Frequently asked Questions
This document summarizes the answers to some of the most frequently asked questions about the SAP Solution Manager 7.1 application Scope & Effort Analyzer.

SAP Active Global Support, 2014 Version 1.0

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SAP Solution Manager 7.1 SP11: Scope & Effort Analyzer

Frequently Asked Questions

INTRODUCTION

Retrieve and assess analysis results on-the-fly

Pain Points, Addressed by the Tool
- No transparency of which custom code and modifications are really used, and which to adjust
- High costs for evaluation, because a test update of the sandbox system is required before the project starts
- Significant implementation effort for Business Process Change Analysis used for Test Scope Optimization
- No transparency of the change impact and the business process test scope

Functional Overview
It is often difficult to estimate the scope and effort in the early planning phases of SAP enhancement package or support package projects. Identifying efficient test scope and necessary code changes is a major difficulty. A guided procedure embedded in SAP Solution Manager helps you to enter information about the planned maintenance event. This input data is supplemented with customer-specific system usage data and dedicated change information that is based on the ABAP object lists now available. The application performs all necessary calculations in the background and provides the results as a graphical summary for the project team along with detailed analysis views for experts involved, such as development and test managers.

Goal
Customers planning to deploy SAP Enhancement or Support Packages will get detailed information about the cost and effort for code adjustments and regression testing. They can also analyze the impacted business processes to determine the associated development teams and business analysts. This information is available without needing to physically install the software update anywhere in the system landscape.
Where can I find documentation about Scope & Effort Analyzer tool?

Information materials about Scope & Effort Analyzer and related topics are available through the following channels:

  Direct access: [http://service.sap.com/SEA](http://service.sap.com/SEA)


Which component should I use to raise a customer message?

- For Scope and Effort Analyzer application a new message component was created. To request support open a customer message on component “SV-SMG-IMP-SEA”.
- For issues on custom code management related topics use component “SV-SMG-CCM”.

What are the technical prerequisites to start the Scope & Effort Analyzer?

To use the Scope & Effort Analyzer application you need at least SAP Solution Manager 7.1 SP11. On the managed SAP system we recommend the latest SP-PI version (ST-PI 2008_1_xxx SP09) to get the full advantage of Scope and Effort analysis.

Which system should we analyze?

In general you can analyze any ABAP based SAP NetWeaver system of your system landscape which fulfills the technical prerequisites and where you plan to run a maintenance event such as support Package installation or SAP Enhancement Package implementation.

What are the technical prerequisites for the systems we want to analyze? You can analyze any ABAP based SAP NetWeaver system where you plan a maintenance event. For proper analysis results we recommend to activate Usage and Procedure Logging (UPL). UPL information is the prerequisite to evaluate which custom code objects and modifications must be adjusted because of their usage. Furthermore Scope and Effort Analyzer can outline used and unused custom code objects. Usage and Procedure Logging is running on the managed system itself to collect all usage data of the system. The usage data information is moved to SAP Solution Manager system BW cubes for further analysis. If you want to activate UPL the following prerequisites must be met:

- SAP NetWeaver 7.01 SP10 or
- SAP NetWeaver 7.02 SP09 + Kernel 720 Patch 94 or
- SAP NetWeaver 7.31 SP03 or higher

The recommended minimum kernel version is: Kernel 7.20 patch >430 or Kernel 7.21 patch >120 and ST-PI 2008_1_xxx SP07 or higher.

If you want to transfer historical UPL data already stored in your managed system this data can only be transferred to SAP Solution Manager system if the managed system has the ST-PI version: ST-PI 2008_1_xxx SP09 (or above).

All UPL based prerequisites can also be found in SAP Note [1828848](http://scn.sap.com/docs/DOC-47361), Usage and Procedure Logging: Technical prerequisite.
Are there mandatory configuration steps required before the Scope & Effort analyzer can be used?
In the managed system (the system to be analyzed) no manual configuration steps are necessary. Basis configuration settings are required in SAP Solution Manager 7.1 SP11 system:

   Customers running maintenance on a regular basis should have no additional effort here.

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C. SOLMAN_SETUP Procedure
   After the technical installation of SP11 run through the SOLMAN Setup steps. The following steps are a minimum prerequisite to run Scope & Effort Analyzer tool:
   - System preparation
   - Basic Configuration
   - Managed Systems Configuration
   - Custom Code Management
   The configuration steps of custom code management will activate UPL in the managed system and create the required structures to transfer UPL data from the managed system into the Solution Manager system. Run the following steps:
   Call transaction code SOLMAN_SETUP and select on the left menu “Custom Code Management”. Run the guided procedure up to step number 6. Further information can be found in the “Help” section for all configuration steps.

### USAGE & PROCEDURE LOGGING (UPL)

What is Usage and Procedure Logging (UPL) and how does it work?
Usage and Procedure Logging (UPL) is a new functionality available in any ABAP based system based on the core functionality of SAP Coverage Analyzer. It will be used to log all called and executed ABAP units (procedures) like programs, function modules down to classes, methods and subroutines. On top you can evaluate the usage of smart forms. This new enhanced SAP NetWeaver capability will have no performance impact on your system and will capture usage information of ABAP routines directly as they occur. UPL will give you 100% coverage of usage without estimations or evaluation of ABAP call stacks. This also includes the detection of dynamically called ABAP elements. UPL is the one and only technology to close the existing gaps in the SAP workload statistics which only captures static calls as opposed to static and dynamic calls. With the secured access to the UPL data, your usage information is protected against 3rd party eyes. The full reporting capabilities with enriched information in BW of the Solution Manager will give you the flexibility to analyze ABAP usage on demand. A full documentation about Usage and Procedure Logging is available at: SAP Usage & Procedure Logging Documentation (Link: https://websmp104.sap-ag.de/~sapidb/011000358700000427102012E) and here: SAP Note 1955847 UPL: Activation Procedure and Authorization Handling in SAP Solution Manager.

When should we activate UPL data collection of our managed systems?
Usage and Procedure Logging is activated in your central SAP Solution Manager system for any connected managed system via the Custom Code Management setup procedure, available in transaction code SOLMAN_SETUP. We generally recommend the activation of UPL to collect usage data of your managed system as early as possible. The collection period of UPL data should provide a realistic picture of your continuous system usage and ideally should include month end, period end and year end closure activities. A proper amount of usage data will have a positive influence on the result quality of the Scope & Effort Analyzer. A collection period of at least three month is recommended. If less usage information is available we recommend to run the Scope & Effort Analysis again after some weeks or months and to compare both results.

Transfer historical UPL data to SAP Solution Manager requires ST-PI 2008_1_xxx version SP09 or higher in the managed system. The default retention time of UPL data collection is 14 days in the managed system. Older historical UPL data are only available, if the retention time was changed to a higher value.

Which information of the result report is based on UPL usage information?
UPL usage data is used for two different calculation scenarios:

- For the generation of semi-dynamic TBOMs for Test Management
  If no UPL data are available only static TBOM generation is possible.

- To identify unused custom code objects and modifications
  If no UPL data are available the object details tab will show the result “usage information not available”. This means: it is unknown if this particular object was in use during the analysis period.

Are analyses of dynamic procedure calls and advanced statistic supported by UPL?
Dynamic procedures are covered by UPL. Advanced statistics such as any type of user related information are not covered in UPL data logging.

Which authorizations are required to transfer UPL data from the managed system to the SAP Solution Manager system?
Starting with SAP Solution Manager 7.1 SP10 the UPL extractor is using another RFC destination (TMW RFC) which has all authorizations needed (see SAP Note 1830640 for authorizations of standard users as of SP9 onwards) to create the UPL Extractor and the background job in the managed system. The background job will be created with the user maintained in the TMW RFC destination. Further details are described in SAP Note 1955847.
Please note that the user and RFC creation is part of the SOLMAN_SETUP procedure. By running the automated procedures no manual activities are necessary.
RUNNING THE ANALYSIS

How can I start the guided procedure of Scope & Effort Analyzer?
The application Scope & Effort Analyzer is integrated in SAP Solution Manager 7.1 available as of SP11. We have integrated the start screen in different work centers (transaction code SOLMAN_WORKCENTER). You can, for example, access the Scope & Effort Analyzer tool via work centers Change Management, Implementation/Upgrade and Test Management.

INTERPRETATION OF ANALYSIS RESULTS

What is the definition of custom code versus modifications?
Customers often develop their own software to extend the range of functions offered by SAP. These custom developments are designed to fulfill specific requirements or provide functions that are not included in the standard software shipped by SAP. Custom code is developed in the customer own namespace or objects starting with ‘*_' patterns, for example ‘Z_objectname’.
Modifications are changes or adjustments to SAP objects, mostly created with the help of modification assistant, but the object is still owned by SAP. That means if corrections or support packages are installed in the system, modified SAP objects must be adjusted to the new object version.

If the business process documentation includes test cases would the SEA result provide transaction codes or impacted test cases?
In this scenario the analysis report will recommend impacted test cases.

TEST MANAGEMENT

What is the semi-dynamic TBOM generation?
The functionality of semi-dynamic TBOM generation is available as of SAP Solution Manager 7.1 SP10. The innovative development is the use of system usage information (UPL data) to generate TBOMs.
Semi-dynamic TBOM generation uses the usage information of the managed system (Usage and Procedure Logging) to generate TBOMs. The result will cover only those objects which are used in production system. Further objects part of the ABAP call hierarchy not marked as used are not covered anymore. This results in a clear and reliable usage picture.

Example of semi-dynamic TBOM generation

Business Process Change Analyzer

TBOM – Example

Example of dynamic TBOM generation
What is the impact on the test management results if no UPL data are available?
The functionality of semi-dynamic TBOM creation is not possible if UPL data are not available. The application will create “static” TBOMs if a given transaction code has no usage information available. A given transaction code is a transaction code which was reported “in use” on the managed system as of ST03n usage information.

In the result analysis I can see that a button “test cases”. If there is no business process information so far in the system are test cases created?
Scope & Effort Analyzer tool does not create any test cases. In BPCA Test Scope Optimization we have “test case” recommendations where BPCA recommends where customers can invest in creating test cases based on the impact of change.

Does Scope & Effort Analyzer create test cases based on the given recommendations what to test?
Scope & Effort Analyzer does not create test cases. It identifies the test scope. If no test cases are available, it assumes the transaction code as a test object and makes the test effort prediction.

SUPPORTED SCENARIOS

Is this tool limited to ABAP or can it also be used for Java custom developments?
Scope & Effort Analyzer tool can analyze ABAP based SAP NetWeaver systems. Java based SAP NetWeaver systems are not in scope of Scope & Effort Analyzer tool. Analysis on dual-stack systems can be scheduled, but only the impact for the ABAP part will be covered.

Which maintenance events are in scope of Scope & Effort Analyzer tool?
The following maintenance events can be analyzed with our application:

- Implementation of SAP Enhancement Packages
- Installation of Support Packages
- Combination of both
Installation of AddOns are not yet covered by Scope & Effort Analyzer tool.

Are the transactions codes covered which are impacted by the maintenance event?
Scope and Effort Analyzer tool will provide the information which transaction codes are recommended to test based on the changes by the maintenance event. A simple list of all affected transaction codes is not provided.

Does Scope and Effort Analyzer take into account the impact of the new ‘business functions’ that customers plan to activate with the EHP deployment?
Scope and Effort Analyzer tool calculates the impact of a technical Support Package or Enhancement Package deployment. The impact on functional changes such as activation of business functions are covered separately by the Business Process Change Analyzer (BPCA) tool.
How does Scope & Effort Analyzer tool handle SAP Notes for example notes need to be reapplied, notes that are obsolete and need to be reset or new notes that should be considered to fix issues in the upgraded system levels?

At present these needs are covered by the functionality “system recommendation”. System recommendation searches in the SAP Support Portal for notes for the selected technical system, and sends the information to the SAP Solution Manager. System recommendations are integrated into change management. You can, for example, create a change request directly, after selecting relevant notes.

The handlings of all SAP Notes already implemented in the system are handled by SPAU functionality as part of the update procedure.

Are authorization changes included, for example roles that need to be changed because of changes in SAP authorization objects during the update?

This topic is not yet included in Scope & Effort Analyzer tool.

Are management fields available similar to CDMC or CCLM, where the identified objects can be assigned to somebody, a status can be set, expected work time can be set and actual work time recorded, priority based on type of change, transport numbers, etc.?

Scope & Effort Analyzer is a tool to plan change events such as Support Package installations. The aim is to support customers in an early planning state of the project to prepare the change event in terms of required skillsets, timelines, scope and to understand the related efforts. The project realization phase is not covered by Scope & Effort Analyzer tool but the integration of available tools to support maintenance events is ongoing and further solutions are planned.

Are Enhancement points handled, for example if an enhancement point has to be adjusted after the upgrade, is that shown in the Scope and Effort Analyzer?

It is planned to include analysis on enhancement points as part of the next tool versions.

**EFFORT AND IMPACT ON PERFORMANCE**

How long does it take to setup the analysis project and get the results?

Once the prerequisites are fulfilled the guided procedure can be started right away. For the guided procedure you should plan some time (30 minutes up to one hour, based on the specific customer scenario). The pure runtime of the guided procedure will be just some minutes, depending on the system performance. All background calculation jobs are triggered at the end of the guided procedure and the user can retrieve the result analysis once the result is available at any later point in time (e.g. after some days).

We will provide more statistics on runtimes and average durations after a valid amount of customer data are available.

How long are the background jobs running on the specified systems?
The runtime of background jobs are based on the number of available amount of data to process and the system performance. We will provide reference data soon.

INTEGRATION IN E2E MAINTENANCE PROCESS

How does the use of this tool differ from the customer requesting a CQC EHP Installation check service? The aim of the CQC EHP Installation check service is a technical readiness check of the system in scope including a high level effort calculation. The result report of Scope and Effort Analyzer goes far beyond a high level effort calculation. The result report covers information about the scope and effort of the two major effort drivers: custom code / modification adjustments and test management. These information are enriched with details about test scope optimization. All results are based on real system usage information provided by Usage and Procedure logging (UPL). This makes the Scope and Effort analyzer a valuable planning tool for upcoming maintenance changes and can support you to highly optimize those events on a long term view.

EXAMPLE: SNAPSHOT OF SCOPE & EFFORT ANALYZER RESULT SCREEN