SAP BTP ABAP Environment

Run CVA checks

- CVA in SAP BTP ABAP Environment is free of license fee
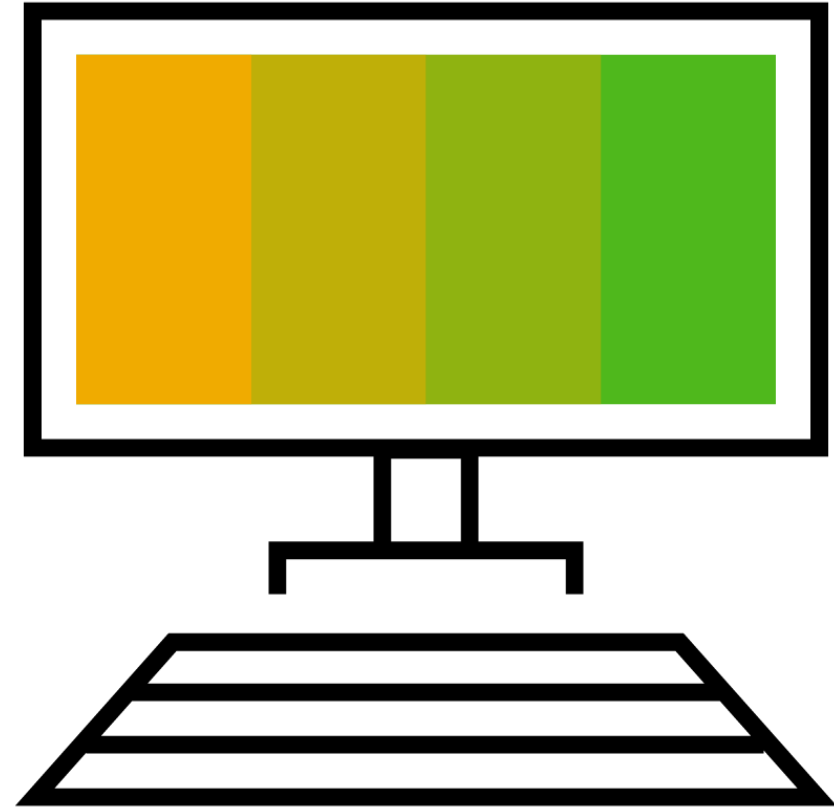- Create "Custom Code Analysis Project" and use SLIN_SEC check variant

CVA analysis results
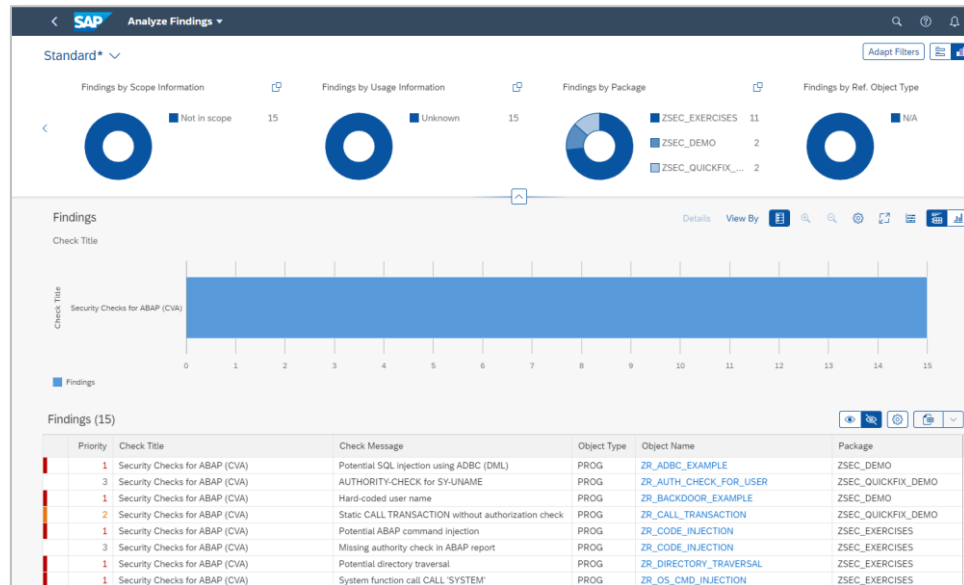
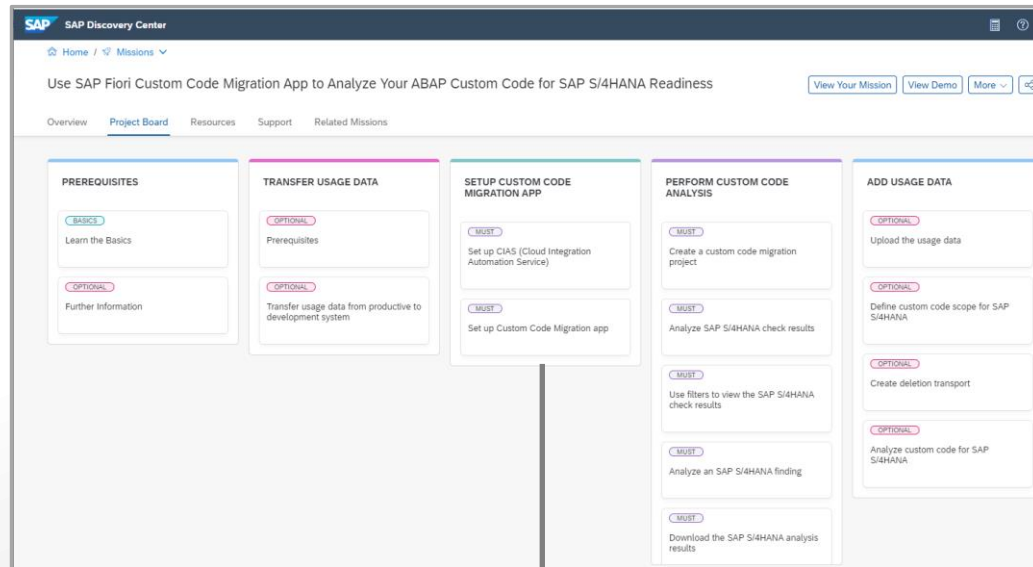👉 Check blog ABAP Test Cockpit in the Cloud – What is already possible

DEMO

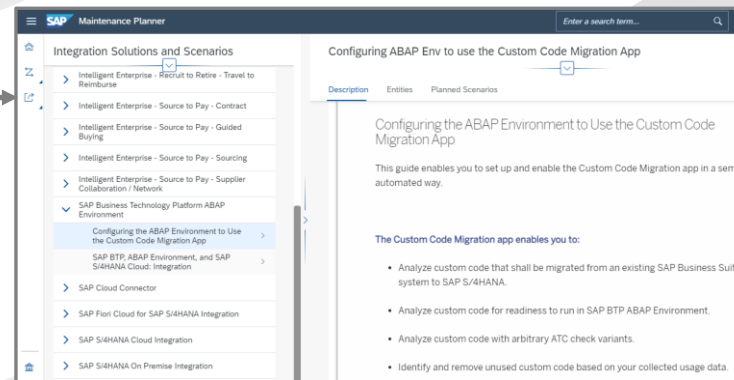# Custom Code Migration app – Get Started

SAP Discovery Center mission

- Custom Code Migration app in SAP BTP ABAP Environment
- Automated setup and configuration with CIAS guided workflow
- Step-by-step guided custom code analysis

👉 **Use SAP Fiori Custom Code Migration app to analyze your ABAP custom code for SAP S/4HANA**

CIAS workflow for Custom Code Migration app

Further information

SAP Community for ABAP Testing and Analysis:
https://www.sap.com/community/topics/abap-testing-analysis.html

Featured Content

Custom code adaptation for SAP S/4HANA

Find out how to adapt your custom code for SAP S/4HANA and which tools to use.

Watch the video
Read the blog
Read the FAQ
RISE with SAP and Custom Code Migration

Custom code analysis for SAP BTP

Learn how to analyze your custom code for SAP S/4HANA and for cloud using SAP BTP ABAP Environment

ABAP custom code analysis
Try It For Free: Custom Code Migration App

ATC in the cloud - What is already possible

Learn what is already possible with ATC in SAP BTP ABAP Environment

ATC in the cloud
Create your own ATC check variant
Create your own ATC check
Create and approve ATC exemptions

Expert Content

Custom code adaptation for SAP S/4HANA

All processes, recommendations, and tools for handling your custom code for the transition to SAP S/4HANA and during the upgrades within the SAP S/4HANA product family.

Challenge for your custom code
Make custom code ready for SAP S/4HANA
Adaptation for SAP S/4HANA
Adaptation for SAP HANA
Analysis with Custom Code Migration app
Semi-automatic adaptation with Quick Fixes in ADT in Eclipse
Backup unused code with gCTS
FAQ

Custom code analysis for SAP BTP

Custom code analysis options for SAP S/4HANA and cloud using SAP Business Technology Platform

Analysis options
Analysis for SAP S/4HANA
Analysis for SAP BTP
Move custom code to SAP BTP ABAP Environment
Semi-automatic adaptation for SAP BTP ABAP Environment

RISE WITH SAP
Business Transformation as a Service

Thank you!

Olga Dolinskaja
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June 22, 2022

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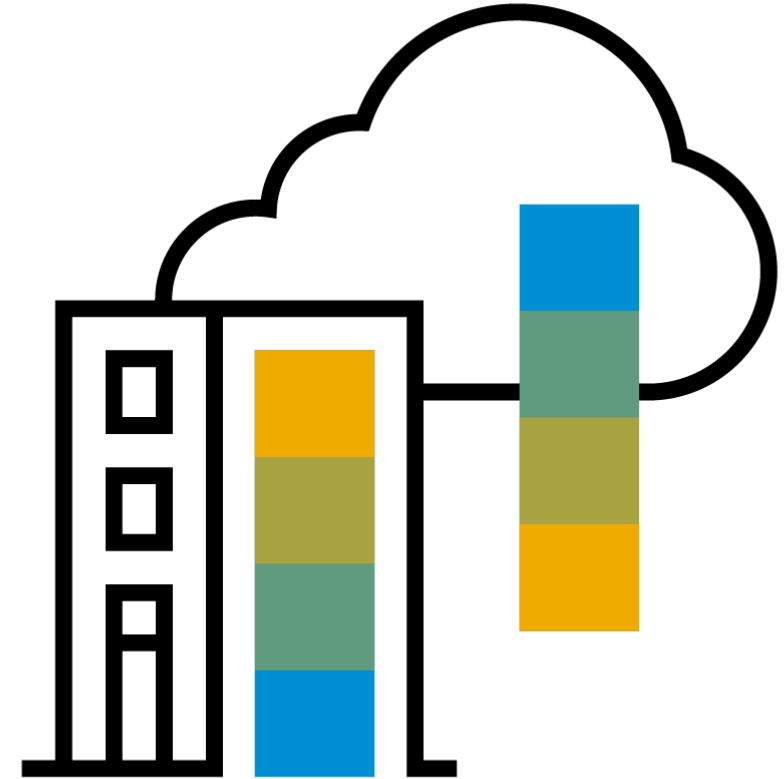# and Here and Here

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June 22, 2022

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Olga Dolinskaja, SAP
June 22, 2022

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Agenda

Agenda item/divider headline

- Details

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Thank you.

Contact information:

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