smartShift

Intelligent Automation for SAP Transformations:

How Automation De-Risks Custom Code Modernization

About Me
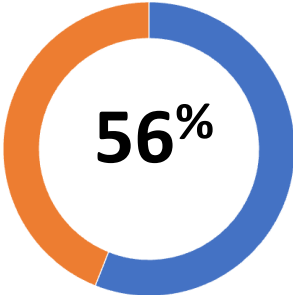
Marques Green
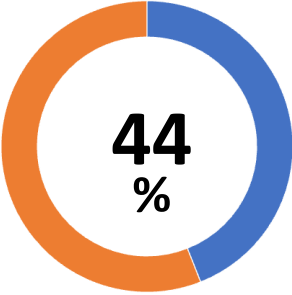Account Executive

mgreen@smartshift.com
512-633-8031

Custom Code is Needed

ASUG Research Findings

56%

44%

37%

31%
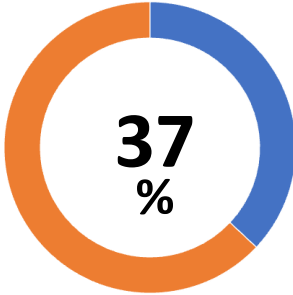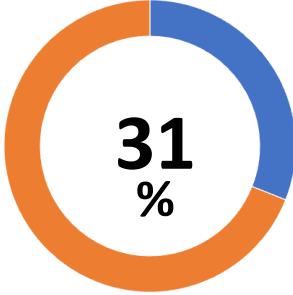
Industry specifics
not covered by
SAP Standard

Necessary to
connect
systems

Necessary
due to
regulatory
requirements

Essential
due to localization
or different
geographies

Source: smartShift/ASUG Market Research

Custom Code Remains Critical

As customers upgrade their SAP systems, they'll need to remediate and transform their custom code

72%
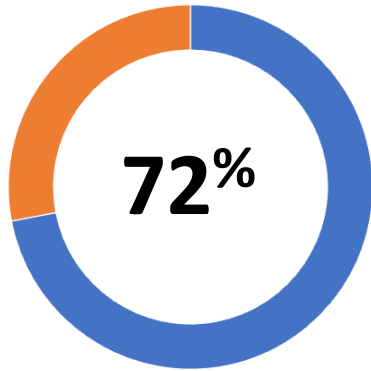
The majority of survey participants plan to retain their custom code as they proceed with upgrading to S/4HANA and beyond

Q. As your organization moves forward with SAP S/4HANA or other SAP system upgrades, how will your organization's custom code be handled? (Please select all that apply.) (n=177)

Custom Code Presents Challenges for Modernization
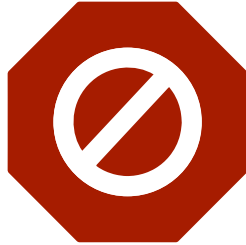
Barrier to upgrading/
migrating to a new
SAP offering

58%

Difficulty finding expertise
to maintain/enhance
custom code

37%

Source: smartShift/ASUG Market Research

Automation Offers Modernization Options

Speed

Accelerate the transformation process by **minimizing the need for manual remediation**

Confidence

Enhance the overall **quality, security, and stability** of the transformed code

Productivity

Eliminate the need for **business disruption**

Innovation

Modernize the system to be more **flexible, scalable, and agile**

![smartShift Intelligent Automation® logo]

- The only Intelligent Automation for SAP Custom Code Transformations

- 11 Patents - 10+ years of SAP ABAP Research & Development

- 1000+ Successful SAP Transformation Projects

- 2.5+ Billion lines of Code Remediated with <0.01% Code Transformation Error Rates

SAP Quality Awards

At smartShift, we develop and deliver automated solutions to accelerate business growth and de-risk the transformation of SAP custom code and applications.

Clean Core

Dual Maintenance

S/4HANA Transformation
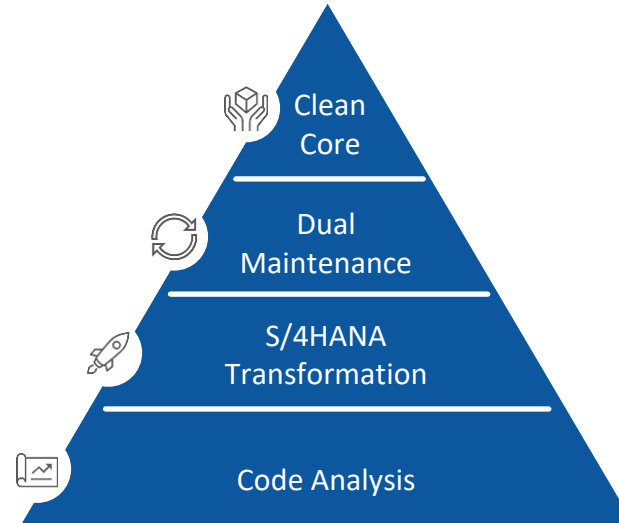
Code Analysis

powered by
smartShift Intelligent Automation®
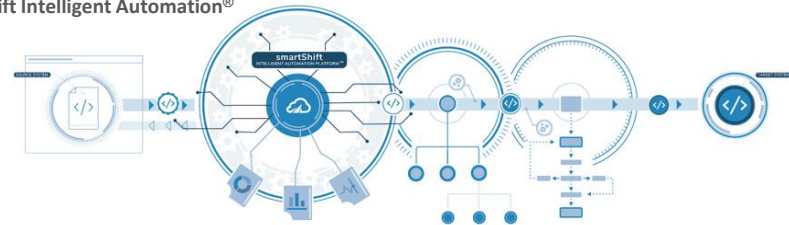
Custom Code Analysis

De-risk with data-driven planning. Know all changes for S/4 upfront & plan with confidence.

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Custom Code Transformation

Comprehensive transformation. Guaranteed quality - 1,000X better than manual approach.

Ruleset Summary

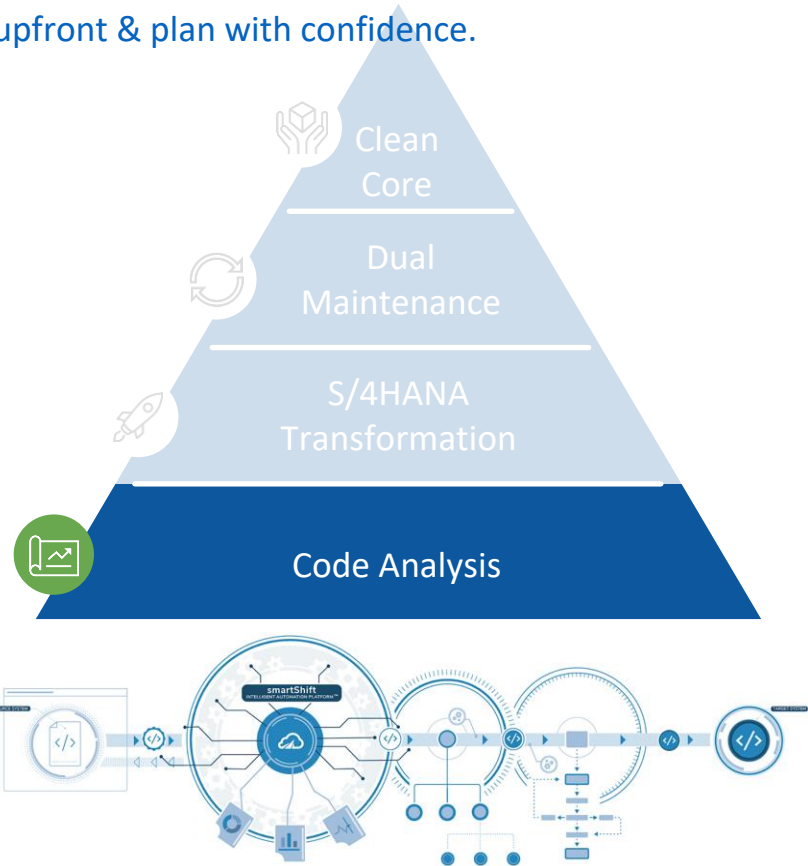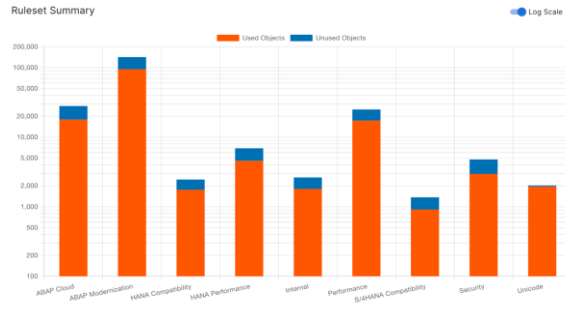| Rule Set	All Objects	Used Objects
ABAP Cloud	28,082	17,906
ABAP Modernization	141,579	94,824
HANA Compatibility	2,463	1,757
HANA Performance	6,910	4,577
Internal	2,635	1,805
Performance	25,035	17,291
S/4HANA Compatibility	1,366	912
Security	4,780	2,974
Unicode	2,023	1,947

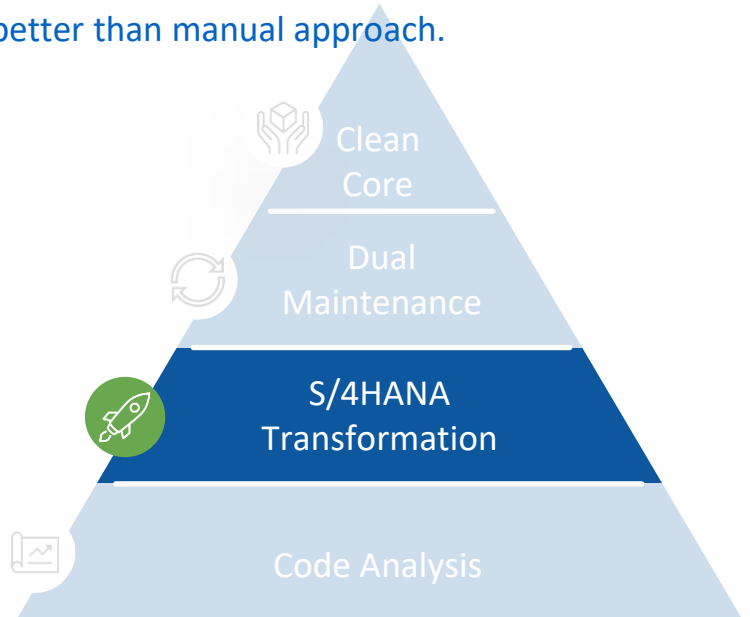Ruleset Summary — Used Objects / Unused Objects (Log Scale)

```
TABLES : bseg.

DATA gt_fagl_bseg_tmp TYPE fagl_t_bseg.          "$smart: 633

*$smart (E) – #633 Detected access to DB table BSEG. (A)

cl_fagl_emu_cvrt_services=>get_leading_ledger(    "$smart: 633
   IMPORTING
      ed_rldnr = DATA(gv_rldnr)                    "$smart: 633
   EXCEPTIONS                                      "$smart: 633
      error  = 4                                   "$smart: 633
      others = 4 ).                                "$smart: 633
IF sy-subrc = 0.                                   "$smart: 633
   CALL FUNCTION 'FAGL_GET_GL_DOCUMENT'            "$smart: 633
      EXPORTING                                    "$smart: 633
         i_rldnr = gv_rldnr                        "$smart: 633
         i_bukrs = '1'                             "$smart: 633
         i_belnr = '2'                             "$smart: 633
         i_gjahr = '3'                             "$smart: 633
         i_buzei = '4'                             "$smart: 633
      IMPORTING                                    "$smart: 633
         et_bseg = gt_fagl_bseg_tmp                "$smart: 633
      EXCEPTIONS                                   "$smart: 633
         not_found = 4                             "$smart: 633
         others = 4.                               "$smart: 633
IF sy-subrc = 0 AND gt_fagl_bseg_tmp IS NOT INITIAL. "$smart: 633
   bseg = gt_fagl_bseg_tmp[ 1 ].                   "$smart: 633
   FREE gt_fagl_bseg_tmp.                          "$smart: 633
ENDIF.                                             "$smart: 633
ENDIF.                                             "$smart: 633
```
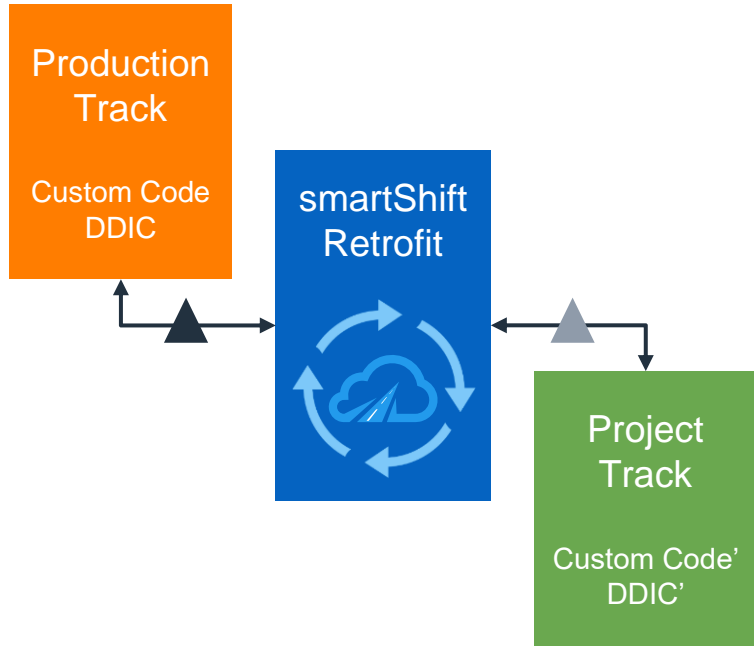
```
TABLES : bseg.

SELECT SINGLE *
   FROM bseg
   WHERE bukrs = '1'
     AND belnr = '2'
     AND gjahr = '3'
     AND buzei = '4'.
```

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Clean Core

Dual Maintenance

S/4HANA Transformation

Code Analysis
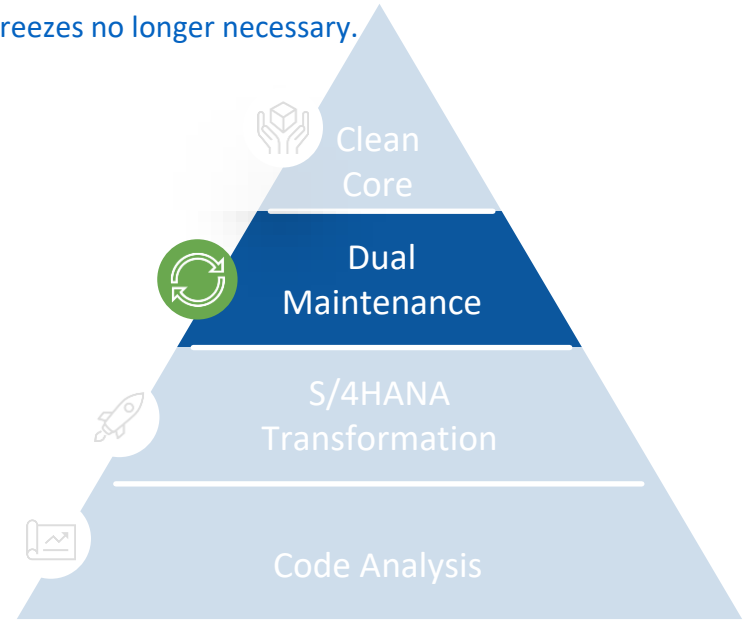
smartShift

Automated Dual Maintenance

Enables business agility & innovation. Dev restrictions, prolonged code freezes no longer necessary.

Production Track

Custom Code DDIC

smartShift Retrofit

Project Track

Custom Code'
DDIC'

Clean Core

Dual Maintenance
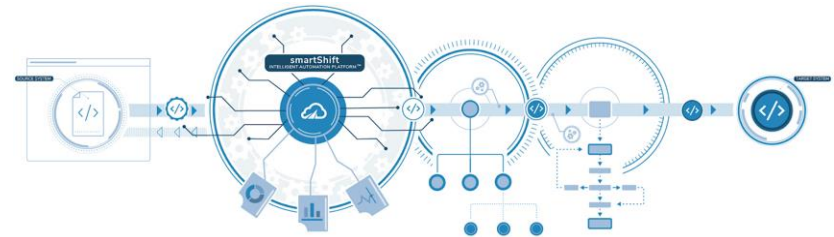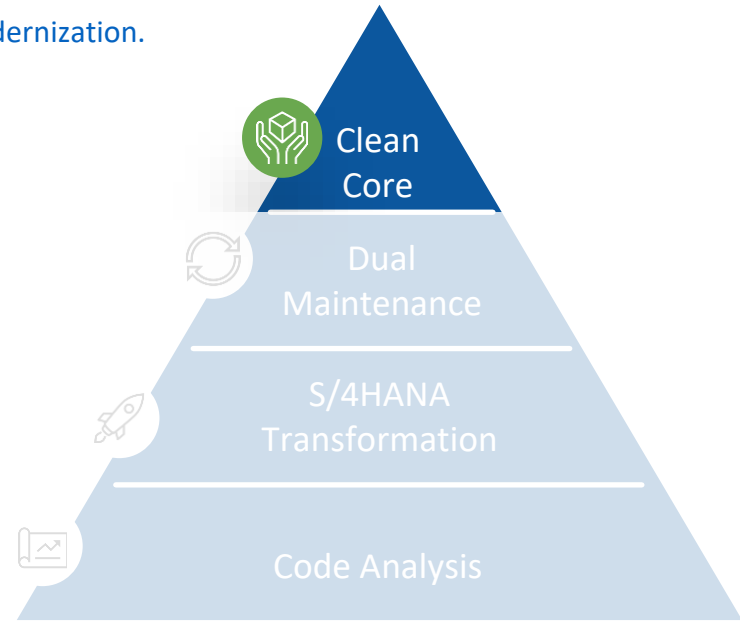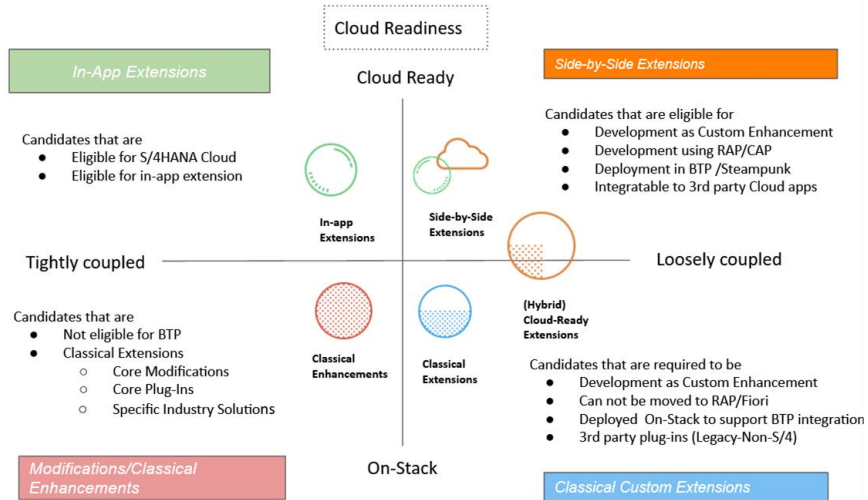
S/4HANA Transformation

Code Analysis

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Clean Core Assessment

Informed feasibility, design, approach, and planning for application modernization.

In-App Extensions

Cloud Readiness

Cloud Ready

Side-by-Side Extensions

Candidates that are
- Eligible for S/4HANA Cloud
- Eligible for in-app extension

Candidates that are eligible for
- Development as Custom Enhancement
- Development using RAP/CAP
- Deployment in BTP /Steampunk
- Integratable to 3rd party Cloud apps

In-app Extensions

Side-by-Side Extensions

Tightly coupled

Loosely coupled

Candidates that are
- Not eligible for BTP
- Classical Extensions
  - Core Modifications
  - Core Plug-Ins
  - Specific Industry Solutions

Classical Enhancements

Classical Extensions

(Hybrid) Cloud-Ready Extensions

Candidates that are required to be
- Development as Custom Enhancement
- Can not be moved to RAP/Fiori
- Deployed On-Stack to support BTP integration
- 3rd party plug-ins (Legacy-Non-S/4)

Modifications/Classical Enhancements

On-Stack

Classical Custom Extensions

Clean Core

Dual Maintenance

S/4HANA Transformation

Code Analysis

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smartShift Overview - Global Customers

Recent S/4HANA Customer Success

Trusted solutions for the largest SAP customers in the world - just like you

BMW

- S/4HANA migration factory for 80+ system landscape
- Automation for S/4HANA, security, standardization, and performance
- Agile, sprint methodology
- To date:
  - Over 60 projects completed
  - 10MM+ LoC, 100k+ objects remediated
  - Over 7MM EUR saved
  - MM of obsolete LoC safely decommissioned

JABIL

- ECC to S/4HANA
- 46K custom ABAP objects
- Dual Maintenance automated with smartShift Retrofit
  - Critical enabler of agile continuous development & test process

JBS

- Multi-wave ECC to S/4HANA rollout
- 42K custom ABAP objects / 3.5MM lines of code
- Transformation and optimization
- Selective data/carve-out approach
- Automated Dual Maintenance with smartShift Retrofit ensuring continuous alignment ECC to S/4HANA

P&G

- Automation for 200k custom ABAP objects. Manual approach not feasible.
- 9 system consolidation to 3 templates + S/4HANA conversion
- Strategic development partner
  - Automated Interface Identification
  - Dual Maintenance
  - Clean-Core Modernization

Better Together

Test drive our analysis capabilities

A complimentary rapid code analysis to gain insight into your SAP modernization roadmap