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SAP® Environment, Health, and Safety Management

Migrating to Component Extension 5.0 for SAP EHS Management



Document History

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1 Getting Started

1.1 About this Document

This document provides an overview of a migration scenario from the earlier SAP solution for managing environment, health, and safety (formerly called SAP EHS Management as part of SAP ERP) to the new component extension 5.0 for SAP EHS Management.

In the remainder of this document, the earlier SAP solution is referred to as the "EHS solution" [as part of SAP ERP], and the new component extension 5.0 for SAP EHS Management is referred to as the "add-on" in the body text. It describes coverage of business scenarios, data migration issues, and the particular migration steps to be executed.

> **Note**
>
> If you want to upgrade from an earlier release of the component extension for SAP EHS Management to component extension 5.0, see the Upgrade Information in the Master Guide.
>
> The central starting point for the implementation of your SAP solution is the Master Guide at http://service.sap.com/instguides.

1.2 Planning Information and Useful Links

For more information about planning topics not covered in this migration information, see the following content on SAP Service Marketplace.

Content	Description	Location on SAP Service Marketplace
SAP EHS Management Master Guide	Central starting point for the technical implementation of your SAP application/solution	http://service.sap.com/instguides → SAP Business Suite Applications → SAP EHS Management → Component Extension for SAP EHS Management → Release 5.0
SAP EHS Management Security Guide	Information for technology consultants and system administrators about securing your data and processes to prevent unauthorized access to critical information.	
SAP EHS Management Operations Guide	Information for technical and solution consultants, as well as support specialists and system administrators about managing and maintaining your SAP applications to run optimally.	

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Content	Description	Location on SAP Service Marketplace
SAP EHS Management Sizing Guide	Information for system administrators, technical project managers, and consultants about sizing, calculation of hardware requirements, such as CPU, disk and memory resource.	
General information about SAP EHS Management		http://service.sap.com/ehs

1.3 Further Useful Links

The following table lists further useful links on SAP Service Marketplace:

Content	Location on SAP Service Marketplace
Information about creating error messages	http://service.sap.com/message
SAP Notes search	http://service.sap.com/notes
SAP Software Distribution Center (software download and ordering of software)	http://service.sap.com/swdc
SAP Online Knowledge Products (OKPs) – role-specific Learning Maps	http://service.sap.com/rkt

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2 Migration Overview

Component extension 5.0 for SAP EHS Management is an add-on that provides business scenarios for managing environment, health, and safety in a homogenous, process-oriented way. In this version, the add-on contains new functionality for incident management, risk assessment, product compliance, and IMDS compliance.

In this chapter, there is an overview of the migration scenarios for incident management and risk assessment (2.1) and for product compliance and IMDS compliance (2.2).

2.1 Health and Safety

2.1.1 Migration at a Glance

You can migrate data for use in the processes of managing incidents and managing EHS risks.

The risk assessment functionality delivered in the add-on does not support integration with the specification database to access reference values, measurement projects, or the definition of HR tasks or materials as risks.

This functionality supports customers with a low number of hazardous substances that are not used in an integrated scenario with other processes, such as processes for hazardous substance management, product safety, or dangerous goods management.

EHS Solution as Part of SAP ERP 6.0x	Add-On	Action / Further information	Chapter
Industrial Hygiene and Safety: Work Areas	Managing EHS Locations	Migration with possible take-over from the Plant Maintenance component	3.1 Business Object: Work Area / Location
Industrial Hygiene and Safety: Incident/Accident Log	Managing Incidents	Migration of configuration (phrases) Migration of major incident and safety measure data	5.1.3 Business Object Incident 6.6 Configuration Migration
Industrial Hygiene and Safety: Reports	Managing Incidents – Review and Completion of Incident Records	Manual migration of print form templates Standard delivery of German and U.S. forms	4.1.10.1 Print Form Templates
Industrial Hygiene and Safety: Reporting for the Incident/Accident	Managing Incidents - Generate BI Analytical Reports	Adapt BI content to the BI content delivered by component extension for SAP EHS Management.	4.1.12 Analytical Reporting

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EHS Solution as Part of SAP ERP 6.0x	Add-On	Action / Further information	Chapter
		To report using BI across the old and the new incident, there are guidelines for manual migration of the old incident data provided in this document.	
Industrial Hygiene and Safety Risk Assessment	Managing EHS Risk	Manual migration of configuration Manual migration of non-chemical agents into hazard register Manual migration of risk assessments	Table 6.1 Process Overview for Managing EHS Risk
Industrial Hygiene and Safety: Exposure Management	Managing EHS Risk – Analyze Risks	Manual migration of agents Manual migration of amounts	
Industrial Hygiene and Safety Measures	Managing EHS Risk – Treat Risks	Manual migration of configuration Manual migration of safety measures into controls.	

You can use the following two deployment options to run the add-on:

On-Top Deployment

In an on-top scenario, you install the add-on on top of an SAP ERP 6.05 or higher system. This means, you upgrade your ERP system to enhancement package 5 first which gives you the advantage of achieving a lower TCO than with a side-by-side deployment. You can upgrade to SAP enhancement package 5 or higher for SAP ERP 6.00 and install the add-on in one installation step. For more information on installation, see SAP Note 1716626.

In this deployment scenario, you transfer configuration settings and data from incident management in the EHS solution as part of SAP ERP into the add-on on the same system.

Side-by-Side Deployment

If you do not want to upgrade the existing ERP system to enhancement package 5 or higher, you install the add-on on a separate server on top of a newly installed SAP ERP 6.05 or higher. In this case you take over legacy data and configuration from incident management in the EHS solution as part of SAP ERP across a system border. You also replicate some configuration settings from remote systems (such as from the Human Resources system, Plant

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Maintenance system, Quality Management system, and central master data), and set up remote connections to these systems.

2.1.2 Migration Paths

Migration to the add-on is supported starting from SAP ERP 6.00 and all enhancement packages up to enhancement package 6 (SAP ERP higher).

If you want to migrate from an earlier release, contact your local SAP representative.

2.1.3 Minimal System Landscape

For information about system landscape options, see the Master Guide on SAP Service Marketplace at http://service.sap.com/instguides → SAP Business Suite Applications →SAP EHS Management →Component Extension for SAP EHS Management → Release 5.0.

2.2 Product Compliance

This chapter describes a summary on how to migrate from Product and REACH Compliance 2.0 to the add-on.

2.2.1 Important SAP Notes

SAP Note Number	Title	Description	Mandatory/ Recommended
1718421	Error when reading tables using RFC / data migration	Apply this SAP Note to solve a system dump when migrating *SAP Product and REACH Compliance 2.0* data.	Mandatory
2083598	After the migration a compliance requirement revision refers to a regulatory list revision although the compliance requirement is not substance list related.	After migrating specifications into compliance data objects you call the compliance workbench and select a compliance requirement which is not substance list related. The compliance requirement revision refers to a regulatory list revision although the compliance requirement is not substance	Mandatory

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SAP Note Number	Title	Description	Mandatory/ Recommended
		list related.	

2.2.2 Migration Paths

The migration path depends upon the product installed. The following products have to be considered:

- *Compliance for Products 2.2* (CfP 2.2) is a predecessor product of *SAP Product & REACH Compliance 2.0* (PRC 2.0)
- *SAP REACH Compliance* (SRC 1.1) is a predecessor product of *SAP Product & REACH Compliance 2.0* (PRC 2.0)
- *SAP Product & REACH Compliance 2.0* is a predecessor product of component extension 5.0 for SAP EHS Management

CfP 2.2 and *SRC 1.1* are harmonized with *PRC 2.0*. For these products, a two-step migration is necessary

- *CfP 2.2* → Component Extension for *SAP EHS Management*
- *SRC 1.1* → PRC 2.0 → Component Extension for *SAP EHS Management*
- *PRC 2.0* → Component Extension for *SAP EHS Management*

This document describes only the migration from *CfP 2.2* and *PRC 2.0*. The migration from *PRC 2.0* to the component extension of *SAP EHS Management* is supported starting from SAP ERP 6.00 up to SAP enhancement package 5 or higher for *SAP ERP*.

If you want to migrate from a lower release, contact your local SAP representative.

2.2.3 Deployment Scenarios

You can use the following two deployment options to run the add-on:

On-Top Deployment

In an on-top scenario, you install the add-on on top of an *SAP ERP 6*.05 or higher system. This means, you upgrade your ERP system to enhancement package 5 first and have the advantage of achieving a lower TCO than with a side-by-side deployment. You can upgrade to SAP enhancement package 5 or higher for *SAP ERP* 6.00 and install the add-on in one installation step. For more information on installation, see SAP Note 1946805.

In this deployment scenario, you transfer configuration settings and data from *SAP Product and REACH Compliance* (of the EHS solution as part of *SAP ERP*) into the add-on on the same system.

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2.2.4 Migration at a Glance

The following table summarizes the components and functionalities of product and IMDS compliance business scenarios.

SAP Product and REACH Compliance 2.0	Java NetWeaver / ABAP Component	Add-On	Action / Further information	Chapter
Compliance Workbench		Compliance UI based on ABAP Web Dynpro	No migration. Replaced by new compliance UI	
BOMBOS (Bill Of Material Transfer)		BOMBOS has been enhanced with SAP Business Workflow in the new namespace	Migration report for BOM tasks. New exit to update compliance object data. Changed and revised Procure and PV exit logic.	4.1.13 BOMBOS
IMDS		Functionality has been copied into the new namespace. It has been enhanced with the linkage to the compliance object and process integration	Migration report to migrate IMDS master data. Migration report to assign existing MDS to compliance object data BAdI Enhancements have to be migrated manually into the new namespace.	4.1.14 IMDS
Work List Management		Has been replaced with the Automated Change Processing (ACP)	No migration as functionality has been replaced with ACP	
Reporting - WWI			No migration of existing material declaration reports. WWI reporting is replaced with SAP Interactive Forms by Adobe. This affects, for example, the certificate of compliance and the declaration for declarable substances.	
Task Management		Task Management	Replaced with SAP	

SAP Product and REACH Compliance 2.0	Java NetWeaver / ABAP Component	Add-On	Action / Further information	Chapter
		based on SAP Business Workflow	Business Workflow. Migration report to migrate tasks into work items	
Content Provider Integration	Java Software Component		Not available in the add-on	
IPC Conversion Service	Java Software Component	Conversion is available in the ERP back-end	No migration available. You must migrate customer-specific conversions manually and configure them in the ERP back-end system.	
Supplier Self Service	Java Software Component		No migration. The functionality is replaced by the on-demand solution, Product Stewardship Network	
Campaign Management	Java Software Component	Functionality has been copied into the new namespace	No migration of existing processes	

2.2.5 Minimal System Landscape

For information about the system landscape options, see the Master Guide on SAP Service Marketplace at http://service.sap.com/instguides → *SAP Business Suite Applications → SAP EHS Management → Component Extension for SAP EHS Management → Release 5.0.*

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3 Migration of Foundation for EHS Management

The foundation for SAP EHS Management provides business objects and configuration data for the EHS Management business scenarios. This chapter describes business objects and configuration data that are involved in a migration of the relevant business process from the EHS solution as part of SAP ERP to the add-on.

3.1 Business Object: Work Area / Location

Business scenarios in the add-on can use the location business object to define the location of an incident or a risk. It does not link to the work area of the EHS solution as part of SAP ERP.

You can automatically transfer data from the work areas of the EHS solution as part of SAP ERP into the locations of the add-on by using report R_EHFND_LOC_MIGRATE_WA. This report makes manual steps unnecessary in the case of a 1:1 migration. The structure information of the work area hierarchy is preserved and transferred into the location structure.

The location of the add-on has a function to adapt hierarchies of technical objects from the Plant Maintenance component. You can use this function as a starting point to build up a location hierarchy. You can do this by using the new location management. You start from a top-level technical object and select the objects in the hierarchy below that you want the system to automatically import into a location hierarchy.

If the technical object hierarchy can be imported one-to-one, the effort to import existing technical objects as locations is minimal. If you must filter more complex hierarchies first, the effort to import existing technical objects may be more intensive depending on the number of technical objects.

3.2 Business Object: HR Person Including HR Absences

The business scenarios in the add-on link to HR persons in the same way that the EHS solution as part of SAP ERP links to the HR persons, and both use the same HR info types. You do not need to change HR person data or HR configuration for the migration.

3.3 Business Object: Business Partner

The business scenarios in the add-on links to business partners the same way as in the EHS solution as part of SAP ERP and use the same business partner roles that were created for the EHS solution as part of SAP ERP. You do not need to change business partner data or configuration for the migration.

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3.4 Roles and Authorizations

You either set up new roles for locations in the add-on or add the new authorization objects to your existing roles.

The following table provides the mapping of authorization objects in the EHS solution as part of SAP ERP and the semantically corresponding authorization objects in the add-on, including the corresponding parameters.

Unless otherwise stated, the ACTVT parameter always matches exactly.

Object	EHS Solution as Part of SAP ERP	Component Extension 2.0 for SAP EHS Management	Remarks
Work Area / Location	C_EHSI_WAH WERKS WAAUTHGRP	EHFND_LOC LOCPLANT LOCAUTHGRP	There are additional parameters in the add-on to allow more granular control. There is also an additional activity to control status change for a location.

3.5 Extensions

In work area management in the EHS solution as part of SAP ERP, data structures of the work areas could be extended by means of the classification system.

In location management in the add-on, extensions are enabled by the standard extension techniques of the ABAP Dictionary (append-structures, additional Customizing tables), Web Dynpro, and Floorplan Manager.

You append structures with the respective attributes as the replacement for your current characteristics and add additional Customizing tables for the associated code lists.

For more information about adding fields and nodes to a business object, see the topic Foundation for EHS Management → Business Objects → Adding Fields to the User Interface on SAP Help at http://help.sap.com/ under SAP Business Suite → SAP EHS Management → Component Extension for SAP EHS Management → Release 5.0.

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4 Migration of Product and IMDS Compliance

The migration from *SAP Product and REACH Compliance 2.0* consists of the following steps (execute only the migration steps from chapter 4.1):

- Migrate data tables from old into the new namespace.
- Complete the configuration as described in the Solution Manager and in Customizing, including the activation of the shipped BC Sets.
- Complete the namespace migration by adjusting enhancements such as BAdIs, user exits and dynamic function modules.
- Migrate roles and authorizations.
- Migrate and create business objects for listed substances and regulatory lists.
- Adopt the specification database structure for product compliance.
- Create the compliance object data by executing a migration report.
- Migrate selected tasks into tasks of the SAP Business Workflow. Deactivate functionality in the predecessor product.

4.1 Migration steps from SAP Product and REACH Compliance 2.0 to Component Extension 5.0 for SAP EHS Management

4.1.1 Migrate Data Tables

4.1.1.1 Migration Report R_EHPRC_DATA_MIGRATE

The report migrates Customizing and application data from the old /TDAG/ into the *SAP EHS Management* namespace. The migration report is implemented client-dependent. That means you have to execute the report in all clients that will be migrated. The report offers the possibility to read the source data locally (migrate database tables from the same client) or from a remote system by providing the corresponding RFC destination.

You can run this report to check the status of the data migration, to migrate the data or you can re-run this report to complete data migration after you have eliminated migration errors. The report creates a protocol for the data migration. It is stored in the central application log and can be accessed by transaction SLG1 (object EHPRC_MIGRATE, sub-object R_EHPRC_DATA_MIGRATE).

System table EHPRCI_MIGRATE controls the data migration process. This system table determines which source database tables are converted into which destination database tables and how the conversion takes place.

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The report does not convert any data, if any of the following apply:

- Destination database table is client-independent and contains data.
- Destination database table is client-dependent and already contains data for the client that the report is executed with.
- Source database table does not contain any data.
- Source database table is flagged with the conversion type 4 (No conversion needed) in the system table EHPRCI_MIGRATE system table.

For more information, see the report documentation /TDAG/RCS_TOOL_RFC_READ_TABLE before starting the migration.

4.1.1.2 Prerequisites and Constraints for Migration Report R_EHPRC_DATA_MIGRATE

- The migration report will not overwrite any existing data in the destination database tables of the installation client. Prior to executing the report, do not activate any BC Sets for the add-on in the installation client and do not make manual Customizing adjustments in the installation client.
- Data migration is client-dependent. You must execute this report for all clients that you want to migrate data for (if you execute this report for client 001, data is migrated for client 001 only). You must run a batch job for each client whose data you want to migrate.
- You cannot run the report more than once at a time. If you run the report a second time, the report outputs an error and aborts. If you run data migration using batch jobs for different multiple clients, make sure that the batch jobs do not overlap (one batch job must be finished before the next one starts).
- If source data is located on a remote system, the report cannot convert source database tables that exceed a row size of 2048 bytes.

4.1.1.3 Migration Report R_EHPRC_OBJ_LIST_MIGRATE

This report is used to migrate object lists into the business object EHPRC_OBJECT_LIST. Object lists in SAP *Product and REACH Compliance 2.0* are stored in the database tables /TDAG/RCSA_OLHDR, /TDAG/RCSA_OLHDT and /TDAG/RCSA_OLPOS. The report offers the opportunity to read the source data locally (migrate database tables from the same client) or from a remote system by providing the corresponding RFC destination.

You can run this report in test mode to check the status of the data migration or you can run this report to execute the data migration. The report creates a protocol for the data migration. It is stored in the central application log and can be accessed by transaction SLG1 (Object EHPRC_MIGRATE, Sub Object R_EHPRC_OBJ_LIST_MIGRATE).

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4.1.1.4 Prerequisites and Constraints for Migration Report R_EHPRC_OBJ_LIST_MIGRATE

If you read the data from a remote system you have to make sure that the master data such as materials, suppliers or customers are available in the local installation client. Otherwise the report is not able to create the object lists.

4.1.1.5 Manual Migration

The system table EHPRCI_MIGRATE contains an overview of all database tables that are migrated and not migrated (conversion type 4). The conversion type 4 is used if a table is obsolete and no longer used, if it has been replaced with a new solution approach that does not allow a 1:1 migration.

For example, the Customizing for compliance checks and check criteria has been changed and enhanced with process definitions, and it cannot be migrated 1:1. To complete the configuration, execute and adjust the shipped Customizing.

4.1.2 Execute and Adjust Configuration

To complete the migration of Customizing data, perform Customizing activities and activate the corresponding BC sets.

To ensure the consistency of your Customizing data, compare the existing Customizing tables with the BC set (in transaction SCPR20) before activating it. This prevents you from overwriting existing data you wanted to keep.

It is important to execute this step to complete the already existing configuration with new attributes (for example the process definition for check criteria) and to ensure that newly shipped Customizing is available.

4.1.3 Enhancements

4.1.3.1 BAdI Definitions

Table 4.1: Overview of Old and New BAdI Definitions summarizes the BAdIs of the preceding release and the corresponding names in *SAP EHS Management*.

If the new BAdI name does not exist, then the BAdI is obsolete and does not need to be migrated. See also the *Comment* column. For all other BAdIs, you must implement existing BAdI implementations and they have to be migrated into the new namespace.

Additionally, the table provides a list of new BAdI definitions/enhancement spots that have been introduced in the add-on.

Table 4.1: Overview of Old and New BAdI Definitions

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PRC 2.0		Add-On		
Old BAdI Name	Description	New BAdI Name	Enhancement Spot	Comment
/TDAG/CP_BADI_001	CP: Workbench enhancements			Obsolete - no migration necessary
/TDAG/CP_BADI_002	CP: Enhancing the Simulation			Obsolete - no migration necessary
/TDAG/CP_BADI_003	BAdI: Decoupling of Vendor Master	EHPRC_CP_BADI_003		
/TDAG/CP_BADI_004	Enhancing the process of parsing and transforming XML files	EHPRC_CP_BADI_004		
/TDAG/CP_BADI_005	CP: Enhancing the Request and E-Mail Generation for the TM	EHPRC_CP_BADI_005		
/TDAG/CP_BADI_006	BAdI: Functions to Handle Business Partner Contacts	EHPRC_CP_BADI_006		
/TDAG/CP_BADI_007	CP: Enhancing the e-mail Generation for the TM			Obsolete - no migration necessary
/TDAG/CP_BADI_008	CP: Enhancements of Task Management			Obsolete; replaced by SAP Business Workflow integration
/TDAG/CP_BADI_MGR_CH	CP: BAdI Extension -> Compl. History in Compl. Workbench			Obsolete - no migration necessary
/TDAG/CP_IMDS_BADI_1	BADI for processing the MDS validation	EHPRC_CP_IMDS_BADI_1		
/TDAG/CP_IMDS_BADI_2	BADI for customer IMDS communication processing	EHPRC_CP_IMDS_BADI_2		
/TDAG/CP_IMDS_BADI_3	BADI for customer IMDS communication post activities	EHPRC_CP_IMDS_BADI_3		
/TDAG/CP_IMDS_BADI_4	BADI for supplier IMDS communication processing	EHPRC_CP_IMDS_BADI_4		
/TDAG/CP_IMDS_BADI_5	BADI for supplier IMDS communication post activities	EHPRC_CP_IMDS_BADI_5		
/TDAG/CP_IMDS_	BAdI for Supplier Request	EHPRC_CP_IMDS_BADI_		

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PRC 2.0		Add-On		
BADI_6	Processing	6		
/TDAG/CP_IMDS_BADI_7	BADI for customer request processing	EHPRC_CP_IMDS_BADI_7		
/TDAG/CP_WLH_BADI	CP: BAdI definition for work list management			Obsolete; replaced by Automated Change Processing
/TDAG/CP_WLH_BADI_CH	CP: BAdI for the dynamic impl. for wl handler checks			Obsolete; replaced by Automated Change Processing
/TDAG/CP_WLH_BADI_HI	CP: BAdI for the Compliance History Worklist extension			Obsolete; replaced by Automated Change Processing
/TDAG/CP_WLH_BADI_IM	CP: BAdI for the dynamic impl. for wl handler checks			Obsolete; replaced by Automated Change Processing
/TDAG/CP_WLH_BADI_RV	CP: BAdI for the dynamic impl. for wl handler revisions			Obsolete; replaced by Automated Change Processing
/TDAG/RCS_BADI_010	BAdI: Enhancement of the Business Partner Evaluation	EHPRC_RCS_BADI_010		
		BADI_EHPRC_ACP_COLLECT_BOPF	ES_EHPRC_ACP	Collect ACP Changes from BOPF
		BADI_EHPRC_ACP_COLLECT_SPEC	ES_EHPRC_ACP	Collect ACP Changes from specification database
		BADI_EHPRC_ACP_WORKLIST	ES_EHPRC_ACP	ACP Worklist
		BADI_EHPRC_BOMBOS_WF	ES_EHPRC_BOMBOS	Enhance BOMBOS Workflow
		BADI_EHPRC_COD_CRR_AUTO_REL	ES_EHPRC_COD_CRR_AUTO_RELEASE	BAdI: Auto Release of Compliance Requirement Revision

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4.1.3.2 BAdI Implementations

Table 4.2: Overview of Depreciated BAdI or Enhancement Implementations provides a summary of BAdI or Enhancement Implementations shipped with the predecessor release, which are no longer supported by *SAP EHS Management.*

Table 4.2: Overview of Depreciated BAdI or Enhancement Implementations

Name of a BAdI Implementation	Enhancement Implementation	Description
/TDAG/CP_MAT_REF		CP: Copy basic material assignment information - MM01
/TDAG/CP_MAT_SPEC	/TDAG/CP_ENH_MAT_SPEC	EHS: Update Material-Substance Assignment
/TDAG/CP_WLH_BADI_05		CP: BAdI implementation for Worklist REACH
/TDAG/CP_WLH_BADI_HI		CP: BAdI for the Compliance History Worklist extension

4.1.3.3 User Exits

User exits are used in several Customizing activities. When you check the user exits for *SAP EHS Management* use the *Manage User Exits* Customizing activity under *SAP EHS Management → Product Compliance → Integration → Logistic Integration → Bill of Material Transfer.*

Table 4.3: User Exit Overview offers a summary of the user exit configuration by providing both the old and new function module names. Note that this table does not present the default configuration (it is not the delivery Customizing) and should be used more like a mapping between old and new routines.

- The user exit category LB_CODUPD has been newly introduced in order to reflect the updates to the compliance object data when saving specification data. They are mandatory and have to be configured.
- The GADSL and IMDS check have been combined into one check. Adjust the user exit CHECK CP_IMDS. Replace the old function module /TDAG/CP_CO01_CHECK_IMDS with the new function module EHPRC_CP_CK03_CHECK_IMDS_GADSL.
- The following user exits no longer exist and have to be deleted from the user exit configuration in the EHS namespace:
  - BASMAT_LOV – MATERIAL: EHPRC_CP_LB08_BASMAT_LOV
  - LB_SUBUPD – CHECKS: EHPRC_CP_BB20_SUBUPD_CHECKS
  - LB_SUBUPD - PI_CHECKS: EHPRC_CP_BB20R_SUBUPD_CHECKS
  - LB_SUBUPD - DI_CHECKS: EHPRC_CP_BB20_SUBUPD_CHECKS

Table 4.3: User Exit Overview

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User Exit Category	User Exit	Old Function Module	Description	New Function Module	Comment / Action
BASMAT_LOV	MATERIAL	/TDAG/CP_LB08_BASMAT_LOV	Input Help for Basic Materials	EHPRC_CP_LB08_BASMAT_LOV	Caution Obsolete; it no longer exists and has to be deleted
BB_CHGBOM	SUPPLIER	/TDAG/CP_BB20_CHGBOM_SUPPLIER	BOMBOS: Supplier Logic	EHPRC_CP_BB20_CHGBOM_SUPPLIER	
BB_MATJOIN	SUPPLIER	/TDAG/CP_BB20_MATJOIN_SUPPLIER	BOMBOS: Search Spec. by MPN	EHPRC_CP_BB20_MATJOIN_SUPPLIER	
BB_SECDATA	CHECKS	/TDAG/CP_BB20_SECDATA_CHECKS	BOMBOS: Call Check Frame	EHPRC_CP_BB20_SECDATA_CHECKS	
BB_SUBBOM	DBL_CHK	/TDAG/CP_BB20_SUBBOM_DOUBL_CHK	BOMBOS: Check for duplicates	EHPRC_CP_BB20_SUBBOM_DOUBL_CHK	
BB_SUBBOM	STANDARD	/TDAG/CP_BB20_SUBBOM_STD_PLANT	BOMBOS: Generation of Subordinate BOMs	EHPRC_CP_BB20_SUBBOM_STD_PLANT	
BB_SUBBOM	SUPPLIER	/TDAG/CP_BB20_SUBBOM_SUPPLIER	BOMBOS: Generation of BOMs for Suppliers	EHPRC_CP_BB20_SUBBOM_SUPPLIER	
BB_SUBBOM	PROCURE	/TDAG/CP_BB20_SUBBOM_PROCURE	BOMBOS - SUBBOM evaluation with procurement information	EHPRC_CP_BB20_SUBBOM_PROCURE	New supplier determination for purchase info records, AMPL, and source lists
BB_UNITCON	BASE_UOM	/TDAG/CP_BB20_UNITCON_MAT_UOM2	BomBos: Unit Conversion	EHPRC_CP_BB20_UNITCON_MAT_UOM2	
BB_USAGE	PROD_VAR			EHPRC_CP_BB20_USAGE_STD_PV	
BB_USAGE	REACH	/TDAG/CP_BB20R_USAGE_REACH	BOMBOS: Build Usages for REACH		
CHECK	CP_BASE	/TDAG/CP_CK03_CHECK_BASE	Base Check	EHPRC_CP_CK03_CHECK_BASE	

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User Exit Category	User Exit	Old Function Module	Description	New Function Module	Comment / Action
CHECK	CP_CHINA	/TDAG/CP_CK03_CHECK_CHINA	China RoHS Check	EHPRC_CP_CK03_CHECK_CHINA	
CHECK	CP_COMPL	/TDAG/CP_CK03_CHECK_COMPL	Compliance Check	EHPRC_CP_CK03_CHECK_COMPL	
CHECK	CP_DUMMY	/TDAG/CP_CK03_CHECK_DUMMY	Dummy Check		
CHECK	CP_IMDS	/TDAG/CP_CO01_CHECK_IMDS	IMDS Check	EHPRC_CP_CK03_CHECK_IMDS_GADSL	IMDS and GADSL have been combined in a single check
COMPL_CAT	CHINA-ROHS	/TDAG/CP_AR01_COMPL_CAT_REGL	Compliance Categorization of China RoHS		Obsolete; it is no longer used
COMPL_CAT	GADSL	/TDAG/CP_AR01_COMPL_CAT_REGL	Compliance Categorization of GADSL		Obsolete; it is no longer used
COMPL_CAT	ROHS	/TDAG/CP_AR01_COMPL_CAT_REGL	Compliance Categorization of ROHS		Obsolete; it is no longer used
LB_CODUPD	SALEABLE			EHPRC_CP_BB20_CODUPD_SALEABLE	New; mandatory
LB_CODUPD	WEIGHT			EHPRC_CP_BB20_CODUPD_WEIGHT	New; mandatory
LB_SUBUPD	BASMAT	/TDAG/CP_BB20_SUBUPD_BASMAT	BOMBOS: Write Basic Material Composition		
LB_SUBUPD	CHECKS	/TDAG/CP_BB20_SUBUPD_CHECKS	BOMBOS: Write Checks to Specification	EHPRC_CP_BB20_SUBUPD_CHECKS	Caution Obsolete;it no longer exists and has to be deleted
LB_SUBUPD	COMP_STOP	/TDAG/CP_BB20_SUBUPD_COMP_STOP	BOMBOS: Stop BOMBOS Updating Spec. Comp.		
LB_SUBUPD	DI_CHECKS	/TDAG/CP_BB20_SUBUPD_CHE	BOMBOS: Write Checks to	EHPRC_CP_BB20_SUBUPD_C	Caution Obsolete; it no longer

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User Exit Category	User Exit	Old Function Module	Description	New Function Module	Comment / Action
		CKS	Specification	HECKS	exists and has to be deleted
LB_SUBUPD	MATJOIN	/TDAG/CP_BB20R_SUBUPD_MATJOIN	BOMBOS: Reset Material Join	EHPRC_CP_BB20R_SUBUPD_MATJOIN	
LB_SUBUPD	PROD_NAM			EHPRC_CP_BB20R_SUBUPD_IDENTS	
LB_SUBUPD	PI_CHECKS	/TDAG/CP_BB20R_SUBUPD_CHECKS	BOMBOS: Write Checks to Specification	EHPRC_CP_BB20R_SUBUPD_CHECKS	Caution Obsolete; it no longer exists and has to be deleted
LB_SUBUPD	PREF_SUP	/TDAG/CP_BB20_SUBUPD_PRESUP	BOMBOS: Write Preferred Supplier Flag	EHPRC_CP_BB20_SUBUPD_PRESUP	
LB_SUBUPD	PROD_NAM	/TDAG/CP_BB20R_SUBUPD_IDENTS	BOMBOS: Creates Additional Identifiers	EHPRC_CP_BB20R_SUBUPD_IDENTS	
LB_SUBUPD	SALEABLE	/TDAG/CP_BB20_SUBUPD_SALEABLE	BOMBOS: Set Ident. if Mat. is Finished	EHPRC_CP_BB20_SUBUPD_SALEABLE	
LB_SUBUPD	SUPPLIER	/TDAG/CP_BB20_SUBUPD_SUPPLIER	BOMBOS: Write Identifier for supplier		
LB_SUBUPD	SUPPLIST	/TDAG/CP_BB20R_SUBUPD_SUPPLIST	BOMBOS: Update Supplier Listing	EHPRC_CP_BB20R_SUBUPD_SUPPLIST	
LB_SUBUPD	WEIGHT	/TDAG/CP_BB20_SUBUPD_WEIGHT	BOMBOS: Write Weight to Specification	EHPRC_CP_BB20_SUBUPD_WEIGHT	Caution Obsolete; it no longer exists and has to be deleted

4.1.3.4 Normalizations

Customer-specific normalization function modules need to be adjusted in order to use objects in the new namespace. Normalizations, which need a re-rollup (such as best case or worst case), are not supported.

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4.1.4 Roles and Authorizations

You either set up new roles for product compliance in the add-on or add the new authorization objects to your existing roles.

The following chapters provide the mapping of authorization objects in the EHS solution as part of *SAP ERP* and the semantically corresponding authorization objects in the add-on, including the corresponding parameters.

4.1.4.1 Authorization Objects

As a result of the namespace migration, the authorization objects have been renamed. The table below summarizes the old and the new authorizations objects.

Table 4.4: List of Authorization Objects

Name	Old Auth. Object	New Auth. Object	Comment
Compliance Workbench Compliance Data	YCFP_CPA01		Obsolete
Compliance Workbench Composition Data	YCFP_CPA02		Obsolete
Authorization Object for Task Management	YCFP_CPA03		Obsolete
Object List Usage	YCFP_RCS01	EHPRC_OLM1	
Campaign Usage	YCFP_RCS02	EHPRC_CPM1	
SAP EHS Management: Change Document		EHFND_CHDC	
SAP EHS Management: Chemical		EHFND_CHM	
SAP EHS Management: Controls		EHFND_CTRL	
SAP EHS Management: Data Series		EHFND_DTS	
SAP EHS Management: Export Profile		EHFND_EXPP	
SAP EHS Management: Location		EHFND_LOC	
SAP EHS Management: Mapping Workbench		EHFND_MWB	
SAP EHS Management: Regulatory List Content		EHFND_REGL	
SAP EHS Management: Workflow and Processes		EHFND_WFF	
SAP EHS Management: Workflow		EHFND_WFT	

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Name	Old Auth. Object	New Auth. Object	Comment
Tools			
Authorization Object for Compliance Object		EHPRC_CDO	

4.1.4.2 Authorization Fields

The table below lists the old and new authorization fields.
Table 4.5: List of authorization fields

Old Auth. Object	Old Auth. Field	New Auth. Object	New Auth. Field
YCFP_RCS01	ACTVT	EHPRC_OLM1	ACTVT
	/TDAG/OLGR		EHPRC_OLGR
YCFP_RCS02	ACTVT	EHPRC_CPM1	ACTVT

4.1.5 Business Object Regulatory List Revision

The regulatory list business object is used to store regulatory lists and customer lists. You can use regulatory lists to define listed substances or groups of substances that are regulated, are prohibited, or need to be declared.

The figure below outlines the differences in the data model between *SAP Product and REACH Compliance 2.0* and *SAP EHS Management*.

An automatic migration is not possible. You must first export the regulatory lists present on the source system and then import them into the target system. The whole process of export and import is described in the Customizing activity *SAP EHS Management → Product Compliance → General Configuration→ Regulations and Compliance Requirements → Export and Import of Regulatory List Revisions*.

To set up the Global Automotive Declarable Substance List (GADSL), you can use the corresponding IMDS download files to import the regulatory list revision for GADSL. Additionally, there is the option to load.

4.1.6 Compositions, Properties and Characteristics

4.1.6.1 Migration Report R_EHPRC_COMP_PROP_MIGRATE

The execution of this report is only necessary and possible if the add-on is directly installed on top of the following software:

- Compliance for Products 2.2.

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This report migrates compositions. In *Compliance for Products 2.2*, all compositions were maintained in one single property. They only differed by the material category. In Component Extension 5.0 for *SAP EHS Management*, for each material category, a separate composition exists. For this reason, the different components from the composition property in *Compliance for Products 2.2* have to be split into the different compositions in Component Extension 5.0 for *SAP EHS Management*.

This report also migrates all properties and characteristics from the ZPDM* namespace of *Compliance for Products 2.2* to the SAP_RCS* namespace of the add-on.

Supporting the *SAP EHS Management* as part of *SAP ERP* referencing mechanism:

Referenced data is ignored during migration, and the referencing source is integrated in the list of the specifications that are to be processed. No manual steps are necessary.

Supporting the *SAP EHS Management* as part of *SAP ERP* inheritance mechanism:

Inherited data that was not locally overwritten is removed during migration. Inherited data that was locally overwritten is ignored during migration, and has to be migrated manually. For these specifications, a message is written to the application log. The source specifications of the inheritance are automatically added to the list of specifications that are to be processed.

Manual Steps:

After you run the program, you have to adjust the involved inheritance templates in accordance with the data model change and restart the *SAP EHS Management* as part of *SAP ERP* inheritance before the system can distribute the composition data correctly again.

4.1.7 Business Object Compliance Data

The EHPRC_COMPLIANCE_DATA compliance business object links compliance information to different object types in your SAP systems (for example, material master, documents, and specifications). The compliance object is the main business object to manage compliance information.

The program R_EHPRC_SPEC_CDO_MIGRATE is used to migrate the corresponding data from the specification master data to the compliance object. Migration is client-dependent, meaning you have to execute the report in all clients to which you wish to migrate.



Caution

The data migration fills initially empty database tables with a lot of records. This might cause the database optimizer to choose inappropriate execution plans which could reduce performance significantly. Consider to update the database statistics and indexes for all tables starting with EHPRCD_COD* after several thousand specifications have been migrated

4.1.7.1 Prerequisites and Constraints

- Execute report R_EHPRC_MIGRATE_CHECK before to identify problematic inconsistencies in the source data.
- If the report R_EHPRC_SPEC_CDO_MIGRATE is executed, the system creates a compliance object by translating the specification type into the compliance data category. Before executing the report, you must

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carry out the Customizing activity *Assign Material Category to Compliance Data*. Note the following settings for the Customizing activity:

Table 4.6: Assignment of Material Category, SpecificationType and Category Copliance Data

Material Category	Specification Type	Category of Compliance Data
PRODUCT	MAT_PART, MAT_PART_E	Product or Product Part
PACKAGING	PACKAGING	Packaging
BULK	BULK, BULK_E	Bulk Material
RAWMAT	REAL_SUB, REAL_SUB_E	Bulk Material
MATERIAL	BASMAT, BASMAT_E	Basic Material
SURFACE	SURFACE, SURFACE_E	Basic Material
PURE_SUB		<No CDO>

- If some exemptions for the declarable substances differ in source and target system use the edit view of table EHPRCC_EXM_MAP to define the mapping between them. Be aware only to map the exemption ID and not the legal identifier or annex. On the regulatory list UI you can see the exemption identifier in the details area of tab *Exemptions*.

4.1.7.2 Dependency Between Migration and ACP

Normally, when the system writes a compliance object or specification, ACP detects which changes are relevant for compliance checks and writes the corresponding objects into the EHPRCD_ACHG_ROOT ACP changes table. During data migration, there might be huge lists of changes for which ACP determines the dependent objects. As a follow up step, ACP executes the compliance checks for all listed objects.

For the data migration it is better to separate these two steps. You can save the processing time that the determination of dependent objects needs if you proceed as follows:

- Ensure that there are no jobs planned for the R_EHPRC_ACP_WORKLIST_DETERMINE and R_EHPRC_ACP_WORKLIST_EXECUTE reports.
- Process and finalize the data migration.
- Process the R_EHPRC_ACP_WORKLIST_CLEAR_CHG report in the foreground to clear the change table.
- Process the R_EHPRC_CREATE_ALL_ACP_ENTRIES report to create ACP entries for all objects for which you want to process the compliance check. For more details, see **Error! Reference source not found. Error! Reference source not found.**
- The last step of migration is, to schedule jobs for the R_EHPRC_ACP_WORKLIST_DETERMINE and R_EHPRC_ACP_WORKLIST_EXECUTE reports.

4.1.7.3 Migration Details

If the report R_EHPRC_SPEC_CDO_MIGRATE is executed, the system creates the corresponding compliance data objects for the processed objects. The following data is filled:

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- Object links for the material, supplier listing, and basic material composition
- Compliance information (compliance status and declarable substances)
- Check results
- Additional data (such as IMDS)

The release indicator controls whether a compliance requirement revision for the release-relevant compliance object categories is released or set to status "In Process". If the status is set to "In Process" and the compliance object requires a release (see release-relevant CDO categories), the system starts an assessment workflow.

The compliance status/declarable substances are transformed as follows:

- If the source specification does not contain prohibited or declarable substances above the threshold, the new compliance status is "Compliant".
- If the source specification contains declarable substances above the threshold and the prohibited substances do not exceed the threshold, the new compliance status is "Duty-to-Declare".
- If the source specification contains prohibited substances above the threshold and the old compliance status is not "Compliant", the new compliance status is "Compliant with Exemption" and the prohibited substances attribute is set to "Exemption Applied".

If you use specification referencing, execute report R_EHPRC_COD_ADJUST_ASSEMBLYIND after finishing all layers of report R_EHPRC_SPEC_CDO_MIGRATE.

4.1.8 Migrate Tasks

The task management has been replaced with integration to *SAP Business Workflow*. The recommendation is a cut-off scenario. That means closing as many tasks as possible and starting with a clean installation. However, you can migrate selected tasks into the workflows using migration report R_EHPRC_TASK_TO_WF_MIGRATION.

- Compliance Check Conflicts Process

  Each open task that represents a compliance requirement conflict (check criteria error) is migrated into this type of workflow. However, in this category, there is no 1:1 migration between the tasks and workflow processes. For this type of workflow, all open tasks of the same material/substance and compliance check are migrated together into the same workflow process. The workflow process creates a work item for each conflict to enable you to see each conflict in the work lists.

  > **Note**
  >
  > The check criteria for the delivered compliance requirement checks have been updated in this release. You may have tasks that belong to obsolete criteria. In this case, a log entry is created in the application log. Furthermore, if you have defined your own check criteria or compliance requirement checks and you have not updated Customizing, the system will create a log entry of this type.

- Business Partner Communication Process (Supply Chain Collaboration)

Each open task that represents business partner communication is migrated into this type of workflow. In this category, there is a 1:1 migration between the tasks and workflow processes. However, a process can only be created if a communication process is not running with the same business partner, material/substance, and compliance check. Otherwise, a log entry is created.

  - The migration report supports the task status *Created* (CREAT) and *In Work* (INWRK) and starts the business partner process until it reaches the status to define and send the e-mail manually.

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- The migration report supports the task status *In Work Externally* (INWEX) and starts the business partner process until it reaches the status to wait for a reply from the business partner.
- The migration report supports the task status *Completed* (COMPL) and starts the business partner process until it reaches the status to verify and load the response from the business partner.
- For all other task statuses, the migration report starts the business partner process until it reaches the status to wait for a reply from the business partner.

  Note

  If the report has found a running communication process, you have to wait until this process is finished before you can migrate the task.

- Assign E-Mail Process

  Each open task which was created for the task category *E-Mails* (EML) is migrated into this type of workflow. In this category, there is a 1:1 migration between the tasks and workflow processes.

- BOM-BOS Process

  Each open task that represents a BOM-BOS transfer (messages /TDAG/CPM_BOMBOS 030 and 021) is migrated into a new BOM-BOS process.

  Tasks from the Single Material Transfer type (messages /TDAG/CPM_BOMBOS 065 and 067) are not migrated because the workflow template does not support single material transfers.

If a task does not belong to one of the categories above, the system ignores the task. This can occur if you have defined your own tasks.

For more information, see the documentation for the migration program.

4.1.8.1 Prerequisites and Constraints

Since the migration implementation is client-dependent, you must execute the report in all clients that you want to migrate. The report offers the option to read the source data locally (from the same client) or from a remote system by providing the corresponding RFC destination. You can run this report to check the status of the data migration, to migrate the data, or you can re-run this report to complete data migration after you have eliminated migration errors. The report creates a protocol for the data migration. It is stored in the central application log and can be accessed using transaction SLG1 (object EHPRC_MIGRATE, subobject R_EHPRC_TASK_MIGRATE).

Before executing the report, adjust Customizing and ensure that the compliance data exists. The system references the compliance data when migrating the tasks.

4.1.9 Create ACP entries for all CDOs

After data migration has been completed, the compliance checks for all CDOs should be re-executed. Use report R_EHPRC_CREATE_ALL_ACP_ENTRIES to create ACP entries for all existing CDOs. For a complete check leave the selection parameters in their initial state, change only the test mode to productive mode. As the report creates a large number of entries SAP recommends to run this and the other migration reports in the background.

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4.1.10 Templates

4.1.10.1 Print Form Templates

Product compliance in the EHS solution as part of *SAP ERP* uses WWI as the reporting tool to create documents such as compliance declarations, China RoHS declaration or internal documents containing an overview of regulated or declarable substances of a product.

Product compliance in the add-on *SAP EHS Management* uses print forms implemented by *SAP Interactive Forms* by Adobe for this purpose. The standard system is delivered with sample templates of the print forms. The sample templates cover a certificate of compliance and a declaration document.

It is not possible to automatically migrate the WWI Word templates to the forms templates. You must create new print form templates in the form builder.

4.1.10.2 Incoming and Outgoing Templates

The following items are incoming and outgoing templates for documents:

- IBDOC (for incoming templates)
- OBDOC (for outgoing templates)

4.1.11 Documents

In product compliance in the EHS solution as part of *SAP ERP*, it is possible to generate or import documents into the Document Management System and link these documents by means of Report Generation Variants to product specifications in the specification database.

In product compliance in the add-on *SAP EHS Management* the documents are stored in the attachment folder of the compliance data business object. It is possible to store the documents at root level of the compliance data or in the attachment folder of a compliance requirement revision.

It is not possible to automatically migrate existing documents to the corresponding attachment folder of the compliance object.

4.1.12 Analytical Reporting

Product compliance in the EHS solution as part of *SAP ERP* provides a restricted set of analysis transactions to output a list of regulated substances for a regulated or customer-specific list, to output the high level compliance status of a regulated or customer-specific list or to output the substance composition or declarable substances of a product.

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Product compliance in the add-on *SAP EHS Management* provides a new and more flexible means to perform the above analysis. The foundation of *SAP EHS Management* provides file-based reporting. This allows you to output data that is stored in a business object.

Additionally, the system provides sample BI extractors and corresponding dashboards to output process efficiency in product compliance, component compliance, supplier part compliance, and basic material compliance.

The previous analysis transactions have been replaced by the analytical reporting and are not migrated.

4.1.13 BOMBOS

The bill of material transfer has been migrated into the new namespace and enhanced with SAP Business Workflow integration. In addition to the previous iteration of BOMBOS, the current iteration does not only create the specifications, but also creates the corresponding compliance object and links it to the specification and material.

- Trigger for bill of material changes: The function module /TDAG/CP_BB10_BOMCHG_TRACKER has been replaced with the new function module EHPRC_CP_BB10_BOMCHG_TRACKER. Adjust the function module for the event CS000010 in the transaction FIBF.
- Trigger for supplier and Manufacturer Changes: Schedule the program R_EHPRC_PBB_SUPPL_CHNG_MON as a periodic job.
- The BOMBOS User exits have been moved from the /TDAG/ into the *SAP EHS Management* namespace. For more information, see to chapter 4.1.3.3-User Exits. Adjust the code in order to use the correct function modules in the new namespace.
- New user exits have been introduced in order to update the mass information and salable product indicator for the compliance object. They are mandatory and need to be configured.
- The multiple reports for BOMBOS have been replaced by a single report R_EHPRC_BOMBOS_START_PV.
- The procurement user exit has been changed to support purchase information records, the approved manufacturer part list as well as source lists. Verify and adopt your existing procurement exit.
- If you want to migrate existing BOM tasks into the new BOMBOS Workflows you can use the program R_EHPRC_TASK_TO_WF_MIGRATION.

4.1.14 IMDS

This chapter outlines the sequence of the necessary migration steps in order to migrate existing IMDS data from *SAP Product and REACH Compliance 2.0* to the add-on. The following steps are necessary:

1. Execute the report R_EHPRC_DATA_MIGRATE in order to migrate the IMDS specific data tables from the old into the new namespace. This step includes the migration of the supplier and customer centers as well as the IMDS organization data and contact data.
2. Complete the configuration steps as described in Customizing.
3. Ensure that you maintain the logical paths and file names to prevent potential directory traversal issues when accessing the files from the application server.
4. Download the files listed below from IMDS and import them in the described order. As a result the system will update the business object for the regulatory list revision GADSL.

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Table 4.7 Files from IMDS

Order	File	Description
1	SBAll	All pure substances up to the key date
2	SGAll	All pure substance groups
3	SAAll	Substance applications IDs up to key date
4	SARAll	Substance application relations up to key date

5. Execute the report R_EHPRC_SPEC_CDO_MIGRATE to create the compliance object and link it to the specifications and existing entries in the supplier and customer centers.
6. Execute the migration report R_EHPRC_TASK_TO_WF_MIGRATION if you want to migrate existing tasks from the GADSL and IMDS checks.

4.1.15 Product Structure

Within *EHSM500* the function modules of function group EHPRC_CP_LB12 or /TDAG/CP_LB12, respectively, are no longer used to determine the product structure. Instead the following handler and data access classes were introduced:

CL_EHPRC_BOS_EXPLOSION_STD

CL_EHPRC_BOS_EXPLOSION_NORM

CL_EHPRC_BOS_EXPLOSION_REV

CL_EHPRC_BOS_EXPLOSION_FIXED

CL_EHPRC_BOS_EXPL_DATA_ACCESS

4.1.16 Extension

In product compliance of the EHS solution as part of *SAP ERP*, the product structure could be extended by means of the classification system.

In product compliance of the *SAP EHS Management* as add-on, extensions are enabled by the standard extension techniques of the ABAP Dictionary (append-structures, additional Customizing tables), Web Dynpro, and Floorplan Manager.

You append structures with the respective attributes as the replacement for your current characteristics and add additional Customizing tables for the associated code lists.

For more information about adding fields and nodes to a business object, see the topic Foundation *for EHS Management → Business Objects → Adding Fields to the User Interface on SAP Help at http://help.sap.com/ under SAP Business Suite → SAP EHS Management → Component Extension for SAP EHS Management → Release 5.0 → Application Help.*

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5 Migration of Incident Management

In the remainder of this chapter, the earlier SAP solution for managing environment, health, and safety (SAP EHS Management as part of SAP ERP) is referred to as the "EHS solution" [as part of SAP ERP] and the new component extension 5.0 for SAP EHS Management is referred to as the "add-on" in the body text.

This chapter describes the business objects and configuration data that are involved in a migration of the relevant business processes from EHS solution to the add-on.

The migration of incidents is performed as a one-time process, and after it is successfully completed, the process of managing incidents continues in the target system (add-on). The sections below outline the migration specifics of the various data elements during the one-time migration process.

Depending on the source system from which you want to migrate incident data, the overall one-time migration process can be split into the following scenarios:

- Migration of Incidents from EHS Solution
- Migration of Incidents from Add-on
- Migration of Incidents from Non-SAP systems

> **Note**
>
> To facilitate the migration process, the Legacy System Migration Workbench (LSMW) tool is used to import the migrated data into the target system (add-on). Since LSMW is an external tool (from the perspective of SAP EHS Management), before you proceed with the actual migration, it is vital to get familiar with LSMW.
>
> For more information about LSMW, see the official documentation of the tool at http://help.sap.com/

> **Note**
>
> < The LSMW projects and objects cited in this chapter contain pre-defined data-mapping models that can be used in the corresponding migration scenarios either directly or after applying minimal customization. However, depending on the particular business scenario that you want to execute, you can use the pre-defined LSMW projects and objects as templates to create your own data-mapping model in LSMW.>

For more information about transferring incident data from an add-on system or a non-SAP system to the add-on, see the section 4.4 Data Transfer of the Application Operations Guide on SAP Service Marketplace at http://service.sap.com/instguides → SAP Business Suite Applications → SAP EHS Management → Component Extension for SAP EHS Management → Release 5.0.

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5.1 Migration of Incidents from the EHS Solution

5.1.1 Prerequisites

The following prerequisites must be met before you proceed with the migration of incidents from the EHS solution to the add-on:

- You are familiar with the LSMW migration tool.
- Implement SAP Notes 1714489 and 1797378.

  These SAP Notes comprise the pre-set LSMW projects and objects needed for the migration of incidents and locations.
- If you perform migration for a first time, create a user profile as an initial step by executing the Maintain Object Attributes step in the LSMW.
- You have migrated the root cause hierarchy from the EHS solution to the add-on.

  For more information, see Migration of the Root Cause Hierarchy.
- You have migrated the work area data from the EHS solution to locations into the add-on.

  For more information, see 3.1 Business Object: Work Area / Location.
- You have added all document types available in the EHS solution to all incident related nodes and sub-nodes in the following Customizing activity in the add-on: Cross-Application Components → Processes and Tools for Enterprise Applications → Reusable Objects and Functions for BOPF Environment → Dependent Object Attachment Folder → Maintain Attachment Type Schema. For more information, see Migration of Documents.
- If there is customer implementation in the EHS solution, the add-on system should be enhanced to accept the extension data. For more information, see Migration of Customer Enhancements.
- You have migrated phrases from the EHS solution to the add-on.

  For more information, see Migration of Phrases.
- You have adjusted the Customizing configuration.

  For more information, see Migration of Customizing Configuration.
- You have managed identical plants in both systems.
- You have configured the same HR system in the EHS solution and the add-on. Absence types used in the EHS solution should also be allowed for the add-on (configurable in a Customizing table).

  > **Note**
  >
  > You cannot migrate absences with types outside the range.
- If the EHS solution loads HR, BP, or PM data from external systems using RFC connections, you must establish RFC connections to the same systems in the add-on.

  You can define RFC connections for both applications in the following Customizing activities:

  - EHS solution: Environment, Health and Safety → Basic Data and Tools → Basic Settings → Specify Environment Parameters.

    Edit the values of the following environment parameters and enter the RFC connection name:

    - DEST_BU
    - DEST_HR

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- DEST_PM
- Add-on: SAP EHS Management → Foundation for EHS Management → Integration → Specify Destinations for Integration.

Define values for the PM, HR, and BP destination types.

5.1.2 Migration of the Root Cause Hierarchy

To migrate incidents data from the EHS solution to the add-on, you must migrate the root causes hierarchy first. The root cause hierarchy data consists of root cause entries and a structure (hierarchy) that organizes these entries.

Exporting Root Cause Hierarchies

To export the root cause hierarchies from the EHS solution, you can use the REHS_IAL_EXPORT_RC_TO_CSV report.

1. Start transaction SE38.
2. Execute the REHS_IAL_EXPORT_RC_TO_CSV report.
3. Enter a name for the CSV file and save.

The table below outlines the structure of the root cause hierarchy data. You can use the information to configure the source fields in LSMW when you import root causes.

Table 5.1 Root Cause Hierarchy Data

HEADER_INPUT Node			
Field	Length	Mandatory	Description
LEADING_LABEL	40	X	Name of the node; it should always be ROOT for the ROOT structure
ROOT_CAUSE_TYPE	32	X	Root cause type
ROOT_CAUSE_TYPE_DESC	32	X	Description
ROOTCAUSE_INPUT Node			
Field	Length	Mandatory	Description
LEADING_LABEL	LEADING_LABEL	LEADING_LABEL	LEADING_LABEL
CODE	CODE	CODE	CODE
PARENT	PARENT	PARENT	PARENT
DESCRIPTION_L	DESCRIPTION_L	DESCRIPTION_L	DESCRIPTION_L

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Importing Root Cause Hierarchies

To import the root cause hierarchy into the add-on, you can use the LSMW. When you import root causes, you can use the same data file for multiple imports in the same system. If configured, the workbench imports already imported root cause hierarchies again. This means that if an error occurs with any of the root cause entries, you can fix the error and use the same file to import that root cause.

1. Start transaction LSMW.
    - Project: ROOT_CAUSE_IMP
    - Object: IMPORT_ROOT_CAU

Open the Maintain Fixed Values, Translations, User-Defined Routines process step and enable, or disable data overwriting.
OVERWRITE_DATA_IND - Enables you to overwrite imported root causes in the target system. Enter X in the Value field to enable overwriting.

Open the Specify Files process step and provide the import data file.

2. Execute the rest of the import steps in the following order:
    1. Assign Files
    2. Read Data
    3. Display Read Data
    4. Convert Data
    5. Display Converted Data
    6. Start IDoc Generation
    7. Start IDoc Processing
    8. Create IDoc Overview
    9. Start IDoc Follow-Up

When you import the root cause hierarchy, the following Customizing activities are automatically updated:

- SAP EHS Management → Incident Management → Investigation → Specify Steps

  The EHHSS_ST_CAT_MIGRATED category is created and used for the investigation text of the migrated incident.
- SAP EHS Management → Incident Management → Investigation → Specify Root Cause Types

  The imported hierarchy is stored under the EHS_IAL_STD root cause type.

5.1.3 Migration to Business Object Incident

The central new business object of the add-on for managing incidents is the Incident (EHHSS_INCIDENT).

An incident record is transactional data. This means, the business process starts after an incident occurred and was recorded in the system. The process ensures that you fulfill legal reporting and investigation requirements, and ends with the closure of the incident record.

Major incident and safety measure data can be migrated by exporting it from the EHS solution and importing it into the add-on.

The migration process can be enhanced by customer implementations of the Business Add-In (BAdI) Import of Incidents (BADI_EHHSS_INC_IMPORT).

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The migration process is done in two major steps: 1) exporting of the incident and safety measure data from the EHS solution into a file and 2) importing the data from the file into the add-on using LSMW. Basic LSMW migration project setup is provided and supports major incident and safety measure data migration. The migration process can be enhanced additionally by using the functionality of the LSMW migration tool.

Disable Functionality in the EHS Solution as Part of SAP ERP

You disable functionality in the EHS solution as part of SAP ERP, for example, to create new incident records in the EHS solution as part of SAP ERP, by adapting user menus in transaction PFCG and revoking authorizations. This way, the transactions are no longer available in the EHS solution after the migration date and, for example, the authorization to create new incidents is revoked.

Exporting Incidents from the EHS Solution

To export incidents from the EHS solution, you can use the REHS_IAL_EXPORT_TO_CSV report.

1. Start transaction SE38 and execute the REHS_IAL_EXPORT_TO_CSV report.
2. Select the incidents that you want to export.

   You can either export all incidents or refine your export criteria by choosing the *Select Incident/Accident Log* radio button, and then using the selection parameters area.
3. Enter a name for the CSV file and save.

Importing Incidents into the Add-on

This section describes the steps to migrate incident and safety measure data.

> **Note**
>
> It is a prerequisite for the migration of the incident and safety measure data to know how to set up and use the LSMW data migration tool. The IDoc Inbound processing must be set as a minimum in the LSMW in order to perform the migration process.

LSMW enables you to execute a test migration run. In this way, you can verify that the incident data can be imported correctly into the add-on system. Once you are satisfied with the result of the test, you can disable the test migration run and execute the procedure steps to migrate and save the incident and safety measure data in the add-on.

> **Note**
>
> Before migration is started, the setup of the translations in the LSMW step Maintain Fixed Values, Translations, User-Defined Routines must be checked. If the user customization has different translation values, the corresponding translation tables must be updated. For more information, see the LSMW Fixed Values, Translations, User-Defined Routines section below.

1. In the add-on system, start transaction LSMW.
   - Project: INC_MIGRATION
   - Object: IMPORT_INCIDENT

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Open the Maintain Fixed Values, Translations, User-Defined Routines process step and enable, or disable test data migration.
TEST_RUN - Enables you to execute test import in the target system and error proof the real import at a later stage. Enter X in the Value field to enable test run.

2. Open the Specify Files step and provide the import data file.
3. Execute the rest of the import steps in the following order:
    1. Assign Files
    2. Read Data
    3. Display Read Data
    4. Convert Data
    5. Display Converted Data
    6. Start IDoc Generation
    7. Start IDoc Processing
    8. Create IDoc Overview
    9. Start IDoc Follow-Up

LSMW Fixed Values, Translations, User-Defined Routines

The tables below outline the LSMW fixed values, translations, and user-defined routines that are available in the default LSMW incident migration project and object (INC_MIGRATION and IMPORT_INCIDENT).

Depending on your business case and the customization that you made at the source system (EHS Solution) or the target system (add-on), or the migration data, you may need to adapt the following entries in LSMW.

Table 5.2 Fixed Values in LSMW

Fixed Values	Description
DEFAULT_SUBTYPE_ABSENCE_BP	Default Subtype of Absence for Business Partners
DEFAULT_SUBTYPE_RESTRIC_BP	Default Subtype of Restriction for Business Partners
FIN_TRANS_CATEG	Financial Transaction Category
RFC_DEST_TO_SOURCE_SYSTEM	
TEST_RUN	Test or Save run
WORK_AREA_SOURCE_SYSTEM	Source system of Work Areas

Table 5.3 Translations in LSMW

Translations	Description
DEFAULT_SUBTYPE_ABSENCE_BP	Default Subtype of Absence for Business Partners
DEFAULT_SUBTYPE_RESTRIC_BP	Default Subtype of Restriction for Business Partners
ACT_STATUS_CODE	Safety Measure Status
DAMAGE_TYPE	Damage Type
EHHSS_INC_REGULATION_CODE	Incident Regulation

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Translations	Description
EHHSS_TRAN_FIRST_AID_CODE	
EHHSS_TRAN_FURTHER_CODE	
EHS_ACC_OBJECT	Object or substance that Caused Accident
EHS_ACTIVITY_INJPERS	Activity of Injured Person
EHS_EXT_INFLUENCE	External Influence
EHS_MOVEMENT_ACCOBJ	Movement of Accident Causing Object
EHS_MOVEMENT_INJPER	Movement of Injured Person
EHS_PPE	Personal Protective Equipment
EHS_SAF_MEASURE	EH&S Safety Measures Taken - (Immediate Action)
EHS_SFTY_DEVICE	Technical Safety Device
INC_STATUS	Incident Status
INJURY_ILLNESS	Injury Illness Classification
INJ_PERSON_BODYPARTS	
INJ_PERSON_BODYSIDES	
OCC_INC_TYPE	Occupational Incident Type
PERSON_GROUP	Person Group
PERSON_ROLE	Person Role
PROT_GOAL	Safety Measure Protection Goal
SMEAS_CATEGORY	Safety Measure Category
SMEAS_EFFECT	Safety Measure Effectiveness
SMEAS_ORG_TYPE	Safety Measure Organizational Types
SMEAS_PER_TYPE	Safety Measure Personal Types
SMEAS_PRIORITY	Safety Measure Priority
SMEAS_TEC_TYPE	Safety Measure Technical Types
SUBTYPE_RESTRICTION_HR	Subtype of Restriction for HR Persons
USER_DEFINED_TEXT_TYPE	User Defined Text Types

Table 5.4 User Defined Routines in LSMW

User-Defined Routines	Description
ADD_LEADING_ZEROS	
CONSTRUCT_MIGRATION_SOURCE	Construct Migration Source
CONVERT_EXTENSION_VALUES	

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User-Defined Routines	Description
DATE_TIME_INTO_TIMESTAMP	Convert Date and Time into Timestamp
EHFND_DATE	
EHFND_INDICATOR	
EHHSS_INC_MIGRATION_SOURCE	
ID_COMBINED	Person ID Combined
SET_UNKNOWN_TO_NO	

5.1.4 Migration of Safety Measures to Business Object Action

During the incident recording and investigation processes, an incident manager can trigger actions (known as "safety measures" in the EHS solution). Actions are work processes that can be defined as either reactive or proactive. In incident management (in the add-on), actions are specifically a step or activity that must be taken to prevent an unsafe condition or event, such as safety training or a preventive maintenance task. Similarly to the incident, these are transactional objects with a closure.

Safety measure data is migrated along with the incident data into the actions of an incident in the add-on system. You do not need to explicitly export safety measures and then import them into the add-on.

You can create actions in an incident data record that was created in the add-on after the migration date. Safety measures with status *Closed* in the EHS solution will be migrated to closed actions in the add-on. Open safety measures will be migrated to new actions in the add-on. You must manually start the new actions in the add-on. There is no integration of the safety measures into Plant Maintenance (PM), Customer Service (CS) or Quality Management (QM) notifications. In the add-on, only persons that have system users assigned in the HR system or that are maintained as agents in the relevant workflow tasks can start actions. For this reason, a safety measure that has a person assigned as person responsible, administrator, or responsible for check is not migrated if the person is not properly configured in the add-on. Safety measures assigned to a root cause will be migrated to the investigation actions in the add-on and assigned to the root causes there.

Costs assigned to safety measures in the EHS solution are migrated to a new entry in the financial transactions add-on.

5.1.5 Migration to BO Technical Object of PM

Incident management in the add-on links to technical objects (equipment and functional locations) in the PM component similarly to the way that incident management in the EHS solution links to them.

PM data or configuration does not have to be changed for the migration.

However, in the add-on there is an additional configuration that maps the asset types of the add-on to relevant PM technical object types. If necessary, you need to adapt the standard configuration of the add-on to match your particular PM configuration.

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5.1.6 Migration of Print Form Templates

Incident management in the EHS solution uses Windows word processor integration (WWI) as the reporting tool to create the regulatory print forms, such as OSHA 300, OSHA 300A, OSHA 301 and the German Berufsgenossenschaft-Unfallanzeige.

Incident management in the add-on uses print forms implemented by SAP Interactive Forms by Adobe for this purpose. The standard delivery provides sample templates of the print forms.

It is not possible to automatically migrate and convert the WWI Word templates to SAP Interactive Forms by Adobe templates. In the add-on, you must recreate print form templates using the Form Builder.

When you migrate WWI forms as part of incident entries to the add-on, the forms are extracted from the Data Management System (DMS) and then stored as attachments to the incident in the add-on. You can use the migrated WWI forms for preview purposes only.

> **Note**
>
> The LSMW data migration tool cannot migrate WWI forms that are stored in external, non-SAP systems, different from DMS.

> **Note**
>
> The LSMW data migration tool cannot migrate WWI forms with status Historical. When you create a newer version of an existing WWI form, the status of the older version is set to *Historical* and the print form is deleted from DMS. Although the older form template and the corresponding parameters remain in the system, the generated print form is deleted and, therefore, cannot be migrated.

5.1.7 Migration of Documents

In incident management in the EHS solution, you can attach user-defined text and documents to the incident/accident log. The user-defined texts and documents are migrated (during the migration of incidents) as document attachments in the *Documents* tab of an incident in the add-on.

Before you migrate the user-defined texts and documents, you must configure the system as follows:

1. Start transaction SM59 in the add-on and configure an RFC connection to the EHS solution system.
2. Set the configured RFC connection in LSMW in the project administration fixed value RFC_DEST_TO_SOURCE_SYSTEM.

   If the fixed value is not set in LSMW, the user-defined texts and documents will not be migrated in the add-on.
3. Configure the attachment type schema MIME types for the incident BO.
   1. Open Customizing activity: Cross-Application Components → Processes and Tools for Enterprise Applications → Reusable Objects and Functions for BOPF Environment → Dependent Object Attachment Folder → Maintain Attachment Type Schema.
   2. Choose MIME Type dep on BO & Node.
   3. For the root node of the EHHSS_INCIDENT business object, define all document MIME types that can be migrated into the add-on.
4. Additionally, if the documents in EHS solution have different MIME types than the standard, define these MIME types.

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If a document in the EHS solution has a MIME type that is not available in the add-on, this document cannot be migrated. Make sure that the MIME types in the EHS solution are available in the standard MIME types table SDOKMIME. If the document MIME type is not available in the standard MIME types, it must be defined separately. You can define additional MIME types in the following Customizing activity: SAP NetWeaver → Knowledge Management → Settings in the Knowledge Warehouse System → Document Management Service → Define MIME Type for File Name Extension.

5. Check and configure the user-defined text types in the translation table USER_DEFINED_TEXT_TYPE. All user-defined text types in the EHS solution must be mapped to the corresponding fixed values for the add-on in order to be migrated correctly.

5.1.8 Migration of Customer Enhancements

In incident management in the EHS solution, data structures of the incident/accident log and for the injured person could be extended by means of the classification system.

In incident management in the add-on, extensions are enabled by the standard extension techniques of the ABAP Dictionary (append-structures, additional Customizing tables), Web Dynpro, and Floorplan Manager.

You append structures with the respective attributes as the replacement for your current characteristics and add additional Customizing tables for the associated code lists.

For more information about adding fields and nodes to a business object, see the topic Foundation for EHS Management →Business Objects →Adding Fields to the User Interface on SAP Help at http://help.sap.com/ under SAP Business Suite → SAP EHS Management → Component Extension for SAP EHS Management → Release 5.0.

The incident management and the add-on extensions can result in “one-to-one” and “one-to-many”, or “many-to-many” data migration relationships. The migration solution provides basic support for migrating “one-to-one” relationship extensions from the EHS solution classification system to the add-on business object model. Migration of other relationship data can be performed by means of custom BAdI implementations.

You can perform migration of “one-to-one” relationship data in the Customizing activity under SAP EHS Management → Incident Management → General Settings → Specify Import Mapping. There, you can define the mapping of the EHS solution classification system extensions to the add-on business object model. The following data must be set:

1. Select the EHHS_INCIDENT business object.
2. Open the field mapping and set the following fields:

Table 5.5 Field Mapping for EHHS_INCIDENT

Field	Description
Data Source	Data source in the EHS solution that contains the extension data for migration to the add-on. Use the following format: <EHS solution object type> :< classification system class>. For example: IAL: Z_EHS_IAL_001.
Field name	Classification system characteristic containing the source EHS solution extension data that will be migrated to the add-on.
BO Node Name	Incident BO model node in the add-on to which the data will be migrated.

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Field	Description
BO Node Attribute	Attribute of the add-on BO node to which the EHS solution classification system characteristic will be migrated.

5.1.9 Migration of Phrases

As a special case, you can migrate - by using adjustment of the Customizing configuration - multi-value EHS solution characteristics to single value text collection nodes in the incident management add-on BO model.

When a set of phrases is used as a set of values for a characteristic, you must perform the following procedure in the add-on to migrate the search help values:

1. Migrate the phrases into a Customizing table in the customer namespace as follows:
    1. In the add-on, start transaction SM30, and then in the *Table/View* field, enter EHHSSV_TAB_MIGR.
    2. Choose *Maintain*.
    3. Choose *Utilities* → *Adjustment*.
    4. Create a connection to the EHS solution.
    5. Adjust all entries.
    6. In the add-on, start transaction SE38, and then execute R_EHHSS_PHRASE_MIGRATE.
2. Create a domain in the add-on by using transaction SE11 and add a conversion routine to it.
3. Implement the conversion routine to convert the migrated phrase IDs into descriptions using the Customizing table EHHSSV_TAB_MIGR.
4. Define a data element using the domain.
5. Use the data element in the corresponding BO model customer extension structure.

Another special case is the use of date and time values in the customer extensions in the add-on. If the default EHFND_DATE and EHFND_TIME_HH_MM domains are used for defining customer extension fields, note that the default values for these fields will be the current date and time. Thus, if these default values are not acceptable for the customer fields in the extensions, and if you want to set your own definitions for date and time, you should define and use new domains in the customer namespace.

5.1.10 Migration of Customizing Configuration

As described in the previous section Migration of Phrases, in incident management of the EHS solution, phrase management was used for many attributes with code lists. In incident management of the add-on, Customizing tables (master data) are used.

The data type of the code is compatible, meaning you can easily copy the phrases to the respective Customizing tables.

You can use the migration report R_EHHSS_PHRASE_MIGRATE to migrate phrases from phrase sets that are assigned to fields in the incident/accident log of the earlier SAP solution to Customizing tables of incident management in the add-on. The documentation of this report comprises more information about the matter. Phrase sets from the EHS solution may contain semantically similar or even identical entries as the delivered Customizing content of the add-on. Therefore, you should compare both sources of content and consolidate.

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In addition, there are specific configuration settings, such as integration linkage to HR, PM, QM, and central master data. You must manually check these settings and make adjustments if necessary. The following Customizing activities in the add-on may require manual data transfer, if they do not support automatic adjustment:

Table 5.6 Customizing Settings for Incident Management

Customizing			
		SAP EHS Management →	Environment, Health and Safety →
Business Object	Incident	Incident Management → Incident Recording → People → Specify Roles	Industrial Hygiene and Safety → Basic Settings → Specify Roles for Persons
		Incident Management → Incident Recording → People → Injured Person → Specify Incident Types	Industrial Hygiene and Safety → Incident / Accident Management → Specify Accident Categories
		Incident Management → Incident Recording → Investigation → Specify Root Cause Types	Industrial Hygiene and Safety → Incident / Accident Management → Build Cause Hierarchy
	Safety Measure / Action	Foundation for EHS Management → Actions → Specify Types	Industrial Hygiene and Safety → Industrial Hygiene and Safety Measures → Specify Safety Measure Categories
		Foundation for EHS Management → Actions → Specify Subtypes	Industrial Hygiene and Safety → Industrial Hygiene and Safety Measures → Specify Safety Measure Types
		Foundation for EHS Management → Actions → Specify Effectiveness	Industrial Hygiene and Safety → Industrial Hygiene and Safety Measures → Specify Effectiveness
	Work Area / Location	Foundation for EHS Management → Locations → Specify Location Types	Industrial Hygiene and Safety → Work Area Management → Specify Work Area Types
		Foundation for EHS Management → Locations → Specify Authorization Groups	Industrial Hygiene and Safety → Work Area Management → Specify Authorization Groups
Integration		Foundation for EHS Management → Integration → Specify Destinations for Integration	Basic Data and Tools → Basic Settings → Specify Environment Parameters → Environment Parameters DEST_PM, DEST_HR and

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Customizing		
		DEST_BU

> **Note**
>
> The component extension 5.0 for SAP EHS Management also delivers new functionality and business processes which were not covered in the EHS solution as part of SAP ERP. There is no existing configuration in the EHS solution as part of SAP ERP for these aspects which can be taken over. You must follow the respective steps described in Solution Manager and in Customizing, and check and adapt the configuration according to your needs.

5.1.11 Roles and Authorizations

You either set up new roles for incident management in the add-on or add the new authorization objects to your existing roles.

The following table provides the mapping of authorization objects in the EHS solution as part of SAP ERP and the semantically corresponding authorization objects in the add-on, including the corresponding parameters.

Unless otherwise stated, the ACTVT parameter is always an exact match.

Table 5.7 Business Objects

Object	EHS Solution as Part of SAP ERP	Component Extension for SAP EHS Management	Remarks
Change Documents	C_EHSS_CDE	EHFND_CHDC	The new authorization object is more granular and can be granted per business object.
Incident	C_EHSI_IAL - WERKS	EHHSS_INC1 - PLANT_ID	There is no exact match for parameter IATYPE of C_EHSI_IAL. The new object EHHSS_INC1 has more parameters to allow more granular control.
Incident Reports (Print Forms)	C_EHSI_DOC (REFOBJ IAL)	EHHSS_INC2	No exact match of parameters; referred control objects are different.
Incident	N/A	EHHSS_INC3	No exact match of parameters; referred control objects are different. The new object EHHSS_INC3 has more parameters to allow more granular control over incidents.
Incident	N/A	EHHSS_INC5	No exact match of parameters; referred control objects are different. The new object EHHSS_INC5 has more parameters to allow more granular control over the incident location entries.

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For more information about roles and authorizations, see the Security Guide on SAP Service Marketplace at http://service.sap.com/instguides → SAP Business Suite Applications → SAP EHS Management → Component Extension for SAP EHS Management → Release 5.0.



Caution

You need the SAP_EHSM_FND_MIGRATION end user role assigned to your user to run the LSMW. Depending on the content you want to migrate, you still need to configure and assign the corresponding business role (including the profiles).

To access the incident business object and migrate the incident content, you also need the SAP_EHSM_HSS_INCIDENT_MANAGER role assigned to you (along with the corresponding profiles).

5.1.12 Analytical Reporting

In incident management in the add-on, several dashboards and analytical reports are provided.

To use existing incident data from the earlier SAP solution for managing incidents, we recommend migrating the BI content from the earlier solution to the new add-on.

After migration of the earlier BI Content, the following dashboards are also supported by the EHS solution as part of SAP ERP for incident data:

- Dashboard Incident Distribution (0XC_HS_INC_DISTRIBUTION)

  

  Caution

  Restriction: In the EHS solution as part of SAP ERP, safety observations, near misses, exceptional releases, or illnesses are not recorded. You cannot display these key figures for the old incident data.
- Dashboard Lost Work Days and Incident Statistics (0XC_HS_LWD_KF)

  

  Caution

  Restriction: In the EHS solution as part of SAP ERP, safety observations and near misses are not recorded. You cannot display these key figures for the old incident data.
- Dashboard Causes and Actions (0XC_HS_CAUSES_ACTIONS)

  

  Caution

  Restriction: In the EHS solution as part of SAP ERP, actions are not recorded. You cannot display the distribution of the actions over the status for the old incident data on the dashboard. Only the causes are displayed.
- Dashboard Incident Key Figures (0XC_HS_STATISTICS)

The following reports are supported by the incident data in the EHS solution as part of SAP ERP:

- Report Injuries/Illnesses (0EHH_MP01_Q0003)
- Report Injuries/Illnesses Summary (0EHH_MP01_Q0002)
- Report Incident Statistics (0EHH_MP01_Q0001)

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Caution

Restriction: Some characteristics and key figures of these reports are not recorded in the EHS solution as part of SAP ERP, for example, the shift or the number of releases. These characteristics and key figures are empty for the old incident data.

To transfer the old incident data to the new MultiProviders, the data of the BI Content DataStore-Objects (DSO) in the EHS solution as part of SAP ERP is transferred to the new BI Content DSOs in the add-on by transformation rules.

This section explains the steps for migrating data for analytical reporting.

Note

The prerequisite for migration of the BI content is that the BI Content of the EHS solution as part of SAP ERP was used. Note that customer-specific enhancements are not taken into consideration in these migration steps, but can be transferred in a similar way.

We recommend not mapping the incident DSOs in the EHS solution as part of SAP ERP directly to the new incident DSOs of the add-on. Instead, create a new DSO of the same structure as the DSOs of the add-on.

The incident data of the incident DSOs in the EHS solution as part of SAP ERP is mapped with a transformation to the newly created DSO. After this, the data of the new DSOs can be delta-loaded directly to the DSOs of the add-on. The same is valid for the incident master data.

The following objects in the add-on will receive data from the incident in the EHS solution as part of SAP ERP:

- InfoObject 0EH_INCIDNT with master data
- DataStore Object 0EHH_DS02
- DataStore Object 0EHH_DS03
- DataStore Object 0EHH_DS06

Procedure

1. In the Data Warehousing Workbench, for each of the DSOs or for the InfoObject mentioned above, create a new DSO or InfoObject with all fields of the DSO or InfoObject in the add-on of the corresponding mapping table below (last column).
2. Create a Microsoft Excel file with all key mappings and load it into SAP NetWeaver Business Warehouse (BW) into a new DSO (see Key Mapping in Excel below).
3. Create a transformation of the DSO (or InfoObject) in the EHS solution as part of SAP ERP to the newly created DSO (or InfoObject).
4. Do the data mapping (as described in the Mapping Rules of the mapping table below), if necessary create start and end routine.
5. Load the data from DSO (or InfoObject) in the EHS solution as part of SAP ERP to the new DSO (or InfoObject).
6. Delta-load the data from the new DSO (or InfoObject) to the corresponding add-on DSO (or InfoObject).
7. Optional: If the dashboard Causes & Actions is used, do the additional necessary loading (see Additional necessary mappings).
8. Delta-Load the add-on Incident BI Content.

Always load the master data first, and then load the transactional data.

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Key Mapping in Excel

The values of some characteristics are keys with associated texts. Both are loaded into BW.

In the EHS solution as part of SAP ERP, in the majority of cases, the key was a phrase key and the associated text was the corresponding phrase text (customer-specific). For phrase keys, the two following migration options are available:

1. Running the phrase migration report (R_EHHSS_PHRASE_MIGRATE). With this approach, the existing phrase keys in the EHS solution as part of SAP ERP are taken over into the add-on configuration tables. No further mapping in Microsoft Excel is required.
2. If you do not run the phrase migration report, data created with the EHS solution as part of SAP ERP needs to be mapped to the new master data keys. For this scenario, a mapping from incident data in the EHS solution as part of SAP ERP to the new data in the add-on becomes mandatory.

Example of option 2:

Characteristic Injured Body Part

Table 5.8 Key Mapping Table - Example

Value	Key in EHS Solution as Part of SAP ERP	Key in Component Extension 2.0 for SAP EHS Management
...	...	...
Head	IHBP01	EHHSS_BP_HEAD
Hand	IHBP03	EHHSS_BP_PALM_HAND EHHSS_BP_BACK_HAND
Knee	IHBP06	EHHSS_BP_KNEE

Since there is more than one key to map, we recommend creating one Microsoft Excel file with all mappings of the old keys to the new keys with the following two columns:

Key of EHS Solution as Part of SAP ERP | Key of Component Extension for SAP EHS Management

Load this Microsoft Excel data into a newly created DSO for value mappings.

In the routines, when the old values are mapped to the new values, access the Microsoft Excel DSO table to get the corresponding new key.

Master Data

The following sections explain the mapping of the master data.

InfoObject 0EH_INCIDNT

In the new BI content of the add-on, there is one InfoObject with master data, 0EH_INCIDNT.

This master data is filled by the master data of incident Info Object 0EHS_IAL in the EHS solution as part of SAP ERP. Some fields are also filled by the master data of 0EHS_IP in the end routine of the transformation.

The objects must be mapped in the following way:

Table 5.9 Mapping in Transformation

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EHS Solution as Part of SAP ERP	0EHS_IAL	Mapping Rule	Component Extension 2.0 for SAP EHS Management	0EH_INCIDNT
Accident Log Entry	0EHS_IAL	Direct (make sure the number ranges of old and new incidents do not overlap)	Incident ID	0EH_INCIDNT
Event Description	0EHS_EVDE	Direct (to the Texts of 0EH_INCIDNT)	Incident Title	0EH_INCIDNT Text
		Constant: ‘001’ (Incident)	Incident Category	0EH_INCCAT
Plant / Work area	0PLANT / 0EHS_WAID	The Org Unit is required for the Incident Key Figures dashboard To populate this field, create a mapping, for example, between Work area and Org Unit or between Plant and Org Unit.	Org.Unit	0EH_INCORGU
Plant	0PLANT	Direct	Plant	0PLANT
Work area	0EHS_WAID	Mapping of Work areas to Locations necessary	Inc. Location	0EH_INCLOC
Accident Location	0EHS_ALOC	Routine: Mapping of codes (Excel DSO)	Inc. Location Type	0EH_INCLOCT
Date	0DATE	Direct	Inc. Start Date	0EH_INCSDAT
Date	0DATE	Direct	Start Date	0EH_STDATE
Time	0TIME	Direct	Inc. Start Time	0EH_INCSTIM
Date	0DATE	Routine: Calculation of week day	Inc. Start Day of Week	0EH_INCSDAY
Production Time Lost	0EHS_PRFL	Direct	Prod. Loss	0EH_INCLP
		Constant: '-' (unknown)	Restricted / Inc Confidential	0EH_INCCONF
		Constant: '-' (unknown)	Emergency Resp.	0EH_INCER
Plant	0PLANT	This could be read from master data attributes of the plant	Postal Code	0EH_INCPC

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EHS Solution as Part of SAP ERP	0EHS_IAL	Mapping Rule	Component Extension 2.0 for SAP EHS Management	0EH_INCIDNT
Plant	0PLANT	This could be read from master data attributes of the plant	Country	0EH_INCCNTR
Plant	0PLANT	This could be read from master data attributes of the plant	Region	0EH_INCREG
		Constant: '-' (unknown)	SO Reported Anon.	0EH_REPANON
Date	0DATE	Direct	Calendar Year	0CALYEAR
Date	0DATE	Direct	Calendar Year /Quarter	0CALQUARTER
Date	0DATE	Direct	Calendar Year /Month	0CALMONTH
Date	0DATE	Direct	Calendar Day	0CALDAY

End Routine

In the end routine of this transformation, the following master data of InfoObject 0EHS_IP is mapped:

Table 5.10 Master Data Mapping of Info Object 0EHS_IP

EHS Solution as Part of SAP ERP	0EHS_IP	Mapping Rule	Component Extension 2.0 for SAP EHS Management	0EH_INCIDNT
Reportable Accident	0EHS_IARE	Direct	Inc. Report Req.	0EH_INCRR
Fatality	0EHS_IPDE	Direct	Inc. Fatality	0EH_INCFTL
Accident Category	0EHS_IACA	If Accident Category value = “WRK” (Selection is Customizing dependent)	Inc. Occ.	0EH_INCOCC

Transactional Data

With respect to the transactional data, the following DSOs of the add-on are filled by incident data of the EHS solution as part of SAP ERP:

- 0EHH_DS02
- 0EHH_DS03
- 0EHH_DS06
- 0EHH_DS07

DataStore Object 0EHH_DS02

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Map the DSO 0EIH_DS02 in the EHS solution as part of SAP ERP to DSO 0EHH_DS02 of the add-on in the following way (the key fields are italicized):

Table 5.11 Mapping in Transformation

EHS solution as part of SAP ERP	0EIH_DS02	Mapping Rule	Component Extension 2.0 for SAP EHS Management	0EHH_DS02
Accident Log Entry	0EHS_IAL	Direct (make sure the number ranges of old and new incidents do not overlap)	Incident ID	0EH_INCIDNT
		Routine: Generate GUID*	Involved Person GUID	0EH_IPGUID
		Routine: Generate GUID*	Involved Person Role GUID	0EH_IPRGUID
		Routine: Generate GUID*	Injury or Illness GUID	0EH_IIGUID
Person Involved	0EHS_IP	Direct	Involved Person	0EH_INVPERS
Injury Type	0EHS_INJU	Routine: Map phrase key to new key (Excel DSO).	Injury Type	0EH_INJTYPE
Injured Body Part	0EHS_BODY	Routine: Map phrase key to new key (Excel DSO).	Injury or Illness: Body Part	0EH_BDYPART
		Constant: 'INJ' (Injury)	Injury or Illness: Designation	0EH_IIDESIG
Number of Persons Affected	0EHS_IPCN	Direct	Number of Involved Persons	0EH_NUMIP
Number of Workdays Absent	0EHS_IPAB	Direct	Number of Lost Workdays	0EH_NUMLWD
Number of Calendar Days Absent	0EHS_IPAC	Direct	Number of Lost Calendar Days	0EH_NUMLCD
Number of Workdays with Restriction or Job Transfer	0EHS_IPRD	Direct; either to Transferred or to Restricted Workdays (In the incident in the EHS solution as part of SAP ERP, there was no differentiation between	Number of Restricted Workdays	0EH_NUMRWD

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EHS solution as part of SAP ERP	0EIH_DS02	Mapping Rule	Component Extension 2.0 for SAP EHS Management	0EHH_DS02
		restricted and transferred days.)		
Number of Workdays with Restriction or Job Transfer	0EHS_IPRD	Direct; either to Transferred or to Restricted Workdays (In the incident in the EHS solution as part of SAP ERP, there was no differentiation between restricted and transferred days.)	Number of Transferred Workdays	0EH_NUMTWD
Number of Calendar Days with Restriction or Job Transfer	0EHS_IPRC	Direct; either to Transferred or to Restricted Calendar Days (In the incident in the EHS solution as part of SAP ERP, there was no differentiation between restricted and transferred days.)	Number of Restricted Calendar Days	0EH_NUMRCD
Number of Calendar Days with Restriction or Job Transfer	0EHS_IPRC	Direct; either to Transferred or to Restricted Calendar Days (In the incident in the EHS solution as part of SAP ERP, there was no differentiation between restricted and transferred days.)	Number of Transferred Calendar Days	0EH_NUMTCD

*GUID is generated in routine using method CL_UPARI_SYSTEM_UUID=>IF_UPARI_SYSTEM_UUID_STATIC~CREATE_UUID_C32.

End Routine

The system must read some data from the involved person master data 0EHS_IP in end routine of transformation:

Table 5.12 Needed Person Master Data

EHS Solution as Part of SAP ERP	0EHS_IP	Mapping Rule	Component Extension 2.0 for SAP EHS Management	0EHH_DS02
Employee, Business Partner, Applicant, External Person	0EMPLOYEE, 0BPARTNER, 0APPLICANT, 0EHS_IPFL	Routine: Value mapping	Person Group	0EH_IPGROUP
Role of Person Involved	0EHS_IPTP	Routine: Value mapping (Excel DSO)	Role	0EH_IPROLE
Accident Category	0EHS_IACA	Routine: Value mapping (Excel DSO)	Occ. Incident Type	0EH_IPITYPE
Accident Category	0EHS_IACA	Routine: If value is “WRK”	On Duty	0EH_ONDUTY

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EHS Solution as Part of SAP ERP	0EHS_IP	Mapping Rule	Component Extension 2.0 for SAP EHS Management	0EHH_DS02
Fatality	0EHS_IPDE	Direct	Fatality	0EH_IPFTLTY
Treatment in Emergency Room	0EHS_EMER	Direct	Treated in Emergency Room	0EH_EMROOM
Treatment Overnight As Inpatient	0EHS_INPA	Direct	Inpatient over 24 Hours	0EH_INPAT24
Reportable Accident	0EHS_IARE	Direct	Reportable	0EH_INJRR
Cause of Accident	0EHS_IACS	Routine: Map phrase key to new key (Excel DSO).	Major Root Cause	0EH_MAJORRC

DataStore Object 0EHH_DS03

Map the accident master data 0EHS_IAL in the EHS solution as part of SAP ERP to the DSO 0EHH_DS03 of the add-on in the following way (the key fields are italicized):

Start Routine

Duplicate records when both 0EQUIPMENT and 0FUNCT_LOC are populated. Each record must have either 0EQUIPMENT or 0FUNCT_LOC.

Mapping in Transformation

Table 5.13 Special Dublicated Records

EHS Solution as Part of SAP ERP	0EHS_IAL	Mapping Rule	Component Extension 2.0 for SAP EHS Management	0EHH_DS03
Accident Log Entry	0EHS_IAL	Direct (make sure the number ranges of old and new incidents do not overlap)	Incident ID	0EH_INCIDNT
		Routine: Generate GUID*. If both 0EQUIPMENT and 0FUNCT_LOC have values, two records have to be created.	Asset GUID	0EH_ASGUID
Equipment, Functional Location	0EQUIPMENT, 0FUNCT_LOC	Routine: If 0FUNCT_LOC has a value, the asset type is 'property'. If 0EQUIPMENT has a value, the asset type is either 'equipment' or 'vehicle'. In this case, there	Asset Type	0EH_ASSETTY

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EHS Solution as Part of SAP ERP	0EHS_IAL	Mapping Rule	Component Extension 2.0 for SAP EHS Management	0EHH_DS03
		has to be a mapping of equipment IDs to the asset types		
		Constant: '-' (unknown)	Asset of Company	0EH_BEL2ORG
Equipment	0EQUIPMENT	Routine: If the equipment is not a vehicle.	Asset Equip ID	0EH_EQUIPID
		Constant: '-' (unknown)	Asset Equip Operational	0EH_EQOPERA
Equipment	0EQUIPMENT	Routine: If the equipment is a vehicle	Asset Veh ID	0EH_VEHICID
		Constant: '-' (unknown)	Asset Veh Operational	0EH_VHOPERA
Functional Location	0FUNCT_LOC	Direct	Asset Prop ID	0EH_PROPID
		Constant: '-' (unknown)	Asset Prop Usable	0EH_PRUSBL

*GUID is generated in routine using method CL_UPARI_SYSTEM_UUID=>IF_UPARI_SYSTEM_UUID_STATIC~CREATE_UUID_C32.

DataStore Object 0EHH_DS06

Map the DSO 0EIH_DS03 in the EHS solution as part of SAP ERP to DSO 0EHH_DS06 of the add-on in the following way (the key fields are italicized):

Mapping in Transformation

Table 5.14 Mapping of DSO 0EIH_DS03 and DSO 0EHH

EHS Solution as Part of SAP ERP	0EIH_DS03	Mapping Rule	Component Extension 2.0 for SAP EHS Management	0EHH_DS06
Accident Log Entry	0EHS_IAL	Direct (make sure the number ranges of old and new incidents do not overlap)	Incident ID	0EH_INCIDNT
		Routine: Generate GUID*	Action GUID	0EH_ACTGUID
Industrial Hygiene and Safety Measure	0EHS_ACTN	Direct (make sure the number ranges of old and new incidents do not overlap)	Action ID	0EH_ACTION

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EHS Solution as Part of SAP ERP	0EIH_DS03	Mapping Rule	Component Extension 2.0 for SAP EHS Management	0EHH_DS06
Number of Industrial Hygiene and Safety Measures	0EHS_ACCN	Direct	Number of Actions	0EH_NUMACT

*GUID is generated in routine using method CL_UPARI_SYSTEM_UUID=>IF_UPARI_SYSTEM_UUID_STATIC~CREATE_UUID_C32.

End Routine

Some data must be read from safety measure master data in the end routine of the transformation:

Table 5.15 Read Data from Safety Measure Master Data

EHS Solution as Part of SAP ERP	0EHS_ACTN	Mapping Rule	Component Extension 2.0 for SAP EHS Management	0EHH_DS06
Industrial Hygiene and Safety Measure Category	0EHS_ACAT	Routine: Value mapping (Excel DSO)	Action Category	0EH_ACTCAT
Industrial Hygiene and Safety Measure Type	0EHS_ACTP	Routine: Value mapping (Excel DSO)	Action Type	0EH_ACTTYPE

Additional Necessary Mappings

For the dashboard Causes & Actions, the Major Root Cause characteristic is necessary.

To get these values, a mapping from the temporary DSO for 0EHH_DS02 to 0EHH_DS01 and 0EHH_DS07 is required.

DataStore-Object 0EHH_DS01

Map the temporary DSO for 0EHH_DS02 to the DSO 0EHH_DS01 in the add-on in the following way (the key fields are italicized):

Mapping in Transformation

Table 5.16 Mapping of Temporary DSO

Temporary DSO for	0EHH_DS02	Mapping Rule	Component Extension 2.0 for SAP EHS Management	0EHH_DS01
Incident ID	0EH_INCIDNT	Direct	Incident ID	0EH_INCIDNT
		Routine: Generate GUID*	Incident: Group GUID	0EH_IGGUID
Involved Person: GUID	0EH_IPGUID	Direct	Involved Person: GUID	0EH_IPGUID

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*GUID is generated in routine using method CL_UPARI_SYSTEM_UUID=>IF_UPARI_SYSTEM_UUID_STATIC~CREATE_UUID_C32.

After the mapping in the transformation is completed, the incident data in the EHS solution as part of SAP ERP can be loaded into the newly created DSOs. The mapping of the new DSOs to the incident DSOs of the add-on should now be a direct mapping for all fields. After completing this mapping, the data can be loaded to the incident DSOs of the add-on by a delta load.

After the loading of the old incident data into the incident DSOs of the add-on, you must perform a complete delta load of incident BI Content in the add-on.

Note that after every initial load of the incident BI Content in the add-on, the incident data of the EHS solution as part of SAP ERP has to be loaded again to the incident DSOs in the add-on.

HCM Data

For the Incident Key Figures dashboard, the number of employees and the number of working hours are necessary for the calculation of the displayed key figures. You can configure for how long in the past this data should be loaded in Customizing (see SAP Note 1462039).

If you use the incident data in the EHS solution as part of SAP ERP, you need to load the HCM data for all the previous years for which you want to display the key figures. We recommend loading the HCM data for a maximum of the last five years that incident data was recorded in BW.

5.2 Migration of Incidents from Add-on

This chapter provides information about the migration of incident data from component extension 5.0 for SAP EHS Management system (add-on) to another add-on.

Component extension 5.0 for SAP EHS Management enables you to export incident data to CSV files and then import these files into a target system (add-on). This means that you can migrate, in one go, already defined data for one or more incidents, for example from a test system to a productive system. To import the data files into the target system, use the LSMW.

> **Note**
>
> To facilitate the migration process, the LSMW tool is used to import the migrated data into the target system (add-on). Since LSMW is an external tool (from the perspective of SAP EHS Management), before you proceed with the actual migration, it is vital to get familiar with LSMW. For more information about LSMW, see the official documentation of the tool at http://help.sap.com/.

> **Note**
>
> The LSMW projects and objects cited in this chapter contain pre-defined data-mapping models that can be used in the corresponding migration scenarios either directly or after applying minimal customization. However, depending on the particular business scenario that you want to execute, you can use the pre-defined LSMW projects and objects as templates to create your own data-mapping model in LSMW.

Due to the specific structure of the incident business object (BO) and the way in which data is stored in it, you must migrate the incident data in several stages. During the different stages, you export and transfer data that is needed for the final migration of incidents to the target system.

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5.2.1 Prerequisites

The following prerequisites must be met before you proceed with the migration of incidents:

- Implement SAP Notes 1714489 and 1797378.

  These SAP Notes comprise the pre-set LSMW projects and objects needed for the migration of incidents and locations.
- If you perform data migration for the first time, create an LSMW user profile as an initial step by executing the Maintain Object Attributes step in the LSMW.
- You have specified the following identical data in the source and target systems:
  - Plants
  - Materials
  - Internal and maintenance orders
  - Customizing values for all SAP EHS Management activities

    This includes the root cause hierarchy that you can configure in the following Customizing activity: SAP EHS Management under Incident Management → Investigation → Specify Root Cause Types.
- You have configured the source and the target systems to use the same HR data.
- You have specified the same incident BO structure in the source and target systems.

  This means that if the incident BO in the source system contains nodes for customer-specific enhancement data, the corresponding BO in the target system must be enhanced with the same nodes.
- If the source system depends on data that is located in other systems and referred over RFC connections, you must configure the same RFC connections in the target system.

  You can establish RFC connections in Customizing for SAP EHS Management under Foundation for EHS Management → Integration → Specify Destinations for Integration.

5.2.2 Migration of Locations

To migrate incidents from a target to a source system, you must migrate the location data first. This ensures the correct handling of locations and preserves the existing relations during the migration of incidents.

The location data consists of location entries (locations) and a location structure (hierarchy) that organizes these entries.

> **Caution**
>
> When you migrate location data, you must migrate the location entries first, and then the location structure.

Exporting Locations

To export the location entries from SAP EHS Management to a CSV data file, you can use the R_EHFND_LOC_TO_CSV report.

1. Start transaction SE38.
2. Execute the following report to export the locations:

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- Locations: R_EHFND_LOC_TO_CSV

3. Enter a name for the CSV file.

   Optionally, you can select the entries you want to export.

4. Execute the program.

The location data is taken from the BO nodes and then organized in the CSV file. For more information about the location BO nodes and the stored data, see SAP Note 1812016.

Importing Location Data

Depending on the entries that you import, the following restrictions apply:

- Locations

When you import locations, you can use the same data file for multiple imports in the same system. Note that the LSMW performs a check and does not import locations that have already been imported again. However, if an error occurs with any of the locations, you can fix the error and use the same file to import that location.

- Location Revisions

In general, to update the location data, you create revisions of a location or a location structure that include the updated data. The revisions are stored in the system and tagged with the date on which they were created. The consecutive date tags of the revisions span a time interval for the specific revision. When you export location data, all revisions are exported to the CSV file.

When you import the location structure, the revisions of the location structure are merged with the revisions of the already existing location structures on the target system. If the revisions (time intervals) of the imported structure overlap with the revisions of an existing structure, the system merges the structures and creates narrower revisions. Note that in this case, the system merges only the locations that are revised within the newly created interval. Thus, the imported locations may be migrated into a revision that is different from the original.



Example

You want to migrate LOC_STR_A with a revision that spans from 01.01.2012 to 01.02.2012. This revision of the location structure comprises three locations LOC_A1, LOC_A2 and_LOC_A3. Location structure LOC_STR_B with a revision that spans from 14.01.2012 to 05.02.2012 comprises two locations LOC_B1 and LOC_B2 already exists in the target system. During the migration, the system merges the structures and creates three new revisions: 01.01.2012–13.01.2012, 14.01.2012–01.02.2012, and from 2-5.02.2012. In this case, after successful migration of LOC_STR_B, the target system will comprise the following three revisions with the following locations:

Revision 1 (01.01.2012 -13.01.2012) LOCA1_LOCA2 and_LOCA3 (as this period is only valid for the LOC_STR_A)

Revision 2 (14.01.2012–01.02.2012) LOCA1_LOCA2 LOCA3 LOCB2 LOCB2 (as this period is valid for both location structures)

Revision 3 (2-5.02.2012) LOC_B1 and Location B2 (as this period is valid only for the existing structure)

1. Start transaction LSMW and open the following project and object.

   Project: LOC_MIGRATION

   Object: LOC_IMPORT

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Note

Before the migration is started, the setup of the translations in the LSMW step Maintain Fixed Values, Translations, User-Defined Routines must be checked. If the user customization has different translation values, the corresponding translation tables must be updated. For more information, see the LSMW Fixed Values, Translations, User-Defined Routines section below.

2. Open the Maintain Fixed Values, Translations, User-Defined Routines process step and enable, or disable a test data migration.

   TEST_RUN - Enables you to execute test import into the target system and error proof the real import at a later stage. Enter X in the Value field to enable test run.
3. Open the Specify Files process step and provide the import data file.
4. Execute the rest of the import steps in the following order:
   1. Assign Files
   2. Read Data
   3. Display Read Data
   4. Convert Data
   5. Display Converted Data
   6. Start IDoc Generation
   7. Start IDoc Processing
   8. Create IDoc Overview
   9. Start IDoc Follow-Up

5.2.3 Migration of Location Structure

The location data consists of location entries and a location structure (hierarchy) that organizes these entries.

Caution

When you migrate location data, you must migrate the location entries first, and then the location structure.

Exporting the Location Structure

To export the location structure from SAP EHS Management to a CSV data file, you can use the R_EHFND_LHR_STRUCTURE_TO_CSV report.

1. Start transaction SE38.
2. Execute the following report to export the location structure:
   - Location structure: R_EHFND_LHR_STRUCTURE_TO_CSV
3. Enter a name for the CSV file.
4. Execute the program.

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The location data is taken from the BO nodes and then organized in the CSV file. For more information about the location BO nodes and the stored data, see SAP Note 1812016.

Importing the Location Structure

Depending on the entries that you import, the following restrictions apply:

- Location Structure

After you import the locations, you can import the location structure using the LSMW. If another location structure exists in the target system, the system merges both location structures.

- Location Structure Revisions

In general, to update the location data, you create revisions of a location or a location structure that include the updated data. The revisions are stored in the system and tagged with the date on which they are created. The consecutive date tags of the revisions span a time interval for the specific revision.

When you export location data, all revisions are exported to the CSV file. Then, when you import the location structure, the revisions of the location structure are merged into the target system. If the revisions (time intervals) of the imported structure overlap the revisions of an existing structure, the system merges the structures and creates narrower revisions. Note that in this case the system merges only the locations that are revised within the newly created interval. Thus, the imported locations may be migrated into a revision that is different from the original.



Example

You want to migrate LOC_STR_A with a revision that spans from 01.01.2012 to 01.02.2012. This revision features a location LOC_A, created on 15.01.2012

LOC_STR_B with a revision that spans from 14.01.2012 to 01.02.2012 already exists in the target system. During the migration, the system merges the structures and creates two new revisions: 01.01.2012–13.01.2012 and 14.01.2012–01.02.2012. In this case, the location LOC_A is merged in the newly created revision that spans from 14.01.2012 to 01.02.2012.

1. Start transaction LSMW and open the following project and object.

   Project: LOC_STR_MIGR

   Object: LOC_STR_IMPORT

   

   Note

   Before the migration is started, the setup of the translations in the LSMW step Maintain Fixed Values, Translations, User-Defined Routines must be checked. If the user customization has different translation values, the corresponding translation tables must be updated. For more information, see the LSMW Fixed Values, Translations, User-Defined Routines section below.

2. Open the Maintain Fixed Values, Translations, User-Defined Routines process step and enable, or disable a test data migration.

   TEST_RUN - Enables you to execute test import into the target system and error proof the real import at a later stage. Enter X in the Value field to enable test run.

3. Open the Specify Files process step and provide the import data file.
4. Execute the rest of the import steps in the following order:
   1. Assign Files
   2. Read Data

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3. Display Read Data
4. Convert Data
5. Display Converted Data
6. Start IDoc Generation
7. Start IDoc Processing
8. Create IDoc Overview
9. Start IDoc Follow-Up

5.2.4 Migration of Enhancement Data

You can migrate incident enhancement data from a source system to a target system using the incident data migration procedure. For more information, see Migration of Incident Data below.

The report that you use to export incident data exports the enhancement data as well. However, before you execute the report you must specify the BO nodes that contain the enhancement data. This ensures that the data will be gathered by the report and exported to the CSV file.

You can specify the BO nodes for enhancement data in Customizing for SAP EHS Management under Incident Management → General Configuration → Specify Export Mapping for Data Transfer.

5.2.5 Migration of Incident Data

After you migrate the location data and specify the enhancement data BO nodes, you can proceed with the migration of incidents from a source system to a target system. Due to the specifics of the incident lifecycle, some of the objects within the incident cannot be migrated directly. The following bullet list outlines the handling of the incident's objects during the data migration.

- Incident and Workflow Statuses Migration

The status of the migrated incident is preserved in the target system. However, the status of its workflows may differ from the original. Note that the incident workflows are not migrated, but new workflows are created in the target system instead.

The bulleted list below outlines the differences in the workflow statuses during the migration of incidents with the following statuses:

- New

  The main workflow is not migrated. A new workflow for the incident is created and started. A *Review and Complete* task is sent to the incident manager.

- In Process

  The workflows are not migrated. A new main workflow for the incident is created and started. A *Review and Complete* task is sent to the Incident Manager.

  If the incident contains any workflows (for example, inquiries, actions, notifications, and investigations) with the status *In Process*, the system creates corresponding workflows with the status *New*.

  If the migrated incident contains OSHA or BG regulations, or injured people, a report workflow is created for each injured person.

- Closed

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The workflows are not migrated. The recurrent actions with the status *In Process* are migrated with the status *New*. However, only the action definition is editable.

- Void

  The workflows are not migrated. New workflows are not created in the target system.

- Reopened

  The workflows are not migrated. A new main workflow for the incident is created and started. A *Review and Complete* task is sent to the incident manager.

  If the incident contains any workflows (for example, inquiries, actions, notifications, and investigations) with the status *In Process*, the system creates corresponding workflows with the status *New*.

- Incidents without a status.

  You cannot export or import incidents without a status.

- Documents, Links, and Reports

All documents (URLs and attachments) in the incident are migrated to the target system. The reports (generated PDF files) and completed inquiries (with status Reply Received) are migrated to the Documents area of the Reports/Documents tab.

> **Caution**
>
> Inquiries with open workflows are not migrated. Report forms and the corresponding details are not migrated as well but created again in the target system.

- Dependent Objects

  Objects that depend on external systems, such as investigation notifications or financial transaction orders, are not migrated directly to the target system. The external dependent objects are migrated only as document attachments (if available). The system cannot migrate the processes related to these objects.

- Locations Assigned to Incidents

  If the migrated incidents comprise location data and if you migrated this data into the target system already during the data migration, the system automatically adds the locations into the incidents. Otherwise, if the location data is not available in the target system, the incidents are migrated without the corresponding locations and the system displays the following warning message: Location with key "<Location_Key>" not determined; cannot assign it to the incident.

- Actions and Tasks

  All actions and tasks in the incident (including the actions and tasks created for the dependent objects) are migrated to the target system. Tasks with the status *In Process* are migrated with the status *New*. The status of all other tasks (*New, Closed*, and *Void*) remains the same during the migration.

Exporting Incidents

To export the incident data from SAP EHS Management, you can use the R_EHHSS_INC_TO_CSV report.

1. Start transaction SE38.
2. Execute the R_EHHSS_INC_TO_CSV report.
3. Enter a name for the CSV file and select the incidents you want to export.
4. Execute the program.

   For more information about the incident BO nodes and the data they store, see SAP Note 1733565_Incident_Data. The incident data is taken from the BO nodes and then organized in the CSV files.

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Importing Incidents

To import the incidents into SAP EHS Management, you can use the LSMW.

1. Start transaction LSMW.
   - Project: INC_MIGRATION
   - Object: IMPORT_INCIDENT
2. Open the Maintain Fixed Values, Translations, User-Defined Routines process step and enable or disable a test data migration.

   TEST_RUN - Enables you to execute a test import into the target system and error proof the real import at a later stage. Enter X in the Value field to enable test run.
3. Open the Specify Files process step and provide the import data file.
4. Execute the rest of the import steps in the following order:
   1. Assign Files
   2. Read Data
   3. Display Read Data
   4. Convert Data
   5. Display Converted Data
   6. Start IDoc Generation
   7. Start IDoc Processing
   8. Create IDoc Overview
   9. Start IDoc Follow-Up

5.2.6 Migration of Links

As a final step of the incident migration, you should migrate the links between the incidents. To do that, make sure that the linked incidents are already migrated into the target system. The link is not migrated if any of the incidents is missing.

> **Caution**
>
> LSMW cannot migrate links between incidents and risk assessments.

Exporting Links

To export links from SAP EHS Management, you can use the R_EHHSS_INC_LINKI_TO_CSV report.

1. Start transaction SE38.
2. Execute the R_EHHSS_INC_LINKI_TO_CSV report.
3. Enter a name for the CSV file and choose *Execute*.

For more information about the link BO node and the data stored in it, see SAP Note 1733565. The link data is taken from the BO node and then organized in the CSV file.

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Importing Links

To import the links into component extension for SAP EHS Management, you can use the LSMW.

> **Note**
>
> Before you proceed with the migration of the links, you must specify an RFC connection to the source system in the LSMW.

1. Start transaction LSMW.
   - Project: INC_MIGRATION
   - Object: EHSM_LINK_MIGR
2. Open the Maintain Fixed Values, Translations, User-Defined Routines process step and enable or disable a test data migration.

   TEST_RUN - Enables you to execute a test import into the target system and error proof the real import at a later stage. Enter X in the Value field to enable the test run.
3. Open the Specify Files process step and provide the import data file.
4. Execute the rest of the import steps in the following order:
   1. Assign Files
   2. Read Data
   3. Display Read Data
   4. Convert Data
   5. Display Converted Data
   6. Start IDoc Generation
   7. Start IDoc Processing
   8. Create IDoc Overview
   9. Start IDoc Follow-Up

5.3 Migration of Incidents from Non-SAP systems

Component extension 5.0 for SAP EHS Management enables you to migrate incident data from a source, non-SAP system to commonly accepted CSV files.

> **Note**
>
> To facilitate the migration process, the LSMW tool is used to import the migrated data into the target system (add-on). Since LSMW is an external tool (from the perspective of SAP EHS Management), before you proceed with the actual migration, it is vital to familiarize yourself with LSMW.
>
> For more information about LSMW, see the official documentation of the tool under http://help.sap.com/.

> **Note**
>
> The LSMW projects and objects cited in this chapter contain pre-defined data-mapping models that can be used in the corresponding migration scenarios either directly or after applying minimal customization.

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However, depending on the particular business scenario that you want to execute, you can use the pre-defined LSMW projects and objects as templates to create your own data-mapping model in LSMW.

5.3.1 Prerequisites

The following prerequisites must be met before you proceed with the migration of incidents from an external system to component extension for SAP EHS Management:

- Implement SAP Notes 1714489 and 1797378.

  These SAP Notes comprise the pre-set LSMW projects and objects needed for the migration of incidents and locations.
- If you perform data migration for a first time, create an LSMW user profile as an initial step by executing the Maintain Object Attributes step in the LSMW.
- If you used any of the objects below in the incidents you want to import, specify these objects in the target system:
  - Plants
  - Materials
  - Internal and maintenance orders
- In the target system or in the HR system used by the target system, you have specified the information about people included in the incidents.
- You have aligned the incident BO model in the target system with the structure of the CSV file.

  This also means that if the CSV file contains customer-specific enhancement data, you must enhance the BO model in the target system with the corresponding enhancement nodes.
- If the source system depends on other systems' data using connections, you must configure RFC connections in the target system to these systems.

  To establish RFC connections, use the following Customizing activity: SAP EHS Management → Foundation for EHS Management → Integration → Specify Destinations for Integration.

5.3.2 Preparing the CSV Files

Before you migrate the incident data, you must make sure that the CSV file is structured in a way that the LSMW can read and import into the incident BO in the target system. This means that as a prerequisite, you must maintain the file structure and adapt (if necessary) the mapping between the data in the file and the BO fields in LSMW.

The migration process of incidents from non-SAP systems is performed in LSMW similarly to the migration from add-on system. For this reason, the CSV files that are used during the migration from the add-on can be used as templates (or customized directly as appropriate) when you prepare and structure the information from a non-SAP system into CSV files.

For more information about the structure of the location-related files and the BO fields in LSMW, see the following SAP Note: 1812016.

For more information about the incidents file structure and the BO fields in LSMW, see the following SAP Note: 1733565.

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Note

If you import incidents and want to assign them to the incident locations that already exist in the target system, you can enter the location IDs from the target system into the field LOC_ROOT_KEY_REF in the CSV file that contains the incidents data.

5.3.3 Migration of Incidents

Similarly to the migration of incidents between add-on systems, you should migrate incident data from external, non-SAP systems in several stages. In the different stages, you migrate data that is needed for the final migration of incidents to the target system.

For more information about the data import using LSMW, see the import procedures of the following sections described in the Migration of Incident Data from Add-On section of this chapter.

1. Migration of Location Data
2. Migration of Incident Data
3. Migration of Links

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6 Migration of Risk Assessment

This chapter describes the business objects and configuration data that are involved in a migration of the relevant business processes from the EHS solution as part of SAP ERP to the add-on.

For a list of Customizing activities that you migrate, see Table 6.2 Customizing Settings for Business Objects and Table 6.3 Other Customizing Settings.

Table 6.1 Process Overview for Managing EHS Risk

Process Step	Component Extension for SAP EHS Management	EHS Solution as Part of SAP ERP
Identify Risks	When identifying risks in the add-on, you use a guided activity to identify risks that exist at specific locations in your organization. This involves identifying the hazards, agents, and impacts associated with each risk. You can also specify existing controls that are used to minimize the risk. This process allows you to identify multiple risks at the same time and is based on a predefined hazard and control register.	The EHS solution as part of SAP ERP did not provide a guided activity for risk identification and was not based on a predefined register.
Analyze Risks	When analyzing risks in the add-on, different risk types are distinguished: Inherent risk The existing risk identified prior to risk treatment. The inherent risk level is determined without considering existing controls. Initial risk The existing risk identified prior to risk treatment. The initial risk level is determined by considering existing controls. Residual risk The existing risk remaining after implementing new risk treatment measures (controls).	This differentiation was not possible in the EHS solution as part of SAP ERP. In the EHS solution, the concept of the Value Assignment After Check is comparable to the residual risk.
Evaluate Risks	When evaluating risks in the add-on, the result of risk evaluation is specified in terms of acceptability, for example, acceptable or unacceptable. The risk evaluation result is used to determine the need for risk treatment.	You could enter a value in the Value Assignment After Check only after implementing the safety measures. This rating also takes priority over the main rating in the exposure profile.
Treat Risks	When treating risks in the add-on, controls are	

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Process Step	Component Extension for SAP EHS Management	EHS Solution as Part of SAP ERP
	used to prevent an unacceptable risk from causing adverse consequences. For each control, multiple actions can be created.	
Generate BI Analytical Reports	The analytical reporting in the add-on provides new functions.	The EHS solution as part of SAP ERP does not include analytical reporting.

6.1 Business Objects: Risk Assessment and Risk

A risk assessment describes the overall process of identifying, analyzing, evaluating, and treating risks. It allows you to bundle risks for several hazards and several locations and assess those risks within one combined process. In the EHS solution as part of SAP ERP, such a business object does not exist. The term risk assessment was used for a single risk -- meaning the assessment of a single agent at a particular work area.

Migrating risks / risk assessments from the EHS solution as part of SAP ERP requires the manual take-over of the risk data or a project specific development of a migration report.

When you migrate risks from the EHS solution as part of SAP ERP, we recommend that you create reasonable risk assessments for, for example, each site, location, or production unit, according to the risk assessment type. These risk assessments can absorb the risks which are to be migrated from the EHS solution as part of SAP ERP.

6.1.1 Hazard Register

In the add-on, risks make use of hazards (a source or situation with a potential for harm). You can specify exposure limits for hazard in the Agent business object (see 6.3 Business Objects:).

In the EHS solution as part of SAP ERP, hazard categories are defined as specification types for the specification category HAZARD, but are not assigned in parallel to the specification category SUBSTANCE. You can use those elements to categorize hazards in the add-on. Specifications of these types can be migrated as hazards, whereby the identifier NAM IH becomes the hazard name.

In the add-on, hazards can be assigned to impacts and controls. This was not possible in the EHS solution as part of SAP ERP.

6.1.2 Risk Matrix

The risk matrix in the add-on provides the dimension exposure frequency, in addition to likelihood and severity, as a dimension for the risk matrix. In the EHS solution as part of SAP ERP, only the dimensions severity and probability could be used.

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6.1.3 Customer-Specific Analysis Methods

If you implemented customer-specific risk analysis methods in the EHS solution as part of SAP ERP, you must adopt this logic for the analysis in the add-on.

6.1.4 Documents for Risk Assessments and Risks

From SAP enhancement package 3 for SAP ERP on, you can link documents to a risk assessment in the EHS solution as part of SAP ERP. Depending on the migration path, documents assigned to risks in the EHS solution can be merged to risk assessments or risks in the add-on.

Before enhancement package 3, documents could only be assigned to work areas or specifications.

Migrating documents from the EHS solution requires the manual take-over of the documents or a project-specific development of a migration report in combination with the migration of risks.

6.2 Business Object: Job

Risk assessment in the add-on makes use of the job business object in order to perform Job Hazard Analysis and provide data for detailed information on amounts. A job describes a specific task in the work environment of a position. A job can be subdivided into multiple steps that are smaller, sequential elements of a job. However, steps are not maintained as part of the job business object, which means that no hierarchy is provided.

In the EHS solution as part of SAP ERP, you could manage jobs as a work area with the work area type “TS” (activity). This was enabled by configuring work area types.

In addition, HR positions could be used as jobs. A link between work areas and positions in the organizational management could be created.

Migrating jobs from the EHS solution as part of SAP ERP requires the manual take-over of the jobs or a project-specific development of a migration report.

6.3 Business Objects: Chemical, Physical Agent, Airborne Agent

In the add-on, you can use chemicals, physical agents and airborne agents.

The add-on provides three reports to transfer chemical data from the specification database of the EHS solution to the add-on. For more information, see SAP Help at http://help.sap.com/ehs-comp under Application Help → SAP Library (select your language), then choose SAP EHS Management → Risk Assessment (EHS_MGM_RAS) → Managing Chemicals for Health & Safety Processes → Transferring Data from the Specification Database.

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6.4 Business Objects: Sampling, Sampling Campaign, Sampling Method, Amounts

The process *Managing EHS Risk* in the add-on uses a set of business objects to support a workplace sampling process for collecting sampling data regarding the exposure of workers to agents.

An equivalent in the EHS solution is a measurement project that collects measurements for a work area.

Amounts of a specific amount category are created for an agent through a workplace sampling processed at a certain location and for a certain operational status. Amounts in the add-on do not link to amounts in the EHS solution.

6.5 Business Object: Control

In the add-on, you can use the control business object. A control is used for treating risk on a continuous basis to prevent a damaging or harmful impact from occurring. In the EHS solution, a comparable business object does not exist. However, it is possible to store, for example, safety equipment in the work area data (IHS data) or in the specification database for an agent (personal protection), depending on the business scenario that is configured and processed.

6.6 Configuration Migration

Table 6.2 Customizing Settings for Business Objects

	Customizing	
	SAP EHS Management →	Environment, Health and Safety → Industrial Hygiene and Safety →
Control Copy 1:1 as required	Foundation for EHS Management → Actions → Specify Types	Industrial Hygiene and Safety Measures → Specify Safety Measure Categories
	Foundation for EHS Management → Actions → Specify Subtypes	Industrial Hygiene and Safety Measures → Specify Safety Measure Types
	Foundation for EHS Management → Actions → Specify Effectiveness	Industrial Hygiene and Safety Measures → Specify Effectiveness

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Customizing		
Amount Copy 1:1 as required	Risk Assessment → Master Data Configuration → Agents → Specify Amount Categories and Assign to Hazards → Specify Amount Categories You can enhance the amount categories with a unit if required.	Risk Assessment → Specify Measurement items → Specify Amount Categories

Table 6.3 Other Customizing Settings

	Customizing	
	SAP EHS Management → Risk Assessment →	Environment, Health and Safety → Industrial Hygiene and Safety →
Reason Types Copy 1:1 as required.	General Configuration → Specify Reason Types You can manually specify a business object for each reason type, for example, an incident.	Risk Assessment → Specify Reasons for Risk Assessments
Operational Status Copy 1:1 as required.	General Configuration → Specify Operational Statuses	Work Area Management → Specify Operation Statuses
Hazard Copy 1:1 as required.	Hazard and Control Register → Configure Hazard and Control Register (within activity→ Specify Hazard Categories)	Risk Assessment → Specify Agent Types Not all agent types from the EHS solution are meaningful within the context of risk assessment depending on the customer requirements.
Exposure Rating Copy 1:1 as required.	Risk Analysis → Exposure Analysis → Specify Exposure Ratings for Non-Chemical Agents Risk Assessment → Risk Analysis → Exposure Analysis → Specify Exposure Ratings for Chemical Agents	Risk Assessment → Specify Exposure Ratings
Risk Matrix Copy 1:1 as required.	Risk Analysis → Risk Matrix → Specify Likelihood	Risk Assessment → Set Up Risk Matrix → Specify Probability of a Risk
	Risk Analysis → Risk Matrix → Specify Severity	Risk Assessment → Set Up Risk Matrix → Specify Severity of a Risk
Risk Level	Risk Analysis → Risk Matrix →	Risk Assessment → Business Add-

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Customizing		
Copy 1:1 as required.	BAdI: Risk Level Calculation	Ins (BAdIs) → BAdI: Calculation of Rating for Standardized Criteria

6.7 Roles and Authorizations

You can either set up new roles for risk assessment in the add-on or add the new authorization objects to your existing roles.

The following table provides the mapping of authorization objects in the EHS solution as part of SAP ERP and the semantically corresponding authorization objects in the add-on, including the corresponding parameters.

Unless otherwise stated, the ACTVT parameter always matches exactly.

Table 6.4 Mapping of Authorization Objects

Object	EHS Solution as Part of SAP ERP	Component Extension 5.0 for SAP EHS Management	Remarks
Change Documents	C_EHSS_CDE	EHFND_CHDC	The new authorization object is more granular and can be granted per business object.
Risk Assessment	C_EHSI_WAH - WERKS - WAAUTHGRP C_EHSI_HAZ - EPTYPE	EHHSS_RAS - ACTVT - RAS_TYPE - LOCAUTHGRP - LOCPLANT - LOCCOST - LOCCOMP - LOCBUSAREA	Specifies the authorization object that enables you to manage risks and risk assessments in SAP EHS Management.
Health Surveillance Protocols	C_EHSH_HSP	EHHSS_RASP EHHSS_HSP	Specifies the authorization object that enables you to manage health surveillance protocol master data and to propose health surveillance protocols in risk assessments in SAP EHS Management
Agent	C_EHSI_HAZ - EPTYPE	EHHSS_AGT	Specifies the authorization object that enables you to manage agents in SAP EHS Management.
Chemical	C_EHSI_HAZ - EPTYPE	EHFND_CHM EHFND_DSC	Specifies the authorization object that enables you to manage chemicals in SAP EHS Management.
Job	none	EHHSS_JOB	Specifies the authorization object

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Object	EHS Solution as Part of SAP ERP	Component Extension 5.0 for SAP EHS Management	Remarks
			that enables you to use the positions of SAP EHS Management.
Controls	none	EHFND_CTRL EHFND_DSC	Specifies the authorization objects that enables you to manage controls in SAP EHS Management
Workflow and Processes	none	EHFND_WFF - EHSM_COMP - PURPOSE - EHSM_PVAR - EHSM_PCACT	Specifies the authorization object that enables you to perform task relevant activities and workflow relevant activities in SAP EHS Management (for example, cancelling a running process).
Workflow Tools	none	EHFND_WFT - TCD	Specifies the authorization object that enables you to use the process administration tools of SAP EHS Management and their corresponding transactions. In the process-related user interfaces (such as the process progress log), you can see the pushbuttons for the process administration transactions. An unauthorized user does not see the pushbuttons.
Limits for Analytic Reports	none	EHHSS_CLR	Specifies the authorization object that enables you to change the values of the limits for SAP BusinessObjects Dashboards for incident management in the health and safety component of SAP EHS Management. In the report launchpad of the health and safety work center, there are links for setting these limits. An unauthorized user does not see those links.
Chemical Approval	none	EHFND_RCH EHFND_CHA EHHSS_SI	Specifies the authorization object that enables you to request and approve chemicals and manage safety instructions in SAP EHS Management
Workplace Sampling	C_EHSI_MPR C_EHSI_MJO	EHFND_SPL - ACTVT	Specifies the authorization object that enables you to perform workplace sampling in SAP EHS

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Object	EHS Solution as Part of SAP ERP	Component Extension 5.0 for SAP EHS Management	Remarks
	C_EHSI_MOR	- EHSM_COMP - LOCAUTHGRP - LOCPLANT - LOCCOST - LOCCOMP - LOCBUSAREA EHFND_SPLM	Management

For more information about roles and authorizations, see the Security Guide on SAP Service Marketplace at http://service.sap.com/instguides → SAP Business Suite Applications → SAP EHS Management → Component Extension for SAP EHS Management → Release 5.0.

6.8 Extensions

In risk assessment in the EHS solution as part of SAP ERP, you could not extend the data structure of risk assessment objects by means of the classification system.

In risk assessment in the add-on, extensions are enabled by the standard extension techniques of the ABAP Dictionary (append-structures, additional Customizing tables), Web Dynpro, and Floorplan Manager.

You append structures with the respective attributes as the replacement for your current characteristics and add additional Customizing tables for the associated code lists.

For more information about adding fields and nodes to a business object, see the topic Foundation for EHS Management → Business Objects → Adding Fields to the User Interface on SAP Help at http://help.sap.com/ under SAP Business Suite → SAP EHS Management → Release 5.0

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